

## Section II. Inventory and Analysis

### A. Regional Setting, History and Community Characteristics

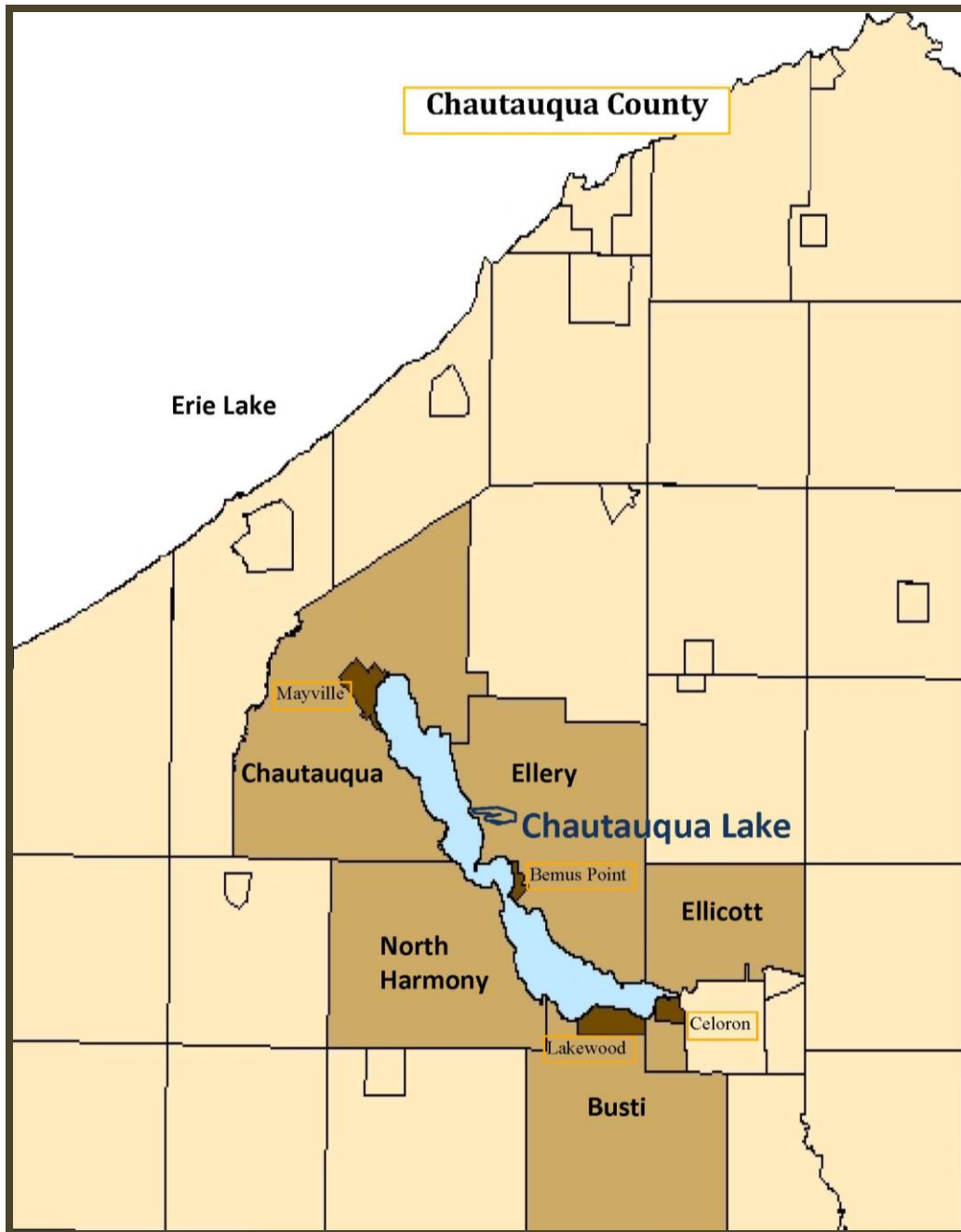
The Villages of Mayville, Bemus Point, Celoron and Lakewood and the Towns of Chautauqua, Ellery, Ellicott, Busti and North Harmony are situated along the shoreline of Chautauqua Lake, in central Chautauqua County, at the southwest corner of New York State. These communities share 42 miles of contiguous waterfront surrounding Chautauqua Lake in its entirety. Chautauqua Lake is comprised of two distinct basins, north and south, and covers an area of approximately 20 square miles at an elevation of 1308 feet above mean sea level. The Village of Mayville and Town of Chautauqua shorelines encompass a large portion of the north basin. The Village of Bemus Point and Towns of Ellery and North Harmony have waterfront to the north and south of the center of the lake at the “narrows.” The Villages of Celoron and Lakewood and the Towns of Busti and Ellicott are located at the southeastern end of Chautauqua Lake in the south basin. Chautauqua Lake’s watershed, part of the larger Ohio River Basin, covers approximately 180 square miles of area. Water flows from Chautauqua Lake and its tributaries sequentially into the Chadakoin River, the Conewango Creek, and the Allegheny, Ohio, and Mississippi Rivers and then into the Gulf of Mexico.

Chautauqua County’s topography varies from flatlands along the Lake Erie shore to the rolling upland foothills of the Allegheny Mountains, in the southeastern portion of the County. Having only the cities of Dunkirk and Jamestown within its boundaries, Chautauqua County is decidedly rural. Small Villages scattered throughout the county provide a backdrop for Chautauqua’s expanding tourist industry. The county is recognized for the outstanding recreational opportunities that exist within its boundaries, such as hiking and canoeing on the County’s public land and creek trail system; boating and fishing on Lakes Erie, Chautauqua, Findley and Cassadaga; skiing, snowmobiling and golf. Regionally, Chautauqua County is situated approximately 30 miles southwest of Buffalo, New York; 25 miles east of Erie, Pennsylvania; and 150 miles north of Pittsburgh, Pennsylvania. Many other major northeast population centers are located within less than a half-day drive.

The first incursion of white Europeans into Chautauqua County was by the French. In 1615, Samuel de Champlain had reached as far west on the Great Lakes as Lake Huron. There, he learned of rich lands southeast of Lake Erie where a tribe (called Eries by their allies in the Seneca nation) of Native Americans lived. Later that year, Champlain’s interpreter, Etienne Brule, guided by a party of twelve Hurons, traversed the wilderness of Western New York to visit the Eries. Longstanding political and territorial hostility between the Eries and the tribes of the Iroquoian League erupted in warfare around 1656 and ended with the decimation of the Eries.

It was not until 1679 that another white European would again set foot in Chautauqua County. Frenchman René-Robert Cavelier, Sieur de La Salle, landed at Barcelona seeking a navigable route from the Great Lakes to the Gulf of Mexico through the Ohio and Mississippi Rivers. LaSalle and his men

forged a portage several miles upland over the Chautauqua escarpment and found their way to “a little lake six or seven miles south of Lake Erie, the mouth of which opens southeastward.”



This was most certainly Chautauqua Lake which native inhabitants, according to folklore, had named “sack tied in the middle” for its shape where the lake narrows between Stow and Bemus Point. LaSalle was probably the first white man to see Chautauqua Lake, and the first to discover a navigable route to the Gulf of Mexico. LaSalle’s discovery served as the basis for Chautauqua Lake’s prominence as an important link for travel and shipping of goods.

Captain Bienville de Celoron was dispatched to America in 1749 to claim this region for France. With a contingent of soldiers, Celoron landed at Barcelona to mark and claim the territory along the navigable route to the Gulf of Mexico, which was discovered by LaSalle approximately sixty years earlier. Celoron and his contingent of 214 French and 55 Iroquois followed LaSalle's maps leaving leadened plates along the way as he traveled to mark the King's claim.

Eighteenth century settlement of the Chautauqua region lagged behind the eastern portions of the state as settlers were dissuaded, in part, by fear toward indigenous peoples of the region. By the 1790's, settlers from Connecticut and other New England states were heading for the Western Reserve through Chautauqua County. In 1796, the Holland Land Company, a conglomerate of six Dutch banking houses, purchased a large tract of land in Western New York that included the lands of Chautauqua County. While the intent of the plan was to sell large parcels to wealthy landowners, instead small plots were sold on liberal terms to farmers of little means. The hardships of settling in this physically daunting area had prompted wealthier investors to move further west to present-day Ohio, where less labor-intensive land could be purchased for cash.

During the early 19th century, Chautauqua County was the leading edge of the western frontier and population growth was slow, in part due to the War of 1812. A scant 300 residents lived in the county at the outbreak of the War of 1812, but the number swelled to 15,322 by 1820. During the first half of the 19th century, lumber and agriculture were the primary industries of the county and this was exemplified by the export of 40,000,000 board feet of lumber in one year. The first steamship sailed on Chautauqua Lake in 1828 carrying goods to Jamestown to be transported down the Allegheny River to Pittsburgh and beyond. The introduction of steamships to the Lake vastly improved the speed at which goods could be shipped from Chautauqua County into growing markets.

Chautauqua County's place in the industrialized economy was assured in 1851 when the New York and Erie Railroad was completed to Chautauqua County with its terminus at Dunkirk. In 1860, establishment of the Atlantic & Great Western Railroad from Salamanca to the Pennsylvania state line connected the County's southern most communities, including some along Chautauqua Lake. The railroads provided an opportunity for increased shipping of freight and passengers along with opportunities for stimulating new enterprises. In 1872 Jamestown resident William Broadhead returned from his native England to develop a large worsted mill operation on the banks of the Chadakoin River in Jamestown. This same period also saw a tremendous growth in furniture manufacturing. Between 1870 and 1930, the population of Jamestown grew from 5,000 to 45,000. Much of this growth was spurred by the emigration of skilled manufacturing laborers from Sweden and Italy.

The County's current economy is based on agriculture, tourism, and manufacturing. As noted in *Chautauqua County 1995: A General Plan* (Chautauqua County Planning Department, 1978), Chautauqua County experienced a steady downward trend in manufacturing employment between 1952 and 1975 when the County lost over 50% of its 25,800 manufacturing jobs. Currently, manufacturing employment is experiencing a modest upswing. However, the modest growth in the County's economy in the 1990s did not follow national trends of record growth. The Chautauqua Lake communities vary in size and

economic vitality and all have been affected by the shift in the county's economy. As these communities enter the new century, many see tourism as the key to growth.

### **Village of Celoron**

The Village of Celoron lies at the end of Chautauqua Lake on the southern shore where the Lake empties into the Chadakoin River. The Village, with a total area of 476 acres and a waterfront approximately eight tenths of a mile long, is almost twice the size of Bemus Point, the smallest Village among the Chautauqua Lake communities. While only 198 acres larger than Bemus Point in geographic area, Celoron's population of 1,295 is almost four times greater. The current population, although reflective of an increase of 5.1 % or 63 people between the 1990 Census and the 2000 Census, is substantially lower than the 1,555 residents recorded in the 1950 decennial census. The southern boundary of the Village is just north of NYS Route 394. Celoron is bordered on its northern edge by Boulevard Street (County Route 67), which parallels the shore of Chautauqua Lake and the Chadakoin River, providing easy access from Jamestown. School Creek, a small tributary to Chautauqua Lake, runs through moderately populated residential areas in the southern portion of the Village and empties into the lake at a point between Melford and Leslie Streets next to Longview Avenue.

The Holiday Harbor Marina and Carlson's Boat Livery are situated between the shoreline and Boulevard Street near the Village's border with the City of Jamestown. The Village of Celoron maintains the Lucille Ball Memorial Park and a public boat launch. Both are situated along the shoreline adjacent to the commercial district near the intersection of Dunham and Boulevard Streets. The community consists primarily of residential units with a limited number of small manufacturers located along the WNY&P Railroad in the center of the Village. Celoron is also home to the "Summer Wind", Chautauqua Lake's only full service tour boat.

### **Town of Ellicott**

The Town of Ellicott, with a total land area of 18,440 acres, is unique in its divisions created by Chautauqua Lake and the City of Jamestown's borders. These borders completely divide the southern half of the Township. Burtis Bay, one of Ellicott's three waterfront residential clusters, lies between the Villages of Celoron and Lakewood along approximately one mile of the southern shoreline. Elmhurst and Bonita, Ellicott's other waterfront residential clusters, are located between the borders of the City of Jamestown and the Town of Ellery along 2.2 miles of the northern shoreline. The Town has a population of 5,445, which reflects a decrease of 2.2% from the 1990 Census. Ellicott is easily accessible from I-86, NYS 394, NYS 430 and NYS 60, the major traffic corridors. School Creek, the only identified Chautauqua Lake tributary in the Town, passes through Ellicott briefly on the western side of Celoron. A tract of protected wetlands is located along the northern shoreline east of Bonita and serves as habitat for wildlife. The Town of Ellicott maintains a lakefront park on the east end of Burtis Bay with waterfront access, a pavilion, picnic tables, and parking.

Chautauqua County's Jamestown Airport is located north of the City of Jamestown in the Town of Ellicott and provides general aviation services and commuter flights connecting with major airports. The Airport Hill and Joseph Mason Industrial Parks are accessible from Route 60 and the Allen Street

Extension, respectively. The parks have prime industrial land available for new businesses and have recently completed infrastructure improvements. The area in West Ellicott along Fairmont Avenue (Route 394) has developed into a significant regional retail destination featuring local retailers along with national and regional chains, such as Sam's Club, Home Depot, Super K-Mart, and Wegman's.

### **Village of Lakewood**

The Village of Lakewood is situated just west of Burtis Bay along the southern shore of the southeastern portion of Chautauqua Lake within the Town of Busti. The Village, with approximately three miles of waterfront and a total acreage of 1,259 acres is comparable to Mayville in size geographically. Lakewood's population of 3,258 is the largest population of any of the Villages within the lake communities. Its population, however, reflects a decrease of 8.6% (306 people) from the 1990 Census. The number of homes converted from year-round residences to seasonal and commercial units may explain, in part, the decline in population. The 1980 Census recorded 12 homes as seasonal or 0.7% of the community's housing stock while the 2000 Census recorded 114 homes as seasonal with 6.6% of the community's housing stock. The Village is dissected by NYS Route 394 and Summit Avenue (County Route 110), which parallel each other. Both routes travel in an east/west direction and provide easy access to all parts of the community. There are several small tributary streams that flow into the lake within the Village of Lakewood. The primary stream within the Village is Crescent Creek. Another tributary is the Brook Street Brook and a third is the canal on the Lakewood Rod and Gun Club property. Lakewood is primarily a bedroom residential community. The Village has recently revitalized the downtown central business district along Chautauqua Avenue with upgraded roads, sidewalks, park areas and a clock tower. The central business district is directly tied to the lakefront by pedestrian and vehicular access along Chautauqua Avenue, which has small businesses that serve the residents and tourists. Hartley Park; a public park with a swimming beach, bathhouse, tennis courts and a playground, is situated at the foot of Chautauqua Avenue and provides an open space connection to the lake for residents and tourists alike. Fairmount Avenue (NYS Route 394), within the Village of Lakewood, has developed into the primary commercial area of southern Chautauqua County with local and national retailers and restaurants established along the retail strip. Lakewood is the home to the Chautauqua Lake Yacht Club, the only sailing club with its own formal facility on Chautauqua Lake.

### **Town of Busti**

The Town of Busti is located along the southern edge of Chautauqua Lake between the Towns of North Harmony and Ellicott and encompasses the Village of Lakewood. With a population of approximately 4,500 and acreage of 29,339, it is comparable in both population and size to the Town of Ellery. The Township's waterfront, which is one of the smallest of the Lake communities at approximately one-mile of shoreline, is easily accessible from NYS Routes 394 and 474. The remainder of the Town relies on a series of County highways serving as the primary transportation routes for access. Goose Creek meanders along the border between Busti and North Harmony and flows under NYS Route 394 before emptying into Chautauqua Lake just east of Ashville Bay.

The Town of Busti, with assistance from the Chautauqua County Industrial Development Agency, has recently upgraded the General George Stoneman Business Park to provide ample acreage and infrastructure for new industrial development.

The Vukote Canal, a residential lakeside development, is located at the western edge of the Town's waterfront. Smith Boys Marina and a small commercial strip of retail shops are located on NYS Route 394 adjacent to the Vukote area. Busti's Community Park at Vukote Canal and the Busti Wetland Preserve along NYS Route 474 are both open space opportunities for residents. Busti, although, primarily rural residential, does have a modest amount of industry. Most notably, Busti is home to the Cummins Engine Company, an international producer of diesel engines and one of the region's largest manufacturing employers.

### **Town of North Harmony**

The Town of North Harmony is situated between the Town of Chautauqua's border at Magnolia Road and the Town of Busti along the western shore of Chautauqua Lake. North Harmony, with a population of 2,521 (an increase of 9.6% from the 1990 Census), and an area of 27,016 acres, is slightly smaller geographically than the Town of Ellery. North Harmony is one of only two lakeside communities that have had consistent growth in its population recorded in every census since 1950. NYS Route 394 provides north/south access near the lakeshore and I-86 provides east/west access through the Town. Ball Creek, a feeder creek to Chautauqua Lake, winds through upland farms and timber before crossing under I-86 and NYS Route 394 to empty into Chautauqua Lake near Stow. Goose Creek passes through Ashville, going under NYS Route 474 and meanders along the North Harmony and Busti border before flowing under NYS Route 394 into Chautauqua Lake east of Ashville Bay in North Harmony. Tom's Point, a State-designated wetland preserve, is also located adjacent to Stow.

North Harmony is primarily rural residential with several clusters of lakeside residential along its shoreline. Ashville Bay Marina and a limited cluster of commercial businesses located in Stow are the primary lake related businesses within the Town. Ashville, located near North Harmony's southeastern edge, serves as a small center for outfitters who utilize Goose Creek as a staging area for excursions. Stow is located at the "narrows" between the north and south basins of the Lake. Stow is a terminus for the Bemus Point-Stow Ferry, which has, until recently, operated as a tourist attraction during the summer season between Stow and Bemus Point.

### **Town of Chautauqua**

The Town of Chautauqua surrounds the northwestern end of Chautauqua Lake with approximately six and one-half miles of shoreline along the southwestern shore and four miles along the northeastern shore. Chautauqua, excluding the Village of Mayville, covers roughly 41,855 acres. Geographically it is the largest of the Chautauqua Lake communities. Although Chautauqua is the largest of the Towns surrounding Chautauqua Lake, Chautauqua's population of 2,910 is smaller than the Town's of Ellicott, Ellery or Busti. The Town's primary access roads, NYS Routes 394 and 430, run parallel to the lakeshore as well as running north and south through the Town. These primary routes provide easy accessibility to the Lake and are a link to nearby I-90 and I-86. Several primary feeder creeks and small tributaries to

Chautauqua Lake flow through the Town. Big Inlet Creek, one of the largest feeders, flows through the Hartfield area and into the lake at its most northern point. Big Inlet originates in a significant wetland above Elm Flat Road near the Chautauqua escarpment south of Lake Erie. Prendergast Creek, the second largest feeder creek, parallels the Town's southern border and enters the southwest side of the lake next to the New York State Fish Hatchery. Prendergast Creek, as it winds through forests and along agricultural fields, is utilized as a local trout creek by anglers. Dewittville Creek, the remaining feeder creek within the Township, originates in the Town of Stockton and flows south through Dewittville entering the lake at the northeastern shoreline near Chautauqua's border with Ellery. Another notable small tributary within Chautauqua is Clear Creek at Lighthouse Point.

The Town is primarily rural with a large portion of the land area consisting of vacant or active agricultural lands. The largest population densities in the Town occur near the lakeshore in the residential areas of Hartfield, Point Chautauqua, Prendergast Point, Lighthouse Point, Dewittville and Chautauqua Institution. Snug Harbor Marina, located south of Prendergast Point on the western shoreline, is the only commercial marina outside the Village of Mayville still within the Town. The Town's commercial concentration, which is tourism oriented, consists of restaurants, a grocery store, plant nurseries, roadside stands, and art galleries, located along NYS Route 394 between Snug Harbor Marina and the southwestern border of Mayville. The remainder of the Town's shore area is lined with lakeside residential clusters, cottages, camps, golf courses and condominium complexes.

Chautauqua Institution, a world-renowned education and cultural community, is a major part of Chautauqua's tourism trade. Chautauqua Institution includes many second homes and serves as the primary draw to many tourists visiting the Town. The Institution began in 1874 as an open-air summer school for Sunday-school teachers and offers a range of cultural, religious and recreational programs to both residents and visitors. These programs are offered in the setting of a lakeside community reflecting many forms of traditional and modified architecture, now designated as a National Historic District and a National Historic Landmark.

The Institution's properties occupy an area of about 800 acres, which includes the lakeside community, an adjacent golf course, and other nearby lands. The peak activity occurs during the nine week summer season. As many as 10,000 residents and visitors may occupy the Institution grounds on a given summer day. The Institution, since its origin, has developed into a year-round conference and retreat center. It is estimated that the Institution attracts 180,000 visitors annually and is the primary or secondary determinant of approximately \$55 million in direct annual spending in Chautauqua County (Nichols, 1991).

### **Village of Mayville**

The Village of Mayville is located at the head of Chautauqua Lake. With a total area of 1,242 acres and a waterfront approximately two miles long, geographically it is comparable in size to Lakewood. Mayville's population of 1,756 reflects an increase of 7.3% since the 1990 Census. Mayville is one of only two lakeside communities that have had consistent growth in population recorded in every census since 1950. Mayville is dissected by NYS Routes 394 and 430, which provide ease of access from both sides of



the lake and from I-90 in nearby Westfield. Mayville has two feeder creeks, Mud Creek and Little Inlet Creek. They enter Chautauqua Lake at opposite ends of the Village. Mud Creek, which originates near Beaujean Road in Chautauqua, winds along the Village's western boundary until heading east after passing under the abandoned rail bed. Mud Creek then travels in an easterly direction, passing under NYS Route 394, and enters Chautauqua Lake next to the Chautauqua Marina south of Mayville Park. Little Inlet Creek enters Mayville near its northeastern border parallel to Honeysette Road, and then travels under NYS Route 430 and Sea Lion Drive before flowing into Chautauqua Lake west of Creative Marina.

Mayville consists primarily of single-family residential units located in the southern portion of the Village. The principal commercial district that serves the residents is located in the center of the Village along South Erie Street (NYS Route 394). The shoreline segment of South Erie Street (NYS Route 394) contains a second commercial area, which is primarily tourism oriented, including restaurants, lodging facilities, recreational vehicle sales, the Chautauqua Marina and the base for the steamship the "Chautauqua Belle."

The Village of Mayville maintains the Mayville Village Park, which offers a public boat launch, tennis courts, bathhouse, and bathing beach. The Village park and the adjacent Village shoreline is the largest public area along Chautauqua Lake owned by a local municipality. Mayville is the county seat of Chautauqua County and home of the County Jail and Office Complex.

### **Town of Ellery**

The Town of Ellery is located along the northeastern edge of Chautauqua Lake between the Towns of Chautauqua and Ellicott and encompasses the Village of Bemus Point. With a population of 4,236 and acreage of 30,211 acres, it is comparable in population and size to the Town of Busti. Ellery has approximately eight and one-half miles of waterfront, which is the second largest waterfront area of any of the lake communities. The Town is easily accessible with NYS Route 430 traveling north and south along the lake and I-86 providing east/west access.

Ellery contains several feeder creeks and tributaries, all originating within the Town in the uplands above Chautauqua Lake. Maple Springs, Bemus, Belleview and Dutch Hollow Creeks are the most notable of these. Maple Springs Creek passes under NYS Route 430 south of Midway Park and travels through the residential segment of Maple Springs before entering Chautauqua Lake at Lakeside Promenade. Bemus Creek, which is joined by Brown Creek northeast of Bemus Point, travels under I-86 passing for a short distance through the southern tip of the Village of Bemus Point and under NYS Route 430 before flowing into Chautauqua Lake south of the I-86 Bridge near Shore Acres. Dutch Hollow Creek parallels the eastern border of Ellery flowing under I-86 and NYS Route 430 just west of Dutch Hollow Road before emptying into Chautauqua Lake at Greenhurst.

The Town of Ellery is has a rural residential character with lakeside residential clusters. The most significant of these are Maple Springs, Sunset Bay, Oriental Park, Shore Acres and Greenhurst. Ellery's uplands consist of agricultural or vacant agricultural lands. The Town's economy is based on tourism. Maple Springs, one of two commercial areas in the Town, is home to Midway Amusement Park, a



convenience store, a tavern, a bed-and-breakfast, a tourist residence, and some restaurants located along NYS Route 430. Shore Acres Marina, the only marina solely within Ellery's borders is located along NYS Route 430 just east of Bemus Point. The Town's other commercial area is located near the newly built Town Park in Greenhurst and consists of a restaurant, laundromat, and tavern. The Town of Ellery is best known for its recreational opportunities and views from its steep shoreline.

### **Village of Bemus Point**

The Village of Bemus Point is the smallest of the Lake communities, with 278 acres and approximately 340 year-round residents. Located along the eastern shoreline with a mile and a half of shoreline at the "narrows" in the center of the Lake and just southeast of Long Point State Park, the Village offers outstanding recreational opportunities. Bemus Point is easily accessible from the north or south by NYS Route 430, which runs through Bemus Point, and from an east/west direction from the I-86 interchanges at Bemus Point.

Bemus Point is predominately a residential community with a well-established commercial district. The Village's tourist oriented commercial district primarily lies along NYS Route 430. The district consists of the L&S Marine, a Village park, a Village beach, gift shops, the "Casino" an amusement arcade, a DEC boat launch and picnic area, several restaurants, two churches and a golf course. Included in the commercial district also are a bed-and-breakfast residence and the "Hotel Lenhart", one of two surviving grand hotels on Chautauqua Lake.

Bemus Point has gained the reputation as "the place to be" by locals and visitors alike. The community, although small, has an established nightlife, Sunday concerts, planned events such as the "Bemus Pops" and Fireman's 10K race, and a public section of shoreline that is famous locally for its vistas at sunset. Bemus Point is also home to the Bemus Point-Stow Ferry, which until recently, was one of the oldest operating ferries in the United States.

## **B. History of Chautauqua Lake**

Chautauqua Lake lies in the geographic center of Chautauqua County in southwestern New York State and is oriented in a northwest- southeast direction. The lake is approximately 17 miles in length with a maximum width of just over 2 miles. The lake is divided into two distinct basins separated by the Narrows between the Village of Bemus Point and Stow.

The Lake lies in the north portion of the Allegheny Plateau, south of, and elevated above the Lake Erie plain. While precipitation into the Chautauqua Lake watershed drains to the Gulf of Mexico, precipitation immediately north of the watershed drains to the North Atlantic via the Great Lakes – St. Lawrence system.

The Lake formed when the edge of the last Ice Age glacier retreated northward from the New York – Pennsylvania border region. As the glacier edge melted northward the edge paused at what is now Jamestown, depositing vast amounts of soil. The resulting soil mound and the solid rock underneath formed a natural dam at the south end of the lake.



The outlet stream of the lake, the Chadakoin River, eventually breached the natural dam created by the glacier. The streambed of the Chadakoin River, composed of natural solid rock, keeps the outlet shallow. The inability of the river to cut through this rock prevents the draining of Chautauqua Lake and severely limits the ability to control water levels in the lake. Warner Dam is a man-made dam located in the City of Jamestown. It lies downstream from the natural rock barrier in the bed of the Chadakoin River and acts as a partial water level control while the river rock acts as the primary control. Lake flood-problems were noted as early as 1811; lake level control was first discussed in 1823. Lakeshore flood insurance programs were begun in 1969 and the modern use of Warner Dam in Jamestown to partially control lake levels began in 1976. Warner Dam was originally built in 1919 and was wholly rebuilt in 1979.

As the glacier melted and its edge retreated farther northward, it paused again and deposited another mound of soil in the Bemus Point – Stow region that created the north basin. Peripheral streams that drained the glacier in the north basin removed much of the sedimentation that might have been deposited on the southern edge of the glacier retreat. This drainage, which did not occur in the south basin, accounts for the difference in water depth and quality between the north and south basins. This glacial debris partly separates the basins.

The glacial edge paused once again just north of Mayville depositing several layers of glacial soil. This glacial debris, which prevents the Lake from draining northward into Lake Erie, forces it to drain southward into the Allegheny – Ohio – Mississippi River system and ultimately to the Gulf of Mexico.

The two basins are approximately 10 square miles each with a combined watershed covering an area of approximately 180 square miles. The south basin averages a depth of only 11 feet and is considered

eutrophic (An eutrophic lake is one that typically has a phosphorus content of above 0.026 mg/L and a water transparency less than 6 feet, factors that relate to high organic productivity).



The north basin averages 26 feet in depth and is considered mesotrophic. (Mesotrophic lakes usually have phosphorus contents ranging between 0.010 and 0.026 mg/L and transparencies between 6 to 15 feet). Phosphorus content is emphasized in discussions of lakes because it has often been the critical nutrient that controls growth of algae and other functional aspects of lakes.

Mesotrophic and eutrophic lakes tend to be very productive lakes, supporting large quantities of organic life, both plant and animal. Chautauqua Lake is the ninth most productive warm-water fishery in New York State. Chautauqua Lake has high concentrations of aquatic vegetation, sometimes at nuisance levels.

Considering the aboriginal settlement patterns of North America, the Chautauqua Lake region was most likely inhabited by ancient cultures between 10,000 and 12,000 years ago. There is no evidence that pre-Columbian cultures had any significant enduring impact on Chautauqua Lake.

Perhaps the first appreciable impacts on the lake occurred long after early European explorers had considered the lake a link in the trading route connecting the Great Lakes and Mississippi River drainages. These first ecological impacts were deforestation of the watershed feeding the lake and over-fishing. It is likely that the watershed was almost completely deforested as early as 1840 from timber harvesting. Agricultural acreage within the lake watershed was greatest from about 1880 to 1920. Net fishing ended in the 1840s; ice fishing was limited beginning in 1852. Accessibility to the Lake was influenced greatly by the arrival of railroads. Rail transportation had reached Brocton in the 1850s and Jamestown by 1860. The rail lines brought seasonal tourists looking for water recreation. Steam boating, prominent on the Lake from 1860 – 1930, reached peak popularity between 1880 and 1905

when twenty-one commercial steamers sailed the Lake waters. Then, rail transport became available along the eastern shore in 1888 leading to an eventual decline in steamer ridership. Ice harvesting to provide household and commercial refrigeration in Buffalo was an important winter industry until 1895. Thus, the latter half of the 1800s spanned an era of access and development of the Lake and lakeshore. During this period, several grand hotels were built around the Lake, two of which still stand today, The Athenaeum at Chautauqua Institution, and The Lenhart at Bemus Point.

From the earliest days, sewage was routinely discharged directly into the lake. In 1965 Town control of waste disposal moved to county jurisdiction. In the mid 1970s, two-thirds of the holdings on the periphery of the Lake had septic systems that were replaced by sewage treatment plant connections. This led to intensive development of the limited shoreline remaining. Today, only 11.6% of the lake's remaining shoreline is in a natural undeveloped state. Private residences, cottages, and condominium communities occupy the majority of the shoreline.

The 2000 Census counted 139,750 full-time residents in Chautauqua County. In the spring, summer and fall months, a number of seasonal residents, primarily from Ohio and Pennsylvania, converge on the County. It would be safe to assume that the population probably increased by 8,000 to 10,000 during this period, there is no valid means of determining the actual numbers.

### **C. Existing Land Use and Water Uses**

The existing land use within the Waterfront Revitalization Area (WRA) is presented by community. Primary attention is given to uses within the WRA. Land uses that may have significant impacts on the WRA, but are outside the defined WRA, are described. Each of the communities exhibits unique land use patterns, presenting various opportunities and constraints. A preliminary analysis of these opportunities and constraints are identified for each community. Additional information regarding land and water use, and proposed projects can be found in Section IV.

#### **Village of Celoron**

The main business district in the Village of Celoron is located along Boulevard Street and consists of typical commercial businesses as well as Lake-related businesses. From the Jamestown City line traveling west into the Village to Venice Street, all the properties located between Boulevard and the Chadakoin River (the Chautauqua Lake outlet) are shoreline commercial properties. This area contains Holiday Harbor Marina, Carlson Boat Livery, and a number of other commercial properties. The commercial area on the south side of Boulevard Street begins at Waverly Avenue and continues west to Dunham then south on Dunham to Duquesne Street. This area is considered the Village's central business district with the Celoron Village Offices, the post office, a restaurant, a gift shop, the local Moose Club and an antique shop.

There are three areas in the Village that are primarily industrial, all of which are located adjacent to portions of the Western New York & Pennsylvania Railroad (WNY&P), which divides the Village. The rail

line had been dormant since the early 1990s. However, the WNY&P, a short line operator in Jamestown, reactivated the railroad line in 2001.



The most significant industrial area is located on the north and south sides of Livingston Avenue, south of the WNY&P tracks starting at the Jamestown City Line then continuing west to the WNY&P track crossing at Livingston Avenue on the north side to the Allen H. Miller property. This area contains the former V&N Construction building, the former Penn-Empire Transport terminal, Signature Seal Coating, Brigotta Farms Greenhouse, Superior Paving, an auto body repair shop, and a bus company garage. A significant portion of this area is unusable due to adverse topography. The Chautauqua Lake South and Center Wastewater Treatment Plant are located adjacent to Boulevard Street at the Jamestown City line.

The largest concentration of single and multi-family residential properties is located south of the Boulevard Street commercial zones and north of the WNY&P rail line east of the Jackson Avenue, continuing eastward to the Jamestown City Line. The majority of this area consists of single-family structures. Along the south side of Livingston Avenue, east of Metcalf Avenue and at the foot of Jackson Avenue, there is a significant amount of undeveloped property. Of this undeveloped property, the majority is zoned multi-family, and could be developed. On the north side of Boulevard Street, where it meets Dunham Ave., Celoron maintains the Lucille Ball Memorial Park. The park serves as the central recreation area for the community and includes a boat launch, a baseball field, a pavilion, fishing access, and a community center. The community has recently constructed a lighthouse adjacent to the park, which now acts as a focal point for the area. The “Summer Wind” cruise and dinner ship, a private enterprise, is also moored adjacent to the park.

At the point where Dunham Avenue going north extends to the lake, on the west side of Dunham Ave., there is large vacant parcel (7.7A) owned by Northwest Mutual Savings. This parcel, along with the



Marine Park Apartments parcel, was once the site of the Celoron Amusement Park and ballroom prior to the early 1950's.



The site was an important recreation destination for the tri-state area, and is currently zoned for multiple residences but could be developed for recreational purposes. The parcel contains a breakwall along the whole Lake edge and offers one of the most extensive views of Chautauqua Lake. See, [Village of Celoron and Town of Ellicott Existing Land Use Map](#).

### **Opportunities**

- Create downtown revitalization plan to develop commercial area into a destination for tourist and county residents.
- Improve “Lucille Ball Memorial Park.” Enhance park amenities and restore historic character.
- Develop vacant “Celoron Amusement Park” parcel through private means or public private partnership. Development could complement the historic character of Celoron, the community’s commercial area, and open space.
- Create a gateway for the community and waterfront along Dunham Avenue.

### **Constraints**

- “Celoron Amusement Park” site is privately owned and controlled. Currently, it is zoned multi-family residential.
- The downtown area needs streetscape improvements to improve aesthetic appeal.
- Parking in downtown may be limited.
- Development plan needs to address potential conflicts between varying user groups (i.e. Park users, boaters and tourist).

- Zoning boundaries of “commercial district” and uses need to be evaluated. District may need to be expanded to provide adequate space for development and parking.

### Town of Ellicott

The Town of Ellicott surrounds the City of Jamestown and encompasses the Villages of Falconer and Celoron. The Town is home to the Mason Industrial Park, the Chautauqua County Airport and a prominent commercial area in West Ellicott. Ellicott has shoreline on both the north and south sides of Chautauqua Lake (see [map](#)). On the south side of the lake, within the WRA, starting at the Celoron Village line going west are residential homes along Burtis Bay. On the eastern side of Burtis Bay the Town maintains Burtis Bay Park, which contains a baseball field, open space, and shore access to the lake.



The unincorporated area known as Fluvanna starting at Townline Road is bounded on the north side of the lake by NYS Route 430 east to the I-86 Interchange at Strunk Road. It encompasses the area south of NYS Route 430 to the north shoreline of the Lake. Fluvanna includes the communities of Elmhurst and Bonita. Both are a mix of single and multi-family housing units used both seasonally and year-round. This residential area also contains a limited commercial mix with the Apple Inn and Gaylene’s jewelry repair and the Bridal Shoppe.

The Fluvanna commercial district is defined by a line traveling east from the Strunk Road I-86 Interchange along NYS Route 430 to a point created by an imaginary perpendicular line extending across the Chadakoin River to coincide with Celoron’s eastern boundary and encompasses the areas south of NYS Route 430 and north of the Chadakoin River. This area contains the Fountain Bowl Bowling Alley, a trucking terminal, a self-storage facility, and a tire shop/garage. Large wetland tracts separate these



commercial areas along Route 430 from the Chadakoin River. The Chautauqua Watershed Conservancy owns 23 acres of these wetlands. See [Village of Celoron and Town of Ellicott Existing Land Use Map](#).

### **Opportunities**

- Develop abandoned rail line east of Bonita into a nature preserve area. The railroad bed crosses wetland tracts and connects to City of Jamestown.
- Link the City of Jamestown “River Walk” with wetland areas.
- Develop Burtis Bay Park. Complete components of master plan.
- Encourage development of winter activities related to the Lake.

### **Constraints**

- Ownership of wetland tracts.
- Completion of Jamestown’s “River Walk” project.
- Burtis Bay’s natural collection tendencies at shoreline.

## **Village of Lakewood**

The Village of Lakewood is primarily single-family residential in character with both year-round and seasonal homes. A small portion of the community is multi-family and contains units such as the old Packard Estate, which has been turned into condominiums.



Lakewood is home to two commercial districts. The Lakewood “Retail Business” district runs from Terrace Street south to the railroad track along Chautauqua Avenue on both east and west sides and is the community’s central business district. The area is primarily retail and includes gift shops, bed-and-breakfasts, tourist residences, ice cream and luncheon shops, and a variety of service businesses such as a barber shop and a bank. The main commercial district runs along the northern and southern edge of

NYS Route 394. This district is comprised of the Chautauqua Mall, banks, grocery stores, and multiple service and retail outlets. This area, which runs the full length of the community, is southern Chautauqua County's commercial shopping area.

There are two industrial areas in the Village. They are both near the railroad tracks just to the north of Fairmount Avenue, on Chautauqua Avenue and Winchester Road, respectively. These industrial districts are home to Matco Tools on Chautauqua Avenue and Lexington Die Casting on Winchester Road.

Lakewood contains many public and quasi-public recreational facilities, most of which are within the WRA. The Village of Lakewood owns and maintains three recreational areas. The most notable of these areas is the Richard Hartley Park at the foot of Chautauqua Avenue. The park serves as a major draw to the community's downtown area offering a beach with a lifeguard, tennis and basketball courts, a gazebo, picnic areas, bathhouse and a playground. Lakewood has plans to further upgrade the park by extending the beach area and creating a handicapped accessible overlook. Lakeside Community Park, located along Terrace Street near the Town of Ellicott border, and Lowe Park, located near the Village's western edge along Summit Avenue, are the other recreational areas; Lakeside Community Park has a boat launch, a picnic pavilion, and boat-trailer parking.



Quasi-public facilities in Lakewood are owned by numerous organizations and are open to their members and guests. The following is a list of those facilities and their location: 1) the Lakewood Rod & Gun Club has its own lakefront, clubhouse and picnic pavilion. On the pavilion parcel is one of several streams entering Chautauqua Lake along Lakewood's shoreline, called the Canal; 2) the veterans maintain a small Veterans Park on the lakeside with picnic facilities at the point where Terrace Street meets Summit Avenue; 3) the YWCA owns the YA WA CA Lodge, located on Terrace Avenue (lakeside), and operates the facility as a day camp and banquet hall; 4) further east on Summit Avenue the Lakewood Volunteer Fire Department maintains the Lakewood Fire Volunteers Training and Recreation Grounds; 5) the Michael LaGrega Memorial Park located on Summit Avenue provides a baseball field

and two tennis courts; and 6) the Chautauqua Lake Yacht Club maintains a sailing club on the lakefront. See [Village of Lakewood Existing Land Use Map](#).

### **Opportunities**

- Complete Chautauqua Avenue area revitalization efforts. Improve signage and streetscape amenities – in which \$1.8 million has been invested to date.
- Create public docking to allow visitors to access downtown and the Hartley Park area from the Lake.
- Create a park in the center of the downtown area as open space to enhance streetscape and provide pedestrian amenities.
- Enlarge the beach area for additional swimming capacity
- Create Crescent Overlook in Hartley Park to improve utilization.
- Upgrade Community Park to allow for uses that complement Hartley Park
- Implement walking tour program to encourage tourism.

### **Constraints**

- Funding

## **Town of Busti**

The Town of Busti is primarily rural residential in character and has the smallest shoreline of the nine communities. Busti has two industrial development areas. One area is an industrial district located between Hunt Road and Baker Street and the other a light manufacturing and research district between Big Tree Road, Gleason Street, and Hunt Road.

The industrial district is home to the Stoneman Industrial Park and the Cummins Engine manufacturing facility. The light manufacturing and research area is home to ARRO Tool & Die, Ulrich Planifiling Equipment Corp., Master Carvers, ECKO Tool & Die, Jamestown Soap and Solvent, Southern Tier Brewery and Diversified Components. The districts are both south of the WRA area and adjacent to the Busti Wetlands Preserve.

The area west of the Village of Lakewood along NYS Route 394 to the Town of North Harmony boundary is primarily commercial. These commercial districts include a small auto resale facility, a convenience store, a pet supply store, a greenhouse, a seasonal travel trailer park, Smith Boys Marina, and several small boutique type businesses.

On the western side of the Town of Busti from Lakeside Avenue continuing northwesterly along NYS Route 394 to the North Harmony line is residential. Vukote, a canal front development with seasonal residences, is located within this area. The other lakeside residential area is located on the north side of NYS Route 394 beginning at Lakewood and extending west to a point east of NYS Route 474.

Busti Town Park is located within the Vukote area and provides the residents with basketball, soccer fields, a playground and picnicking and walking facilities. Busti Wetland Preserve is a 44.5-acre park

located along NYS Route 474. The park is the only municipally owned parcel on the lake dedicated to conserving wetlands and providing wetland access. See, [Town of Busti and Southeastern Portion of North Harmony Existing Land Use Map](#).



### **Opportunities**

- Establish trails linking Vukote Park, the Wetland Preserve, Goose Creek Landing (Loomis property), and the Stoneman Industrial Park to enhance overall parks system.
- Create system of nature trails / boardwalks with markers in the Wetland Preserve.
- Create a canoe and kayak landing for Goose Creek on Loomis property.
- Purchase land on the Vukote canal or the lakeshore to provide lake access for Town residents.
- Complete Vukote Park Master Plan.
- Add public amenities such as parking at Wetland Preserve.

### **Constraints**

- Signage and parking for the Wetland Preserve are inadequate.
- The Wetland Preserve and natural habitat it creates needs to be protected.
- Property Acquisition or Easements
- Funding



## Town of North Harmony

The majority of the property on the north/northwest side of NYS Route 394 in the Town of North Harmony is single family residential in character with a mix of seasonal and year round homes. This area has several residential lakeside clusters at locations such as Stow, Hadley Bay, Victoria, Neits Crest, Quigley Park, Loomis Bay and Longview. The WRA also includes an area of residential homes in Ashville (along NYS Route 474).

An active commercial district exists near the I-86 Stow Interchange northeast of NYS Route 394. There is zoning in place that allows commercial properties in anticipation of future development. The commercial area currently includes: the Hadley Bay Restaurant (former Good Morning Farm Restaurant), Hogan’s Hut General Store, the former Trails End Gallery, and a Niagara Mohawk Service Center. Also situated in this area are a veterinarian’s office, the Stow Post Office, and the North Harmony Town hall. Ashville (the intersection of 474 and County Rd 83) is included in the WRA and has several commercial businesses. The Ashville area has a snack bar /general store, a gas station, a recreational outfitter, several artisan/crafter studios, and the Ashville Post Office.



The Town of North Harmony has limited recreational facilities located within the Township. Camp Chautauqua (a private campground) and Ashville Bay Marina are businesses through which lake access is possible. The shortage of public recreational facilities, especially along the lakeshore, limits access to the lake within the Township.

Tom’s Point, a New York State Department of Environmental Conservation (DEC) wetlands area at Stow is a significant natural feature within the Township. Goose Creek flows into the lake at Loomis Bay and contributes to another significant southward extending area of wetland between Fardink Road and

Route 394. The Stow farm on Route 394 (lakeside) now belongs to the DEC. The Stow farm with its shoreline of over 1,100 feet is one of the most important fish and wildlife habitats on Chautauqua Lake. See: [Town of Busti and Southeastern Portion of North Harmony Existing Land Use Map](#), [Center of Town of North Harmony Existing Land Use Map](#), and [Northwestern North Harmony and Southwestern Chautauqua Existing Land Use Map](#).

### **Opportunities**

- Create “Fishing Park” at the Ball Creek outlet under the I-86 Bridge.
- Develop the Stow Property.
- Build a public dock at the Ferry area to encourage better utilization of the Stow area by boaters
- Acquire Tom’s Point or a portion thereof.
- Improve Stow commercial area with façade program and streetscape improvements.
- Enhance Ashville commercial area – Goose Creek connection, business clusters.
- Proximity to Dobbins Woods Preserve

### **Constraints**

- Tom’s Point is owned by DEC and contains a large wetland area.
- A development plan for the Stow area is needed.
- Need Easement from New York State Department of Transportation to access shoreline from Ball Creek parcel.
- North Harmony and Busti need to partner on Goose Creek efforts.
- Access to Goose Creek necessary for stream bank restoration and potential sediment control. Easements to be obtained.
- Current lack of public utilities at Stow Area for large development.

## **Town of Chautauqua**

The Town of Chautauqua is primarily a rural residential community with the uplands comprised of vacant farmland and forest holdings. The Town of Chautauqua WRA consists principally of lands between the primary roads (NYS Routes 394 and 430) and the shoreline of Chautauqua Lake. The Village of Mayville divides the Chautauqua WRA into a western and eastern section. The western section extends north westerly from the Magnolia – Sherman Road to the Mayville Village line. The western segment along the shore of Chautauqua Lake is a dense mix of single- family residences, cottages, Town houses, and seasonal residential rental properties with lakeside residential clusters located at Prendergast Point, Chautauqua Institution, and Lighthouse Point.

Chautauqua Institution, approximately half way between Magnolia and Mayville, is a gated community that operates an internationally known summer cultural-educational program from the end of June through the end of August. The community has approximately 400 year round residents but may swell to 10,000 as seasonal residents and visitors take advantage of the summer programming.

The eastern section of the Chautauqua WRA begins at the northeast Mayville Village boundary and contains the same dense residential mix along the eastern shoreline to the Town border with Ellery at Thumb Road. This section contains the residential clusters of Hartfield, Dewittville and Point Chautauqua, an old residential community designed by Frederick Law Olmstead. The eastern shoreline of the WRA also is home to Chautauqua Lake Estates, the first condominium project on Chautauqua Lake.

“Industry” in the Town of Chautauqua consists of businesses that cater to the tourists and visitors that Chautauqua Lake draws to Chautauqua County. Along the southwest side of Chautauqua Lake amongst the residential mix are areas of commercial property. The Snug Harbor area, near the southwestern end of the Township, is home to the Snug Harbor Marina, one of two commercial marinas within the Township itself.



The area further to the north along the eastern shoreline and closer to Chautauqua Institution contains bed & breakfasts, tourist residences, rental cottages, gift shops, a motel and a variety of restaurants. Within the Institution gates are hotels, boarding houses, boutiques, a drugstore, a bookstore, open-air and indoor concert and lecture halls, and a variety of restaurants from snack bars to full-service restaurants. These all serve the visiting public and residents who take advantage of the programs and activities the Lake area has to offer.

The Creative Marine marina is located along Sea Lion Drive and is the smaller of the two marinas located within the Township. Dewittville, on the north east side of Chautauqua Lake, has a small cluster of commercial entities and includes the Dewittville Post Office, a restaurant, a cheese shop, a garden shop and several service-oriented businesses.



There are several camps and public areas situated along the lake in the Town of Chautauqua. The Town contains three privately held public golf courses: Willow Creek, located south of Snug Harbor, is a 9-hole golf course; the Chautauqua Golf Course, located across from the main Chautauqua Institution complex, is a 36-hole course; and the Point Chautauqua golf course, located on the eastern shore of the lake above the Point Chautauqua community, is a 9-hole golf course. At Prendergast Point, on NYS Route 394 near Snug Harbor, is a DEC Fish Hatchery and a DEC boat launch for public use. The boat launch is heavily used and is one of three DEC boat launches around the lake. See [Northwestern North Harmony and Southwestern Chautauqua Existing Land Use Map, Town of Chautauqua - Chautauqua Institution and Lighthouse Point Existing Land Use Map, Northeast Town of Chautauqua Existing Land Use Map, and Southeast Chautauqua and Northwest Ellery Existing Land Use Map](#).

### **Opportunities**

- Encourage the DEC to provide public dockage and picnic tables to allow boaters to better utilize Prendergast Point boat launch. Dredge area in front of launch.
- Promote Chautauqua Institution tourism
- Seawall replacement project
- Lighting plan and implementation

### **Constraints**

- Lack of public access to lakeshore

## **Village of Mayville**

Nearly 71% of the Village landmass is used for residential purposes, both year-round and seasonal. Residential properties are in all areas of the Village except for those noted below. The Village is also the county seat. The county campus is located at Erie and Chautauqua Streets and includes the county legislative chambers, courts, jail and administrative offices.



Industry in the Village of Mayville is situated in two locations. The west/northwest portion of the Village on East Chautauqua Street includes Chautauqua Custom Cabinetry. The southeastern side of the Mayville along Water Street (Rte 394) is home to Belknap Business Forms.

Most of the commercial businesses in the Village of Mayville are located along NYS Route 394, Erie Street, Water Street and West Lake Road between Chautauqua Street and the southeastern Village line. The largest concentration of these businesses is on Erie Street between Chautauqua Street and Evans Street, where few residential homes are located. This area can be considered the Village's central business district with the typical dining, banking, grocery, and retail type operations. A second area of commercial businesses, including several restaurants, a quick stop, gas stations, a motel, and the Chautauqua Marina, is located on NYS Route 394, Water Street, and West Lake Road along the lakefront.



Mayville owns and maintains two recreational parks. The most notable is Lakeside Park located on Chautauqua Lake on West Lake Road (Rte 394). Lakeside Park is a 14.3-acre park that includes a swimming beach, a boat launch, tennis courts, basketball courts, a track, and youth recreation fields for soccer and baseball. The park is the center for public celebrations such as Fourth of July fireworks and the winter Ice Castle festival. Several years ago, the Village of Mayville bought a strip of abandoned railroad right-of-way (1.1 Acres) along the shore of Chautauqua Lake that extends north from Lakeside Park to the Village line. It has become part of the Village park system and is used as a walking trail. The Village also has a park area (13.4 Acres) used for baseball and soccer at Marvin and Valley Streets. Chautauqua County owns a small park at the intersection of NYS Routes 394 and 430 within the Village. Although owned by the county, it is considered the “Village green” and many tourist related activities are carried on there during the year.

The Village of Mayville has a zoning law in place and is currently working on a major revision of that law. Although the Village has never adopted a formal comprehensive plan, the zoning law is formatted to include many aspects of a comprehensive plan. See [Village of Mayville Existing Land Use Map](#).

### **Opportunities**

- Develop trails to link the Lakeside Park area to the Rails-to-Trails system.
- Implement the Recreational Waterfront Plan.
- Complete Downtown Master Plan and link to Lake's uses.
- Establish performing arts center / retail center to complement Chautauqua Institution efforts as indicated in Recreational Waterfront Plan.
- Work with private developer to encourage development in Lakeside Park area.

### **Constraints**

- Funding
- Tennis courts, bathhouse, and other amenities are in need of renovations and updating.
- Need to complete revisions of zoning law

## **Town of Ellery**

The Town of Ellery is primarily a rural residential Township with the majority of its development occurring along the lakeshore area. The area between Ellery's northwestern border and the Bemus Point Village line, between NYS Route 430 and the lakeshore is a mix of residential properties and camps. The residential properties consist of condominiums, Town houses, single residences, cottage properties, and lakeside residential clusters at Maple Springs and Sunset Bay. Oriental Park, a residential area adjacent to Bemus Point's southern boundary, is often thought of by visitors as an extension of the Village, but in fact is solely within the Town limits. Many of the properties in the area between the I-86 exit and the Belleview area, most of which are residential, encompass steep slope development on the lakeside and command striking views of the lake on the north side of NYS Route 430.

Tourism is the primary industry in the Town. The commercial area in the Township, outside of the Village of Bemus Point, is centered in the Maple Springs area along the main highway. This area contains several small restaurant/tavern type establishments, a convenience store and a real estate office. Maple Springs, although primarily a residential community, contains two bed and breakfasts, tourist residences, and is home to one of the country's oldest amusement parks, Midway Park. Midway Park is situated on the lake and is one of 12 remaining "trolley" parks in the nation. Midway Park was developed as a destination attraction to encourage increased ridership on the lake steamers and later the railroad. The areas southeast of Bemus Point, such as Shore Acres and Greenhurst, along NYS Route 430 have commercial properties mixed into the residential areas. These are small or low-impact businesses, such as a convenience store, gas station, a laundromat, a nursing home, and a marina.

The Town of Ellery has a small number of publicly owned recreational opportunities within its boundaries. Long Point State Park is the largest public access point on Chautauqua Lake, with the largest of the three State boat launches and a marina. The park consists of 360 acres and is located near the center of the Town's shoreline.



The park has three playgrounds, and swimming and picnic facilities, and includes over 200 acres of park upland, as well as the lakefront. The property was once a private residence and the “point area” maintains some of those characteristics. Along Heinemann Road, close to the Ellicott Town line is the new Town of Ellery Park, still in the construction stage. Once completed, this will act as a recreation facility for the community, but it will not provide additional lake access. The Cheney property, which was recently purchased by New York State, will provide an additional public opportunity, when completed, for lake access and some types of recreation. Visitors to Ellery may take advantage of the lake through one of the semi-private lakeside camps and clubs, which include the Covenant Church camp, “Mission Meadows”, the Lutheran Camp and Retreat Center, J.I.M. Club, and the Vikings’ Lakeside Lodge.

Ellery contains some of the few areas between the primary highway and the lake that are still used for agriculture. Near Bellevue Creek is a working agricultural area that is used to raise row crops and hay. The Cheney farm, part of which will be used for a rest area and lake overlook on I-86 for travelers, has recently become idle. New York State has purchased a portion of this along the lakeshore for preservation. See [Southeast Chautauqua and Northwest Ellery Existing Land Use Map](#), [Central Ellery Existing Land Use Map](#), and [Southeast Ellery Existing Land Use Map](#).

### **Opportunities**

- Work with New York State DEC to provide input on Cheney Farm property development. Projects may include hiking trails, farming museum, access to lake for public and acquisition of additional lands.
- Develop a bike path to connect Long Point State Park to Bemus Point.
- Maintain the scenic vista on the Cheney Farm.

### **Constraints**

- Funding.
- The impact of a bike path on prime residential development area needs to be evaluated and mitigated during bike path design.
- Steep slopes at Cheney Farm and limited vehicular access.

### **Village of Bemus Point**

The Village of Bemus Point is located in the north central portion of Chautauqua Lake where the lake is the narrowest. Bemus is a hub of summer activity on the lake and its downtown area reflects that. The residential properties within the community on the lakefront include seasonal homes, but most of the Village consists of year round residences.

There are no significant industrial properties located in the Village, and a majority of the commercial properties are located near the intersection of Liberty Street and Lakeside Drive going south and ending at the lake where the Bemus Point-Stow Ferry docks and going east from Lakeside Drive along Main Street to Lincoln Road. Restaurants, hotels, rental cottages, gift shops, and other commercial properties oriented toward summer entertainment are prevalent.





Bemus Point, although limited in geographic area, has a variety of recreational opportunities. Bemus Point maintains a Village park at Lakeside Drive and Lakeside Avenue that provides open space, views and a playground. On the lakeside of Lakeside Avenue adjacent to the Village is a Village property known as the “Casino’. The “Casino’ is leased to a private entity that runs it as a restaurant, banquet hall, and amusement arcade. The Bemus Point terminus of the Bemus Point-Stow Ferry is located at the eastern end of the “Casino’.

The Village of Bemus Point maintains a public beach across from the village park along Lakeside Drive. The DEC maintains a boat ramp and parking area one block east of the Village Park for fishing access. The Bemus Point Golf Course, a 9-hole privately held public golf course of 65+ acres, is located along the Main Street (NYS Route 430) south of the main business district. See [Village of Bemus Point Existing Land Use Map](#).



### **Opportunities**

- Create downtown revitalization plan to address aesthetic enhancements, streetscapes, and signage.
- Encourage New York State DEC to upgrade boat launch area and parking with better landscaping and maintenance.
- Upgrade Bemus Point–Stow Ferry landing area breakwalls and pedestrian access.

### **Constraints**

- Limited parking
- Funding

## **D. Land Ownership**

This section identifies by community ownership of key parcels along the Chautauqua Lake shoreline. The vast majority of land bordering the shoreline is privately held.

### **Village of Celoron**

There are several key parcels located along Celoron's shoreline. Included among them are two marinas in the eastern portion of the Village. These marinas service the majority of watercraft operating out of the south basin of the lake. Another key parcel is Lucille Ball Park, which offers public access to the lake. Along with being a mooring location for an excursion boat, the park offers a free boat-launching site, baseball field, playground, and picnic areas. At the western end of Celoron's shoreline, it is an undeveloped property currently owned by a commercial bank. This site offers a unique view of the entire South basin of the lake. This was the site of the old Celoron Amusement Park, dating back to the late 19th Century.

### **Town of Ellicott**

Burtis Bay Park is located in West Ellicott and was opened as a bathing beach in the late 1950's as a Jaycee project to provide lake access for the residents of Ellicott and Jamestown. The beach was shut down shortly after because of high bacteria counts in the water due to discharges in the vicinity. The existence of these discharges has been eliminated since the creation of the Chautauqua Lake South and Center Sewer District. The park currently provides shoreline access, open space, a baseball diamond, and picnic areas. Along Ellicott's northern shoreline, the Chautauqua Watershed Conservancy has purchased 50-acres in the Bonita Wetlands that includes 2880 feet of undeveloped shoreline. This parcel may be developed as a nature preserve by the conservancy organization.

### **Village of Lakewood**

The Village maintains Lakeside Community Park at the eastern end of the Village. This park is one of three parks owned by the Village and has a free boat launch as well as limited docking, picnic grounds and a trailer parking area. Hartley Park, located at the end of Chautauqua Avenue, is the Village's largest park. The park provides bathing facilities, tennis and basketball courts, playgrounds, picnic facilities and a beach area. Lowe Park is located along Terrace Street and provides 50 feet of public access to the lake. In addition, Lakewood contains several quasi-public organizations with key parcels on the waterfront. The Lakewood Rod and Gun Club recently built a new clubhouse facility on East Terrace Avenue. The membership of this club is significant and it provides boat slips for a limited number of its members. The Chautauqua Lake Association (CLA) maintains a lakefront presence with its office, docking and storage area. The CLA is a not-for-profit organization that maintains a fleet of weed harvesters and barges that cuts weeds and clean up the shoreline in trouble spots up and down the lake throughout the summer season. The YWCA is located west of the CLA facility and provides tennis facilities and lake access to its members. The Chautauqua Lake Yacht Club facilities are located east of Hartley Park.



### **Town of Busti**

The Town of Busti has the smallest amount of lakeshore of the nine lake communities. Vukote Park and the Busti Wetland Preserve are both owned and maintained by the Town. Vukote Park provides recreational fields, a playground and picnic space for the residents. Busti Wetland Preserve is approximately 44-acres of wetlands that serves as a nature preserve and has not been developed by the Town. Smith Boys' Marina, a private marina, is the only other key property in the WRA.

### **Town of North Harmony**

Just south of Stow is a 6-acre parcel along Ball Creek that has been purchased by the Watershed Conservancy. The Conservancy plans on limited development of the parcel. Likewise, just north of Stow is an area known as "Tom's Point", which is owned by the NYS DEC. Tom's Point is wholly undeveloped and offers rough shoreline access. The DEC considers the shoreline of Tom's Point a prime muskellunge nursery area. Chautauqua County deeded an approximately 3/4- acre parcel at the ferry landing to the Town to be developed as a park. In addition, Cheney's Point has a small parcel owned by the Town with lake access. The Stow farm, and its waterfront, has recently been acquired by the DEC. It is not extensively developed but does offer road access to the waterfront.

### **Town of Chautauqua**

At Prendergast Point, the DEC operates an active muskellunge hatchery. The DEC maintains a boat ramp and trailer parking lot for public use at the site. Chautauqua Institution provides a unique lakeside experience with a 19th century Victorian atmosphere. The Allegheny Highlands Council of the Boy Scouts of America operates Camp Merz in the Town.

### **Village of Mayville**

Lakeside Park is a large municipal park with picnic areas, baseball and soccer fields, a beach area, bathhouse, tennis, basketball, track and boat launch facilities. Adjacent to this is an abandoned rail bed purchased by the Village for use as a walking path with lake access. Gravits Park is located at Marvin and Valley Streets and provides sport field opportunities for the community. Chautauqua County owns a park at the corner of Routes 430 and 394. The park, although owned by the County, is used as a Village green in the center of the business district. In addition, the Village owns wetlands along Sea Lion Drive that may one day be utilized.

### **Town of Ellery**

Ellery has three camps located along its shoreline, the Lutheran Camp & Retreat Center, "Mission Meadows," and the Boy's J.I.M. Club. Immediately adjacent to these camps is the Jamestown Viking Lake Home and Midway Park, one of the oldest amusement parks in the country, and owned by New York State. Long Point State Park on Chautauqua Lake is also located in Ellery. The 360-acre park is located just north of Bemus Point and offers a marina, launch ramps, swimming beach, beach house with lockers and showers and picnic grounds. One of the largest undeveloped waterfront properties, the Cheney Farm, is located east of Bemus Point. The New York State of Transportation (DOT) and the

DEC now own portions of the property. The DEC will develop it for fishing access and the DOT is putting in a rest stop and overlook for visitors. The Town of Ellery has created a Town Park along Heinemann Road to provide sports field and other recreational opportunities.

### **Village of Bemus Point**

The Bemus Point – Stow Ferry crosses the lake here and loads/unloads next to the Casino at the end of Lakeside Drive. The Village owns the Casino and leases it to concessionaires. Next to the Casino is a lakeside park with basketball courts and a playground. The Village maintains a public swimming beach adjacent to the park and Casino. The DEC maintains a public launch site, a parking area.

## **E. Public Access and Recreation**

### **Lake Access**

Given the number of people that live in or visit the Chautauqua Lake watershed to enjoy the beauty and recreational qualities of Chautauqua Lake, it is not surprising that issues involving access to the lake have arisen and, sometimes, have created conflict between different types of lake users. The issues are, in fact, sizeable enough to have gained State recognition and "access to Chautauqua Lake" is one of the priority projects (Chautauqua Lake Access, Vistas, Shore Lands & Tributaries) listed in the 2006 New York State Open Space Conservation Plan. The term "access", as used here, is given broad meaning, and includes public and private access for boating, shore fishing, ice fishing, swimming, and picnicking, as well as parking and rest rooms to support lake access areas. See [Public Access and Recreation Map](#).



Chautauqua Lake is contained within approximately 42 miles of shoreline, most of which already have been developed for public and private interests. Public access to the lake includes several State-owned properties at Bemus Point, Prendergast Point, Stow, Long Point State Park, and Midway Park. A recent April 1998 purchase added 10 acres of the Cheney farm, in the Lake's south Basin, to the list of State-owned public access points along Chautauqua Lake. Many of the local municipalities surrounding the lake (including the Villages of Bemus Point, Mayville, Celoron, and Lakewood and the Towns of Ellicott and North Harmony); several quasi-public facilities (e.g., Chautauqua Institution, Allegheny Highlands Council Boy Scout Camp Merz, YMCA Camp, and a number of religious and fraternal organizations); and a number of privately-owned facilities (e.g., Midway Park, marinas, privately-owned campgrounds, etc.) offer public access to the lake either at no cost (as is the case with the local municipal facilities) or for a fee (charged by most of the commercial facilities). The following map and table identifies the major formal public and private access points that may be utilized by the public.

**Chautauqua Lake Access Points**

	<b>Location</b>	<b>Municipality</b>	<b>Type(s) of Access</b>	<b>Ownership</b>
1	Creative Marine	Mayville	Boat Launch, Docking	Private
2	Lakeside Park	Mayville	Boat Launch, Swim, Scenic, Fishing	Village
3	Chautauqua Marina	Mayville	Boat Launching, Docking	Private
4	Elmwood Road	Chautauqua	Small Boat Launch	Town
5	Chautauqua Institution	Chautauqua	Scenic, Swimming	Private
6	Knights Road	Chautauqua	Small Boat Launch	Town
7	Meadows Rd R.O.W.	Chautauqua	Small Boat Launch	Town
8	Prendergast Point	Chautauqua	Boat Ramp, Scenic, Boating, Shoreline Fishing	NYS DEC
9	Snug Harbor Marina	Chautauqua	Boat Launch, Docking	Private
10	Long Point State Park	Ellery	Marina, Boat Ramp, Swim, Scenic, Shoreline Fishing	NYS OPRHP
11	Tom's Point	North Harmony	Scenic, Shoreline Fishing	NYS DEC
12	Bemus Point Park	Bemus Point	Docks, Scenic, Swimming	Village
13	Ball Creek Park	North Harmony	Scenic, Fishing	Watershed Conservancy
14	DEC Launch Site	Bemus Point	Boat Ramp, Shoreline Fishing	NYS DEC
15	Shore Acres	Bemus Point	Boat Ramp, Docking	Private
16	Cheney's Point	North Harmony	Public Small Boat Launch, Shoreline Fishing	Town
17	Cheney Farm	Ellery	Shoreline Fishing	NYS DEC
18	Ashville Marina	North Harmony	Boat Launch, Docking	Private
19	Vukote Park	Busti	Scenic	Town
20	Smith Boys Marina	Busti	Boat Ramp, Docking, Shoreline Fishing	Private
21	Low Park	Lakewood	Scenic	Village

	Location	Municipality	Type(s) of Access	Ownership
22	Hartley Park	Lakewood	Swim, Scenic	Village
23	Lakewood Community Park	Lakewood	Boat Ramp, Scenic	Village
24	Burtis Bay Park	West Ellicott	Scenic, Shoreline Fishing	Town
25	Lucille Ball Park	Celoron	Boat Ramp, Scenic, Handicap Access Dock	Village
26	Holiday Harbor	Celoron	Boat Ramp, Docking	Private
27	Midway State Park	Ellery	Docking, Amusement Park	NYS OPRHP

In 1990, the New York State Office of Parks, Recreation & Historic Preservation (OPRHP) reported on the utilization of State-owned boat launch facilities. The report stated that highest utilization of State launch sites was from 10:00 a.m. to 4:00 p.m. daily, with peak use occurring on summer (i.e., July 1 to September 3) weekends and on select holidays (Memorial Day, 4th of July, Labor Day, and Columbus Day). The document also reported on the usage, or available capacity, of specific State launch facilities including the launches at Bemus Point, Prendergast Point, and Long Point State Park. Capacity was measured as the percent of surveyed days that launch ramp parking lots were filled to capacity. Surveys were conducted by roving census agents who attempted to measure capacity under a variety of conditions (e.g., busy summer weekends, slower spring and fall weekdays). The report suggests that overcrowding was not an issue in 1990 at the State launch ramps on Chautauqua Lake. Parking associated with the ramps on summer weekends was filled to capacity only 30% of the surveyed days at Long Point, 0% of the days at Bemus Point, and only 10% of the surveyed summer weekend days at Prendergast Point. The data, thus, indicate that the capacity of public boat launch sites is adequate on Chautauqua Lake. It should also be noted that the same survey concluded that less than 1/3 of the boats in use on lakes in New York State were launched from public launches. A second survey in 1998 confirmed the findings from the 1990 study.

Although this inventory has only focused on public access to Chautauqua Lake, the highly- developed shoreline of Chautauqua Lake may also create private lake access issues include those relating to "funneling", the methods by which privately owned non-lakefront, upland dwelling units, or households secure access to the lake. "Funneling" can become a problem when the number of non-lakefront households, that many times share a common access point to the lake from an upland project or subdivision, increases far out of proportion to their allotment of lakefront. "Funneling" situations can also arise when several households access the lake by sharing a right-of-way, a non-buildable-sized lakefront lot, or a road that ends at the lake. There will be a tendency for more "funneling" problems to arise as lakefront lots are built out and more upland, or second-tier, development occurs.

## Recreation

Chautauqua Lake is used extensively for recreational purposes with passive viewing of the lake, power boating, swimming, and fishing topping the list of the recreational activities engaged in most frequently

by lake users. Some uses, such as boating and angling, have increased in recent years as witnessed by the over 25% rise in boats registered for principal use in Chautauqua County from 1985 to 1993 and by angling statistics that show that the number of angler days expended on Chautauqua Lake increased by over 60 percent from 1973 to 1996.



Chautauqua Lake, in fact, occupies a significant standing, compared with other lakes in New York State, with regard to angling. It ranked second out of the major New York inland waters in the number of angler days expended in 1996, and ranked seventh out of 23 major New York waters in estimated expenditures associated with angling trips conducted in 1996.

Although Chautauqua Lake is widely used for recreational purposes, the *2003 Statewide Comprehensive Outdoor Recreation Plan (SCORP)* projects that Chautauqua County's outdoor recreation facilities (including Chautauqua Lake) will meet or exceed demand to the year 2020. Aerial counts of the number of boats on Chautauqua Lake during busy summer weekends and holidays verify that the intensity of boating use on Chautauqua Lake (i.e., number of surface water acres per vessel) falls within the minimum lake user space recommended in the SCORP (2003). Fourth of July counts made by the Chautauqua Lake Association in 1993, for instance, indicated that there were approximately 14.5 acres/vessel, and counts made by the NYS OPRHP in 1990, during busy periods, showed approximately 39 acres/vessel. More recent counts made by the DEC are consistent with the other counts; the smallest space per vessel recorded by DEC during its May - December 1998 study period was 28.6 acres per boat. These counts meet or surpass the minimum 15-20 acres recommended in the SCORP (2003) for each vessel engaged in water skiing (water activity with highest space requirements).

Although official counts have indicated adequate capacity based on space per vessel on Chautauqua Lake, anecdotal evidence raises questions of those conclusions. The past five years has seen an increase in the popularity of personal watercraft (jet-skis) and raised concerns in especially congested areas of the Lake, such as at the Bemus Point Narrows. Recent State legislation governing the use of personal watercraft may address concerns raised during the public input portion of the creation of this document and the level of usage.

In addition to the traditional water related activities associated with Chautauqua Lake, the lake area provides visitors and residents with a variety of other recreational opportunities. The following table categorizes the most popular alternate recreational uses and their locations.

**Alternate Recreational Opportunities**

Activity	Township	Location
Golf	Chautauqua Point Golf Course	Chautauqua
	Bemus Point Golf Club	Bemus Point
	Chautauqua Golf Club	Chautauqua
	Willow Brook Golf Course	Chautauqua
	Webb’s Miniature Golf	Mayville
Camping	Camp Chautauqua	North Harmony
	Hadley Bay - Stow	North Harmony
	Camp Prendergast	Chautauqua
	Stow Camping Area	North Harmony
	Davis Camp Grounds	Chautauqua
	Chautauqua Heights	Chautauqua
	Wildwood Acres	Ellery
	James Lakefront Camping	Busti
	Lucille Ball Memorial Park (Handicapped Access)	Celoron
	Burtis Bay Park	Ellicott
	Lakeside Community Park	Lakewood
	Hartley Park	Lakewood
	Stow Ferry Line	North Harmony
	Prendergast Point	Chautauqua
	Lakeside Park	Mayville
Long Point State Park	Ellery	
Field Sports	DEC Boat Launch	Bemus Point
	Bemus Park	Bemus Point
	Town of Ellery Park	Ellery
	Burtis Bay Park	Ellicott
	Lucille Ball Memorial Park	Celoron
	La Grega Memorial Field	Lakewood
	Vukote Park	Busti
	Lakeside Park	Mayville



Chautauqua Lake Local Waterfront Revitalization Program

Activity	Township	Location
	Ellery Town Park	Ellery
Biking	Long Point State Park	Ellery
	NYS Routes 430 and 394	
Bike Lanes	Whole Lake	
Hiking	Busti Wetland Preserve	Busti
	Tom's Point	Stow
	Dobbin's Woods Preserve	Stow
	Mayville Rail Line	Mayville
	Long Point State Park	Ellery
Tennis	Hartley Park	Lakewood
	Southwestern School	Ellery
	Lakeside Park	Mayville
	Bemus Point Elementary School	Bemus Point
	Chautauqua Institution	Chautauqua
Snowmobiling	Designated areas surrounding Chautauqua Lake	Designated areas within Towns & Villages except Bemus Pt., Celoron, Lakewood, and N Harmony
	Long Point State Park –	
Connects to Trail System	Ellery	
Cross Country Skiing	Long Point State Park	Ellery
	Stow Farm	North Harmony
	Tom's Point	North Harmony
	Chautauqua Institution Golf Course	Chautauqua
Ice Fishing	Many areas of lake	
Ice Boating	Whole Lake	
Bird Watching and Wild Life Observation	Dobbins Woods – Bly Hill	North Harmony
	Bentley Nature Preserve	Ellicott
Bird Watching and Wild Life	Chautauqua Lake Outlet Preserve	Ellicott
	Stow Farm Preserve	North Harmony
	Prendergast Creek Preserve	Chautauqua
	Long Point State Park	Ellery
	Tom's Point	North Harmony
	Elm Flats Wetlands Preserve	Chautauqua
	Busti Wetlands Preserve	Busti
	Bird Sanctuary/Gifford Avenue Wetlands	City of Jamestown (Borders WRA)
	Entire Lake	All Towns



## F. Infrastructure

This section examines the infrastructure systems located within the Chautauqua Lake Communities. The systems inventoried include water supply, sewage, and solid waste disposal, and the transportation network within and around the communities.

### Water Supply

As a Class "A" (6 NYCRR Part 701) potable water supply, Chautauqua Lake is an essential resource for the communities within the watershed. The lake serves as a source of water for drinking, bathing and food preparation for a number of public and private water supply systems.

The New York State Department of Health defines any water system serving more than four housing units as a public water supply system, even though they may be owned and operated privately. Public systems dependent on the lake for their water supply include the Chautauqua Utility District serving Chautauqua Institution and the systems serving the condominium developments at Chautauqua Lake Estates and serving Point Chautauqua on a seasonal basis. In addition to these public systems, about 25 lakefront property owners draw their water directly from the lake.

The remainder of the watershed finds its water supplies from wells, including a number of municipal systems. Municipal systems dependent on well water in the watershed include the Village of Mayville and the City of Jamestown water systems. The City of Jamestown provides water service to the Villages of Celoron and Lakewood, and portions of the Towns of Ellicott, Busti, and North Harmony.

#### Mayville

The Village of Mayville water system capacity is 0.65 million gallons per day (mgd) and the current usage rate is .3 mgd or 46% of its total operating capacity. The Village is serviced by three wells located on Patterson Street and Morris Street in the Village. Mayville is currently exploring the options of drilling a fourth well to augment its supply and has added a chlorination system. The collected water is stored in three tanks on West Maple Drive each holding 600,000 gallons, 200,000 gallons, and 200,000 gallons respectively. The district is comprised of the entire Village. Generally, the Village of Mayville's water supply network has had some excess capacity. The addition of a fourth well will ensure that capacity is adequate to meet proposed LWRP projects.

#### Chautauqua

The Town of Chautauqua is primarily served by private wells with the exception of two public water supply systems that utilize Chautauqua Lake as a source, which provide water to large residential clusters.

- A. Chautauqua Institution is served by the Chautauqua Utility District, a public system dependent upon the lake for a water supply. The Chautauqua Utility District water system capacity is 1.5 million gallons per day (1.5 mgd) and the current average usage

rate is 1.1 mgd. Peak demand during the summer season reaches 1.0 mgd. The system is augmented by a 1.2 million-gallon storage facility.

- B. Chautauqua Lake Estates, a condominium development, relies upon the lake as a water supply to provide owners with potable water.

Although water capacity is limited in the Town of Chautauqua, the projects proposed in the LWRP will not be limited by this factor.

### **Bemus Point**

The Village of Bemus Point is served completely by individual wells. Artesian wells serve part of the community while other properties such as the Surf Club need 400+ feet deep wells to obtain an adequate water supply. Investigation of water supply capacity would be necessary on a project-by-project basis in Bemus Point.

### **Ellery**

The Town of Ellery is served completely by individual wells. Investigation of water supply capacity will be necessary on a project-by-project basis.

### **Ellicott, Busti, Celoron & Lakewood**

The City of Jamestown Board of Public Utilities (BPU) primarily serves the Town of Ellicott with some Town properties in the upland areas relying upon wells. The Town of Busti is partially served by the City of Jamestown Board of Public Utilities. The BPU district serves the lakeshore area and Hunt Road. Both the Village of Celoron and the Village of Lakewood are completely served by the City of Jamestown Board of Public Utilities. The BPU relies upon wells in two well fields fed by the Cassadaga and Conewango Aquifers. The collected water is stored at three reservoirs with a combined capacity of 12.5 million gallons. The City of Jamestown water system capacity is 12 mgd and the current usage rate is 5.5 mgd or 46% of its total operating capacity.

### **North Harmony**

The Town of North Harmony is primarily served by individual wells. The Village of Lakewood provides water to a limited district along the lakeshore that ends across from the Ashville BOCES on Route 394. Investigation of water supply capacity will be necessary on a project-by-project basis during the planning phase for LWRP projects.

### **Sewage Disposal**

Many changes in wastewater discharge management have been made since the benchmark nutrient budget studies for Chautauqua Lake were calculated in the 1970's. One of the most important changes has been the development of municipal wastewater collection and treatment systems. See [Sewer Districts Map](#).

In the lake's south basin, the Villages of Bemus Point, Lakewood and Celoron and portions of the Towns of Busti, Ellery, Ellicott and North Harmony are now served by the South and Center Chautauqua Lake Sewer Districts' wastewater collection and treatment system, which discharge into the Chadakoin River, the lake's outlet. On the northern shore of the lake, the South and Center Chautauqua Lake Sewer District begins at Midway Park in the north end of Maple Springs and ends at the limits of the City of Jamestown. On the southern shore the South and Center Chautauqua Lake Sewer District begins in the Town of North Harmony at Ashville Bay Road and travels to the limits of the City of Jamestown. Sunrise Cove, a residential development in North Harmony, is located in North Harmony Sewer (Water) District # 1 and contracts to pump waste for treatment.

The sewer district facility has a maximum treatable capacity of 4.1 mgd. Current usage averages approximately 2.0 mgd. Occasional peak flows of 5.0 mgd do occur during wet periods due to inflow and infiltration. Cummins Engine and Fairbank Farms are two companies outside of the district contracting for waste treatment. They are the two largest contributors to the system at approximately 0.07 mgd. Residential users in the municipalities listed have the greatest impact on daily capacity of the sewer system. North Harmony has expressed an interest in extending the district to the Stow area, if feasible, which would add an additional 900 housing units. As long as the current facility is operating at less than 50% of capacity, the South and Center Chautauqua Lake Sewer Districts' would have adequate capacity to absorb this extension and has no plans for upgrading or expanding the existing system. Moreover, proposed LWRP projects in Busti, Ellery, Ellicott, North Harmony, Bemus Point, Lakewood, and Celoron should not propose an undue burden on the shared wastewater treatment facility.

In the North Basin, wastewater generated from another seven miles of lakeshore development, from the eastern shore of Hartfield Bay to Prendergast Point, is now collected and directed through two secondary treatment plants. The North Chautauqua Lake Sewer District and the Chautauqua Utility District serve areas that either had no previous service, or that discharged effluents into the lake basin following only primary wastewater treatment. The North Chautauqua Lake Sewer District facility currently has a maximum capacity of .5 mgd. Current daily usage is 190,000 gallons per day with spring and summer flows exceeding the daily flow by 30%. The facility is currently being upgraded which will raise the maximum capacity to .75 mgd. The Chautauqua Utility District's facility has a maximum capacity of .84 mgd. Current daily usage averages 0.31 mgd with summer flows reaching .58mgd. Proposed LWRP projects in Mayville and Chautauqua are unlikely to create the necessity to further increase capacity at either facility.

Enforcement activities, in the remaining areas around Chautauqua Lake with private sewer systems, undertaken since the mid- 1970's by the Chautauqua County Health Department have resulted in a marked reduction in the number of individual households discharging wastewater directly into the Chautauqua Lake. Chautauqua Estates, Bayberry Landing and the Chedwell Club condominium complexes are all located outside of established sewer districts in the North Basin. Chautauqua Estates and Bayberry Landing have each installed a secondary package plant to address wastewater generated in their developments. Chedwell Club condominiums are served by a septic system with a sand filter. New community systems are either required to provide a minimum of secondary wastewater treatment,

or are not permitted to discharge effluents into the lake. Presently, the feasibility of connecting these areas to one of the existing municipal sewer networks is unlikely due to the significant cost involved and the lack of adequate development to support those costs. LWRP projects that are proposed in these areas will each need to be evaluated on a project-by-project basis.

### **Solid Waste Disposal**

The Towns of Chautauqua, Ellery, Ellicott, Busti, and North Harmony allow residents to choose their own private contractor for refuse disposal or to utilize the county or Town transfer station.

The Towns of North Harmony and Busti provide a transfer station for residents every Saturday, the Town of Chautauqua provides recycling capacity, and the residents in the Oriental Park in the Town of Ellery are part of a public benefit district which provides them trash pickup from a single contractor.

Chautauqua Institution and the Village of Lakewood each contract all solid waste services with a single contractor. The Villages of Celoron, Mayville and Bemus Point each utilize municipal forces for solid waste services on a weekly basis.

Municipalities and refuse haulers primarily use the Chautauqua County landfill, which is located on Towerville Road in the Town of Ellery.

### **Transportation Systems**

#### **Roadways:**

The communities around the lake have four interchanges on the I-86 Expressway providing a major east-west link to I-90 and I-79, two major north-south and east-west corridors, and the nearby population centers of Erie, Pennsylvania and Cleveland, Ohio. The Stow Interchange, one of the four interchanges, is the only interchange on the southern shore of Chautauqua Lake and is located southwest of the lake in the Town of North Harmony. This is an integral interchange because it provides access to the Chautauqua Lake Veterans Bridge on I-86. The bridge, which opened on November 12, 1982, provides the only vehicular crossing to the opposite side of the lake and improves the circulation pattern for residents and emergency vehicles. See [Roadways Map](#).

The Village of Bemus Point has two interchanges on the northeast side of the lake. The Route 430 interchange connects NYS Route 430 with the community at the northwestern edge of the Village and the Chautauqua Bridge interchange connects the north and south sides of the lake at the Village's southeastern border. The last interchange in the WRA is the Strunk Road exit on I-86, which is located in the Town of Ellicott and provides direct access to NYS Route 430 at the southeastern end of the lake.

The two major roadways that interconnect the Chautauqua Lake communities, creating a ring around the lake, are NYS Routes 394 and 430. These primary highways form the outer boundary for the Waterfront Revitalization Area (WRA) in a majority of the waterfront area surrounding the lake.

On the north end of the lake, Routes 394 and 430 intersect in the Village of Mayville. Route 394, originating to the north on the shores of Lake Erie, follows down the southwestern side of the lake to

Ashville and continues eastward into the City of Jamestown. Along the way Route 394 intersects with the I-86 interchange in North Harmony, Route 474 in the Town of Busti, County Road 69 in the Village of Lakewood and County Road 67 in the Village of Celoron.

Starting in the Town of Mina, Route 430 follows a northeasterly route until it intersects with Route 394 in Mayville. It then runs southeasterly around the northern perimeter of Chautauqua Lake until it ends at Route 60 in the City of Jamestown. Then, it intersects with County Roads 27, 29, 54 and 58 in the hamlet of Hartfield, in Dewittville with County Route 52, and at Maple Springs it intersects with County Route 46. In the Towns of Ellery and Ellicott Route 430 intersects with County Road 59 also known as Townline Road and County Road 44 (Bemus Point–Ellery Rd).

Because NYS Routes 394 and 430 are a major part of the circulatory system around Chautauqua Lake, and intersect with many major county roads, and several I-86 interchanges, they have a high volume of traffic that includes truck traffic especially in the summer months. This has created entrance and exit problems on residential roads originating at the lake and intersecting these two state routes. Beginning in 2002, during the summer months, NYS Route 394 was posted for a limit of 45 mph due to its configuration and the number of vehicles accessing it from lakeside residential roads. The involved communities would like to see some restrictions on truck traffic and do not want to have roadways widened. The communities feel the ambiance and charm of the area would be compromised if roads were widened to make them accessible to greater amounts of traffic.

I-86, formerly State Route 17, parallels Route 430 along the northeasterly side of the lake. Within Chautauqua County, it is a four-lane limited access highway, with the Chautauqua County portion designated as a federal interstate highway in December of 1999. One of the projects on I-86 that has been planned for years that is coming to fruition is a safety rest stop/overlook area located on the south side of I-86, between Westman and Bellview Roads, just to the north of Rte 430. It is on a prominence located on the old Cheney Farm, and provides a panoramic view of Chautauqua Lake. There were no rest areas on I-86 in Chautauqua County before this construction.

### **Rail:**

The CSX Corporation and Norfolk Southern serve the Chautauqua County Area, as well as the short line, the Western New York and Pennsylvania Railroad (WNYPRR). See [Railroads Map](#)

All are engaged in hauling freight within the county either solely by train or through a combination of rail and truck service. The WNYPRR has a rail line going through the Villages of Lakewood and Celoron. It is not now a passenger line but could be used as tourist transportation. Amtrak passenger service is available out of Erie, Pennsylvania, and Buffalo, New York, providing rail access from all major areas.

### **Air:**

Chautauqua County has two county owned airports that are classified the following way. The Jamestown Airport is classified by the Federal Aeronautics Administration (FAA) as a small commercial service airport, non-hub. U.S Air Express flies out of Jamestown on a daily basis along with private and



corporate airplanes. Nearby Jamestown Community College uses the airport to conduct a pilot training program as part of its curriculum for commercial pilots.

The FAA classifies the Dunkirk Airport as a general aviation airport with corporate and private planes flying from that field. Chautauqua Lake is also within a 1 ½ - 3-hour drive of six major international airports – Buffalo/Niagara, Erie, Cleveland, Rochester, Toronto and Pittsburgh. There is also a privately owned field in Mayville – DART Airport. It is used for private planes and gliders. People visiting Chautauqua Lake have an opportunity to fly in, as well as driving to their destination.

### **Buses:**

Bus Service within the county is through the county run Chautauqua Area Rural Transportation Services (CARTS). Neither Jamestown nor Dunkirk now has private bus service within those cities. CARTS assists them along with the rest of the county. Niagara Scenic provides a bus link between Jamestown and interstate bus and rail terminals in Buffalo.

### **Bike and Pedestrian Connections:**

Providing alternatives to the automobile, like sidewalks, bike lanes, and multi-use trails is becoming increasingly popular in communities across the country. The Chautauqua Lake LWRP communities are working toward putting walking/hiking and bicycle paths together either under their auspices or through groups such as Rails to Trails.



It is a collective wish of the Chautauqua Lake LWRP communities that a trail be established that rings Chautauqua Lake. Routes 394 and 430 are designated as bike routes and there is a bike lane extending from Jones and Gifford Avenue in Celoron into downtown Jamestown. The Village of Mayville several years ago bought the old railroad bed that followed the lakeshore within the Village. One reason for

doing this was to provide a walking path for the community and visitors. The plans are to enhance it minimally providing a natural setting with a lake view for walking and bicycling.

## **G. Historic Resources**

The Chautauqua Lake communities are rich in historical significance dating as far back as 5,000 years ago when the Native American “Mound Builders”, a part of a larger industrious civilization believed to have flourished in North America at that time, lived around the shores of Chautauqua Lake. Sites and structures of both national and local significance, including archaeological resources, are located within the waterfront revitalization area of Chautauqua Lake.

### **Archaeological Areas of Sensitivity**

Archaeological Areas of Sensitivity are general areas known to contain significant archaeological sites. Archaeological Areas of Sensitivity are defined as the location of past focused human activities, defined in close proximity of continuous distribution of artifacts. The sites identified within the WRA are primarily at trail heads, creek outlets and deltas, which provided the ideal setting for fishing and gathering natural materials. Many of the sites contain evidence of past settlements, Indian burial mounds or an Indian cemetery. The specific locations of these sites are not provided in the LWRP text in an effort to prevent disturbance to these sensitive cultural areas. However, an unofficial digital representation of part of the NYSOPRHP “Circles and Squares” map produced in 1992 illustrates general areas of sensitivity. All development projects, whether inside or outside of NYSOPHP’s designated zone, will be subject to an appropriate archaeological investigation.

### **Historic Places**

In an effort to identify, evaluate, and protect historic and archaeological resources, the National Park Service established the National Register of Historic Places under the National Historic Preservation Act of 1966. NYS OPRHP followed by establishing the New York State Register of Historic Places under the New York State Preservation Act of 1980. These registers are the culmination of coordinated public and private efforts to protect properties including districts, sites, buildings, structures and objects that are significant to New York State and American history, architecture, archaeology, engineering, and culture. In addition, achievement of Register status means more than simply protection. The benefits include eligibility for grants, tax breaks, and emphasis for historic projects in the planning processes that have federal or state involvement.

This section identifies locally significant sites based on research of existing inventories and reports. Additionally, information gathered at public meetings and interviews with local people aided with the identification of other significant sites. Some sites have been included that are outside the waterfront revitalization area but are regionally significant enough to be part of this inventory.

Point Chautauqua and Chautauqua Institution are both historic districts. Point Chautauqua, founded in 1875, was originally a Baptist Bible Camp. Frederick Law Olmstead was asked to layout the building plan for the community. Mr. Olmstead had already distinguished himself as America’s most eminent

landscape architect of the 19th Century as the designer of both Central Park in New York City and the Buffalo Parks System. To honor Olmstead’s unique design of the area, the Point Chautauqua it was placed on the National Register of Historic Places as a Historic District.

Chautauqua Institution was founded as a religious center in 1874 by Lewis Miller and John Heyl Vincent, a Methodist minister. The Chautauqua Movement evolved from the first Chautauqua Sunday School Assembly in 1874 and the belief that people needed secular education as well as Biblical learning. Today, Chautauqua Institution is thought of as an experience rather than just a place. It is valued as a place of “spiritual growth and intellectual stimulation, where faith is restored and the arts are valued.” Not only is the Chautauqua Institution on the Historic Register but the district was also designated as a National Historic Landmark on June 30, 1989.

There are several other properties within the waterfront revitalization area that should be noted although they are not on the National Register. They include the Minturn Mansion located within Long Point State Park, Midway Amusement Park in the Town of Ellery, and the Stow-Bemus Point Ferry in North Harmony and Bemus Point.

The following chart lists the primary historic resources identified by communities. Members of the LWRP committees have suggested undertaking a historic resource study to more accurately capture all historic resources within the WRA boundary.

**Chautauqua Lake Communities Sites of Historic Significance**

Resource Name	Address	Town/Village	National Historic Register	State Historic Register
<b>Bly, Smith, House</b>	4 N. Maple St.	Ashville	10/1/1974	Yes
<b>Busti Mill</b>	Lawson Rd.	Busti	7/23/1976	Yes
<b>Chautauqua Institution Historic District</b>	Bounded by Chautauqua Lake, North and Lowell Aves and Rte 394	Chautauqua	6/19/1973	Yes
<b>Lord, Dr. John, House</b>	Forest Rd. Extension	Busti	3/2/1991	Yes
<b>Lewis Miller, Cottage, Chautauqua Institution</b>	Rte 394	Chautauqua	10/15/1966	Yes
<b>Athenaeum Hotel</b>	Chautauqua Institution, Rte 394	Chautauqua	In Chaut. Historic Dist.	In Chaut. Historic Dist.
<b>Chautauqua Amphitheater</b>	Chautauqua Institution, Rte 394	Chautauqua	In Chaut. Historic Dist.	In Chaut. Historic Dist.
<b>Holland Land Company Vault</b>	Erie Street	Mayville	No	No

Chautauqua Lake Local Waterfront Revitalization Program

Resource Name	Address	Town/Village	National Historic Register	State Historic Register
<b>Point Chautauqua Historic District</b>	Roughly bounded by NY 430 and Chautauqua Lake between Lake and Leet Aves.	Chautauqua	5/17/1996	Yes
<b>Erie Railroad Station</b>	211-217 W 2nd Street	Jamestown	Pending	Pending
<b>Minturn Mansion</b>	Long Point State Park	Ellery	Eligible	Eligible
<b>Midway Amusement Park “Trolley &amp; Steamboat Park”</b>	Rte 430	Ellery	No	No
<b>Stow Ferry</b>	Rte 394 – Stow Ferry Rd	N. Harmony	No	No
<b>Bemus Point Casino</b>	Lakeside Drive	Bemus Point	No	No
<b>Hotel Lenhart Hotel</b>	Lakeside Drive	Bemus Point	No	No
<b>Sorg Mansion</b>	3W. Terrace Street	Lakewood	No	No
<b>Sheldon Hall</b>	Griffith’s Point	Ellery	No	No
<b>Steamboat Docking</b>	Italian fisherman site	Bemus Point	No	No
<b>Ice Houses</b>	Ashville Bay	North Harmony	No	No
<b>Tom’s Point – Indian Mounds</b>	Stow	North Harmony	No	No
<b>Bemus Park – Pottery Site</b>	Lakeside Drive	Bemus Point	No	No
<b>First State Fish Hatchery</b>	Greenhurst	Ellery	No	No
<b>Old Trolley Barns</b>	Rte 394	Mayville	No	No
<b>Old Trolley Station-Lighthouse Grocery</b>	Rte 394	Chautauqua	No	No
<b>Oddfellows Hall – Skillman and Wight</b>	Main Street	Bemus Point	No	No
<b>County Clerk Office – Grapevine</b>	Erie Street	Mayville	No	No

Resource Name	Address	Town/Village	National Historic Register	State Historic Register
<b>Restaurant</b>				
<b>Bush Home and Boathouse</b>	35 W. Lake Street	Lakewood	No	No
<b>Celoron Amusement Park Site</b>	Boulevard and Dunham Streets	Celoron	No	No
<b>Packard Cottages</b>	W. Terrace Avenue	Lakewood	No	No
<b>Watson Estate</b>	Stow	North Harmony	No	No
<b>Neits Crest – Ruth Jackson</b>	Route 394	North Harmony	No	No
<b>Busti Victorian Center</b>		Busti	No	No
<b>Grange Hall</b>	Mill Street	Busti	No	No
<b>Packard Estate</b>	Terrace Avenue	Lakewood	No	No

## H. Topography and Geology

The physical setting of the Chautauqua Lake communities is very attractive, with wonderful viewsheds and scenic locations. Chautauqua Lake is situated within a glaciated valley with steep slopes along much of its shoreline. Celoron, Lakewood, Ellicott and Busti are situated at the southeastern end of the Lake valley with lakeshores that either have gentle slopes or are flat. The Towns of Ellery, North Harmony, and Chautauqua all have steep slopes along a majority of their shoreline. Areas within these Townships associated with primary stream drainage channels have flat areas that have developed over time. Bemus Point (Bemus Creek), Maple Springs (Maple Springs Creek), Dewittville (Dewittville Creek), Hartfield (Big Inlet), Mayville (Little Inlet and Mud Creek), Lighthouse Point (Clear Creek), Prendergast Point (Prendergast Creek), and Stow (Ball Creek) are the lowland areas existing within these Townships.

Chautauqua Lake and its drainage basin are situated within a glaciated valley in the Allegheny Plateau. The lake itself and the unconsolidated sedimentary deposits of the area are products of the continental glaciations. The bedrock underlying the watershed for one-to-two thousand feet depth consists of shale and sandstones that were thought to be deposited ca. 350 million years ago in a marine environment. These marine mud was subsequently buried by more sediments, compacted and cemented into rock, uplifted and eroded into stream valleys prior to the onset of glaciations about 2 million years ago (Tesmer, 1963; Muller, 1963). There are a few limited bedrock outcrops within the Chautauqua Lake watershed, typically found in streambeds. Most of the bedrock lies below the veneer of glacial deposits (Tesmer, 1963). The glacial deposits in the center of the valley are several hundred feet thick, while those in the uplands are much thinner (10 to 100 ft thick) (Crain, 1966).



The Soil Survey of Chautauqua County (Puglia, 1994) provides information as to the types and areal extent of the soils developed on the glacial deposits in the study area. Many of the soils developed on recent stream gravels or on the older glacial stream gravels are highly permeable, allowing rainwater to soak in. Many of the hilltop soils, in contrast, are developed in glacial debris that is silt or clay and therefore impermeable. These impermeable soils yield more runoff from rainfall than other soil types.

Soils in the Chautauqua Lake watershed are formed by natural weathering of the glacial deposits rather than weathering of exposed bedrock. If soils formed directly on the top of bedrock, these soils would be more acidic because the bedrock contains no exposed limestone. Because the glaciers transported numerous fragments of limestone from the north, much of the glacial deposits and their topsoil's are less acidic. Thus the soils help to buffer the human-caused highly acid rainfall that takes place in Chautauqua County.

## I. Water Quality

Chautauqua Lake is a 17-mile long water body with a 42-mile perimeter located in south-central Chautauqua County. At 1,308 feet above sea level, it has a surface area of 13,156 acres or 20.5 square miles. It is classified as a Class A potable water supply by the New York State Department of Environmental Conservation (NYSDEC), as it serves as a source of water for drinking, bathing, food preparation, fish propagation, fishing and contact recreational uses. The NYSDEC states that Chautauqua Lake “offers exceptional fishing for walleye, bass, muskellunge and several species of pan fish.” The lake also is a popular spot for winter ice fishing. The lake is divided into two basins, the shallow South Basin, and the deeper North Basin. It is fed through 11 major tributaries and many small ones. Studies indicate that Total Phosphorous and Nitrogen loads of Chautauqua Lake are high. The resulting aquatic vegetation growth and algae bloom limit the recreational use of the lake at times, particularly in the shallow south basin. See [Chautauqua Lake Watershed Map](#).

The Chadakoin River is the lake's outlet at its southwest corner, and flows through the City of Jamestown, the Town of Ellicott and the Villages of Falconer and Celoron. The outlet has approximately 461 acres of wetlands. The Chadakoin is classified as a Class C waterbody, suitable for fisheries and non-contact activities. In 1996, the New York State Department of Environmental Conservation indicated that this river is “stressed for fish propagation by metals from an unknown source(s).”

The eleven major tributaries of Chautauqua Lake comprising 76.4% the lake's watershed are: Ball Creek, Bemus Creek, Big Inlet Creek, Dewittville Creek, Dutch Hollow Creek, Goose Creek, Clear Creek, Little Inlet Creek, Maple Springs Creek, Mud Creek, and Prendergast Creek.

All are Class C waters, suitable for fisheries and non-contact activities, but for two exceptions. First, portions of Goose Creek and Prendergast Creek also have the (T) designation, indicating support of a trout population. Second, portions of Goose Creek and Dutch Hollow Creek are Class B waterbodies, thus are best used for swimming and other contact recreation, but not for drinking.

Studies have shown that Little Inlet Creek has “especially high concentrations of both P (phosphorous) and N (nitrogen).” Ball, Big Inlet and Goose Creeks tend to be high in P, while Big Inlet, Dewittville and Mud Creeks have higher N concentrations.

Efforts to reduce phosphorus loading in the lake, through the introduction of non-phosphate detergents, the establishment of the South and Center and North Chautauqua Sewer Districts, and the closing of the malted milk factory on Little Inlet Creek, have greatly reduced point source introduction of phosphorus. However, the “Chautauqua Lake – Entering the 21st Century: State of the Lake Report” indicates that non-point sources such as urbanization (deicing and stormwater discharges), atmospheric deposition, home fertilizers, periphery development and agriculture have raised the phosphorus load of Chautauqua Lake from the levels recorded in the 1970’s.

Erosion, sedimentation, Phosphorus and Nitrogen concentrations and the resulting impacts on aquatic vegetation and algae blooms are the greatest water quality issues facing Chautauqua Lake today. Apart from these issues the water quality of both Chautauqua Lake, and its tributaries, is satisfactory and should not pose constraints on future waterfront development with appropriate measures to control and mitigate them.

## J. Protected Features

This section defines areas within the Chautauqua Lake Communities that have been protected from future development. This section consists of conservation easements, DEC wildlife management areas, State and public properties and Chautauqua Watershed Conservancy holdings.

### Conservation Easements

A conservation easement is a legal agreement in which a landowner donates the development rights of the property to a non-profit land trust or governmental entity, thereby protecting the land in perpetuity. Limited development is warranted as long as it does not negatively impact the resources being protected. The landowner maintains ownership of the property and each property is managed according to the owner’s vision. The Chautauqua Watershed Conservancy is exercising an option to purchase a 900-foot conservation easement along the Chautauqua Lake waterfront on the Lutheran Camp property in the Town of Ellery (Chautauqua USGS Quadrangle). This conservation easement will protect 16-acres of undeveloped shoreline.

### DEC Wildlife Management Areas

Wildlife Management Areas are state owned and managed properties designated for the preservation of wildlife species and habitat.

**Tom’s Point** is a 71.34-acre site with wetlands in the Town of North Harmony (Chautauqua USGS Quadrangle). It is on the Chautauqua shoreline close to the Stow Ferry Road and across the lake from Long Point State Park. It was purchased with funds from the 1986 Environmental Quality Bond Act. Tom’s Point was acquired by the State to preserve and manage wildlife, maintain waterway access, and preserve the natural shoreline.

**Stow Farm** - In December of 2002, the DEC purchased 18.6 acres (1,150 feet of lake shore) of the Stow Farm property on the southwestern edge of Chautauqua Lake in the Town of North Harmony (Chautauqua USGS Quadrangle). The Chautauqua Watershed Conservancy facilitated the purchase through the procurement of grant money to supplement State Environmental Protection Fund money. Although not yet officially designated by NYS, the purpose of acquisition was shoreline preservation and waterway access. This acquisition protects one of the most important fish and wildlife habitat sites remaining on Chautauqua Lake. It contains extensive wetlands and the waterfront contains the second longest band of water lilies on the lake. The Stow property is listed in the 2002 New York State Open Space Conservation Plan, which guides the State's preservation efforts.

**Prendergast Point** – NYS Fish Culture Station - The DEC maintains a fish hatchery, rearing ponds and a three-acre boat launch facility at Prendergast Point located on Prendergast Blvd. off Rt. 394 (Chautauqua USGS Quadrangle). The boat launch has been designated a Fisherman Access Site. This area is protected from further development by virtue of State ownership. Going south along the lake from the boundary of the boat launch site New York State protects the shoreline wetlands until it reaches the boundary of the Prendergast Creek Wetland Preserve. This shoreline area is designated by New York State as a State Fish Hatchery area.

**Cheney Farm** – A portion of the Cheney Farm was acquired by the NYS DEC for shoreline protection. The 10.3-acre site includes 1,200 feet of undeveloped shoreline on Chautauqua Lake, in the Town of Ellery. Money from the Clean Water and Clean Air Bond Act – 1996 was used to purchase the parcel. The parcel is one part of the original Cheney Farm. Another parcel from the original farm was acquired by DOT as the site of a permanent lake overlook, the balance of the farm remains in private ownership. This 10-acre site has not yet been designated by the state.

All of these properties owned by the State have been purchased under section 3-0305 of the Environmental Conservation Law.

### State Lands

**Long Point State Park** - New York State, through the OPRHP, owns and maintains Long Point State Park, a three hundred and sixty acre site. This site has many outdoor recreational opportunities including some of the best fishing on the lake off the point near the old Minturn Mansion. Preserving and protecting this land from other development allows large numbers of the public to have access to open areas and nature.

**Bemus Point DEC Launch** - The New York State DEC also owns and maintains land within the Village of Bemus Point. This is a boat launch and parking area. This preserves space for public use in what is a very densely used and populated area of the WRA.

### Public Lands

Other lands around Chautauqua Lake are areas protected by virtue of municipal ownership and their use as parks or protected areas. These are near or on the lake and they provide public access to the lake and/or a view of the lake and its surrounding area. Included in this are the Mayville Village Park, and its

adjacent rail bed hiking path; the Bly Hill Overlook in the Town of North Harmony, part of the Chautauqua County Park System; a small 60 x 147 foot lot (24-1-14) with lake frontage near Cheney's Point owned by the Town North Harmony; The Bemus Point – Stow Ferry landing area owned by the Town of North Harmony; The Busti Wetlands Preserve, Rte. 474 (this park is the only Town-owned area in the WRA dedicated to conserving wetlands and providing wetlands access), and The Busti Town Park at Vukote; Lowe Park, Richard Hartley Park, and Lakeside Community Park, all within the Village of Lakewood; The Burtis Bay Park in the Town of Ellicott on the south side of the lake; The Lucille Ball Memorial Park in Celoron and its adjacent boat launch; the Bird Sanctuary/Gifford Ave Wetlands in the City of Jamestown (not within the LWRA but adjacent); Bemus Park within the Village of Bemus Point; the Town of Ellery Town Park on Heinemann Road (not on the lake but only a short walk away).

### Chautauqua Watershed Conservancy Holdings

As part of its conservancy, the Chautauqua Watershed Conservancy (CWC) has four wetland areas vital to the health of Chautauqua Lake.

**Elm Flats Wetland Preserve** is 83-acres of red maple and shrub swamp located in the Town of Chautauqua (Hartfield USGS Quadrangle) at the headwaters of Big Inlet Creek that flows into Chautauqua Lake. This “extensive wetland is typical and is the largest wetland tributary of Chautauqua Lake”. (Source: Chautauqua Lake Watershed Conservancy)

**Prendergast Creek Wetland Preserve** in the Town of Chautauqua (Chautauqua USGS Quadrangle) is a wetland shoreline along Prendergast Creek and Chautauqua Lake, which consists of only 6 acres. However, it includes 500 feet of wetland frontage on the lake and 435 feet of stream shoreline. Going north from the preserve along the lake, New York State protects the shoreline wetlands until it reaches the DEC Prendergast Point boat launch and fish hatchery. The 6 acres of preserve is part of a 97-acre wetland with the most biologically productive shallow water habitat on Chautauqua Lake.

**Chautauqua Lake Outlet Wetland Preserve** in the Town of Ellicott (Lakewood USGS Quadrangle), is a floodplain wetland bordering the Chautauqua Lake Outlet encompassing an area of 50 acres, which includes 2,880 feet of the north shoreline. The site is predominantly red maple swamp and shrub swamp. A variety of ferns, along with wetland herbaceous species such as Cardinal Flower and shrubs such as Buttonbush, compose the plant community here. This site provides good habitat for migratory birds, particularly waterfowl. Species that may be observed here include Piedbilled Grebe, Horned Grebe, Tundra Swan, Canada Goose, Common Merganser, Hooded Merganser, Red-breasted Merganser, Common Goldeneye, Bufflehead, and many others. The CWC plans to develop a parking area and walking path along the old railroad bed with a branch path going to the riverfront.

**Ball Creek Park** - In addition to its wetland holdings, the Chautauqua Watershed Conservancy has 5.5 acres of creek shoreline on Ball Creek on the north side of the Chautauqua Lake Veterans Bridge in the Town of North Harmony (Chautauqua USGS Quadrangle). This was purchased with the intent of developing a municipal park.

**Houston Avenue Nature Preserve** – A 1.3 acre sloping forest site located in the Village of Celoron (Lakewood USGS Quadrangle). This site contains forested area with vernal pools and a small marsh area that serve as breeding habitats for a variety of salamanders, frogs and toads.

**Dobbins Woods Preserve** in the Town of North Harmony (Panama USGS Quadrangle) is a 100-acre hardwood and conifer forest. It occupies a ridge top overlooking Chautauqua Lake off Bly Hill Road. Within the preserve is a small wetland out of which flow the headwaters of two Chautauqua Lake tributaries, Bly Creek and Cheney’s Creek.



### Rails to Trails Holdings

The Chautauqua Rails to Trails preserves abandoned rail corridors by converting them into off- road trails for recreational use. It utilizes abandoned rail bed, owned by the Village of Mayville, as a hiking and bicycle path along the north shoreline of Chautauqua Lake in the Village of Mayville (Hartfield & Chautauqua USGS Quadrangles). The path is a 100-foot wide strip running from Mud Creek to Rte 430 (approximately 1 mile). The Village property was purchased from the Pennel Co. to preserve it for public use and complement the existing Mayville Park. The Chautauqua Rails to Trails also has an easement on more of the rail bed (owned by Webb’s Resort) running from Mud Creek to Morris Road (6.3 acres and 1/2 mile long) and owns the rail bed beyond Webb’s property. The LWRP portion of this easement is in the Village of Mayville (Chautauqua USGS Quadrangle).

### Chautauqua County State Agricultural Districts

There is a limited amount of land within the Chautauqua Lake Local Waterfront Revitalization Area (WRA) that is designated as a portion of a State Agricultural District. The Town of Ellicott contains two parcels totaling 28.2 acres (S-B-L # 18-1-7.1 and 18-1-10.1) that are part of Chautauqua County State



Agricultural Districts # 11. In addition, agricultural districts are located within the LWRP Towns outside the Waterfront Revitalization Area (WRA).

Some agricultural district lands are located adjacent to the WRA lands. Those adjacent lands are portions of agricultural district #8 in Sections 2, 4, 25, and 29 of the Town of Chautauqua, portions of agricultural district #6 in Sections 2, 5 and 6 of the Town of North Harmony, portions of agricultural district # 11 in Sections 14, 17 and 18 of the Town of Ellicott and portions in sections 9, 14 and 18 of the Town of Ellery. All the agricultural districts' lands within the LWRP Towns play an important role in maintaining open space, a viewscape and protecting wildlife habitat near Chautauqua Lake.

## **K. Natural Resources**

This section builds on the previous section by further identifying land and water resources within the WRA where future development should be avoided. Reference should be made to Appendix E for a graphic display of landform.



## **Floodplains**

Most floodplains are low areas adjacent to rivers, creeks, lakes and oceans that are prone to periodic flooding. The interaction of water and land and the action of water on the land produce soils, vegetation and drainage systems of floodplains that are unique and recognizable. In order to protect and avoid development within these floodways, the Federal Emergency Management Agency (FEMA) has designated 100 and 500-year flood zones. Areas in the 100-year flood hazard area have a 1% chance of flooding in any given year; within the 500-year flood plain, that occurrence interval is 0.2%. Areas prone to flooding are shown on Flood Insurance Rate Maps (FIRM maps) by community.

Flood maps and designations are documents officially adopted by communities and used for land use planning purposes, in addition to flood insurance purposes. However, flood maps do not show all areas

subject to flooding. The National Flood Insurance Program (NFIP) regulations allow FEMA to review and amend maps and Flood Insurance Studies (FIS) reports as warranted or when requests from community officials or involved property owners are received. Development within flood zones is not recommended and is prohibited entirely by some municipalities due to flood hazards.

The following is a list of FEMA designations and the 100 and 500-year floodplains as identified by FEMA on FIRM maps by community:

**Federal Emergency Management Agency – Definition of Types of Flood Zones**

<b>Zone A</b>	<b>Areas of 100-year flood; base flood elevations and flood hazard factors are not determined.</b>
<b>Zone AE</b>	100-year base flood elevation determined.
<b>Zone A1-A30</b>	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
<b>Zone B</b>	Area between limits of 100-year flood and 500-year flood; areas of 100 year shallow flooding where depths are less than 1 foot. (On map – medium shading)
<b>Zone C</b>	Areas outside the 500-year flood. (No shading)
<b>Zone X</b>	500-year flood; areas of 100-year flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from 100-year flood.

**Village of Celoron**

FIRM Panel# 310135 0001B - March 1980

Within the WRA Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of shoreline from the western corporate limits at the Busti Town line to the eastern corporate limits at the City of Jamestown. Outside the WRA School Creek is located in the southeastern part of the Village. The entire length of the creek within the Village limits is designated Zone A1 with Zone B surrounding certain areas of Zone A1. The remaining land in the Village is designated Zone C.

**Town of Ellicott**

Firm Panel # 361073 0017 A - August 1984

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the Conrail tracks to Livingston Street, the corporate limits of the Village of Celoron on the south side of the lake. Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from where the corporate limits of the Town of Ellery and the Town of Ellicott meet and along the shoreline to the beginning of the City of Jamestown Corporate limits.

**Village of Lakewood**

FIRM Panel # 360142 0001B - November 1977

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of shoreline from the Village's corporate boundary in the west to corporate boundary in the east. Inland and adjacent to this there are large areas of Zone B that follow the same shoreline and go inland in some places as far as the Village's southern corporate limits. Within the WRA, Zone A2 designation also encompasses the various tributaries going into Chautauqua Lake. The remaining Village property is designated as Zone C.

**Town of Busti**

FIRM Panel # 361106 0004 C - January 1993

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of all the shoreline from the Town corporate limits on the west to corporate limits on the east. A large section of the Town, from Loomis Bay south across Rte 430, down to and including Rte 474, is designated Zone X. Goose Creek tributary that flows into Chautauqua Lake is surrounded by land designated as Zone AE as is Cottage Park Creek. An unnamed tributary between Sugar Grove and Second Ave. is surrounded by Zone A. The remaining land within Panel # 4 is designated Zone C.

**Town of North Harmony**

FIRM Panels # 361076 0016 B - February 1980

Panel # 16 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the Town's corporate limits in the north to Tom's Point. At Tom's Point, Zone A2 widens to encompass all of the Point. The remaining land in Panel # 16 is designated as Zone C.

**Town of North Harmony**

FIRM Panels # 361076 0018 B, 0031 B, 033 B - February 1980

Panel # 18 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from just south of Tom's Point to just south of Quigley Park. From the mouth of Ball Creek east along the creek to Rte 394 is designated as Zone A2 and is surrounded by Zone B. At old Rte 394, Ball Creek's designation changes to Zone A, up to and beyond new Rte 394. The remaining land in Panel # 18 is designated as Zone C.

Panel # 31 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from just north of Cheney Point going south to Ashville Bay.

Cheney's Creek is designated as Zone A within the WRA. The remaining land in Panel # 31 is designated as Zone C.

Panel # 33 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of all the shoreline from Ashville Bay to just east of the mouth of Goose Creek. The area around Goose Creek up to Rte 394 is Zone A2 and beyond Rte 394 Goose Creek is designated as Zone A3. Tributaries to Goose Creek are designated Zone A and Zone A1. An area just to the southeast of Goose Creek near route 74 and Magnolia and Mulberry Avenues is designated Zone B. The remaining land in Panel # 33 is designated Zone C.

**Town of Chautauqua**

FIRM Panels # 361071 0005 A, 0013 A, 0025 A - June 1984

Panel # 5 A

Big Inlet Creek is designated as Zone A. The majority of the land in panel #5 is Zone C.

Panel # 13 A

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses the shoreline at the mouth of Big Inlet Creek. At Whallon Street on the Big Inlet, the designation changes to Zone A4 and continues to Route 430. Between the mouth of Big Inlet and Route 430 there are pockets of Zone B adjacent to the A4 Zone. Most of the remaining land in panel 13 is Zone C.

Panel # 25 A

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of all the shoreline within Panel#25. Zone A encompasses the land around several of the tributaries going into the Lake continuing up to and including Routes 394 and 430 respectively. The majority of the remaining land in Panel#25 is designated Zone C.

**Town of Chautauqua**

FIRM Panels # 361071 0035 A - June 1984

Panel # 35 A

Within the WRA Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of all the shoreline starting in the north near Canterbury Road and ending at the Town's southeastern corporate boundary. Prendergast Creek is Zone A2 from the Lake to Route 394 and

past Route 394 it is designated as Zone A. The majority of the remaining land in Panel #35 is designated as Zone C.

**Village of Mayville**

FIRM Panel # 361059 0001C - January 1978

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a strip of all the shoreline from the north boundary of the Village to the southeastern boundary of the Village. Inland and adjacent to this are areas of Zone B that follow the same shoreline. The Mud Creek Tributary near the south edge of the Village is designated as Zone A2 from its mouth up to and beyond Route 394 (West Lake Road). Little Inlet Creek is Zone A2 from its mouth up to and beyond East Whallon Street. The remainder of the Village is Zone C except along Black Creek, an area of Zone A near Water, Pratt and Valley Streets, and a Zone B area to the west of Whallon Street.

**Town of Ellery**

FIRM Panels # 361072 0006 B, 0008 B, 0016 B - March 1980

Panel #6 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the north boundary of the Town at the Crosswinds Development southeast to Midway Park. Inland and adjacent and to this within the WRA are areas of Zone B that run parallel to the same shoreline. The remainder of the land in Panel 6 is designated Zone C.

Panel # 8 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the north boundary of the Town near Midway Park southeast to Long Point. Maple Springs Creek is designated as Zone A2 up to and just beyond Rte 430. This is also within the WRA. The remaining portion of the Town in Panel 8 is designated Zone C.

**Town of Ellery**

FIRM Panels # 361072 0016B, 0018 B, 0026 B, 0028 B - March 1980

Panel # 16 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the north near Long Point and then continuing south along Bemus Bay to the Village of Bemus Point corporate limits. Zone A encompasses a tributary up to Route 430. Zone A3 and Zone A surround Bemus Creek up to and beyond Route 430. From the south line of the Village of Bemus Point south to the boundary of Panel 16, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline. Inland and



adjacent to this are areas of Zone B that run parallel to the same shoreline. The aforementioned is also in the WRA. The remaining land in Panel # 16 is in Zone C.

Panel # 18 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline near Williams and Nesmith Streets south to the shoreline area near Colburn Ave. At the mouth of Bemus Creek, Zone A2 changes into Zone A1 and then into A3. Inland and adjacent to this there are areas of Zone B that run parallel to the same shoreline. The remaining land in Panel #18 is in Zone C.

Panel # 26 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from an area near Colburn Avenue to the shoreline area near an access road off Route 430. Also within the WRA, a Zone A is located near two tributaries, Belleville Creek and Driftwood, ending at Route 430. Zone C encompasses the rest of the land in panel 18.

Panel # 28 B

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from an area near Griffith Bay south to the Sunnyside area. At Sunnyside, Zone A2 widens and encompasses almost all the land up to Rte 430. Inland and adjacent to these are areas of Zone B that run parallel to the same shoreline. Within the WRA, starting at the mouth of Dutch Hollow Creek and going to Route 430 there is an area of Zone A2 on both sides of the creek. Zone A also encompasses the creek up to I-86 and beyond.

**Village of Bemus Point**

FIRM Panel # 360133-0001B - Nov. 1977

Within the WRA, Zone A2 goes from the corporate limits in Chautauqua Lake to the lakeshore and encompasses a thin strip of all the shoreline from the north boundary of the Village to the south boundary of the Village. Inland and adjacent to this are areas of Zone B that follow the same shoreline and run parallel to Lakeside Drive but do not encompass it. There is an area designated as Zone A surrounding Bemus Creek where it flows through the Village. The remaining land in the Village is labeled as Zone C.

**Wetlands**

Wetlands are among the most productive ecosystems in the world. They are characterized by hydric soils, diverse hydrophytic vegetation, and numerous species of fauna. These water-laden lowlands yield high plant biomass that in turn provides food, habitat, and protection for many species of vertebrates

and invertebrates. In addition, wetlands are valued for their ability to improve water quality by filtering nutrients, sediments and minerals. In compliance with New York State's Freshwater Wetlands Act, the New York State Department of Environmental Conservation (NYS DEC) identifies and regulates wetlands greater than 12.4 acres or which have unusual local importance, as determined by the NYSDEC Commissioner. "Around every wetland is an adjacent area of 100 feet that is also protected and provides a buffer for the wetland.



The wetlands are identified on the basis of vegetation because certain types of plants out-compete others when they are in wet soils, so are good indicators of wet conditions over time. The characteristic plants include wetland trees and shrubs such as willows and alders; emergent plants such as cattails and sedges; aquatic plants such as water lilies; and bog mat such as sphagnum moss." (Source: DEC Website) Once identified, these wetlands are classified into one of four categories by the NYS DEC (NYS Freshwater Wetlands Act of 1975-6NYCRR Part 664) according to their diversity, inventory, and regulatory need. A Class 1 wetland is the highest rating and affords the greatest wetland benefits. "The U.S. Corps of Engineers also protects wetlands under Section 404 of the Clean Water Act, irrespective of size. There are no regulatory maps identifying wetlands protected by the U.S. Corps of Engineers under the Clean Water Act. The National Wetlands Inventory, prepared by the U.S Fish and Wildlife Service, is a good source of information about where the smaller wetlands occur, but are not regulatory maps and landowners should not rely on them exclusively." (Source: DEC Website)

The wetlands, within the designated Waterfront Revitalization Area that affect Chautauqua Lake, are located in many areas around the lake. See [Chautauqua County Hydrology Map](#). The Town of Chautauqua (Hartfield Quadrangle) within the WRA has several wetlands that influence Chautauqua Lake. The wetlands described as HF-4 (designated Class 2) consisting of 208.4 acres at the north end of the lake along with 71.4 acres of a second wetland HF-2 (designated Class 2) both surround the Big Inlet tributary. These wetlands comprise the largest wetland area within the WRA and are secondary to the larger complex of wetlands outside of the WRA known as the Hartfield Swamp. Going southeast along

the lake there is a wetland CH-5 (designated Class 1) just beyond the Village of Mayville's eastern boundary and behind Camp Merz with an area of 64.9 acres. Further south in the Town of Chautauqua at Prendergast Creek is wetland CH-2 (designated Class 2) with an area of 66.4 acres. The Shoreline of this area has been designated by the NYS DEC as a State Fish Hatchery area.

The Town of North Harmony (Chautauqua Quadrangle) contains a wetland at Tom's Point, CH-1 (designated Class 1) is 28.2 acres in area. The wetland is designated as a Wildlife Management area by NYS DEC. Adjacent to Ashville Bay (Lakewood Quadrangle) is another wetland, LW1 (designated a Class 1) with 28.8 acres of land.

In the Town of Busti (Lakewood Quadrangle) an 80.4-acre wetland, LW-2 (designated Class 2) is located on the south side of Rte. 394 at Vukote. Also at Rte 474 near Cottage Park there is an 89.4-acre wetland, LW-8 (designated Class 2). Both of these are part of tributaries flowing into Chautauqua Lake. The Busti Wetland Preserve is 44-acres of the second wetland. In the Village of Lakewood there is a 20.5-acre wetland, LW-3 (designated Class 3) situated between the Railroad line and Summit Avenue near Shadyside Ave. The Town of Ellicott (Lakewood Quadrangle) contains a 162-acre wetland, LW-1 1 (designated Class 1) at the lake outlet into the Chadakoin River. The Chautauqua Watershed Conservancy owns a 23-acre section of that wetland which is maintained as a nature preserve.

Going northwest along the lake into the Town of Ellery just west of the Town Line Road, there is a 54.4-acre wetland, LW-6 (designated Class 2). It lies between Greenhurst and Elmhurst near Sunnyside.

### Steep Slopes

Steep slopes pose a unique set of problems. They are areas that can be prone to erosion and instability. They can produce runoff levels that carry large sediment and nutrient loads into downstream waterways. Yet since they provide scenic views and even panoramic views, developers would like to use them. There is a need to manage or limit the intensity of use so that development can be harmoniously, appropriately and safely located on steep slopes. This is to protect surface waters from sedimentation, turbidity, runoff of storm water, and effluent from sewage disposal systems; while maintaining ecological balance. Management of steep slopes should also be used in some cases to keep the natural setting in place by prohibiting all development.

Many communities across the state have ordinances in place that manage the steep slope problem and/or have zoning overlay districts that come into play when development takes place in an area designated a steep slope area. None of the communities in the LWRP have any steep slope ordinances or provisions within zoning districts adjacent to the lake in place at this time. Each Chautauqua Lake community should consider evaluating the need for a steep slope ordinance that at a minimum requires site plan review and a sediment and erosion control plan for projects on sites with a 15% or greater slope.

The Towns of North Harmony, Chautauqua and Ellery and the Village of Mayville all contain steep slopes within the WRA. Specifically, slopes in the 15-25% range exist in between Warner and Sunset Bays in North Harmony and in Long Point State Park. In addition slopes in the 8- 15% range on the southern side

of the Lake exist between Wahmeda and the eastern side of the Chautauqua Institution, from just west of Magnolia to the eastern side of Victoria and in Quigley Park and in the area along Bly Bay. On the northern side of the Lake slopes in the 8-15% range exist between the eastern portion of Shorelands in the Town of Chautauqua and Maple Springs in the Town of Ellery, at Sunset Bay, along Lakeside Drive in Bemus Point and from Crestview to Driftwood. The large areas listed are interspersed with smaller areas that have slopes in the 0-3% and 3-8% and are more appropriate in some cases for development.

## **L. Environmentally Sensitive Features**

There are some landscape features that pose a threat to future development in the Chautauqua Lake LWRP. Solid waste landfill, wastewater discharge, sewage treatment facilities, hazardous waste, and dredge spoil spots are all potential threats to the health of the environment.

### **Hazardous Waste Sites**

Active hazardous waste sites include those sites that are currently accepting hazardous waste for disposal. These sites are regulated by the Environmental Protection Agency (EPA) and require disposal permits. There are no active sites within the Chautauqua Lake LWRP.

Inactive hazardous waste sites once accepted hazardous materials for disposal but are no longer in operation. New York State Department of Environmental Conservation (NYS DEC) has classified these locations based on the severity of the contamination and the risk of harm to the surrounding resources. Classifications range from one to four, a Class one designation indicating the highest degree of concern. Currently, the Chautauqua Lake Communities have one inactive hazardous waste site not within the WRA. It is the Dinsbier Road Landfill in the Town of Chautauqua, now designated Class 3 by the DEC. This particular site should be noted because the general movement of ground water from the site extends into Dinsbier Creek, which is a tributary of Chautauqua Lake.

### **Wastewater Discharge Facilities**

The New York State DEC issues State Pollution Discharge Elimination System (SPDES) permits to facilities that discharge to surface waters or discharge more than 1000 gallons per day to subsurface soils. The primary facilities for wastewater discharge within the WRA are the South and Center Chautauqua Lake Sewer District, the North Chautauqua Lake Sewer District and Chautauqua Utility District. Chautauqua Estates, Bayberry Landing and the Chedwell Club condominium complexes are all located outside of established sewer districts in the north basin. Chautauqua Estates and Bayberry Landing have installed a secondary package plant to address wastewater generated by the development.

The Chedwell Club condominiums are served by a septic system with a sand filter. Other facilities, such as private residences, commercial establishments and institutions also exist in the region. Too much wastewater discharge into a water body can cause high nutrient flux, leading to algal blooms and fish kills. The chart on the following page identifies all properties within the Chautauqua Lake Waterfront Revitalization Area (WRA) that currently discharge to surface waters and require SPEDES permits.

### **SPDES Permits within the Chautauqua Lake WRA**

Dist.	Name	DED ID	SWIS	Location	Municipality
21308	Bayberry Landing	9062800005	628	5301 E. Lake Road	Dewittville
21317	Chautauqua Utility Dist Stp	9062800015	628	South Lake Dr	Chautauqua
21327	North Chautauqua Lake Sd Wwtp	9062800027	628	Clark St	Mayville
53896	Mallard Cove Subdivision	9062800073	628	East Side Nys Rt 394	Chautauqua
53896	Brookwood Subdivision		628	East Side Nys Rt 394	Chautauqua
8503	Chautauqua Fish Hatchery	9062800098	628	5875 Prendergast Rd	Mayville
214009	Chautauqua Heights Sewer Dist.	9062800122	628	Rte 17	Chautautqua
66857	Crosswinds Subdivision		628	Route 430	Ellery
46034	Lake Chautauqua Lutheran Camp	9063600049	636	Rt 17 - 1 Miles Morth Of Midway Park Opposite Davies Motel	Maple Springs
66857	Chedwel Club	9063600060	636	Route 430	Ellery
21441	South & Center Chautauqua Lake WWTP	9063800053	638	Gifford Ave	Celoron

Source: Chautauqua County Department of Health, Division of Environmental Health

### Solid Waste Landfills

The Chautauqua Lake LWRP Communities have one active solid waste facility within their boundaries. It is the Chautauqua County Landfill located in the Town of Ellery. The landfill is outside the Waterfront Revitalization Area and outside the watershed that encompasses Chautauqua Lake.

### Dredge Spoil Areas

There has been numerous times over the last 200 years that tributaries and Chautauqua Lake itself have been dredged to help navigation. Historically dredging has helped improve navigation not only for commerce but also for fisherman and recreation on Chautauqua Lake. One notable dredging job was the removal of sediment and debris from the outlet at McCrea Point upstream to Fluvanna in the years from 1888 to 1891. New York State paid to have a channel dredged 60 feet wide and 10 feet deep to improve steamboat navigation. It is interesting to note that the spoils were put on barges, transported to Burtis Bay, and dumped there. As is currently noted in 2003, Burtis Bay is shallow, and at times can be weed choked, and difficult to navigate. In 1899 federal law, the Rivers and Harbors Act gave the Secretary of War, acting through the Army Corps of Engineers, the power to regulate any excavation or construction in any navigable waters under United States authority. Section 404 of the federal Clean Water Act reinforced this federal power with the Secretary of the Army acting through the Chief of the Army Corp



of Engineers being given the power to issue permits for any category of activities involving discharges of dredged or fill materials.

Many other dredging projects have taken place over the years around Chautauqua Lake. As an example, in 1998 the Town of Busti obtained permits from the New York DEC (#9-0622- 00091/00001) and the Army Corp of Engineers ((#98-975-0040 (0)) to dredge the Vukote Canal system. This was completed in 1999. It provided recreational watercraft access to Chautauqua Lake from the cottages in the area and provided for the placement of the spoils in a permitted area. The proposed plan for dredging the two man-made canals (tributaries to the lake) called for a dredge depth of 6 feet, and a width of 12 feet, and a length of just over 3,300 feet. The dredge spoils were placed as fill in the adjacent Busti Town Park. An amended plan changed the dredge depth to 8 feet at summer lake levels. At an 8-foot depth, the spoils measured 11,000 cubic yards of sediment.

### **Bass Island Oil & Gas Reserves under Chautauqua Lake**

The reserves under the lake, if accessed without appropriate safeguards, could prove to be detrimental to the environmental health of Chautauqua Lake. New York State owns the mineral rights under Chautauqua Lake. It is the policy of New York State at this time not to lease the drilling rights for oil or gas within any bodies of water under its jurisdiction. The state also restricts the drilling of gas or oil wells within 650 feet of a shoreline.

## **M. Fish and Wildlife**

### **Fish**

Chautauqua Lake offers exceptional fishing opportunities:

- Muskellunge
- Walleye
- Bullheads
- Crappie
- Yellow Perch
- White Perch
- Pumpkinseed
- Bluegill
- Bass – Largemouth, Smallmouth

Chautauqua Lake supports a sports fishery that ranks fourth in New York State in angler use with estimated annual expenditures exceeding 11 million dollars (Connelly et. al. 1998).

Muskellunge historically have been an established part of the Chautauqua Lake fishery with many game class 40–50 inch muskellunge caught each year. Minimum keeping size for muskellunge in the lake is 40 inches. New York State Department of Environmental Conservation annually stocks the lake with muskellunge fingerlings. Natural reproduction contributes only 25% or less of adults captured in test nets.

Chautauqua Lake ranks among the top bass lakes in New York State. There is a Chautauqua Lake Bass Tournament held every year. In addition, numerous bass clubs sponsor club sanctioned bass tournaments each year on the lake. The lake offers shallow weedy areas for largemouth bass and deep drop-offs, gravel bars and weed lines for smallmouth bass.

Walleyes, inhabiting the lake's gravel shoals, are another sport fish found in Chautauqua Lake. The best walleye fishing occurs during the nighttime hours or early morning in the month of May. The walleye fishing season runs from the first Saturday in May through March 15th. Good areas for walleye are Mission Meadows, Prendergast Point, Long Point, Cheney's Farm, Bemus Bay, Tom's Point, and Warner Bay. Trophy size walleyes (exceeding eight pounds) can be caught on occasion but most run 15–18 inches.

Trout are also found in the tributaries going into Chautauqua Lake. Goose Creek is the most sought after trout fishing stream tributary to the lake. Goose Creek is stocked annually with 3,800 brown trout yearlings and 700 two year old brown trout, over a 9.5 mile section.

Ice fishing or "hard" water angling is a winter opportunity for fisherman. Walleye and panfish are the primary catches. Access during the winter months is available off Mayville Park, Prendergast Point, Bemus Point, Lakewood Community Park and Long Point State Park. The Chautauqua County Sports Fishery Advisory Board would like to see additional sites developed for ice fishing access. Currently many additional informal access points are used to pursue ice fishing.

Consumption limits because of contaminants associated with fish coming out of the Great Lakes is not a problem in Chautauqua Lake or its tributaries. The New York State Department of Health provides all fish consumption advisories for the State. Although there are no specific fish consumption advisories for Chautauqua Lake, it is advisable to follow the statewide advisory of "eat no more than one meal per week of fish from any freshwater in the State."

### **Wildlife**

As a rural area, Chautauqua County has an abundance of wildlife. Even close to Chautauqua Lake where there is a great amount of human habitation, wildlife manages to find its niche. No statewide mammal surveys have been done; consequently, there is no definitive list of mammals that inhabit the Chautauqua Lake area. There are of course the usual raccoons, ground hogs, turkey, squirrels and whitetail deer. They seem to live close and thrive near inhabited areas including the Chautauqua Lake area. The brown bat is common around the lake as is the hoary bat. Human livability in the summer months around the lake is due in some part to the bats' voracious appetites for mosquitoes. Mink are common on Prendergast Creek. Muskrats and River Otters (reintroduced into Chautauqua County in the late 1990s) live in the tributaries and wetlands in the county. Roaming throughout the county and sometimes interacting with humans are black bear and coyotes (some experts think that the canid who roams New York State's forests are a cross between wolf and coyote). Black Bears have been sighted in the Towns of Busti, North Harmony, Chautauqua and Ellery.

## **Birds**

Birds, especially waterfowl, use Chautauqua Lake (latitude 79 degrees 23 minutes west, longitude 42 degrees 9 minutes north) as a stopover in their migration travels. According to the Audubon Society, at least 270 species of birds have been documented in the Chautauqua Lake area. The Audubon Society goes on to note that the primary habitats are lacustrine and riverine, surrounded by deciduous trees, shrub/scrub, grassland and cultivated field. The land use is primarily recreation and tourism and secondarily urban, industrial, utility and wildlife conservation. The potential threats to the bird population around Chautauqua Lake are pollution, recreation, development and overuse.

## **N. Tourism Resources**

Chautauqua Lake and the Chautauqua Institution are major attractions to the surrounding tri-state area and Canada. In addition, Chautauqua County contains many “world class” and local historical, cultural and recreational attractions. Chautauqua County is recognized as an area where people can experience a mix of outdoor recreation, entertainment, the arts and cultural endeavors. Chautauqua County is within three and a half hours drive of four major US cities and Toronto, Canada. Seven major highways; US Rte’s I-86 and I-90, and State Rte’s 60, 20, 5, 430, and 394 serve the County and link its tourism resources.

The existing pattern of attractions surrounding Chautauqua Lake provides a strong basis for locating tourism-related development in the Chautauqua Lake region. Sleeping accommodations, interpretive / historical facilities or products, at locations such as the Minturn Mansion, and/or other points of destination and events are needed to attract more tourists to the region. Such endeavors should focus not only on the prime summer season but also on promoting uses of the lake region during the winter season.

The Chautauqua Lake Communities contain many of the amenities needed to support tourist trade. The communities offer several general dining opportunities such as restaurants, diners, café’s and bars. In addition, the communities offer lodging in the form of cottages, condominiums, vacation homes, camps and some hotels. These services support attractions both within and surrounding the Chautauqua Lake Communities.



Housed at the main gate of the Chautauqua Institution, the Chautauqua County Visitors' Bureau (CCVB) coordinates marketing and tourism development for the County.



The CCVB interacts with tourism and development agencies in Allegheny and Cattaraugus counties to market the region through travel guides, calendars and advertising campaigns. CCVB's web site [www.tourchautauqua.com](http://www.tourchautauqua.com) provides visitors all the necessary information needed to locate and access local points of interest and events.

The Chautauqua Lake LWRP Communities have always been a large portion of the tourism industry in Chautauqua County. Though there are a number of attractions in the LWRP area for visitors and resident alike, there are still opportunities for more tourism products to be developed.

As tourism evolves nationally, as a prosperous industry, the Chautauqua Lake communities will be well positioned to take advantage of this opportunity. Working within the framework of the LWRP the communities hope to enhance and expand existing attractions and develop new areas of interest in anticipation of these opportunities.

**Chautauqua Lake Tourism Resources**

Type	Resource	Location
<b>Cultural</b>	CulturalChautauqua Institution	Chautauqua
	– Athenaeum Hotel	
	– Amphitheater	
	Bemus Point Library	Bemus Point
	Mayville Library	Mayville
	Smith Memorial Library	Chautauqua Institution
<b>Historical</b>	The Point Chautauqua area - a Frederick Law Olmstead Community	Point Chautauqua
	Lenhart Hotel	Bemus Point
	Mayville Train Depot / Historical Society	Mayville
	Chautauqua Institution Walking tours	Chautauqua Institution
	Devon Taylor Walking Tours	Mayville
	Busti Mill & Historical Society	Busti Hamlet
<b>Recreational</b>	Chautauqua Lake	Chautauqua Lake Region
	Bass and Muskie Fishing	Chautauqua Lake
	Jamestown Savings Bank Ice Arena	Jamestown
	Chautauqua Belle Paddle Wheel Boat	Mayville
	The Stow-Bemus Ferry	Bemus - Stow
	Summer Wind Tour Boat	Celoron
	Chautauqua Golf Club	Chautauqua Institution
	Chautauqua Point Golf Course	Rte 430 Point Chautauqua
	Willow Run Golf Course Rte	394 Magnolia
	Bemus Point Golf Course	Bemus Point
	Webb’s Miniature Golf	Mayville
	Long Point State Park	Ellery
	Midway Amusement Park	Maple Springs
Hartley Park	Lakewood	
Lakeside Community Park	Lakewood	



Chautauqua Lake Local Waterfront Revitalization Program

Type	Resource	Location
	Lucille Ball Memorial Park	Celoron
	Mayville Village Park	Mayville
	Chautauqua Marina	Mayville
	Creative Marina	Chautauqua
	Holiday Harbor Marina	Celoron
	Smith Boy's Marina	Busti
	Ashville Bay Marina	North Harmony
	Snug Harbor Marina	Chautauqua
	Long Point Marina	Ellery
	Shore Acres Marina	Ellery
	Busti Wetland Preserve	Busti
	Dobbin's Woods Preserve	North Harmony / Stow
	Tom's Point	Stow
	Kayak and Canoe Outfitters	Ashville
	Bemus Point Casino	Bemus Point
	DART Airport and Aviation Museum	Chautauqua
	Prendergast Point Fish Hatchery Tour	Chautauqua

In addition, the County contains numerous other points of interest to tourist and visitors such as:

Type	Resource	Location
<b>Cultural</b>	Reg Lenna Civic Center	Jamestown
	The Roger Tory Peterson Institute	Jamestown
	The Lucy – Desi Museum	Jamestown
	The Robert H. Jackson Center for Justice	Jamestown
	The Lily Dale Spiritualist Community	Cassadaga
	Lucile M. Wright Air Museum	Jamestown Airport
	SUNY Fredonia - Rockefeller Arts Center	Fredonia
	Amish Communities	Clymer/Sherman/Westfield
	Adams Art Gallery	Dunkirk
<b>Historical</b>	Dr. Barker History Museum	Fredonia
	Dunkirk Historical Museum	Dunkirk
	Fenton History Center	Jamestown
	Harmony Historic Society House	Harmony
	McClurg Mansion	Westfield
	1891 Opera House	Fredonia

Type	Resource	Location
	Barcelona Light House	Westfield
	Dunkirk Light House	Dunkirk
<b>Recreational</b>	Chautauqua County Fair	Dunkirk
	Peak and Peek NIKE Golf Tournament	Mina
	Westfield Arts and Craft Festival	Westfield
	Gerry Rodeo	Gerry
	Chautauqua Wine Trail	Lake Erie Communities
	15 Additional Golf Courses	Chautauqua County
	Cockaigne Ski Resort	Ellington
	Peak n Peek Ski Resort	Mina
	Findley Lake	Findley Lake
	Cassadaga Lake	Cassadaga
	Bear Lake	Stockton
	Lake Erie	Northern Chautauqua County
	Panama Rocks Scenic Park	Panama
	Rails to Trails Walking & Biking Paths	Chau., Mayville, Portland
	County Overland Trails	Chautauqua,
	Burgeson Wildlife Sanctuary (Audubon)	Kiantone
	Bird flyway areas in the county	Lake Erie, Chautauqua Lake
	Veterans park	Dunkirk
	I-86 Overlook	Ellery
	Luensan Overlook Park	Portland
	Erlandson Overlook Park	Carroll
	Lark Erie State Park	Portland

## O. Scenic Views

In 1987, the President’s Commission on Americans identified scenic beauty as the most important criterion Americans use in choosing parks and recreation areas.

Many communities are choosing to protect the special view sheds and visual characteristics that give an area a distinctive sense of place. Some of the tools that can be used to protect these areas include: height and use restrictions, signage standards and landscaping regulations.

Chautauqua Lake LWRP communities have a number of scenic viewsheds along roadways, waterways and surrounding hillsides. By taking the step of identifying these specific viewsheds, the LWRP

Communities will be able to help protect panoramic views in and near the Waterfront Revitalization Area. Special areas of scenic value are highlighted below. See [Chautauqua Lake Viewing Points Map](#).

## Existing Scenic Views

### Village of Celoron

- Lucille Ball Memorial Park (41)
- Old Celoron Amusement Park Site (42)
- West ends of Duquesne, Chadakoin & Livingston Sts – Panoramic (43)

### Town of Ellicott

- Burtis Bay Park (39)
- Longview Avenue – West Ellicott (40) Village Park to West Livingston (43)

### Village of Lakewood

- Hartley Park (34)
- Chautauqua Lake Yacht Club (35)
- Lake onto Historic Packard Estate & Hartley Park Historic Packard Estate (33)
- Winchester Dock – Sunsets (31)
- RR Tracks at Chautauqua Ave (straight line view east) (36)
- Lake Street from Waldemere to Packard Way (32)
- Chautauqua Ave (37)
- Rod & Gun Club Property (38)
- Waldemere & Sunset Parks (30)

### Town of Busti

- Rte 394 onto Goose Creek (27)
- Grandview (29)
- North of Hunt Road between Ridge Rd and Big Tree Rd Along Rte 394 (Low rise buildings accommodate view of lake) (28)
- Southwestern Blvd south of Hunt Rd (44)

### Town of North Harmony

- Tom's Point to Long Point (22)
- Stow Ferry – Up & Down Lake (23)
- Ramsey Road (Best view at Rte 394 & Ramsey Rd) (24)
- Cheney's Point (25)
- Bly Hill Road Overlook (26)

### Village of Mayville

- Rte 394 – down hill to lake and down the lake (2)
- RR right of way along Mayville shoreline and down lake (3)
- Lakeside Park down the lake (4)

### **Town of Chautauqua**

- Burdick Road (1)
- Point Chautauqua Golf Course (5)
- Hills at back end of Camp Merz Boy Scout onto lake (6)
- Lake onto shoreline at Chautauqua Institution’s Bell Tower (7)
- Footbridge over ravine between Hawthorne and Park Avenues in Chautauqua Institution (8)
- Rear of Chautauqua Golf Course (9)

### **Village of Bemus Point**

- Ferry Landing in Bemus (13)
- Village Park toward Bemus Bay (14)
- Casino – View from lake to Casino and view from Casino up and down lake (15)
- Boat Launch Area (16)

### **Town of Ellery**

- Lutheran Camp Property – Panoramic View (10)
- Long Point State Park (any part of lakefront especially the point) (11)
- Lower Bayview Road (12)
- Maple Grove Rd at the Samuelson Farm (17)
- Along Rte 430 to Lake (18)
- I-86 Overlook (19)
- Cheney Farm – View of Lake & Blue Heron & Red Tail Hawk habitats (20)
- Upper Driftwood – View of Entire Southern Basin (21)
- Veteran’s Memorial Bridge (45)

### **Threats to Scenic Views**

- Growth of fields (trees) at Cheney Farm if not maintained
- Vacant agricultural lands
- Development of Grand View area
- Light Pollution

## **P. Zoning**

All of the Chautauqua Lake communities have zoning ordinances in place that govern land use within their respective boundaries.

### **Village of Celeron**

The Village has seven zoning categories including industrial, commercial, shoreline commercial, cultural recreation, multi-residential, residential and floodplain. Land within the WRA boundary includes parcels governed by all classifications. In addition, a supplemental section on lakeshore regulations governs parcels directly adjacent to the shoreline of Chautauqua Lake. See [Village of Celeron Zoning Map](#).

Uses within the residential district are appropriate for the WRA area. A majority of the residential uses in the multi-residential district will have a minimal and appropriate impact upon the WRA area. However, one use, mobile home parks, may not be an appropriate use in the portion of the multi-residential zone included in the WRA.

Celoron's prime business zone is located along Boulevard Street, which separates the shoreline commercial and commercial districts. Shoreline commercial uses allowed are marinas, boat storage, boat houses, boat sales, and other water related commercial uses, while the commercial district allows traditional retail shops and municipal offices, appropriate for the WRA area. Although a majority of uses in both districts help meet the communities' long-term goals, there are some uses that should be reviewed such as nursing homes, used auto sales, shopping center / mall and department stores. These uses may not be appropriate for the commercial or shoreline commercial zone within the WRA.

The cultural recreation district primarily encompasses the Lucille Ball Memorial Park and is limited to uses that primarily provide a public benefit such as public parks, libraries and public tennis courts. Lands within the WRA marginally enter into the industrial district along School Creek between Chautauqua Avenue and Jackson Avenue. Uses within this district, while not appropriate on a large scale within the WRA, are appropriate in this situation due to the limited scale and potential for impact.

The floodplain district and lakeshore regulations overlay the other existing districts. These districts affect lands within the WRA as determined by the Flood Hazard Boundary Map (September 20, 1974) and the lakeshore (as established by elevation of 1310 feet mean sea level). Uses within these overlay districts are restricted by additional setback requirements from the lakeshore, docks restrictions, and construction guidelines.

### **Town of Ellicott**

The Town has eight zoning districts, one of which is in the WRA boundary. The area within the boundary is also governed by a floodplain overlay district and Chautauqua Lake shore regulations. See [Town of Ellicott Zoning Map](#).

The southern and northern portions of the Town of Ellicott, located with the WRA, are zoned residential. All uses allowed within this district will promote the objectives of the LWRP. The segment of the Town of Ellicott located along the northern shoreline of Chautauqua Lake is adjacent to a mercantile district. The mercantile district encompasses NYS Route 430, a large wetlands tract and a portion of the shoreline of the Chadakoin River. Most uses allowed within the district will be limited to the area adjacent to NYS Route 430 due to the wetlands conditions. These uses are complementary to the WRA due to their limited location.

### **Village of Lakewood**

The Village has four zoning categories within the WRA area including single-family residential (R-1), multiple-family (R-2), retail business (B-1) and highway business (B-2). The uses allowed within the WRA are also governed by a floodplain overlay district and Chautauqua Lake shore regulations. All lands in the



industrial and mobile-residential (R-3) districts are outside of the WRA. See [Village of Lakewood Zoning Map](#).

A majority of the WRA area is comprised of single-family residential and multiple-family residential districts. Uses are limited to residential and public uses in the R-1 district. The R-2 allows a small amount of business in the form of home occupations, professional offices, bed and breakfast, and nursing homes. All uses allowed in the residential districts in the WRA are appropriate.

The B-1 district along Chautauqua Avenue is the Village of Lakewood’s downtown revitalization area. Traditional downtown retail uses, that are compatible with the LWRP, are allowed within this district. However, it is suggested that the list of allowed uses be reviewed to examine such uses as shopping centers, nursing home, building material retail, auto sales and vehicle service station. These uses, although appropriate for some commercial areas, may not enhance the community’s investment or promote the goals established in the LWRP.

The B-2 district is located across from the end of Fairdale Avenue on the north side of Summit Avenue. This B-2 district currently is comprised of the Lakewood Rod and Gun Club, which are utilized for private meetings, meals and membership activities. The current use is an appropriate use for the WRA area. Some of the uses allowed in a B-2 district may not be appropriate for this location if future owners desire to change the use of the property.

The floodplain district and lakeshore regulations overlay the other existing districts. These districts affect lands within the WRA as determined by the Flood Insurance Rate Map (November 2, 1977) and the lakeshore (as established by elevation of 1310.5 feet mean sea level). Uses within these overlay districts are restricted by additional setback requirements from the lakeshore, dock restrictions, fence conditions and construction guidelines.

### **Town of Busti**

The Town has ten zoning districts; of which four cross the WRA including conservation – residential, multi-family residential, gateway commercial, and lakeshore commercial. Busti requires site plan review for the site development of any lot or lots prior to the issuance of any development permit except for single family housing and certain specified residential units. See [Town of Busti Zoning Map](#).

One of two conservation–residential zones within the WRA is located along NYS Route 474. The uses allowed in the zones such as single and two-family dwellings, wildlife sanctuaries, parks, camps, golf courses, forestry and agriculture are consistent with conservation and open space objectives. The second conservation – residential zone, located along NYS Route 394, flanked by Summit Avenue and Fourth Street, has potential for conflict from uses in the adjacent highway commercial zone. Buffering should be a key consideration for future development in either zone in this area.

The lakeshore commercial zone southwest of Lakeside Avenue along NYS Route 394 contains uses such as marinas, boat repair, storage and servicing, hotels, boat houses, piers, wharfs, docks, and retail for water-related goods. All of these uses are consistent with the objectives of the community and LWRP.

The gateway commercial zone in the Town along NYS Route 394 is the only gateway zone in the Lake communities. The zone allows typical gateway uses such as hotels, food products, gifts, eating and drinking establishments and shops. This zone's objective is to stimulate and encourage tourism in the area and is consistent with goals set forth by the community.

The Town zoning ordinance also has lakeshore regulations, which impose additional setback requirements, and regulate both floating docks and dock placement. In addition, the Town has separate ordinances that govern flood damage and the retaining walls at the Vukote Canal development.

### **Town of North Harmony**

The Town has the most complex zoning ordinance within the study area in terms of the total number of districts with 32 zones being located within the WRA. The Town has seven zoning categories including single-family residential (R-1), duplex multiple-family (R-2), multiple-family (R-3), multiple-seasonal residential (R-4), hotel multiple-family (R-5), agricultural-residential (AR), and commercial (C-1). See [Town of North Harmony zoning Map](#).

A majority of the WRA area is dedicated to residential zones R-1 through R-3 with 21 of the 32 zones falling into these categories. Uses within these districts are minor variations of each other and allow uses that range from single-family, boat storage, cluster-residential (R-1) to multiple dwelling, nursing home, bed and breakfast, recreation camp (R-3). All uses within these districts are consistent with objectives expressed by the community in public hearings for the LWRP.

An R-4 district is located along NYS Route 394 at the northern most section of the Township. Uses within this district not found in other residential districts (R-1 to R-3) are marinas, cabins / cottages, travel trailer parks, mobile homes and mobile home parks. Most of the uses allowed are consistent with the objectives set forth for the zone in question but the allowance of mobile home parks in this location may need to be examined.

The only hotel multiple-family (R-5) zone is located in the Stow area adjacent to a commercial zone. This use is compatible with the development goals of the I-86 interchange at Stow.

The agricultural – residential (AR) zones are located along the Town of Busti border south of NYS Route 394. The zones encompass an area that had traditionally been agricultural in nature and has been changing to residential uses. Many open spaces exist with some panoramic views of the lake. Traditional AR uses are allowed in the district such as dwellings, agriculture, roadside stands, golf courses, home occupations, riding academies and recreation camps. Uses within the district are consistent with the development plans identified in the LWRP. Commercial zones have been established at locations that have existing retail activity. There are five commercial zones in the WRA. The first zone is in the Ashville business district; the second zone is bordered by NYS Route 394 (the Township's western border) Chautauqua Lake and encompasses Goose Creek; the third zone is at the Stow interchange along NYS Route 394; the fourth zone surrounds the Niagara Mohawk facility; the final zone is located in Magnolia along NYS Route 394. Uses allowed by right or by a special use permit cover a wide variety of retail, professional and service businesses as well as general limited industry. Due to the varied geographic

area and settings that these commercial districts are located in it may be appropriate to customize districts so the allowed uses more closely fit the goals and objectives of the community for that particular area.

### **Town of Chautauqua**

The Town has six zoning categories within the WRA including residential, residential-lakeside, residential-recreation, residential-agricultural, business and the Chautauqua Institution. The area within the WRA is also governed by a separate flood damage protection law and a supplemental section within the zoning ordinance regulating lots on Chautauqua Lake. See [Town of Chautauqua Zoning Map](#).

A majority of the WRA area in the Town of Chautauqua is dedicated to residential zones. The most restrictive of these is the residential district, which encompasses the area of Point Chautauqua, Prendergast Point, and an area south of the Chautauqua Institution. Uses in these areas are limited to single family dwellings, private boathouses and docks, governmental activities and home occupations. The residential-lakeside zone, which comprises the largest area of the WRA, allows golf courses, antique shops, condominiums, country inns, and limited agriculture in addition to the uses previously listed. All residential zones, and the uses allowed within, enhance the objectives of the Town.

The Town has three business zones within the WRA. The first business zone is located south of the Chautauqua Institution along NYS Route 394 and is comprised of hotels, cottages and realty offices. The second zone is located in Hartfield around the intersection of NYS Route 430 and Plank Road and consists of a convenience store, restaurant and gift shop. The third zone is located in Dewittville and has a restaurant, greenhouse/nursery, boat-servicing operation, and post office. Other uses allowed are retail and wholesale establishments, community services, service businesses, and manufacturing. All uses, except for manufacturing, meet the Town's development objectives in the WRA area.

The most unique zone in the Town is the Chautauqua Institution zone. Property within this zone is exempted from the Town of Chautauqua Zoning Law. Chautauqua Institution has devised its own set of standards to which property owners within the zone must comply. This is unique because of the Institution's ability to solely govern land use issues within its boundaries.

### **Village of Mayville**

The Village of Mayville is currently undergoing a revision of its zoning ordinance. These revisions may affect some of the districts as described below. The districts described are based on a map received from the Village on July 23, 2002. See [Village of Mayville Zoning Map](#).

The Village has five zoning categories within the primary portion of the WRA in the Village of Mayville, which include commercial (C-1), commercial (C-2), residential (R-9), residential (R-9A) and manufacturing (M-1).

A majority of the WRA area is dedicated to residential zones R-9 and R-9A. Uses within these districts have minor variations from each other but are primarily residential in nature. Uses allowed are single-

family, cluster-residential, church, hospital, clinic and professional offices. All uses within these districts are consistent with objectives expressed by the community in public hearings for the LWRP.

The C-1 districts are comprised of the downtown business district, a small area along Sea Lion Drive on the edge of the village and an area along Route 394 in the southern portion of the village, which is adjacent to the WRA. The C-1 district allows for retail sales, personal service establishments, eating and drinking establishments, amusement centers, banks, hotels and marinas. All of the uses listed are consistent with the objectives of the LWRP.

The C-2 district is located at the northern edge of Chautauqua Lake along Route 394. All uses allowed within the C-1 district are allowed in addition to motor vehicle sales, service stations, warehouses, drive-ins and farm implement dealers. The historic rail station, a large portion of the lakeside redevelopment plan and existing trails are within the boundaries of this district. Due to the community objectives voiced by residents during public meetings, it is recommended that the village carefully review the uses allowed within this area prior to completing the revision of the village zoning ordinance. Final uses allowed should promote the community vision and plans for the area within the WRA.

### **Town of Ellery**

The Town has six zoning categories within the WRA including single-family residential, residential, multiple-family residential, retail business, highway business, and lakeside business. In addition, a supplemental lakeshore regulations section regulates parcels contiguous to the Chautauqua Lake lakeshore. The primary land uses in the Town is residential. See [Town of Ellery Zoning Map](#).

The single-family district is designed to accommodate new developments. The district allows single-family dwellings, cluster-residential development, and typical accessory uses such as garages. The residential district maintains a similar density and use pattern as the single-family district but does allow for duplex development. The multiple-family districts are areas of the Town where higher density can be accommodated. The district accommodates multiple-family units, church camps, bed and breakfast establishments, and large group gatherings. These districts comprise the majority of the land and uses in the WRA.

Ellery has four business zones in the WRA area. The first zone, a highway business zone, is located along NYS Route 430 at Maple Springs. The second such zone is located further south along NYS Route 430 in the Greenhurst area. Midway Amusement Park is located in Maple Springs with restaurants and stores nearby. Retail business is located in the zone at Greenhurst. The highway business zone allows a wide variety of retail and service businesses that are typically found in commercial downtown areas. These commercial areas act as anchors for the neighborhoods nearby providing services to them.

The single retail business zone located in the Town is in Oriental Park. Uses allowed in the zone include small shops, professional offices, and residential development. This zone complements the business district of the Village of Bemus Point. The lakeside business district is located at Shore Acres along NYS Route 430. Uses in the district include marinas, boat storage, restaurants and cabins. All districts and uses in the WRA complement the objectives set forth by the community.

## Village of Bemus Point

The Village has five zoning categories in the WRA including low density single family, medium density single family/duplex, medium density Town house/apartments, retail business and parks/recreation/conservation. In addition, a floodplain overlay district and supplemental lakeshore regulation govern parcels within the WRA. See [Village of Bemus Point Zoning Map](#).

Low-density single-family housing zones are located along Lakeside Drive and Lincoln Road. Uses in this zone are limited to single family, golf courses, public park, boat storage, and typical accessory uses. A large segment of the community's open spaces are located within this district.

A majority of the core of the Village is comprised of a medium density single family/duplex zone. Uses in the district are still restrictive due to the lack of available space for development. The medium density district allows professional offices and duplexes in addition to the uses previously stated uses.

The medium density Townhouse/apartments zone is located along Lakeside Drive between the Village park and the Italian Fisherman Restaurant property. The uses allowed in this district are similar to those allowed in the other residential zones except for notable addition of multiple attached dwellings, accessory apartments, and nursing homes. This zone may be in conflict with the Village's objectives because the limits of the zone reach the lakeshore. Development along the lakeshore would block the vistas.

The retail business and parks zones both allow uses that are either in existence currently or would be complementary to the community.

## Q. Water Surface Use

### Existing Water Surface Use

Chautauqua Lake is a 17-miles long with a surface area of 20.5 square miles and is the largest inland water body in Chautauqua County. The Lake is popular for numerous water recreational activities: boating, fishing, water skiing, and personal watercraft use, ice skating, ice fishing and snowmobiling.

Some water surface activities on the Lake are summarized as follows:

#### **Boating**

**Sailing** is a long standing use on the Lake. Regattas have traditionally been held in front of the Chautauqua Institution grounds. The Chautauqua Yacht Club and the Chautauqua Institution Sailing School both promote sailing on Chautauqua Lake.

**Motorboat** use of the Lake has been growing since 1985 as witnessed by the over 25% rise in boats registered for principal use in Chautauqua County from 1985 to 1992 and the following 20% rise from 1992 to 2002. The past five years has seen an increase in the popularity of personal watercraft and has raised concerns in especially congested areas of the Lake such as at the Bemus Point narrows.

**Canoeing and kayaking** at the south end of the Lake, along the outlet (Chadakoin River), and some tributaries is increasing. Canoeist often find that boat wakes from increased motorboat traffic creates conditions not conducive to canoeing in parts of the lake.

**Commercial boat** traffic is minimal on the Lake. The Summer Wind, a dinner excursion boat, is based in Celoron and routinely uses the Lake. The Chautauqua Belle, a replica of steamship, operates from Mayville at the Lakeside Park. The Bemus Point- Stow ferry crosses at the narrows from Stow to the Casino in Bemus Point.

**Commercial and public marinas** are located at various points along the lakefront. All commercial and public marinas with wet slips and launching capacity have been identified and mapped as part of this document in Section II pages 27 to 30 under Chautauqua Lake Access Points.

**Boat launching points**, for both large and small crafts, have been identified and mapped as part of the Chautauqua Lake Access Points chart in Section II, pages 28 to 30, of this document.

### **Recreational Activities**

**Personal Watercraft (PWC):** activity is growing on Chautauqua Lake. Concerns over noise generated by PWC's and conflicts between motorboats and PWC surfaced in community discussions regarding the lake. New changes to the New York State Navigation law regarding the use of PWC are expected to mitigate many of the largest concerns voiced by residents over safety and conflicting users on the lake.

**Water skiing** is a popular activity on Chautauqua Lake because of the calm conditions often found on the lake. Water skiers have found that conditions are best during off-peak hours (early morning) and days (mid-week) as wakes and congestion increase as more boats get on the lake.

**Swimming** is a significant activity in many portions of Chautauqua Lake. Public beaches are located in Lakewood, Chautauqua, Mayville and Bemus Point. In addition, private shoreline or beaches are located at residences and organizations around the lake.

**Fishing** for recreation is a popular activity on Chautauqua Lake. The lake supports a sports fishery that ranks fourth in New York State in angler use. Additional details regarding the fishery are located in Section II, page 60 of this document.

Winter use of Chautauqua Lake's water area consists of ice fishing, **skating and snowmobiling** on portions of the lake.

### **Water Surface Regulations**

Currently, surface use regulations in place on Chautauqua Lake are speed limit/no wake zones created by the Chautauqua County Legislature as allowed by an amendment to the New York state Navigation Law in 1989. This establishes a 20-mph speed limit one-half hour after sunset and one-half hour before sunrise on the lake and a no-wake/ 5-mph limit within 200 feet of the shoreline, a dock, float, pier, raft,



or anchored vessel unless vehicles for the purpose of enabling a person engaged in water skiing to take off or land. In addition a 5-mph speed limit was established from the East side of the Chautauqua Lake Veterans Memorial Bridge (I-86) to the West side of the Bemus Point-Stow Ferry crossing; and from a line extending directly from the centerline of Dunham Avenue to the Village of Celoron across the lake parallel to said street to the East boundary of the Carlson Boat Livery property. These speed limits are enforced by the marine patrol of the Chautauqua County Sheriff's Office.

The Office of Parks, Recreation and Historic Preservation is the designated state agency for administration of the New York State Navigation Law. The Bureau of Marine and Recreational Vehicles has general responsibility for boating safety in New York State and provides funding and training for marine law enforcement as well as boating education programs. The Chautauqua County Sheriff's Office Marine Patrol is partially funded through this program.

### **Docks and Breakwalls**

Chautauqua Lake has a highly developed shoreline with many residential and commercial docking areas. Breakwalls vary in type from cement and steel smooth walled structures too rip-rap. Although permits are required for the installation of new breakwalls, no database exists that allows an accurate measurement of the percentage of the 42-miles of shoreline affected by this man-made hardening of the shoreline. Officers of the Chautauqua County Sheriff's Marine Patrol estimate that 20-30% of the shoreline has breakwalls. However, this is only an anecdotal estimate.

The installation of private docks is exempt in many cases. Commercial docks, all breakwalls and some residential docks are covered by the following regulations:

### **Use of Underwater Lands**

#### **Office of General Services**

The State of New York holds title, on behalf of the public, to lands submerged by navigable rivers, lakes and coastal waters, and formerly underwater filled lands to the last known location of mean high water – in accordance with the public lands law. On Chautauqua Lake and its tributaries, the boundary between these “lands under water” and the privately owned upland is the elevation of the mean low water line (1306.95). The New York State Office of General Services (OGS) is the agency designated to manage underwater lands, unless title to those lands has been transferred to another agency.

In New York State, the interest that a shoreline owner has in gaining access to navigable water has long been acknowledged and reflected in the laws regarding the administration of submerged lands. To secure that interest, the riparian owner may be allowed to place a single dock upon publicly held land for private non-commercial use. The riparian owner enjoys the exclusive use of this dock against other private interests and also holds the right to apply to the NYS OGS for authorization to place additional installations upon submerged lands.

While the right of access cannot be extinguished by State action without compensation to the upland proprietor, this right cannot be enlarged by the upland owner without compensation to the State of

New York. Where shore front proprietors wish to erect permanent or substantial installations on submerged land, authorization is required in the form of a lease or easement.

A lease or easement in underwater lands is a legal instrument that allows the shorefront proprietor to use underwater lands for a specific purpose. Through the provisions of the Public Lands Law, the New York State Legislature has delegated the authority to convey the right to use underwater lands to the Commissioner of General Services. The Public Lands Law, together with the policies adopted by the NYS OGS, serves as the administrative guidelines for the conveyance of leases and easements.

The NYS OGS Division of Land Utilization Submerged Lands Program has been established to ensure that the conveyance of underwater lands administered by OGS yields the highest possible economic return to the public and complies with the provisions of the State Environmental Quality Review Act (SEQR). The Division's staff reviews the regulatory notices of the USACE, the NYS DEC and NYS DOS to determine if proposed shoreline development will impact publicly owned submerged lands. The proposed installation must also meet all local codes and ordinances. As part of the application for a lease or easement, an upland proprietor must notify the locality of his or her intention to apply for a conveyance of underwater land. An easement does not relieve the applicant of the responsibility for obtaining any regulatory permits required by NYS DEC and the USACE.

A lease or easement is different from regulatory permits that may be established to control density and regulate waterways. Although less than complete ownership, a lease or easement in underwater lands gives the upland owner a real property interest in the area on which a marine installation is located. This interest is assignable with the consent of the Commissioner of General Services.

The NYS OGS Submerged Lands Program is a multi-purpose effort aimed at the comprehensive management of a valuable public resource. The NYS OGS has stated that it recognizes that this often requires the achievement of a delicate balance between economic development and environmental preservation. The program's commitment is to work together with local communities to ensure that the public's right to enjoy the waters of New York State is not diminished by the development of the shoreline. An issue in some areas of Chautauqua Lake is the situation of "keyhole" development where large upland areas with relatively small shoreline are developed for residential uses at densities that result in large numbers of docks along the shoreline. The Town of Ellery has recently enacted a funneling provision within their local ordinance to address the keyhole development issue.

### **Construction Regulations for Docks and Other Underwater Structures**

Under existing regulations, structures proposed for placement in Chautauqua Lake are generally regulated and controlled by multiple levels of government - local, State and Federal, with overlapping jurisdictions. A summary of the requirements and principal standards, under each levels of government, for the placement of structures in the Lake is provided in this section.

### **Local Government Regulations**

Most of the Chautauqua Lake municipalities do not have regulations governing docks specifically. The Village of Lakewood is an exception with a permit process in place for docks placed upon public right of

ways. While absent any formal approval authority, waterfront developments in any of the Towns requiring site plan, special use or variance approval may also be subject to review and comment by the Chautauqua County Planning Board.

### **State of New York Regulations**

New York State has approval authority for all structures and many activities occurring in the near shore waters and adjacent land areas of Chautauqua Lake. This authority rests primarily with DEC, with additional jurisdiction by the NYS OGS and NYS DOS in certain situations.

#### NYS Department of Environmental Conservation

The NYS DEC authority stems from two sources: (1) the regulation of disturbances to water body banks and beds pursuant to Article 15, Protection of Waters and its associated regulations (6 NYCRR Part 608), and (2) the requirement that a Water Quality Certification be issued by the DEC for any required Federal Permits and actions pursuant to Section 401 of the Federal Water Pollution Control Act and its amendments.

The applicability of each of these DEC regulatory programs to structures in Chautauqua Lake is described separately below.

#### Article 15 - Protection of Waters

Article 15 of the NY Environmental Conservation Law provides the DEC with the responsibility to regulate a variety of activities for disturbance of the bed or bank of protected streams and below the mean high water level of navigable waters. This regulation also addresses dock and mooring facilities on or above underwater land not owned by New York State. It also covers docking facilities for five or more boats and mooring areas for ten or more boats. The regulations implementing this regulatory program are found in 6 NYCRR Part 608.

The regulations also require that a permit be obtained for any excavation disturbance to the bed or bank of Chautauqua Lake, protected water; for dredging or filling in navigable waters and adjacent marshes and wetlands, and for a dock, pier, wharf, platform, or breakwater in, on or above navigable waters with certain exceptions. The exceptions include, among others, structures authorized by the Commissioner of General Services pursuant to the NYS Public Lands Law, docking facilities providing docking for five or fewer boats and encompassing an area of less than four thousand square feet, and a mooring area providing mooring for fewer than ten boats.

The standards for permit issuance under Article 15 are given in 6 NYCRR Part 608.8. For a permit to be issued it must be found that the proposal is (1) reasonable and necessary, (2) will not endanger the health, safety or welfare of the people of the State of New York and (3) will not cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the State.

### 401 Water Quality Certification

Pursuant to the Federal Water Pollution Control Act, any applicant for a federal license or permit within NY State must obtain a Water Quality Certification from DEC. This can be in the form of a “blanket” certification issued for Corps nationwide permits, regional permits, general permits, or an individual permits. Implementation of this program in New York is as specified in 6 NYCRR Part 608 (see appendix). The Water Quality Certification is to assure that actions and activities permitted by federal authorities will not result in a contravention of established water quality standards or effluent limitations. Given this narrow focus, an individual Water Quality Certification is often required for larger projects not covered by the U.S. Army Corps’ issued nationwide, general, or regional permits. When individual Water Quality Certifications are required NYS DEC uses this approval to ensure that stormwater discharges from landside, ancillary development or access facilities will be properly managed to protect water quality.

### Department of State

The New York State Department of State administers the Local Waterfront Revitalization Program within New York State. This includes working with local government with respect to promulgating Local Waterfront Revitalization Programs that are consistent with New York state policies. These policies are generally designed to promote the beneficial use of coastal/waterway resources, prevent impairment of certain coastal/waterway resources, and provide for management of activities which may impact coastal/waterway resources.

State approval of projects within the Chautauqua Lake waterfront area must be found consistent with the policies of the approved LWRP, to the maximum extent practicable, in accordance with the guidelines established by the Department of State set forth in Appendix B.

### Federal Regulations

The federal government jurisdiction for activities in Chautauqua Lake is administered through the USACE regulatory program, with involvement of the U.S. Environmental Protection Agency (EPA) and the U.S. Fish and Wildlife Service. These programs controls the placement of any structure in, under, or over navigable waters and adjacent wetlands, under Section 10 of the Rivers and Harbors Act of 1899, as well as the discharge of dredge or fill materials into waters of the United States, including wetlands, pursuant to Section 404 of the Federal Clean Water Act. Projects are authorized through the issuance of nationwide permits, regional permits and general and individual permits.

## Section III. Waterfront Revitalization Program Policies

This section sets forth the 13 waterfront revitalization policies established by the New York State Department of State and reflected in the Waterfront Revitalization of Coastal Areas and Inland Waterways Act. The explanations refine these policies to reflect local circumstances and conditions.

### Developed Waterfront Policies

#### Policy 1

**Foster a pattern of development in the waterfront area that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a waterfront location, and minimizes adverse effects of development.**

The waterfront areas of the Chautauqua Lake communities include a wide variety of land uses, natural resources, cultural and historic resources, residential centers, and recreational facilities. The vitality of these lake communities is critical to the success of the Chautauqua Lake Region. The character of the area along Chautauqua Lake is defined in large part by the lake's historical development as a recreational attraction and the upland's agricultural past. Chautauqua Lake's primary land use pattern of development is residential, which has seen increased growth since the completion of a sewer system around a large portion of the lake. The increased growth has resulted in a rapid decline in the limited amount of undeveloped shoreline that remained. Even so, the shoreline still maintains a rural character with vacant farm and woodlands interspersed between historic residential clusters and a handful of modest sized Villages. The character of the uplands beyond the Waterfront Revitalization Area (WRA) is markedly rural.

The nine communities around Chautauqua Lake are spread across 42 miles of shoreline and are comprised of both Villages and Townships with varying topographies. Due to these variables, the land use goals for the area within the LWRP, although having similarities, are often unique. The future of the Chautauqua Lake area will be influenced by the ability of the Chautauqua Lake communities to preserve open spaces and protect natural resources while enhancing and revitalizing the community assets that help to create the unique experience of visiting Chautauqua Lake. Tourism is the primary economic base for many of the lake communities such as Chautauqua, Ellery and Bemus Point.

This policy is intended to foster a development pattern that provides for the beneficial use of the environmental, historical, and cultural resources of the Chautauqua Lake communities while maintaining and building on their traditional economic base. The primary components of the desired development patterns are: strengthening the downtown areas of the Villages and the historic residential clusters, such as Chautauqua Institution and Dewittville, as centers of activities; encouraging water-dependent uses to concentrate in existing locations of maritime activities; upgrade and enhance existing facilities to encourage use of underutilized waterfront areas by residents and visitors, and preserve open space and