

SECTION II Inventory and Analysis

The Town of Porter has extensive areas of waterfront along Lake Ontario and the Niagara River. These shoreline areas are distinctly different. Most of the waterfront area, particularly along the lake, is well-established with residential uses. These areas have retained a rural character that is enhanced by their shoreline locations. With limited areas of public land, the Town desires to provide opportunities for public access to the greatest extent possible. The Town would also like to establish multi-use trails that would become part of the regional Niagara River Greenway system, allowing a connection with the adjoining Town of Lewiston and the City of Niagara Falls to the south and the Town of Wilson to the east. This local waterfront revitalization program is aimed at improving the quality of life in the waterfront area and taking advantage of existing assets along the Niagara River and Lake Ontario. The following provides an overview of the analysis of existing waterfront conditions and resources.

2.1 Summary of Issues and Opportunities in the Waterfront Revitalization Area

2.1.1 Findings

- The Town of Porter waterfront possesses a quaint, rural character, making it an attractive place for residents and visitors alike.
- The waterfront is primarily residential in nature; there are no water-dependent uses and no waterfront commercial activity.
- Lake Road (State Route 18) and Lower River Road (State Route 18F) are both designated segments of the New York Great Lakes Seaway Trail, are State-designated Scenic By-Ways, and are designated as portions of the Historic Niagara Trail, validating the scenic and cultural importance of these shoreline thoroughfares.
- Both LWRA sub-areas are served by public water supply; public sanitary sewer service is only available in Sub-Area 1 and the western portion of Sub-Area 2 (west of Four Mile Creek State Park). Sanitary waste is managed through the use of on-site septic systems east of Four Mile Creek Park in Sub-Area 2.
- There are two large New York State parks located in the LWRA, including Fort Niagara State Park and Four Mile Creek State Park, which both offer a wide variety of public recreational opportunities and panoramic views of the Niagara River and Lake Ontario.

- Porter on the Lake Town Park provides approximately 33 acres of parkland, with shoreline access along Lake Ontario, offering public recreation opportunities. The Town owns approximately six acres of additional undeveloped forested lands adjacent to this park.
- Access to the shoreline is provided along the Niagara River by way of numerous private stairways and docking facilities that service upland property owners. There are also a small number of stairways and docks that provide access for private properties along Lake Ontario.
- Public Access to Lake Ontario is available from the State parks and Town Park. There are no locations for public access along the Niagara River.
- There are no public docks or marinas along the Town of Porter waterfront.
- Public walking trails are available in Fort Niagara State Park; there is a pedestrian pathway that extends along the west side of Lower River Road, from the Village of Youngstown to the Town boundary. There are no other walking or bicycling amenities in the LWRA.
- The Lake Ontario and Niagara River shorelines include many areas with bluffs and high banks. There is shoreline erosion protection along a number of waterfront properties, which includes stone revetment, rip rap, and a small number of concrete seawalls and wooden bulkheads.

2.1.2 Assets and Opportunities

- Preservation of rural character will help to maintain the quality of life along the waterfront.
- Creating new opportunities for scenic viewing along Lake Road (State Route 18) and Lower River Road (State Route 18F), or enhancing and maintaining existing resources, will help the Town to capitalize on the designation of these roadways as Scenic By-Ways and part of the Great Lakes Seaway Trail system.
- Creating new and expanded trail connections would provide access to the State Parks and the Town Park. At present, multi-use trails end at Pletcher Road, just south of Joseph Davis Park in the Town of Lewiston. Extending this trail, and providing trail extensions, could provide access to the parks and the Village of Youngstown, adding value to the use and enjoyment of these areas.

- Porter on the Lake Town Park provides a number of recreational opportunities, but there are opportunities to expand public use at this park, enhancing its value. This is important because this park is the only public park on the waterfront.
- Porter on the Lake Town Park is fully open to the public; it is not restricted for use just by Town residents. This should be better promoted to enhance tourism and public access to the waterfront in the Town.
- The shoreline at the end of Dietz Road or the waterfront area at the adjoining Porter on the Lake Town Park could be improved to allow for launching of non-motorized vessels (kayaks, canoes, small boats), providing an additional opportunity for access to Lake Ontario.
- Opportunities for improved use and access at Four Mile Creek State Park should be explored to enable the public to hike, fish and enjoy the shoreline of the lake to a greater extent. At present, the park focuses on camping as its primary use.
- The creation of a connection between Four Mile Creek State Park and Porter on the Lake Town Park (which are adjoining properties) would be advantageous to park users and Town residents.
- The marshlands at the mouth of Six-Mile Creek provides habitat for a variety of flora and fauna and warrants consideration by the State for designation as a significant coastal fish and wildlife habitat.

2.1.3 Issues and Concerns

- Although there are two large State parks and one Town park in the LWRA, public access to the waterfront is primarily enjoyed by private property owners. There are no other publicly owned lands along the waterfront.
- Boat launch access to local waterways is only available at Fort Niagara State Park or in the Village of Youngstown.
- Shoreline erosion is a significant concern for property owners along Lake Ontario. Some of the existing erosion protection structures are in various states of disrepair. There is a need to address existing problems and proactively plan for shoreline changes that are resulting from rising water levels in the lake.
- There is a lack of trail connections between the public parks in the LWRA. There is a need to connect the two State Parks to provide greater recreational benefits for park users.

- The existing pedestrian pathway that extends along Lower River Road (State Route 18F), between the Village of Youngstown and the Town of Lewiston in Sub-Area 1, is not designed to effectively accommodate multi-modal use. It is not wide enough for use by both pedestrians and bicyclists, who are forced to ride along Lower River Road, which has no bike lane and limited shoulder width. There is a need to reconstruct the pathway for improved usage. This would enable enhanced use of the trail and improve public safety.
- There are inflow and infiltration issues in the existing sewer districts in the LWRA. Sewer overflows also affect the use of local waters for bathing. The Town needs to work cooperatively with the Town of Lewiston and the Village of Youngstown to study this problem and identify mitigation measures to address this problem.
- There is a concern for water quality improvement in local waterways. This includes non-point source contaminants carried in creek waters that enters the lake, failing septic systems, sanitary sewer I&I, and stormwater flows from residential development along Lower River Road and other areas in the LWRA.
- There are portions of the Niagara Scenic Parkway (formerly known as Robert Moses Parkway) and Lake Road (State Route 18) that are in poor condition and should be resurfaced or reconstructed.
- The State needs to do a better job of maintaining and cutting back vegetation along the Niagara Scenic Parkway right-of-way to improve visibility and safety for motorists.

2.2 Region Setting, Historic Context and Community Characteristics

The Town of Porter was formed in 1812 from land that was previously a part of the Town of Cambria. The Town is situated in the northwest corner of Niagara County (and New York State), and is bordered by the Town of Lewiston to the south, the Niagara River to the west, Lake Ontario to the north, and the Town of Wilson to the east (see Map 2). At the time the Town was first formed, it extended much further each to include what is now the Town of Wilson and the western portion of the Town of Newfane. Within the western New York region, Porter is situated approximately 13 miles from the City of Niagara Falls and 30 miles outside the Buffalo metropolitan area. The Town measures 33.2 square miles in size and has just over 11 miles of shoreline, including approximately 1.3 of shoreline along the Niagara River (between the Town of Lewiston and the Village of Youngstown) and approximately 9.8 miles along Lake Ontario (from the Village of Youngstown to the Town of Wilson).

For thousands of years the Town was inhabited by various cultures of indigenous peoples; this was the territory of the Iroquois Confederacy. Permanent European-American settlement occurred about

1801, after the Iroquois were forced to cede their lands to the State of New York. The Town was named in honor of Judge Augustus Porter, a member of one of the leading families in Niagara County. The Town's town urban centers include the Village of Youngstown on the west and the Hamlet of Ransomville to the east, each of which has its own identity and history, and each influencing the growth and development of the Town. Over the years, the Town of Porter has maintained its appeal as a rural community, evolving from a farming community to a bedroom community for those employed in nearby towns and cities. Although still present in the area, the number of farms has declined; those that remain contribute significantly to the area.

Although both sub-areas are predominantly rural in nature, much of the shoreline has been developed with medium density residential uses. The Sub-Area 1 waterfront includes a stretch of housing that sits above the Niagara River gorge, along with two distinct suburban-style residential neighborhoods. These areas include Youngstown Estates and Collingwood Estates. The Lake Ontario shoreline contains numerous small homes and cottages, along with a small number of larger estate size residential properties. There are two large State parks and one Town park located on the waterfront. The Fort Niagara State Park property includes a US Coast Guard facility and public boat launch facilities. There are no public or private marinas or other waterfront boating amenities along the Town of Porter waterfront.



Sub-Area 1: Niagara River



Sub-Area 2: Lake Ontario

2.3 Overview of Coastal Resources Planning Efforts

2.3.1 Regional Planning

There are a number of regional plans that are available to help guide land use and other activities in the Town of Wheatfield and Niagara County, as a whole.

▪ Framework for Regional Growth for Erie and Niagara Counties

The Framework for Regional Growth for Erie and Niagara Counties, New York is the regional planning document. The Framework was finalized in October of 2006 and establishes basic policies and principles to guide the future growth and development of the region. Specifically, the Framework provides:

- A vision for how the region should grow over the next 15 years.
- Direction regarding growth and redevelopment matters for County decision makers and other regional organizations that are linked to the two counties by way of funding, membership or other relationships.
- Information on the ways local governments, private sector and non-profit actions and initiatives can reinforce the overall regional vision.
- Mechanisms to ensure that the goals, concepts and recommendations of the Framework for Regional Growth are implemented in an efficient and accountable manner.

The Framework's recommendations build on the recognition that the Region's communities cannot effectively plan in isolation or independently address important issues, as almost every challenge faced by a locality has a regional dimension. The Framework is not a conventional zoning or land use plan or capital improvement program. It is designed to help County and regional leaders make better policy and investment decisions, more effectively leverage limited resources and provide more consistent direction and useful support to municipalities.



The Framework for Regional Growth establishes planning policy areas that define, in broad terms, where County policies encourage development and public investment, where development and public investment may be appropriate subject to careful evaluation and where conservation strategies generally take precedence over plans for development and public investment. The planning policy areas include Developed Areas, Developing Areas and Rural Areas, as illustrated below. The Town of Porter waterfront area includes a small extent of Developed Area designation in the area around the Village of Youngstown, area that is considered as Developing Area north of the Village, with the remaining extent of the waterfront designated as Rural Area.



- *Niagara Communities Comprehensive Plan*
The Niagara Communities Comprehensive Plan (NCCP) is a county-wide planning document that emphasizes a multi-municipal approach for planning and decision making. The NCCP provides a framework for achieving five high priority goals:
 - Encouraging desirable and appropriate growth and development,
 - Strengthening the local economy,
 - Improving the delivery of services,
 - Prioritizing and coordinating capital improvements, and
 - Improving the quality of life for County residents.

The Niagara Communities Comprehensive Plan is intended to unify existing county wide planning efforts, while recognizing the important planning initiatives undertaken at other

levels of government, as well as the efforts of community organizations and agencies. The Plan is a guiding document for assisting future decision making by providing direction for ongoing and future planning efforts. The Plan also recommends various strategies and potential projects, and will be helpful for securing funds necessary to undertake these initiatives.

- *Niagara River Greenway Plan*

The Niagara River Greenway Plan is a guidance document for creating connections between the various constituents, organizations and municipalities that comprise the Niagara River Greenway. It is an initiative with broad-based support aimed at fostering consensus. Under the umbrella of the Niagara River Greenway, these entities can advance local and regional agendas for community livability, environmental sustainability, tourism and economic revitalization.

The boundaries of the Greenway have been mapped along municipal boundaries. However, focus was placed on projects close to the Niagara River and its immediately adjacent assets. Progress on improving this core area will create discrete, visible results that will have local and regional impacts. Projects that fall outside of the focus area should help establish strong linkages between the Greenway focus area and the surrounding area. In addition, several municipalities do not control their waterfront lands or their waterfront lands are already developed. It is expected that these municipalities and other stakeholders will develop projects consistent with the Greenway Plan, but not necessarily along the River's edge. Project away from the River should help establish physical and/or interpretive connections between the River and the surrounding area. The Focus Area in the Town of Porter includes the Fort Niagara State Park area and the portion of the LWRA that includes Lower River Road.

The Niagara River Greenway Plan (NRGP) establishes a unified vision and a set of principles for the Niagara River Greenway. It identifies assets and resources that make up the Greenway. It sets priorities that suggest the types of activities to target in the near-term. It identifies potential funding sources, partnerships and linkages, and, in conjunction with the Metropolitan Planning Organization (MPO), addresses key transportation issues that affect the Greenway. The Plan also discusses several high priority Implementation Concepts, which describe system-wide approaches and strategies for Greenway development.

The principles and goals for the NRGF represent the general values for guiding greenway planning toward achievement of the vision. These principles and goals are centered on promoting high-quality, ecologically sensitive and sustainable activities and development.



The central theme is aimed at improving access to the Niagara River, making connections between communities and filling gaps in the trail system, protecting and restoring environmental systems, celebrating the history and heritage of the region, sparking revitalization and renewal, promoting long term sustainability and extending the Frederick Law Olmsted legacy for future generations.

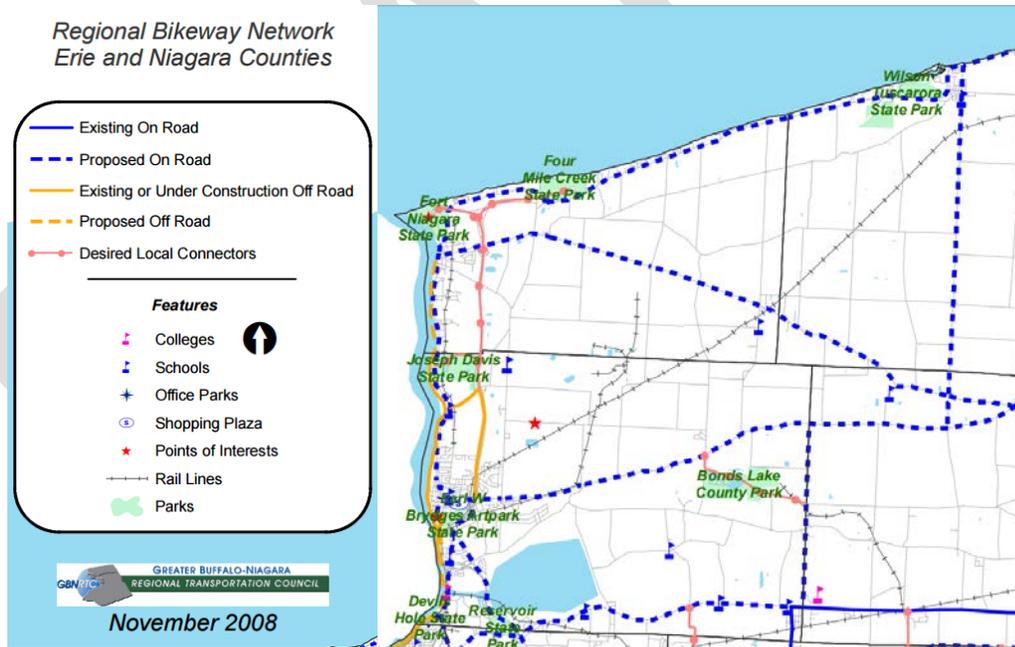
A fundamental goal of the Niagara River Greenway Plan is riverfront preservation and restoration to fulfill the vision for shoreline access from Lake Ontario to Lake Erie. Recognizing that much of the waterfront is held in private ownership, increasing public access and awareness through trails, conservation easements and other means is important. One recommendations in the Niagara River Greenway Plan is to develop a multi-use pathway to extend along Lower River Road, connecting the Town (and Village of Youngstown) with the Town of Lewiston.

▪ *2008 Bicycle and Pedestrian Master Plan for Erie and Niagara Counties*

The 2008 Bicycle and Pedestrian Master Plan sets forth the vision for making bicycling and walking an integral part of daily life in the Buffalo and Erie/Niagara region. This plan recommends projects, programs and policies for the next ten years to encourage use of these practical, non-polluting and affordable modes of transportation. The plan looks at streets for cycling and walking, parking, transit connections, education and marketing (health promotion), law enforcement and implementation. The plan contains goals and objectives,

with over 100 suggested actions that detail how to implement the objectives in realistic, meaningful and cost-effective ways.

The express purpose of the Master Plan is to provide coordinated guidance for the implementation of a safe, efficient and accessible transportation system designed for walking and bicycling. By reassessing previous goals and objectives, the intent is to adjust and reaffirm a regional vision regarding bicycling and pedestrian activities, including the establishment of interconnected bicycle and pedestrian networks for transportation. Such networks provide for focused treatments and sometimes separate facilities to promote walking and bicycling, and add a critical multi-modal element to a transportation system often geared toward motor vehicle travel. It furthermore reflects current federal goals to increase the amount of local bicycling and walking, and to increase safety by reducing the number of accidents. The Master Plan serves as a framework for facility investments and assists in promoting mobility options, healthier lifestyles, reducing air pollutants, and decreasing traffic congestion.



The goals of the 2008 Bicycle and Pedestrian Master Plan align with the Town’s goal to construct a multi-use pathway along Lower River Road, the continuation of a trail north of Joseph Davis State Park, and a trail connection between Fort Niagara State Park and Four Mile Creek State Park (and the adjacent Town Park), as well as along the length of Lake Road (SR 18). The plan outlines objectives that support the Town’s vision for the waterfront pathways, including the adaptation of existing roadways to allow for safe and convenient bicycle travel, the incorporation of innovative designs to expand and enhance the regional

bikeway network, making intersections bicycle and pedestrian friendly, and identifying and eliminating hazards to pedestrian and bicycle movement.

▪ *2040 Metropolitan Transportation Plan (MTP) Update*

The 2040 MTP Update is primarily based on the 2035 Long-Range Transportation Plan Update adopted in May 2010, and reaffirms key elements of that plan. The 2035 Plan acted as the multimodal blueprint for transportation systems and services and was aimed at meeting the transportation demands of existing and future development in Erie and Niagara County. The plan provided forecasts for the year 2035 for both population and employment. This update extends the planning horizon to the year 2040, which keeps our region in compliance with federal legislation and eligible for federal transportation dollars.

While much of the 2035 Plan is unchanged, the 2040 MTP Update has allowed for the incorporation of 2050 work accomplished to-date, thus improving the consistency of the plans and evolving visions for the region. In addition to this, the demographics and traffic conditions in the 2040 MTP reflect the most current data. Some key changes to the 2040 MTP are as follows:

- Integration of One Region Forward Goals and Objectives, which guide the development and implementation of the Metropolitan Transportation Plan;
- 2040 demographic projections for population, households, and employment based on recently released 2010 US Census data;
- Update of financial resources available to the region to implement the Metropolitan Transportation Plan projects based on new federal transportation legislation (MAP-21) and current NYSDOT forecasted apportionments;
- Updated status of significant planning studies and projects that could impact future transportation investments in the region;
- Update on resource agency consultation and potential mitigation activities; and
- Revised Congestion Management and Systems Operations section.

▪ *Transportation Improvement Program, 2014-2018*

The Transportation Improvement Program (TIP) is the capital programming component of the Long-Range Transportation Plan that outlines all federally-funded roadway, transit, and major transportation projects being considered within the region through 2018. The TIP also includes those regionally significant transportation projects being advanced by State and local entities with non-federal funding.

▪ *Buffalo Niagara 2050*

The Greater Buffalo Niagara Regional Transportation Council (GBNRTC), in conjunction with community partners and regional stakeholders, is in the beginning stages of developing Buffalo Niagara 2050, the region's next long-range transportation plan. Buffalo Niagara 2050 will determine the way we commute, travel to work, connect to shopping and schools, and move throughout the region. It will take a fresh approach to solving present and future transportation challenges in the region and will focus on ways to create a more efficient, greener, smarter and sustainable transportation system for future generations.

- *Niagara County Comprehensive Emergency Management Plan (CEMP)*
This plan was developed to enhance Niagara County's ability to manage emergency situations, with the focus on rapidly and adequately responding in order to minimize injury and speed recovery. It consists of three components: disaster prevention and mitigation, disaster response, and disaster recovery. The CEMP defines roles and responsibilities in prevention, response, and recovery, including a detailed chain of command during an emergency. The plan places an emphasis on the role of local jurisdictions as first-line responders, but identifies the key role that County departments play in the process. The CEMP points out the importance of land use controls and development regulations in hazard-prone areas (e.g., floodplain development) for disaster avoidance and minimization.

2.3.2 Local Planning

- *Town of Porter Comprehensive Plan: Connecting our Past with our Future*
Local planning plays a big part in how the waterfront in the Town is used and developed. The Town has been pro-active in planning for growth in the Town and adopted a Comprehensive Plan in 2004. Although the Town acknowledges that some of the information in this plan is falling out of date, the Plan still provides guidance for managing land use along the waterfront. The Comprehensive Plan recognizes the need to protect the waterfront and ensure access to the Lake and River. It also recognizes the resources and assets that exist in the waterfront area, including fisheries and other fauna and flora, scenic vistas and parks and open space. The Comprehensive Plan sets forth guidance and recommendations for zoning and other improvements specific to the waterfront.
- *Porter on the Lake Town Park Master Plan*
The Town of Porter owns a 33.0 +/- acre property along the shoreline of Lake Ontario, immediately east of Four Mile Creek State Park, which was developed as a park. A Master Plan was developed to identify potential improvements that could be undertaken to increase public recreational use and enjoyment of this park. This plan discusses existing conditions at this Town-owned park, provides a design philosophy and outlines a number of

recommendations for proposed improvements, which are illustrated on a concept plan. The recommendations include ideas for improved amenities, parking and public access.

- *Stormwater Management Plan*

The Town of Porter is a member of the Western New York Stormwater Coalition. The Coalition developed a Stormwater Management Plan as a shared resource to help local municipalities comply with the NYSDEC General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4). This Plan provides policy and management guidance, including minimum control measures and best management practices for Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Stormwater management, and Pollution Prevention / Good Housekeeping for Municipal Operations.

2.4 Demographics and Economic Considerations

2.4.1 Population and Household Characteristics

The LWRP project areas on the Town of Porter waterfront along the Niagara River and Lake Ontario are not easily captured by Census geography. Accordingly, the following information is based on the Town-wide data from the U.S. Census Bureau's *2010 Decennial Census* and the *2015 American Community Survey Demographic and Housing Estimates*. This information is intended to provide the general context of the Town and how it may affect waterfront planning, while recognizing that many Town residents do not live within the waterfront area.

In 2015, the Town of Porter had an estimated total population of 6,685 residents, with 3,387 males (50.7%) and 3,298 females (49.3%).¹ This population estimate represents a slight decrease from the total population tally from 2010, when the Town's population was 6,771. From a statistical point of view, this approximately 1.3% decrease in the Town's population is an indicator of a relatively stable population trend in Porter over the last 5 years.

Table 2.1 shows the Town of Porter's population trend during the last 75-years, from 1940 to 1975. The data includes the population of the Village of Youngtown in the Town of Porter's tabulations. It shows that after a boom in the 1950's, the population of the Town stabilized, and has been experiencing slow, gradual declines since 1970. In Table 2.2, the Village of Youngtown's population was separated from the Town of Porter's for purposes of comparison. The same 75-year period from 1940 to 2015 was analyzed.

¹ American FactFinder, *American Community Survey Demographic and Housing Estimates*, 2015. The margin of error for the estimated total population is +/-24 persons.

Continuing the comparison, one finds that Niagara County’s population trends are slightly different from those found in the Town of Porter and the Village of Youngstown. From 1990 to 2015, Niagara County, overall, saw its population fluctuate downwards from 220,756 residents in 1990 to 216,749 residents in 2015, a drop of approximately 1.8%, while the Town of Porter’s population dropped over 8% during that the same time span, from 7,710 to 6,685 – over four times the amount.

Table 2.1

Town of Porter Population Trends (75-Year Population Trend)		
Year	Population	Percent Change
2015	6,685	-1.3%
2010	6,771	-2.2%
2000	6,920	-2.7%
1990	7,110	-1.9%
1980	7,251	-2.4%
1970	7,429	+1.6%
1960	7,309	+71%
1950	4,276	+27%
1940	3,361	****

Source: U.S. Census Bureau

Table 2.2

Town of Porter Population Trends (75-Year Population Trend)				
Town of Porter (Not Including Village of Youngstown)			Village of Youngstown	
Year	Population	Percent Change	Population	Percent Change
2015	4,718	-2.4%	1,967	-1.6%
2010	4,836	-2.6%	1,935	-1.1%
2000	4,963	-1.4%	1,957	-5.7%
1990	5,034	<-1%	2,076	-5.2%
1980	5,060	-3.8%	2,191	+1%
1970	5,260	-3.6%	2,169	+17.4%
1960	5,461	+63.3%	1,848	+98.2%
1950	3,344	+32.1%	932	+17%
1940	2,532	****	799	****

Source: U.S. Census Bureau

In 2010, the median age of Porter’s residents was 45.9 years. Approximately 78.8% of residents were over 18 years of age and approximately 78.3% of Porter’s residents were between 18 years and 62 years of age. Approximately 17% of Porter’s residents were over the age of 65. As the following table illustrates, Porter’s age distribution was similar to the age distribution for Niagara County as a whole.

Table 2.3

	Town of Porter		Niagara County	
<5 Years	312	4.6%	11,580	5.3%
5-17 Years	1,121	16.5%	34,910	16.1%
18-65 Years	4,174	61.6%	135,591	62.6%
65 Years and Over	1,164	17.2%	34,388	15.9%
TOTAL	6,771	100%	216,469	100%

Source: U.S. Census Bureau

The average household size in Porter was 2.43 persons. The majority of residents lived in either 2-person households (36%) or 1-person households (27%). The remaining 37% of residents lived in households ranging in size from 3-person to 6-person or more. The table below illustrates the breakdown of household size in the Town of Porter.

2.4.2 Housing

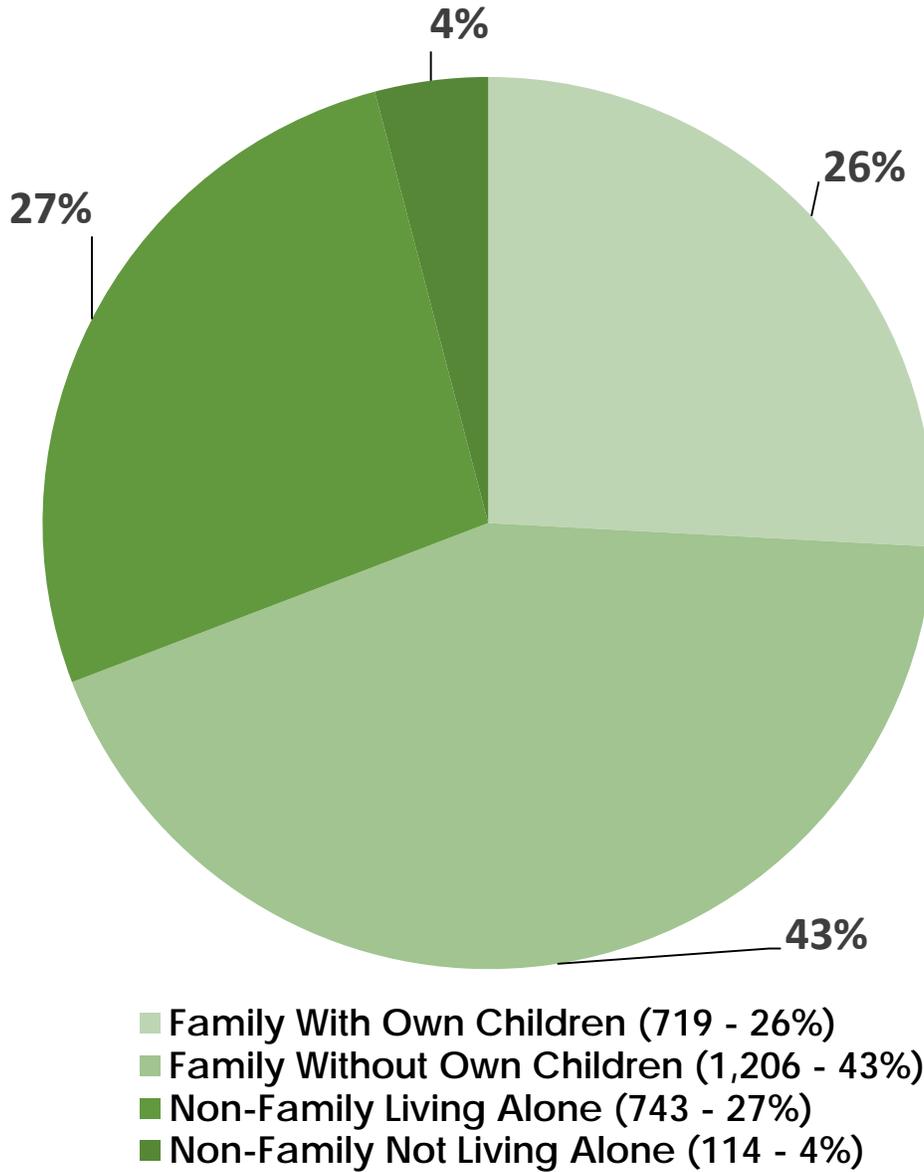
Housing along the Town of Porter waterfront areas generally consists of single-family detached dwelling units. In 2010, the Town of Porter had a total of 3,103 housing units, 89.7% of these housing units (2,782) were occupied, while 10.3% of the housing units (321) were vacant. This relatively high vacancy rate is due the prevalence of seasonal homes. Of the 321 vacant units, just a little over half (165) were for seasonal, recreational, or occasional use, while 34 were for rent, and 54 were for sale. A vacancy rate of roughly 5% is considered a normal vacancy rate, representing housing that is in transition, either for sale or rent. In Niagara County as a whole, approximately 8.6% of the existing housing units sat vacant.

In 2010, of the Town of Porter’s 2,782 occupied housing units, 2,228 were owner occupied (80%) and 554 were renter occupied (20%). In comparison, of Niagara County’s 90,556 occupied housing units in 2010, 62,616 (69%) were owner occupied and 27,940 (31%) were renter occupied. Porter had roughly 10% more of its occupied housing units occupied by owners than Niagara County did. A breakdown of the types of occupied housing units found in Town of Porter can be seen in Table 2.4:²

² American FactFinder, *American Community Survey Demographic and Housing Estimates*, 2011-2015, Figures represent an estimate based on surveys, and include a margin of error.

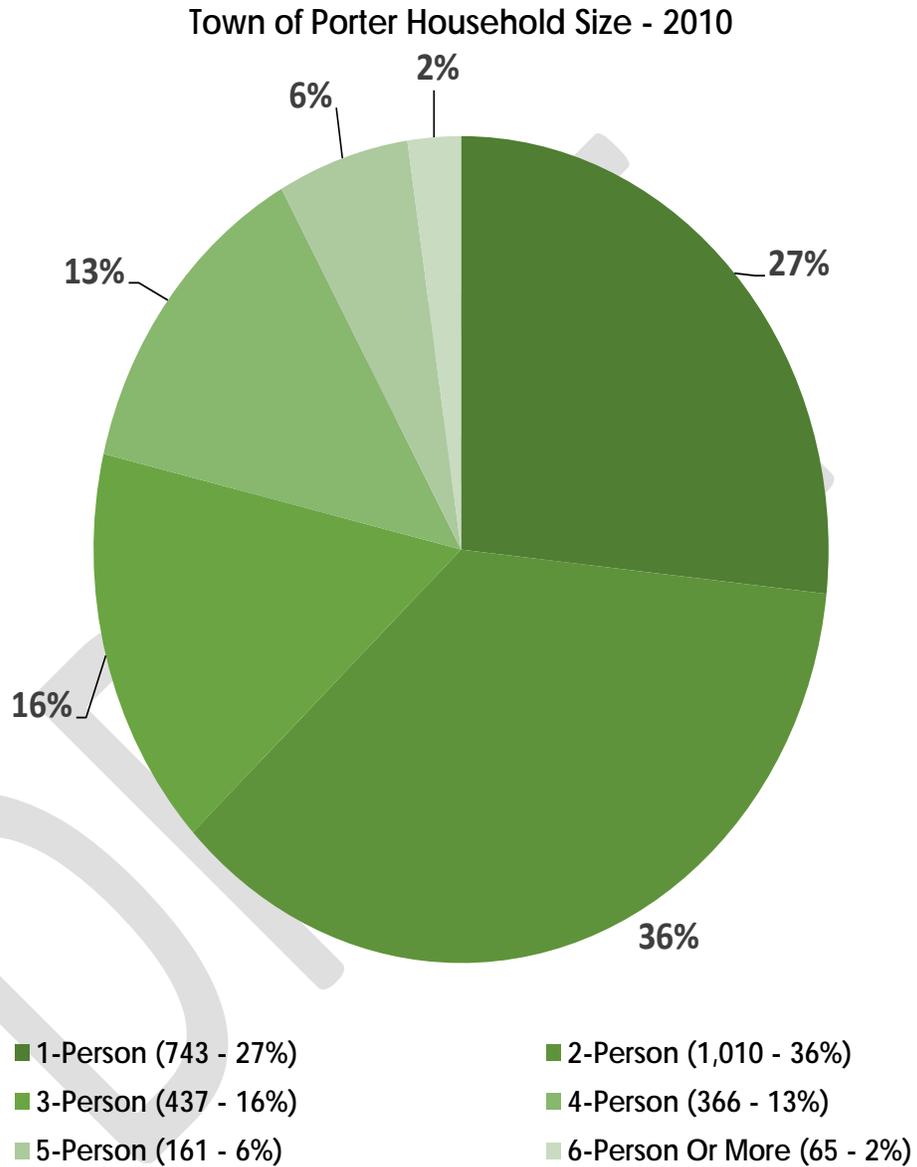
Figure 2.1

Town of Porter Household Type - 2010



Source: U.S. Census Bureau

Figure 2.2



Source: U.S. Census Bureau

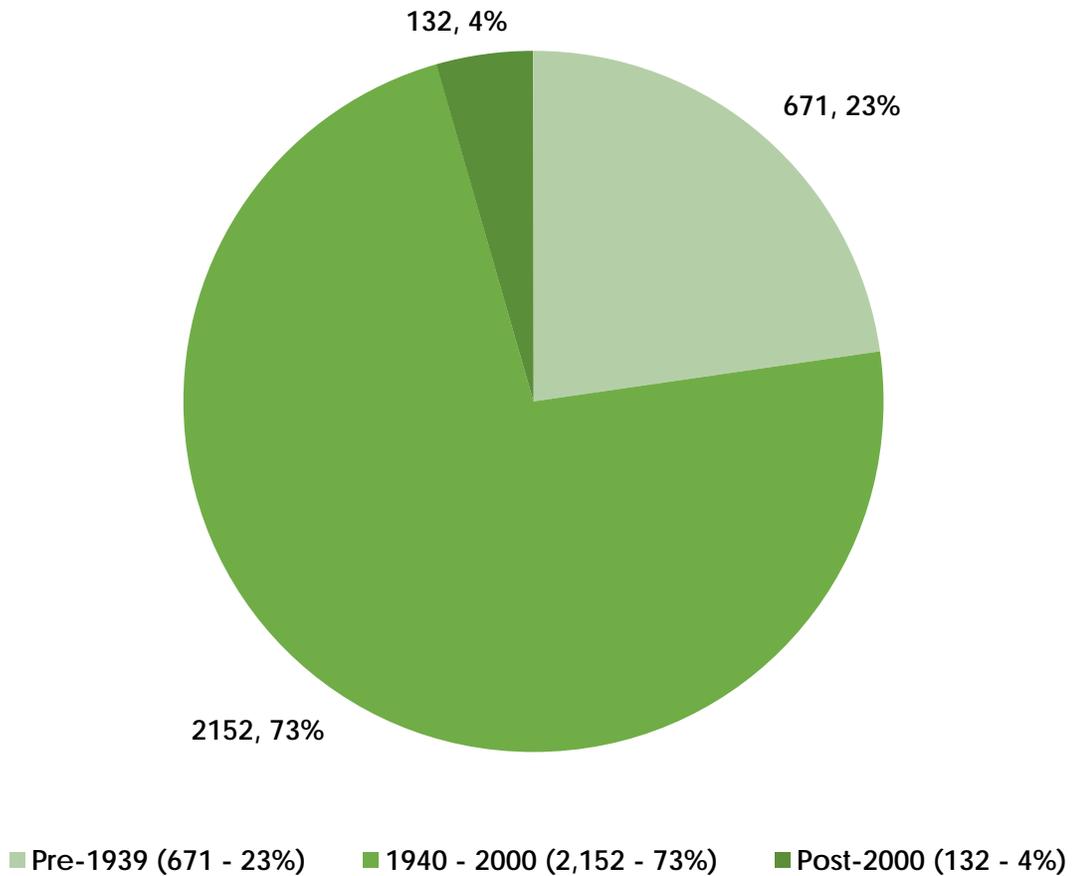
Table 2.4

Type of Occupied Housing Unit	Percentage of Total (2,644)
1 – Detached	86%
1 – Attached	1.3%
2 – Apartments	4.8%
3 to 4 – Apartments	1.2%
5 to 9 – Apartments	1.7%
10 or More – Apartments	1.9%
Mobile Home or Other Type	3.0%

Source: U.S. Census Bureau, 2015 Estimate

Figure 2.3

Town of Porter Housing Units - Year Constructed



Source: U.S. Census Bureau

The majority of housing units (roughly 74%) were built between 1940 and 1999, with another approximately 22% being built prior to 1939. Approximately 3% of the housing units were constructed sometime after the year 2000. In comparison, in Niagara County, approximately 30% of the housing units were constructed prior to 1939 and approximately 63% of the units were constructed between 1940 and 1999, with approximately 7% constructed sometime after the year 2000. According to the U.S. Census Bureau’s 2015 estimates, the median value of home in the Town of Porter was \$140,500, while the median value of a home in Niagara Count was \$108,000, over \$32,000 less.

2.4.3 Income and Employment

Historically, Porter’s waterfront areas have been predominately residential in character, with a few scattered commercial establishments and limited opportunities for employment. Many residents seek employment opportunities in nearby communities such as the Village of Youngstown, Town of Lewiston, and the City of Niagara Falls.

Porter tends to be more affluent than Niagara County figures. The median household income in the Town of Porter was \$67,169, approximately \$17,720 more than the \$49,449 median household income in Niagara County. The following table illustrates the income distribution for Porter.

Table 2.5

Town of Porter Income Distribution – 2015 Estimate		
2015 Inflation-Adjusted	Number	Percent
<\$10,000	42	2.2%
\$10,000 to \$14,999	40	2.1%
\$15,000 to \$24,999	91	4.8%
\$25,000 to \$34,999	151	8%
\$35,000 to \$49,999	169	8.9%
\$50,000 to \$74,999	454	24.1%
\$75,000 to \$99,999	320	17%
\$100,000 to \$149,999	351	18.6%
\$150,000 to \$199,999	139	7.4%
\$200,000 or More	128	6.8%

Source: U.S. Census Bureau

The Town of Porter unemployment rate is relatively low when compared to Niagara County. With a civilian labor force of approximately 3,397 persons – approximately 95% (3,211) were employed in 2015, while Niagara County’s percentage of employed was approximately 92%.

Porter’s unique, historic, and scenic location, along with its close proximity to valuable natural resources, Niagara Falls, and the Canadian border and by extension, one of the fastest growing cities in North America – Toronto, Ontario, could potentially serve as the basis for steady population trends, tourism interest, or even an increase in the number of residents.

2.4.4 School Enrollment and Education Levels

The Town of Porter is located within the Lewiston-Porter School District. Centralized in 1947, the District encompasses the Towns of Lewiston and Porter. About 30% of the District’s taxable property falls within the Town of Porter.

Based on available data from the U.S. Census Bureau (*2015 American Community Survey*), 92.6% of the Town of Porter’s residents were high school graduates and 28.7% had earned a bachelor’s degree or higher. In 2015, there were 1,484 residents aged 3-years and older who were enrolled in school.

Table 2.6

Town of Porter School Enrollment, 2015		
	Number of Students	Percentage
Nursey School, Pre-School	60	4%
Kindergarten	68	4%
Elementary School (Grades 1-8)	513	35%
High School (Grades 9-12)	476	32%
College or Graduate School	367	25%
TOTAL	1484	100%

Source: U.S. Census Bureau

2.5 Existing Land Uses

2.5.1 Existing Land Use (Maps 3A and 3B)

Land use along the waterfront in the Town of Porter is primarily residential in nature. There are no industrial uses and only two commercial properties found in the local waterfront revitalization area (LWRA). Although agricultural uses are prevalent on the south side of Lake Road, there is limited farming activity within the LWRA. Parkland is limited to two large State parks and one Town park facility. The land uses found in the LWRA are described as follows.

Sub-Area 1 (Niagara River, from the Town of Lewiston to the Village of Youngstown boundary)

- *Residential* - There are numerous residential parcels, accounting for 264.2 acres or 25.6% of land coverage. This includes single-family residences and some cottages. The majority of the residences in this area are located on the east side of Lower River Road, with the property owners holding ownership to the small parcels of open land located on the west (opposite) side of the road, at the top of the Niagara River bluff. Some of these riverside properties have stairways that extend down the face of the bluff to the river's edge, where decks and/or docks are located. No multi-family dwellings were identified in this sub-area. Sub-Area 1 does include two suburban style residential subdivisions and a small number of larger estate-sized properties.
- *Commercial* - There are no commercial properties in Sub-Area 1.
- *Industrial* - There are no industrial land uses in Sub-Area 1.
- *Parkland* - There are no parks or parkland properties in Sub-Area 1.
- *Vacant* - Approximately 696.8 acres or 67.6 percent of Sub-Area 1 consists of vacant lands, including a combination of large wooded and undeveloped lots and unutilized properties.

Sub-Area 2 (from Fort Niagara State Park to the Town of Wilson municipal boundary)

- *Residential* - There are numerous residential parcels, accounting for 735.9 acres or 33.4% of land coverage. Residential uses in Sub-Area 2 are comprised of single-family dwellings and cottages. Many of the properties situated between Lake Road (SR 18) and the lakeshore and deep, with the home located closer to the Lake and away from the road. The area also number of larger estate-sized properties, with bigger dwellings. The Town owns land in the Fort Niagara Beach residential area, which includes the roadways and the lakeshore frontage.
- *Commercial* - There is a very limited number of commercial properties found along Lake Road in Sub-Area 2, including Bandana's Bar and Grill.
- *Industrial* - There are no industrial land uses in Sub-Area 2.
- *Parkland* - There are two State park found in the LWRA, including Fort Niagara State Park (located at the mouth of the Niagara River, in the northwestern corner of the Town) and Four-Mile Creek State Park, which is located along the Lake Ontario Shoreline, east of Fort

- Niagara. In addition, the Town operates Porter on the Lake Town Park, which is situated immediately east of Four-Mile Creek State Park. Lower River Road (SR18F) and Lake Road (SR 18) are also designated segments of the NYS Great Lakes Seaway Trail system and the National Scenic By-way. Parklands make up over 25% of the land area in Sub-Area 2.
- *Vacant* – Approximately 332.1 acres or 15.1% of Sub-Area 2 consists of vacant lands, including a combination of wooded lots, undeveloped lands, and unutilized properties.

2.5.2 Water Dependent and Water-Enhanced Uses

The only water-dependent uses found in the Porter LWRA are located in Fort Niagara State Park, which include two public boat launch ramps and a U.S. Coast Guard boat docking area. Water-enhanced uses include Four Mile Creek State Park, the Porter on the Lake Town Park and residential dwellings located along the waterfront. Many shoreline residences have private docks or water access decks, most of which are found along the Niagara River. There are also two residential properties on Lake Ontario that share a private boat launch facility. Waterfowl hunting is conducted from Fort Niagara State Park and from shoreline docks and properties along the Lake Ontario during the fall hunting season.

2.5.3 Abandoned, Underutilized and Deteriorated Sites and Structures

The Porter waterfront contains a very limited number of abandoned, underutilized and deteriorated sites and structures. Being a rural community, that is mostly developed with residential housing and farmland, these uses would be comprised of older barn structures or residential properties that are in disrepair. However, such uses are uncommon in both sub-areas.

2.5.4 Zoning (see Maps 4A and 4B)

Within the Town of Porter, land use is regulated by the Zoning Ordinance (Chapter 200 of the Porter Town Code - Zoning) and by Subdivision Regulations (Chapter 165 - Subdivision of Land). Zoning in the waterfront area includes four classifications (WR-Waterfront Residential District, LDR-Low Density Residential District, MDR-Medium Density Residential District, and the Niagara River Environmental Overlay). Existing zoning along the waterfront is depicted on Maps 4A and 4B. Zoning regulations include provisions for site plan review, cluster development, landscaping and lighting, sewage disposal facilities, signage and stormwater management. The zoning also regulates bed and breakfast establishments, home occupations, hunting clubs, and solar energy collection systems. The zoning code establishes height and bulk regulations, site plan specifications, development standards, required improvements, and penalties.

The majority of the Town of Porter waterfront is zoned WR-Waterfront residential. A large area east of Lower River Road and another area north of the Village of Youngstown are zoned Medium Density Residential. An additional area, located south of Lake Road (SR 18) and west of Four Mile Creek State Park, is zoned Low Density Residential. These zoning classifications include the following provisions.

- *WR – Waterfront Residential* - This district allows residential development along the shoreline of Lake Ontario. It requires greater setbacks and smaller lot coverage to open up views of the lake. This district also allows water dependent uses that would provide public access to the shoreline.
- *RA – Rural Agriculture* – The RA district is designed to protect agricultural land resources and promote rural character. It allows residential development on large lots (minimum five acres), but agriculture is the primary permitted land use.
- *LDR – Low Density Residential* – The LDR district is designed to provide for the development of areas that are occupied primarily by single-family residences in an effort to promote the residential character of the Town. It provides opportunities for larger yards and houses and serves as a transition area between agricultural uses and denser development.
- *MDR – Medium Density Residential* – The MDR district allows for the higher-density development of neighborhoods that include a mix of single-family and multi-family dwellings and complementary services.
- *Niagara River Environmental Overlay*– This overlay establishes protections for frontage lands along the Niagara River. Any development in this area requires a special permit, site plan review and permits (as necessary) from the NYSDEC and Army Corps. of Engineers.

Chapter 165 of the Town Code – the subdivision regulations, are fairly standard, with procedures for both minor subdivisions (4 or less lots, not involving public infrastructure improvements or extensions) and major subdivisions (more than 4 lots). A minor subdivision approval is a two-step process with sketch plan and minor subdivision plat review. A major subdivision requires three steps: sketch plan, preliminary plat review, and final plat review.

Other codes in the Town of Porter that affect land use in the Town include Chapter 89, which regulates flooding and flood damage prevention; Chapter 145 – Sewers, which regulates use of public sewer service and private sewage disposal; Chapter 156 – Solid Waste, which sets forth regulations for recycling in the Town; Chapter 160 – Streets and Sidewalks, which regulates

driveways and culverts and requires highway work permits; and Chapter 185 – Water, which regulates use of the public water supply.

2.5.5 Public Access and Recreation

Public parkland and waterfront access is primarily enjoyed at two State park properties and one Town park within the Town of Porter LWRA. There are also a number of private docks located along the Niagara River waterfront. Residents in the Town of Porter LWRA also have access to nearby Joseph Davis State, which is situated immediately south of Sub-Area 1, in the Town of Lewiston; the Waterfront Park and Pier, which is located along the Niagara River shoreline in the Village of Youngstown; and Falkner Park, Veterans Park and Constitution Park, also located in Youngstown Village.

- *Fort Niagara State Park*

Fort Niagara State Park is located in the northwestern corner of the Town, with lands fronting the Niagara River and Lake Ontario. This 280-acre park is open year-round and includes 10,600 linear feet of shoreline (as well as over 200 acres of underwater lands) that offer panoramic views of the River and Lake. Fort Niagara State Park provides for a variety of amenities and activities, including two boat launch sites that provide access to local surface waters for boating, fishing, sailing and swimming. Additional features in the park include wooded trails, nature programs, walking and bicycle paths, in-ground swimming and wading pools, a water slide, 18 soccer fields, three small playgrounds, five pavilions, picnic tables, a snack bar and restrooms. Limited waterfowl hunting is permitted in season. Winter activities include sledding, snowshoeing and cross-country skiing. Fort Niagara State Park also includes the Old Fort Niagara Historic site, which attracted about 100,000 visitors annually. This park also houses a US Coast Guard facility.



Fort Niagara State Park



Four Mile Creek State Park

- **Four Mile Creek State Park**

Four Mile Creek State Park encompasses 248 acres and is located on Lake Road, east of Fort Niagara State Park. This park offers 275 camp sites and 2 yurts, a camp store, nature and bicycle trails, fishing and panoramic views of Lake Ontario. Other amenities include picnic tables, playground facilities, restrooms and laundry facilities, and snack bar and recreational programs. Four Mile Creek Park includes the mouth of Four Mile Creek and its surrounding marshlands, which provide excellent opportunities for bird watching. The park is open seasonally for camping from mid-April through mid-October. There are two dirt paths that at the eastern edge of the park that lead through a wooded area to Dietz Road, offering access between the State Park and Porter on the Lake Town Park.

- **Porter on the Lake Town Park**

Porter on the Lake Town Park is located along Lake Ontario, at the end of Dietz Road, immediately east of Four Mile Creek State Park. This 33.0+/- acre park provides waterfront access, as well as a number of other amenities. These include one large pavilion and two smaller pavilions, picnic tables, restrooms, basketball courts, a playground, a disk golf course and open fields for passive and active recreation. A stairway provides shoreline access to the Lake.

The Town of Porter maintains a paved walking trail that runs alongside the Niagara River from the Village of Youngstown line and the Town of Lewiston line. Although occasionally used by bicyclists, this path is not designed as a multi-use amenity to properly accommodate all users. There are also hiking trails for recreational use that are located in the State Parks. The Greater Buffalo Niagara Regional Transportation Council (GBNRTC) considers Lower River Road (SR18F) and Lake Road (SR 18) suitable for bicycle travel, but there are not designated bicycle lanes along either of these roadways.



Porter on the Lake Town Park – upland and lake access

Private recreational facilities in the LWRA include the Niagara Frontier Country Club. The Youngstown Yacht Club is located in the Village of Youngstown, outside the LWRA. The Niagara Frontier Country Club is a private membership, not-for-profit, club that is located on 130-acres situated along Lake Road in Sub-Area 2. The club is open seasonally and provides an 18-hole golf course and clubhouse with a dining room and bar.



Lower River Road Pathway

Niagara Frontier Country Club

2.5.6 Public and Underwater Land Ownership

There are only four upland properties located along the waterfront that are publicly owned. These include Fort Niagara State Park, Four Mile Creek State Park and Porter on the Lake Town Park, as well as the roadway right-of-way and lakeshore frontage (a total of 3.4 acres) in the Fort Niagara Beach residential area in Sub-Area 2. All other waterfront lands are held in private ownership. Underwater land ownership is discussed as follows.

▪ *Public Trust Doctrine and Underwater Land Ownership*

New York, upon attaining Statehood, succeeded the King of England in ownership of all lands within the State not already granted away, including all rights and title to the navigable waters and the soil under them (Public Lands Law, Section 4; People v. Trinity Church, 22 N.Y. 44, 1860; Langdon v. Mayor, 93 N.Y. 129, 1883). Broadly speaking, the State holds title to all underwater lands not otherwise conveyed away by patents or grants. The State holds title to these tidelands and submerged lands in its sovereign capacity in trust for the use and enjoyment of the public under the *Public Trust Doctrine* (People v. Steeplechase Park Co., 218 N.Y. 459, 1916; Appleby v. City of New York, 271 US364, 1926; Coxe v. State, 144 N.Y. 396, 1895). This legal doctrine emerged from the ancient concept that the sovereign had the right of way, an "incorporeal hereditament", to all navigable streams and waterways; the underlying theory being the protection of the public interest in fisheries and navigation.

State title to the public foreshore and submerged lands, and the power of disposition, is incident and part of its sovereignty, which cannot be surrendered, alienated or delegated, except for some public purpose or some reasonable use for the public benefit, and without impairing public rights in the remaining lands and water. Inherent in the nature of public trust lands is that they support diversified and important ecosystems without which many public rights, including fishing, swimming and the like, would be impossible to enjoy. The public interest demands the preservation and conservation of this vital natural resource against pollution, overuse, destruction and infringement by others, whether public or private. It is in the public interest that State and other governmental ownership of public trust lands be maintained and, when possible, recovered from private ownership. Where full public ownership no longer exists, the application of the Public Trust Doctrine requires that any remaining rights of the public to use such lands should be preserved and protected for present and future enjoyment.

Occupation of public trust lands by riparian (upland) owners for purposes of gaining access to navigable waters should be undertaken in a reasonable manner that does not unnecessarily interfere with the public's right of passage upon, the use of the waters overlying such lands, and other public trust purposes. Considerations of public safety, resource protection and the need for access at a given location may be utilized as factors in determining the level and types of access to be provided. Public use of publicly-owned underwater lands and lands immediately adjacent to the shore shall be discouraged only where such use would be inappropriate for reasons of public safety, military security, or the protection of coastal resources.

Ownership of Lakes Erie and Ontario, within the territorial limits of New York State, and all submerged lands, including the subsurface lying under the lakes and the Niagara River, is held by the State of New York, unless ownership has been granted to any other person or entity. The underwater lands of the Great Lakes and the River are susceptible to private ownership only for special purposes. The boundary line between State ownership of the lakebed or riverbed and ownership of the adjacent upland is the low water mark.

▪ *Underwater Land Grants and Leases*

Over the years, a small number of underwater land grants have been issued by the State along the shoreline of the Niagara River and Lake Ontario in the Town of Porter (see Table 2.7). These grants were issued for the express purpose of either *commerce* or *beneficial enjoyment*. Grants issued for commerce were given to shorefront businesses for more restricted activities and were usually written with conditions. If the conditions were not followed, the State could bring an action to declare the grant void and thereby recover ownership, per Section 78 of the Public Lands Law. Beneficial enjoyment grants were given to shorefront property owners without restriction and provided more complete title to the underwater lands. In either case, the grantee was given full ownership rights to the bottom lands. Grants for commerce were issued in the early to mid 1800's, and then the issuance of grants for beneficial enjoyment became more commonplace. Around 1890, the State began to restrict the grants issued for beneficial enjoyment, as well. Furthermore, in making grants of underwater lands, the State could also impose conditions on the use of these lands.

Water grant index maps were acquired from the NYS Office of General Services (OGS) Bureau of Land Management for the Porter waterfront area (see Appendix). These maps indicate that a small number of underwater land grants were issued in the area, primarily during the late 1800's and the mid 1900's. Approximately 7 grants were issued along the shoreline between 1891 and 1971. These underwater grant lands consisted of offshore area that was used for the installation of docks or other offshore structures.

Based on discussions with Kaleb Winters from the OGS Bureau of Land Management in March of 2017, the interest in underwater lands is attached to either the new upland property that is created through fill activity, or to the coterminous upland property. As ownership of the land changes hands, the historic interest in the underwater land moves with the title to the land. For private property, because the interest in the underwater lands is attached to the title, there is no need for the State to reconvey the lands to the new landowner. Therefore, underwater land ownership has been transferred through property sales, over the years, to the present-day owners of the upland properties. In the future, when shoreline property owners are proposing the installation of off shore docking facilities or other structures that require the use of bottom lands, confirmation of the historic land grants should be cleared with the OGS.

Table 2.7

Town of Porter Underwater Land Grants

Recipient	Type	Date Issued	Location	Size
Lobee Pump & Machinery	Two small areas - Unspecified	6/6/1966	East of Six Mile Creek	unknown
Town of Lewiston	Pipelines	9/8/1971	Directly west of Four Mile Creek	unknown
Harold A. Richmond	Two small areas – Unspecified*	6/5/1941	Directly east of Fort Niagara State Park	unknown
Niagara Frontier State Parks Commission	Underwater Land Ownership Transfer**	12/14/1966	Lands offshore of Fort Niagara State Park	220 acres
Tellico Johnson	Beneficial Enjoyment	10/12/1891	Niagara River shoreline	0.87 acres
Henry Howard	Beneficial Enjoyment	8/8/1892	Niagara River shoreline	0.44 acres
Burton Mitchell***	Beneficial Enjoyment	2/9/1921	Niagara River shoreline	3.42 acres
<p>* Likely associated with former Rumsey Park development ** Land transfer associated with establishment of Fort Niagara State Park. *** Land Patent interest in these underwater lands was surrendered and released on Oct. 13, 1931. Ownership of these underwater lands was reverted back to the State.</p>				

Source: NYSOGS, Bureau of Land Management.

▪ **Management of Underwater Lands**

As noted, State-owned underwater lands in the Niagara River and Lake Ontario are managed by the OGS. The OGS issues grants, leases, easements and other interests for the use and occupation of these underwater lands. They also investigate encroachments on littoral rights (the right of an upland owner to access the navigable waters of the lakes or river) and make sure there is no interference with navigable channels. The OGS reviews all NYSDEC and Army Corps of Engineers permit comments for proposed projects that affect State-owned bottom lands to ensure that the benefits of the public will not be deprived and that the environment will not be adversely impacted. The OGS strives to achieve satisfaction on the part of all parties involved prior to the issuance of an interest (grant, lease or easement) for the use of State-owned underwater lands.

The State Office of General Services Bureau of Land Management is the agency responsible for issuing grants, leases and easements for the use of underwater lands, and for other interests for docks and associated marine-related structures that are placed on State-owned

underwater lands. In the case of the Town of Porter, the OGS is the authorizing agency for the use of underwater lands for docks or other marine structures proposed along the Niagara River or Lake Ontario shoreline. The construction of any commercial dock or any private, non-commercial dock that exceeds 4,000 square feet in area size (including the perimeter) would require the granting of an interest (a grant or easement) from the OGS. Non-commercial structures that are less than 4,000 square feet in size (as measured from the outermost perimeter and including the surface area of the water contained within), less than 15 feet in height, and have a capacity of five or fewer boats, would not need an interest from the OGS. Hence, there are some docks along the Niagara River, which are not grandfathered through historic underwater land grants, and do not have standing (and mapped) interests. Commercial structures or non-commercial structures that exceed 4,000 square feet in size would need review and approval by the OGS, as well as the NYSDEC and Army Corps. of Engineers, depending on the extent of resource disturbance.

2.6 Surface Water Uses, Navigation and Harbor Management

2.6.1 Surface Water Resources

Surface waters in the Town of Porter LWRA include the Lake Ontario and the Niagara River. There are also two creeks that discharge to Lake Ontario and Four Mile Creek, as well as Six Mile Creek and a number of other smaller creeks and streams. Local surface waters are utilized for a variety of uses, including recreational boating and sailing, swimming, recreational fishing, and waterfowl hunting. The Niagara River is also a source for local drinking water supply and a discharge point for wastewater effluent. All local surface water bodies also receive significant stormwater discharges, whether through point sources or overland flow.

Lake Ontario is the 14th largest lake in the world and the smallest of the five Great Lakes. It has a surface area that measures 193 long by 53 miles wide, and is the fourth deepest of the five lakes.

The average depth in the lake is 283 feet (maximum depth 802 feet). Although similar in size to Lake Erie, Lake Ontario holds four times the volume of water. The drainage basin for the Lake Ontario watershed includes parts of Ontario, Canada and New York State. The drainage basin measures 24,720 square miles. The total retention time for water in the lake is six years (which is based on the volume of water in the lake and the mean rate of outflow).



Lake Ontario Shoreline



Lower Niagara River

The Niagara River is a connecting channel for the Great Lakes, linking Lake Erie with Lake Ontario. It also represents the international border between the United States and Canada. The river flows northward from Lake Erie for a distance of 36 miles, conveying an average flow of about 200,000 cubic feet of water per second. The river is comprised of upper and lower sections, which are separated by Niagara Falls. The Lower Niagara River is approximately 14 miles in length. The river supplies Lake Ontario with about 80 percent of its water, which is more than all other sources combined.



Four-Mile Creek is located about four miles east of the mouth of the Niagara River. The creek extends inland from the lake, running in a southerly direction through the Town of Porter and into the Town of Lewiston. With a few minor tributaries, the Four Mile Creek is part of the overall Twelve-Mile Creek watershed, draining to Lake Ontario. There is a 20+/- acre wetland marsh that lies between the large sand bar at the mouth of the creek and the Niagara Scenic Parkway. Above the parkway, the creek is relatively small, warm water stream that is an attractive habitat for steelhead trout and salmon.

2.6.2 Vessel Use and Navigation

Vessel use along the Porter waterfront occurs in the Niagara River and Lake Ontario. It is limited to small pleasure craft, which are used extensively for recreational boating, sailing and fishing. Access to the Niagara River from the LWRA can be gained from Fort Niagara State Park, where boat launch ramps and a U.S. Coast Guard Facility are located. Marinas, a yacht club and boat

launch facilities in the Village of Youngstown, outside of the LWRA, also provide access to the Niagara River in the immediate vicinity. There are no public docks or boat launch facilities along the Lake Ontario shoreline. There are also no docks for commercial vessels or commercial fishing industry support facilities located within the LWRA. Such uses and facilities can be found in the nearby Village of Lewiston, Town of Wilson and Town of Newfane, outside the LWRA.

- *Niagara River and Lake Ontario*

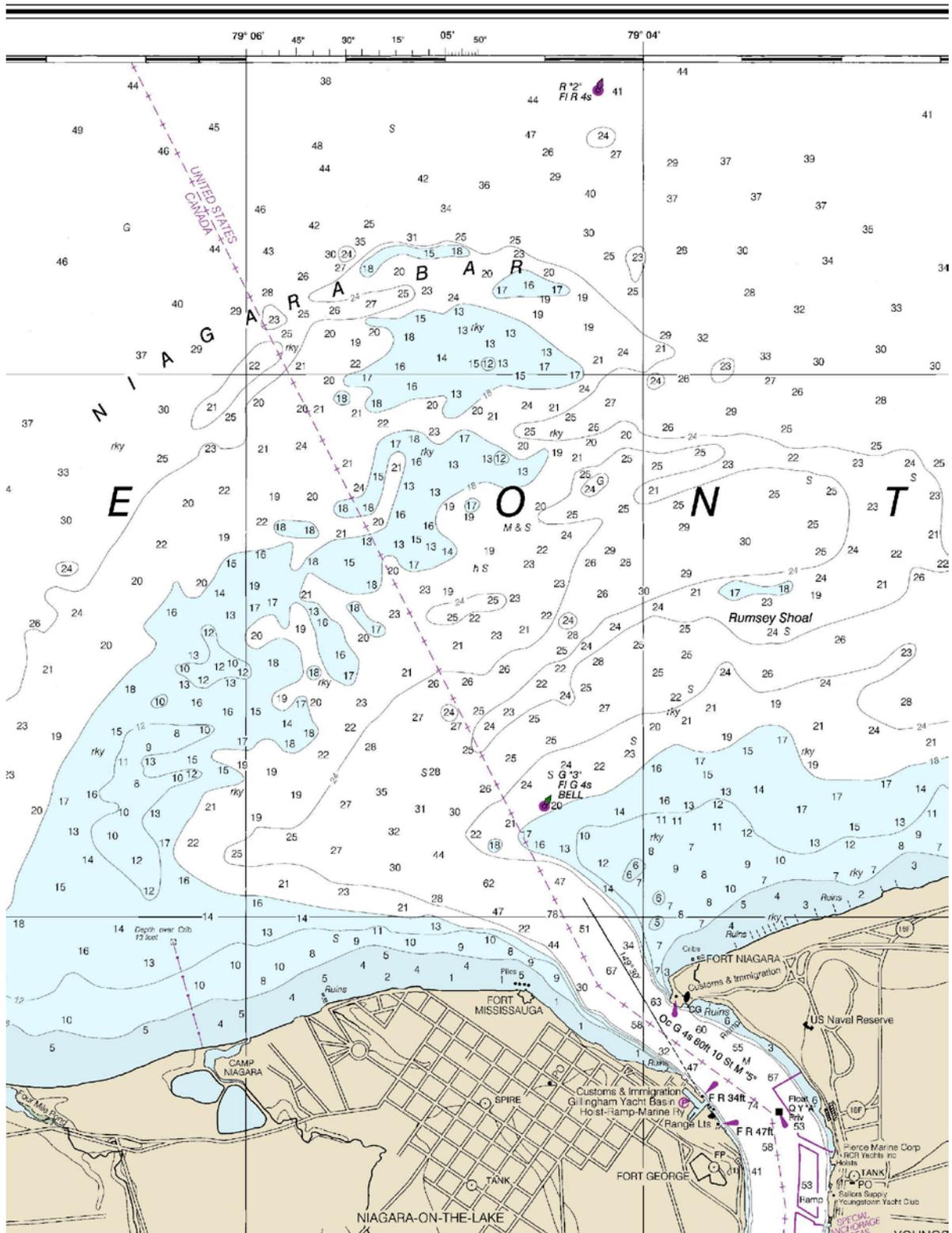
As previously noted, the Niagara River flows from the northeastern end of Lake Erie, passing over Niagara Falls, to Lake Ontario. The entrance to lake (and mouth of) the Niagara River is located between Fort Niagara, New York on the east and Fort Mississauga, Ontario on the west. The international boundary between the United State and Canada generally follows the middle of the river course through the lower Niagara River.

According to the National Oceanic and Atmospheric Administration (NOAA) nautical charts, the offshore water depths in the Niagara River range between 35 and 50 feet in the area that extends from the Town boundary to the Village of Youngstown boundary in Sub-Area 1. Water depths increase to between 50 and 65 feet from the southern boundary of the Village to the mouth of the river.

Water depths in Lake Ontario vary considerably (see Figure 2.4), ranging from between one and twenty feet closer to the U.S. and Canadian shorelines, to over 20 feet as you move into further reaches of the lake. Water depths in the middle of Lake Ontario exceed 100 feet. The shallow depths near the shoreline and the mouth of the Niagara River are due to the fact that the river carries a great volume of water, with a current that flows at approximately 2.2 knots³, depositing considerable amounts of sediment in Lake Ontario. This sedimentation forms extensive shoaling that extends for a radius of about three miles out from the mouth of the Niagara River. The Rumsey Shoal, which has water depths of about 17 feet, is an unmarked, detached shoal that is located about 1.5 miles north of Fort Niagara. The Niagara Bar extends northeast from shore, about two miles west of the river's mouth, to a point situated about three miles north of the river's mouth. The northern part of Niagara Bar shoal has depths of about 12 to 13 feet, with depths as low as eight feet found about 1.5 miles northwest of the mouth of the river. Commercial sand and gravel dredging is conducted intermittently in this area to maintain navigation.

³ National Oceanic and Atmospheric Administration, Nautical Booklet Chart No. 14822.

Figure 2.4
Navigation Chart



▪ *Navigation Aids*

The entrance of the Niagara River is marked by a lighted, water activated green bell buoy, with a four second flash. This buoy is located about a mile out into the lake from Fort Niagara. There is a lighted beacon located at Fort Niagara, on the east side of the mouth of the Niagara River channel. This light stands 80 feet above the water and is shown from a tower that has a white and green diamond-shaped daymark. Vessels moving between the Welland Canal (located to the west in Canada) and points east of the Niagara River must avoid the Niagara Bar by passing north of a lighted buoy that is situated just north of the bar and about 3.7 miles north of Fort Niagara. This is a red, lighted starboard hand buoy, with a four second flash.

There are additional navigation aids in the Niagara River, offshore of the Village of Youngstown. These consist of privately owned, floating beacons that identify the special anchorage areas, including the mooring area for the Youngstown Yacht Club.

2.6.3 Marinas and Docks

There are no public or private marinas within the Porter LWRA. There are two public boat launch ramps located within Fort Niagara State Park. Two separate launches are available (one for launch, one for retrieval), each with two lane concrete ramps. This park also offers restrooms, a fish cleaning station and parking for 50+ vehicles with trailers. A fee to use the park may be charged, depending upon time of year. Boat launching facilities are also available in the Village of Youngstown. There are two residential properties on Lake Ontario that share a private boat launch facility.

There are numerous private docking facilities found along the Niagara River shoreline that are associated with private residential properties, which enable residents to utilize the Niagara River for recreational boating and fishing. Boat docks along Lake Ontario are limited due to shoreline conditions and the seasonal impacts of lake waters.

The installation of docks, pilings, decks and boathouses along the Niagara River and on Lake Ontario, is regulated by the Army Corps. of Engineers and requires the issuance of a Regional Permit, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Structures that do not meet the conditions of the Regional Permit can be considered for approval under an Individual Permit. NYSDEC approval may also be required depending on the circumstances.

2.6.4 Recreational Fishing

Recreational freshwater sports fishing is a popular sport and a significant industry in Lake Ontario and the Niagara River. Whether from water or land, anglers are active throughout the year in search of numerous species of fish. Fish that can be found in the Lake Ontario and Niagara River waters in the Porter LWRA include lake trout, largemouth bass, smallmouth bass, chinook and Coho salmon, perch, steelhead (rainbow) trout, smelt and northern pike.

As previously noted, the Niagara bar, which is located northeast of the mouth of the Niagara River (Figure 2.4), is a huge sand and gravel deposit that extends about four miles north into the lake and two miles to the east. This area is one of the most productive fishing areas in the region, spring through fall. The Niagara River's warmer water extends in a plume into Lake Ontario, drawing baitfish to the river in early spring, resulting in good trout and salmon fishing in the "trench"—the deep channel that extends from the river's mouth out to the green buoy. From mid-April through May, Chinook salmon fishing is popular in the lake, along the "ledge" (northern edge of the bar) where water depths can reach 300 feet. Anglers also experience good catches of lake trout, Coho salmon and brown trout on top of the bar during that same time of the season. During summer, smallmouth bass, walleye and brown trout dominate catches on top of the bar. Chinook salmon catches peak again in mid-August through mid-September, as fish stack up along the ledge in preparation for their spawning run upriver.



The Lower Niagara River is one of New York State's finest trout and salmon fisheries. Beginning in early September, anglers can take advantage of one of the earliest Chinook salmon runs that Lake Ontario has to offer. From fall through spring, steelhead trout, brown trout, lake trout and the occasional Atlantic salmon can be caught on any given day.



Shoreline fishing is also popular in the area. Fort Niagara State Park offers a few locations to throw a line in the water. In addition, Four Mile Creek State Park, and the creek itself, attracts anglers seeking steelhead trout or salmon. Decks and private docks along the Niagara River provide additional opportunities. Constitution Park and the South Waterfront Dock, in the Village of Youngstown, and Joseph Davis State Park (all outside the LWRA) are

also popular fishing spots in the area.

Every year the NYSDEC releases huge amounts of fish into public streams, rivers and lakes across the State to restore native species and to enhance recreational fishing, including Lake Ontario and the Niagara River. In 2016, fish stocking in Lake Ontario includes approximately 1.88 million Chinook salmon, 316,000 Coho salmon, 662,170 steelhead trout, 495,620 brown trout, 156,270 Atlantic salmon, 384,250 lake trout and 68,250 walleye.

There are numerous charter fishing establishments, regional fishing clubs, fishing derbies and locations for trailer and car top boat launching in the nearby region. Boat launching in the LWRA occurs at Fort Niagara State Park. The Niagara Bar and lower Niagara River (Coast Guard drift, Johnsons drift and Peggy's eddy) are popular locations for "boat drifting". Maps (such as the Western New York Hot Spot Fishing Map and Niagara USA's Fishing and Outdoor Activity Map) provide a wealth of information about local fisheries, marinas and launch areas, shoreline fishing locations, charter fishing and licensing and the like. Information about when and where to fish in the area can also be found on the NYSDEC, Niagara County, Niagara Falls USA, and other sports fishing websites.



- *The Niagara River Anglers Association* – The Niagara River Anglers Association is not-for-profit, membership based sport fishing club that is dedicated to a clean environment, education and the preservation of wildlife. They have promoted clean water, fish stocking and wildlife preservation projects since 1982. This association established the 61-acre Walleye Ponds and Wilderness Preserve, on Balmer Road in the Town of Porter, where Walleye fry are raised and then transferred annually to the lower Niagara River.

2.7 Natural Resources

2.7.1 Water Quality

The LWRA includes portions of two separate watershed basins. The Niagara River is the receiving waterbody for the Niagara River watershed, which comprises the northern portion of the Niagara River/Lake Erie Basin. Lake Ontario receives waters from the Western Lake Ontario/Oak Orchard-Twelve Mile Watershed. In the LWRA, this would include flows from

Four Mile Creek, Six Mile Creek and other tributary streams, as well as overland flow. All told, Lake Ontario receives inflow from approximately 24,000 square miles of upland area.

Pursuant to Article 15 of the Environmental Conservation Law, New York State Department of Environmental Conservation (NYSDEC) created the Protection of Waters Program to prevent undesirable activities on water bodies by establishing and enforcing regulations that are compatible with the preservation, protection and enhancement of the present and potential values of the water resources; protect the public health and welfare; and are consistent with the reasonable economic and social development of the State.

In accordance with Title 6 of the New York Code of Rules and Regulations (NYCRR), Part 701- Classifications - Waters and Groundwaters, the NYSDEC assigns water quality classifications to surface waters in New York State. These classifications identify existing or expected best usage for each waterway or waterway segment in the State. Water quality classification categories that apply within the LWRA are noted below and in Table 2.8.

- Classification A-Special (A-S) - The best usages of Class A-S waters are a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. These waters are considered suitable for fish, shellfish and wildlife propagation and survival.
- Classification A - The best usages of Class A waters are a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. These waters are considered suitable for fish, shellfish and wildlife propagation and survival.
- Classification B - The best usages of Class B waters are primary and secondary contact recreation and fishing. These waters are considered suitable for fish, shellfish and wildlife propagation and survival.
- Classification C - The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. These waters may be suitable for primary and secondary contact recreation, although other factors may limit the use for such purposes.

In certain locations, surface waters with classifications A, B, and C may also have a standard of (T) or (TS) attached, which indicates the presence of trout or trout spawning. In such cases, this designation may afford additional protection for these waters. None of the surface waters in the Porter LWRA carry this distinction.

Table 2.8
Water Quality Classifications

Waterbody Segment	Index No.	Classification
Lake Ontario	Ont (portion 22 – Niagara River to Roosevelt Beach, Wilson)	A
Niagara River	Ont 158 (portion 1 – Lake Ontario to Niagara Falls)	A-Special
Four Mile Creek, mouth to SR 18 (Lake Road)	Ont 156 – Lake Ontario to Towers Corners	B
Four Mile Creek, SR 18 (Lake Road) to source	Ont 156 – Lake Ontario to Towers Corners	C
Six Mile Creek	Not assessed	-

Priority Waterbodies List

The water quality classifications assigned to waterbodies do not necessarily (or accurately) reflect all water quality issues and conditions. The Federal Clean Water Act requires states to periodically assess and report on the quality of waters in their jurisdiction. Therefore, the NYSDEC has developed a State-wide inventory of specific waterbodies that is based on monitoring and information drawn from other programs and sources. This inventory characterizes general water quality, the degree to which water uses are supported, and progress made toward the identification of quality problems and improvements. The NYSDEC Division of Water periodically publishes a list of the surface waters that cannot be fully used as a resource or have problems that can damage their environmental integrity. The “Waterbody Inventory /Priority Waterbodies List” is used as a base resource for the NYSDEC Division of Water program management. Separate Waterbody Inventory/Priority Waterbodies List Reports are prepared and maintained for each of the major drainage basins in the State. The list includes an assessment of water quality for waterbodies under six categories, which include:

- *Waters with No Known Impacts* – waterbody segments where monitoring data and information indicate no use restrictions or other water quality impacts or issues.
- *Threatened Waterbody Segments* – waterbody segments for which uses are not restricted and no water quality problems exist, but where specific land use or other changes in the surrounding watershed are known or strongly suspected of threatening water quality; or waterbodies where the support of a specific and/or distinctive use makes the waterbody susceptible to water quality threats

- *Waters with Minor Impacts* – waterbody segments where less severe water quality impacts are apparent, but uses are still considered fully supported (these waters correspond with waters that are listed as having “stressed” uses).
- *Waterbodies with Impacts Needing Verification* – these are segments that are thought to have water quality problems or impacts, but where there is insufficient or indefinite documentation. These segments require additional monitoring to determine whether uses should be restricted.
- *Impaired Segments* – these are waterbodies with well documented water quality problems that result in precluded or impaired uses.
- *UnAssessed Waterbodies* – waterbody segments where there is insufficient water quality information available to assess the support of designated uses.

Impaired waterbodies are deemed waters that frequently do not support appropriate uses. Impaired segments, waters with Minor Impacts and Threatened Waterbody segments are the focus of remedial/corrective and resource protection activities by the NYSDEC. Table 2.9 outlines the use impairments, types of pollutants and sources for each listed waterbody located within the Porter LWRA, which is part of the Lake Ontario Basin Waterbody Inventory area for the Priority Waterbodies List. This inventory evaluates conditions in Lake Ontario, the Niagara River and Four-Mile Creek, but water quality conditions in Six Mile Creek have not been assessed. Water quality, particularly at the mouth of the creek, is a local concern due to the use of on-site septic systems for sanitary waste disposal, which are a known source of contamination and impairment. This creek should be assessed to determine if the water quality is impaired.

Section 303(d) of the Federal Clean Water Act also requires states to identify *Impaired Waters*, wherein specific designated or appropriate uses are not supported, requiring the development of a *Total Maximum Daily Load (TMDL)* or other restoration strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses in order to restore and protect such uses. The 2016 Section 303(d) List of Impaired Waters identifies Lake Ontario, the lower segment of the Niagara River and Four Mile Creek as surface waters in the LWRA that require attention. A TMDL or other appropriate strategy is required for Lake Ontario and the lower Niagara River due to fish consumption advisories related to the known presence of contaminated sediments containing dioxin, mirex and PCBs.

The lower Niagara River and Four Mile Creek are identified as waters where the development of a TMDL may be premature and may be deferred pending further verification of suspected impairments and the cause, pollutant or source of water quality problems.

Table 2.9
Water Quality Impairments

Water Body	Category	Impaired Uses/Conditions	Severity	Type of Pollutant	Causes/Sources
<p>Lake Ontario Western Shoreline (Ont – portion 22)</p> <p>Shoreline from Niagara River east to Roosevelt Beach (Town of Wilson)</p>	Impaired Segment	<p>Fish Consumption</p> <p>Public Bathing</p> <p>Recreation</p> <p>Aquatic Life</p> <p>Water Supply</p> <p>Habitat/Hydrology</p> <p>Aesthetics</p>	<p>Impaired (<i>known</i>)</p> <p>Impaired (<i>known</i>)</p> <p>Impaired (<i>known</i>)</p> <p>Fully Supported (<i>known</i>)</p> <p>Fully Supported (<i>known</i>)</p> <p>Fair</p> <p>Fair</p>	<p><i>Known:</i> PRIORITY ORGANICS (PCBs, DIOXIN)</p> <p>PESTICIDES (MIREX)</p> <p>ALGAL/NATIVE PLANT GROWTH (CLADOPHORA)</p> <p><i>Suspected:</i> NUTRIENTS (PHOSPHORUS) Silt/Sediment</p>	<p><i>Known:</i> CONTAMINATED /TOXIC SEDIMENTS; Atmospheric Deposition</p> <p><i>Suspected:</i> AGRICULTURE; HABITAT ALTERATION; Streambank Erosion; Urban/Storm Runoff</p>
<p>Niagara River Lower, Main Stem (Ont 158-portion 1)</p> <p>12.0 miles</p>	Impaired Segment	<p>FISH CONSUMPTION</p> <p>HABITAT/HYDROLOGY</p> <p>Water Supply</p>	<p>Impaired (<i>known</i>)</p> <p>Impaired (<i>suspected</i>)</p> <p>Threatened (<i>possible</i>)</p>	<p>PRIORITY ORGANICS – (<i>Known</i>) PCBs and Dioxin</p> <p>PESTICIDES (<i>Known</i>) Mirex</p> <p>PRIORITY ORGANICS – (<i>Suspected</i>) PAHs</p> <p>PESTICIDES – (<i>suspected</i>) <i>Organic Chlor. /HCB</i></p>	<p><i>Known:</i> CONTAMINATED / TOXIC SEDIMENTS from Lake Ontario</p> <p><i>Suspected:</i> HABITAT MODIFICATION</p>
<p>Four Mile Creek Lower corridor and tributaries (Ont 156)</p> <p>1.5 miles</p>	Impaired Segment	<p>AQUATIC LIFE</p> <p>RECREATION</p>	Impaired (<i>known</i>)	<p>UNKNOWN TOXICITY, Nutrients, Pathogens</p>	<p><i>Suspected</i> Sanitary Discharges</p> <p><i>Possible:</i> UNKNOWN SOURCE Municipal; on-site septic systems; biological impacts; private, commercial, institutional</p>

(Capital letters indicate major pollutants/sources)

Source: NYSDEC.

As noted in the Waterbody Inventory/Priority Waterbodies List Fact Sheet for the Lake Ontario/Twelve Mile Creek watershed, aquatic life support and corresponding recreational uses (fishing) in Four Mile Creek are impaired by unidentified pollutants. Biological sampling that was taken in the vicinity of the Niagara Frontier Country Club golf course revealed severely impacted water quality conditions. The impact source determination indicated that municipal/industrial wastes were the primary cause. Such impacts suggest domestic sewage or other pollutants frequently associated with direct discharge of wastewater. As there are known stormwater discharges to the creek, which likely carry septic leachate which could be a contributing source of the contamination.

Niagara River Area of Concern

The Niagara River is located in Erie and Niagara counties in western New York. In the early part of the 20th century, the Niagara River was considered to be one of the most degraded places in North America. Over the past 50 years, major cleanup efforts in the river have reduced discharges of pollution and toxic chemicals. The goal is to have the Niagara River officially removed from the list of polluted places (hot spots) in the Great Lakes by December of 2019.

In 1972, the U.S. and Canada first signed the Great Lakes Water Quality Agreement, which was amended in 1983 and 1987. The 1987 amendment to this Agreement designated 43 Areas of Concern (AOCs) as a way to focus restoration work on these areas. Of the 43 AOCs, 26 are in the U.S., 12 are in Canada, and 5 are shared by both countries. Under the Great Lakes Water Quality Agreement, the International Joint Commission (IJC) independently monitors implementation of cleanup plans, and reviews and comments on proposals for delisting AOCs. Every three years, the IJC also assesses the progress of the partnering governments in undertaking activities under the Agreement. This assessment may include an examination of steps taken to remove impairments and cleanup AOCs.

The Niagara River was designated an AOC under an amendment to the Great Lakes Water Quality Agreement. The Niagara River AOC boundary extends from the mouth of Niagara River at Lake Erie to Smokes Creek near the southern end of Buffalo Harbor. The area was considered highly degraded due to:

- post-industrial and municipal discharges degrading water quality and producing bottom sediment problems,
- a long history of development affecting fish and wildlife habitat,
- metals and cyanides in bottom sediments,
- hazardous waste sites,
- two Superfund sites, and
- contaminated discharges from Lake Erie's watershed.

Niagara River Area of Concern



Habitat degradation and the survival of aquatic life in the Niagara River AOC have been impaired by toxic chemicals, such as PCBs, mirex, chlordane, dioxin, dibenzofuran, hexachlorocyclohexane, polycyclic aromatic hydrocarbons (PAHs), and pesticides. This degradation resulted in a number of beneficial use impairments, including:

- restrictions on fish and wildlife consumption,
- fish tumors or other deformities,
- degradation of the benthos layer,
- restriction on dredging activities,
- loss of fish and wildlife habitat,
- degradation of fish and wildlife populations, and
- bird or animal deformities or reproduction problems.

In 2012, the Great Lakes Water Quality Agreement was updated to enhance water quality programs that ensure the “chemical, physical, and biological integrity” of the Great Lakes. The

2012 agreement will facilitate United States and Canadian action on threats to Great Lakes water quality and includes strengthened measures to anticipate and prevent ecological harm. New provisions address aquatic invasive species, habitat degradation and the effects of climate change, and support continued work on existing threats to public health and the environment in the Great Lakes Basin, such as harmful algae, toxic chemicals, and discharges from vessels.

The Great Lakes Water Quality Agreement outlines the process for restoring Areas of Concern. This process involves developing a *Remedial Action Plan* to address the beneficial use impairments that have resulted from historic legacy of pollution for each AOC. Past municipal and industrial discharges, waste disposal sites and urban/stormwater runoff have long been the key source of contaminants to the Niagara River. Beyond this, water quality issues in the drainage basin are quite diverse and include non-point source pollution, stream bank erosion, urban /industrial runoff, sanitary discharges from municipal and on-site systems, habitat modification and agricultural activity. Shoreline development, bulkheading and other shoreline protection structures, dredging and stream modifications have also impacted the river.

Remedial Actions Plans are developed in three stages. Stage I identifies specific beneficial use impairments and the sources of pollution, Stage II lays out restoration actions and a plan for implementing those actions, and State III provides documentation that all the beneficial use impairments have been addressed and that the AOC is ready to be delisted. A combined Stage I/II RAP was developed for the Niagara River in 1994, followed by the development of the Niagara River Toxics Management Plan, which provided a summary of the progress being made toward the reduction of “priority toxics” carried in point and non-point source discharges to the river. An update to the Stage II RAP was completed in December of 2009. An additional update was prepared 2012, which documents work that has been accomplished, and work that remains to be completed, to address the beneficial use impairments.

Beginning in 2010, EPA awarded money from the *Great Lakes Restoration Initiative (GLRI)* to fund the Niagara River restoration project. The Great Lakes Restoration Initiative was launched to accelerate efforts to protect and restore the Great Lakes, which is the largest system of fresh surface water in the world. During fiscal year 15-19, federal agencies will continue to use GLRI resources to strategically target the biggest threats to the Great Lakes ecosystem and to accelerate progress toward long term goals for this important ecosystem (which are summarized in the GLRI Action Plan II). These actions will build on restoration and protection work carried out under the first GLRI Action Plan, with a major focus on:

- cleaning up Great Lakes AOCs,
- preventing and controlling invasive species,
- reducing nutrient runoff that contributes to harmful/nuisance algal blooms, and

- restoring habitat to protect native species.

Continued efforts to address the Niagara River AOC impairments through 2019 and beyond, are contingent upon the continuance of essential government funding.

Vessel Waste

Pursuant to Clean Water Act Section 312(f)(3), the State of New York has determined that the protection and enhancement of the quality navigable surface waters in the State requires greater environmental protection. Therefore, as a key component of a larger strategy to protect water quality, the State has designated most coastal waters and connecting waterways as *Vessel Waste No Discharge Zones* (NDZ). Vessel Waste No Discharge Zones are locations where it is illegal to discharge on-board sanitary wastes from boats into surface waters; boaters are required to use appropriate vessel pump-out facilities, which are available at most marinas, to dispose of treated and untreated sewage waste. Sanitary waste from boats often contains harmful levels of pathogens and chemicals, such as formaldehyde, phenols and chlorine, which severely harm water quality, pose a risk to public health, and impair marine life and habitats. The Niagara River and the Lake Ontario are designated NDZs.



Stormwater Drainage and Non-Point Source Pollution

Another primary impact to water quality in the Porter LWRA is non-point source pollution. Non-point source pollution is pollution that reaches a surface water body through unconfined or indiscrete means. Examples include stormwater sheet or overland flow (i.e. – unchanneled flow from paved surfaces, buildings and construction sites) which carries animal wastes, soil and sediment, road oil and other automotive by-products, pesticides and fertilizer; and groundwater infiltration that can carry contaminants from faulty cesspools or septic tanks or toxins from other sources of pollution. The best way to control the rate of non-point contaminant generation and transport in upland areas is through the use of best management practices (BMPs). Non-structural BMPs, such as reducing fertilizer and pesticide applications, and proper disposal of pet wastes, automobile waste oils, etc., are relatively inexpensive as compared to the costs of employing structural measures to mitigate pollution. Public Education is an important means of implementing best management practices.

As discussed in Section 2.9.3, the Town of Porter adopted Chapter 200-84 of the Zoning Law to establish minimum stormwater management requirements and controls to protect the general

health safety, and welfare of the public. This section of the Law sets forth the requirements and procedures for managing stormwater flows in the Town. It requires the preparation of stormwater pollution prevention plans for all construction and development activities.

2.7.2 Wetlands and Habitats (see Map 5)

Wetlands (swamps, marshes and similar areas) are areas saturated by surface or ground water sufficient to support distinctive vegetation adapted for life in saturated soil conditions. Wetlands serve as natural habitat for many species of plants and animals and filters for reducing excess nutrients from water that flows through them; they also absorb the forces of flood and tidal erosion to prevent loss of upland soils. The New York State Freshwaters Wetlands Act (6 NYCRR, Chapter X, Part 663.1) seeks to “preserve, protect and conserve freshwater wetlands and the benefits they provide, prevent the destruction and despoliation of freshwater wetlands, and to regulate use and development of such wetlands to secure their natural benefits, consistent with the general welfare and beneficial economic, social and agricultural development of the State”.

There are two types of wetlands found throughout the Town - State designated freshwater wetlands and Federal jurisdictional freshwater wetlands. State wetlands are those regulated by the New York State Department of Environment and Conservation (NYSDEC) and are identified by the existence of certain species of vegetation that grow well in wet soils. The New York State Freshwater Wetlands Act (Environmental Conservation Law – Article 24) protects all wetlands of 12.4 acres (5 hectares) in area or larger. The State also regulates the land area within 100 feet of protected wetlands. Wetlands smaller than 12.4 acres may be protected by the State if they are considered to be of local importance. State wetlands are ranked in four classes ranging from Class I to Class IV. Regardless of the wetland class, a permit is required to conduct any regulated activity within a wetland area or the 100-foot buffer area that surrounds the wetland.

- Class 1 wetlands provide the most critical of the state's wetland benefits, reduction of which is acceptable only in the most unusual circumstances. A permit shall be issued only if it is determined that the proposed activity satisfies a compelling economic or social need that clearly and substantially outweighs the loss of or detriment to the benefit(s) of the wetland.
- Class II wetlands provide important wetland benefits, the loss of which are acceptable only in very limited circumstances. A permit shall be issued only if it is determined that the proposed activity satisfies a pressing economic or social need that clearly outweighs the loss of or detriment to the benefit(s) of the wetland.

The second type of wetlands are federal jurisdictional wetlands. Federal jurisdictional wetlands are regulated under by the U.S. Army Corps. of Engineers (ACOE) under Section 404 of the Clean Water Act, irrespective of their size, and Section 10 of the Rivers and Harbors Act of 1899. Many wetlands that are designated as State wetlands are also federal wetlands; however, most of the smaller wetland areas that do not meet the State's minimum size requirement are only federal jurisdiction. These areas, which are mapped by the U.S. Fish and Wildlife Service, are designated as wetlands based upon the presence of three features: hydric soils, wetland vegetation and specific hydrologic conditions.

Under the law, although there is no required setback or buffer area, a permit is required from the ACOE for any structure or activity that takes place in, under, or over a navigable waterway or wetland area located adjacent to navigable waters (such as dock construction, dredging, and shoreline protection). In addition, any land use or activity that involves a discharge of dredge spoil material or placement of fill material into navigable waters or associated wetlands requires a permit, as well as activities that would drain or flood wetlands or significantly disturb the soil (such as land clearing, ditching, stream channelization, and excavating). Certain activities that impact streams or streambeds, including impoundments and watercourse alteration, may also require the issuance of a Protection of Waters permit (Water Quality Certification) from the NYSDEC, pursuant to Article 15 of the Environmental Conservation Law.

As shown on Map 5, the mouths and marsh areas of Four Mile Creek and Six Mile Creek are State-designated freshwater wetlands; there is also a large State wetland in Sub-Area 1. There are numerous areas of federal jurisdictional wetlands in Sub-Area 1, and along the creek corridors in Sub-Area 2.

- *Habitat Management*

Shoreline development, bulkheading and other shoreline protection structures, dredging and other stream modifications have also impacted habitat along the Niagara River. There one New York State designated significant coastal fish and wildlife habitat located within the Porter LWRA. Four Mile Creek Bay, located in Sub-Area 2, includes an approximate 20-acre wetland estuary that is located north of the Niagara Scenic Parkway, in Four Mile Creek State Park. This habitat encompasses all of the area below mean high water, including deep aquatic beds and emergent marsh. The mouth of Four Mile Creek is often closed off by a large sand and gravel bar in summer. The land area surrounding Four Mile Creek Bay is generally undeveloped, dominated by a broad band of mature deciduous forest.

Four Mile Creek Bay is one of the few sizeable areas of undisturbed coastal wetland remaining in Niagara County. Despite its small size relative to wetlands around eastern Lake Ontario, this area provides valuable habitat for a variety of fish and wildlife species.

Probable or confirmed breeding bird species that inhabit this area include great blue heron, green-backed heron, mallard, wood duck, belted kingfisher, and a variety of passerine birds. In addition, this area serves as a feeding area for herons and waterfowl during spring and fall migrations. Other wildlife species inhabiting the bay include muskrat, raccoon, and painted turtles.

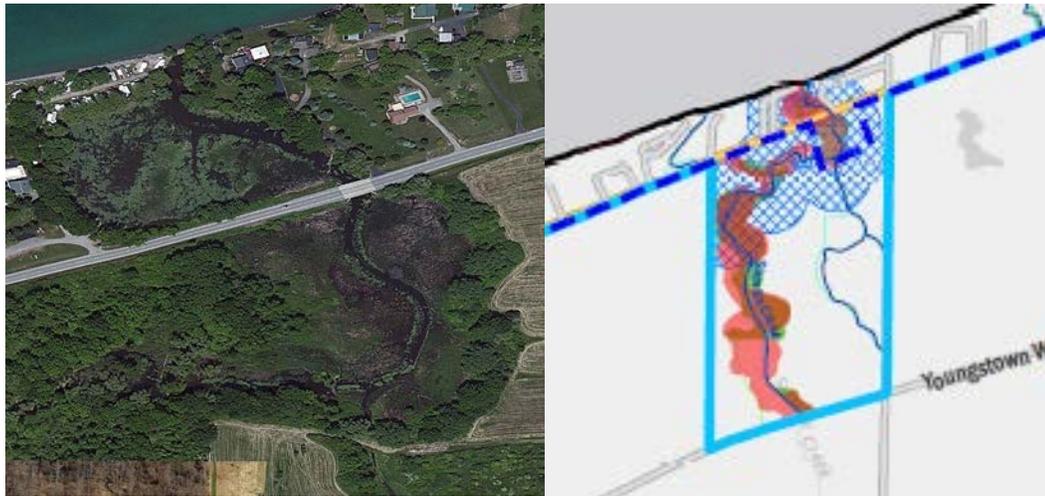
Four Mile Creek Bay Significant Coastal Fish and Wildlife Habitat



Four Mile Creek Bay is a productive warm water fisheries habitat, which is relatively uncommon in this section of Lake Ontario. The area supports sizeable resident populations of brown bullhead, rock bass, largemouth bass, northern pike, and other panfish. Four Mile Creek is also one of about four tributary streams in Niagara County that have significant runs of steelhead (rainbow trout) in the spring (late February-April), and runs of steelhead, brown trout, and salmon in the fall (September-November). These salmonid populations are the result of an ongoing effort by the NYSDEC to establish a major salmonid fishery in the Great Lakes through stocking efforts, including in Four Mile Creek Bay. The relatively small, but diverse fisheries in this area provide valuable opportunities for recreational fishing by residents of northern Niagara County and visitors to Four Mile Creek State Park. Access to the area for shoreline fishing is readily available from within the park, as well as from a parking area located at the intersection of Creek Road (SR 18) and Lake Road (SR18F).

Six Mile Creek is located east of Four Mile Creek, near Porter Center Road. The area at and around the mouth of Six Mile Creek contains a significant area of open waters, wetlands, and submergent vegetation. Like Four Mile Creek, this area includes both State and federally designated freshwater wetlands and provides extensive habitat for a variety of fish, bird and other wildlife species. This area is worthy of evaluation to determine its potential for listing as a State-designated Significant Coastal Fish and Wildlife Habitat.

Six Mile Creek and Wetlands Complex



The Lake Ontario *Lakewide Action and Management Plan* (LAMP) is a binational plan to protect and restore the health of Lake Ontario by addressing the chemical, biological and physical stressors affecting the lake. Both the Niagara River and St. Lawrence River are included in the scope of the Lake Ontario LAMP. The Lake Ontario LAMP is led by the U.S. Environmental Protection Agency, Environment Canada, NYSDEC, and the Ontario Ministry of the Environment. The LAMP guides the activities of these and other U.S. and Canadian federal, state, provincial, and tribal agencies by establishing ecosystem goals, objectives and indicators. There are several major issues affecting the health of Lake Ontario that the LAMP partners are working to address:

- *Degradation of the lower food chain* - As new species have been introduced to Lake Ontario, the lake's ecosystem, habitat and food web have changed. The former dominant lake bottom species, the native shrimp-like crustacean *Diporeia*, was nearly eliminated from the lake following the arrival of zebra and quagga mussels. This important food source for lake trout remains rare in offshore areas of the lake.
- *Loss of biodiversity* - The biodiversity of the lake's ecosystem is affected by aquatic invasive species, nearshore water quality, shoreline development, and the effects of water level regulation on coastal wetlands.
- *Fish advisories and consumption restrictions* - Restrictions on the consumption of most sportfish in Lake Ontario continue because of chemicals, such as PCBs, dioxin and mirex. The New York State Department of Health issues an annual advisory on eating sportfish (and wildlife) because of potentially harmful levels of chemical contaminants. Current restrictions are noted in Table 2.10.

- *Aquatic invasive species* - The Great Lakes ecosystem has about 180 different invasive species, and reducing their impact is a challenge for the LAMP partners. Invasive species affecting Lake Ontario include zebra and quagga mussels, sea lamprey, the fishhook water flea, round goby, spiny waterflea, and phragmites.
- *Nearshore water quality* - Nutrients are vital to Lake Ontario's food web; however, nutrient levels that are too high can lead to excessive algae, including blooms of nuisance algae and potentially toxic blue-green algae.

Table 2.10
Fish Consumption Advisories

 Waterbody (County)	 Fish	 Men Over 15 & Women over 50	 Women under 50 & Children under 15	 Chemicals of Concern
Lake Ontario (Niagara County)	White sucker	Up to 1 meal / month	Don't Eat	PCBs, Mirex, Dioxin
	White perch	West of Point Breeze- Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Lake trout	Greater than 25" – up to 1 meal / month; Less than 25" – up to 4 meals / month	Don't Eat	PCBs, Mirex, Dioxin
	Carp	Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Channel catfish	Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Brown trout	Greater than 20" – up to 1 meal / month; Less than 25" – up to 4 meals / month	Don't Eat	PCBs, Mirex, Dioxin
	All other fish	Up to 4 meals / month	Don't Eat	PCBs, Mirex, Dioxin
Niagara River (downstream of Niagara Falls)	Lake trout	Greater than 25" – up to 1 meal / month; Less than 25" – up to 4 meals / month	Don't Eat	PCBs, Mirex, Dioxin
	White perch	Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Carp	Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Channel catfish	Don't Eat	Don't Eat	PCBs, Mirex, Dioxin
	Brown trout	Greater than 20" – up to 1 meal / month; Less than 20" – up to 4 meals / month	Don't Eat	PCBs, Mirex, Dioxin

Source: NYS Department of Health, 2014.

The *Cooperative Science and Monitoring Initiative* (CSMI) is a bi-national effort that rotates through the Great Lakes on a five-year cycle, coordinating scientific monitoring and research to better understand the Great Lakes ecosystem. CSMI informs Great Lakes management programs, such as the Lakewide Action and Management Plans (LAMPs) and the Great Lakes Fishery Commission's Lake Committees, as well as provinces, states, and tribes in support of U.S. and Canadian Great Lakes Water Quality Agreement commitments. In 2013, the Lake Ontario effort took a collaborative approach to determine the source and fate of nutrients and food web production across trophic levels. The Lake Ontario effort included five research themes:

- The amount of phosphorus and nitrogen entering the lake and how these nutrients move through the food web;
- biological connections between nearshore and offshore areas of the lake;
- phytoplankton and zooplankton population dynamics and use of nutrients in the lower food web;

- fish production and population changes, diets and distribution in different areas of the lake; and
- transfer of nutrients and energy through the food web of the lake.

This research will address management and research priorities for Lake Ontario, including nutrient loading and management, the role of invasive species, and the ability of the lake to sustain fisheries.

▪ *Birding and Bird Habitat*

The Niagara River and portions of Lake Ontario are important habitat and overwintering areas for birds and waterfowl. The entire Niagara River corridor, from Lake Erie to Lake Ontario, is also a designated *globally significant important bird area*. The habitat along the river shoreline supports a diversity of migratory songbirds during spring and fall migrations. The few remaining marshes, such as that found at Four Mile Creek and Six Mile Creek, support breeding least bittern, northern harrier, wood duck, kingfisher, sedge wren, and various species of heron, among other species. Fort Niagara and Four Mile Creek State Parks are popular locations for bird watching enthusiasts. In winter, the lower Niagara River and Lake Ontario are also favored locations for waterfowl hunting.

Lake Ontario and the Niagara River are also important habitat and popular locations for migrating flocks of waterfowl. Bird counts have named up to 19 individual species of gulls on the Niagara River, including herring, ring-billed, greater black backed and Bonaparte's gulls. The river has hosted 50,000 to 75,000 Bonaparte's Gulls, which is approximately 10

percent of the world's population. Lesser common or rarer species spotted on the river include, the California gull, Iceland gull, Franklin's gull, Sabine's gull, and the slaty-backed and Ross's gulls, which nest as far away as Siberia.

The Niagara River is also a major wintering area for numerous species of ducks, cormorants, loons, geese and swans. Many of these birds can also be found on Lake Ontario, particularly in area of the Niagara Bar. Species such as the American widgeon, redhead, canvasback, common golden eye, old squaw, white winged scoter, artic duck, common merganser, red breasted merganser, bufflehead and long tail ducks are noted visitors to the area.

All Canada geese, including resident flocks, are protected by Federal and State laws and regulations. In New York, management responsibility for Canada geese is shared by the U.S. Fish and Wildlife Service (USFWS), U.S. Department of Agriculture (USDA), and the NYSDEC. It is illegal to hunt, kill, sell, purchase, or possess migratory birds or their parts (feathers, nests, eggs, etc.), except as permitted by regulations adopted by USFWS and NYSDEC. DEC generally does not allow relocation of geese with or without a permit.

Joseph Davis State Park, which is located immediately south of Sub-Area 1 in the Town of Lewiston, includes a designated Bird Conservation Area (BCA). This is one of 59 BCAs in New York State. The park has approximately 1,400 feet of shoreline along the Niagara River and 31 acres of underwater land. About two-thirds of this BCA is successional shrubland. Mature second growth forests are found in the eastern portion of the BCA and along the river shoreline. Other ecological communities found in the BCA include old fields, open water and wetlands. The fields host savannah sparrow, bobolink and eastern meadowlark. Species at risk are also found here, including State-threatened pied-billed grebe, bald eagle, northern harrier and common tern. State species of special concern include osprey, sharp-shinned hawk, Cooper's hawk, common nighthawk, whip-poor-will, horned lark, and yellow-breasted chat. Joseph Davis Park is also one of the best spots in the Niagara region for wintering eastern bluebirds.

- *Invasive Species*

An invasive species is a plant or animal that is foreign to an ecosystem. During the past two centuries, invasive species have significantly changes the Great Lakes ecosystem. These changes have greatly affected the economy and health and well-being of people who rely on the system for food, water and recreation. Invasive species have been identified as second only to habitat destruction as a cause of the decline of global biodiversity. They cause or contribute to habitat degradation and loss; the disruption of natural ecological processes; the loss of native fish, wildlife and tree species; and the loss of recreational opportunities and income. Common invasive species found in the Niagara River and Lake Ontario watersheds include:

- Zebra and quagga mussels (invertebrates)
- Round goby (fish)
- Spiny water flea (crustacean)
- Rusty crayfish (crustacean)
- Eurasian water-milfoil (aquatic plant)
- Hydrilla (aquatic plant)
- Non-native cattails (plant)
- Common reed/*Phragmites australis* (plant)
- Japanese knotweed (plant)
- Mugwort (plant)
- Shallow-wort (plant)
- Curly leaf pondweed (Aquatic plant)
- Water chestnut (aquatic plant)
- Purple loosestrife (Plant)
- Viral hemorrhagic septicemia (virus)

The movement of species occurs naturally through migration patterns, from climatic events, and by other environmental factors. Natural movement of species outside of their natural range happens infrequently and occurs over the course of many years. Humans, however, have greatly contributed to the movement of species, primarily through economic and social activities. In recent years, technological advancements, accelerated participation in world trade, and recreational activities have accelerated the pace of intentional and unintentional movement of species. Many species are introduced to new ecosystems, sometimes with disastrous results. According to the Ontario Ministry of Natural Resource's Aquatic Invasive Species Program, pathways for the introduction and spread of invasive species include:

- *Shipping* – large ocean-going vessels (e.g., commercial, naval and cruise ships) that operate in the Great Lakes and St. Lawrence River basin. Organisms are carried and released in ballast water or attach to the hull of vessels.
- *Recreational and commercial boating* – includes all watercraft (e.g., powerboats, personal watercraft, canoes and associated trailers and fishing equipment). Organisms can become attached to vessels and equipment and be transported between waterbodies, such as vegetation tangled in boat motors, mussels attached to hulls or live wells, and bilge water what contains plants, animals and micro-organisms.
- *Movement of live bait* – the use of live or dead organisms, such as minnows, worms, leeches and insect larvae, to catch fish. Live baitfish and other organisms unintentionally harvested (parasites, plant fragments and other non-target creatures) that are illegally released from bait buckets into waters from which they did not originate.
- *Aquarium and water garden trade* – the intentional release or unintentional escape of organisms, such as fish, plants, invertebrates, amphibians and reptiles, which are used either indoors as aquarium pets or outdoors as elements of water gardens. These organisms can survive and reproduce; plants can spread to new areas through flood events or if discarded into a waterway at the end of the season.

- *Canals and other water diversions* – artificial connections are built for transport and for water diversion between or within watersheds. This provides an unnatural pathway for organisms to travel between waterbodies.

Monitoring aquatic ecosystems is critical to preventing, detecting, and reducing the spread and impact of aquatic invasive species that threaten waters in the Niagara River and Lake Ontario. Educating landowners as to the proper control and eradication of invasive plant species is a critical part of maintaining watershed health. Identifying and removing invasive species is a vital aspect of restoring ecological health. Early detection and response is critical for their effective control. Another important, and often overlooked component, is the proper disposal of invasive plants. If not disposed of properly they will only contribute to the spread of new infestations (e.g., in trash, not compost piles or waterways).

Once established in a new environment, invasive species are often difficult and expensive to eradicate. Although control efforts may be ineffective and costly, they are sometimes necessary in order to minimize or eliminate the impact of invasive species on the environment. Complete eradication of invasive plants may be desirable; however, this is not always feasible.

Controlling existing populations and preventing their spread in the LWRA is a more practical and attainable goal. Control methods and timelines for treatment vary for each species. Therefore, consultation with the NYSDEC, the Western New York Partnership for Regional Invasive Species Management (PRISM – www.wnyprism.org), New York Sea Grant, or the Buffalo Niagara Waterkeeper is recommended.

2.7.3 Soils and Topography

Soils in Niagara County formed in glacial material that was deposited during, and shortly after, the ice age. During the Pleistocene epoch, the advancing ice sheet moved slowly southward and picked up rock and soil material. This material was transported south and later dumped to form hills, ridges and plains. This is known as glacial till.

Niagara County borders the southern shoreline of Lake Ontario to the north, Tonawanda Creek (Erie Canal) to the south, Genesee and Orleans Counties to the east, and the Niagara River to the west. The Niagara Escarpment divides the County into two plains, the Lake Ontario Plain to the north and the Huron Plain to the south. The escarpment, which is the primary topographic feature in the region, is a steep northward slope, with perpendicular bluffs that are exposed in some places. As you move away from the escarpment, lands to the north and south become flat, with little topography as you move toward each shoreline.

The Town of Porter is located primarily in the Lake Ontario Plain, with an average elevation of 246 feet above mean sea level. Generally, the land in the Town is gently rolling with slopes that are 10 percent or less. A number of streams flow through the slopes of the escarpment and along the plain to discharge in Lake Ontario.

According to the 1972 Niagara County Soils Survey, the dominant soil association in the Town of Porter is the Rhinebeck-Ovid-Madalin association, which makes up the soils in 15% of Niagara County. The largest areas of this soil association are found in the northwest part of the County, in the vicinity of the Village of Youngstown. Rhinebeck soils are deep and somewhat poorly drained. These soils typically have a silt loam surface layer, a silty clay or silty clay loam subsoil, and are underlain with silt and clay. They occupy broad areas within the association and are slightly dissected by erosion in a few places, especially in areas that boarder Lake Ontario. Rhinebeck soils comprise over 32 % of this classification; they also comprise about 46% of the soils in the LWRA (a more detailed breakdown of soils classifications in the LWRA is found in Appendix C).

The Madalin soils occupy the more nearly level, more depressional areas within the broader Lake Ontario Plain area. These soils are deep and poorly to very poorly drained. Madalin soils typically have a dark silt loam surface layer that is high in organic matter content, a silty clay subsoil, and a silt – clay under layer. Madalin soils comprise about 15% of the LWRA. While Ovid soils are found in limited areas in Sub-Area 1, they are not found in Sub-Area 2.

The minor soils in the Rhinebeck-Ovid-Madalin association are mainly of the Collamer, Hudson and Niagara soil series. These soils are intermingled with the major soils in this association. The Collamer and Hudson soils occupy knolls or higher elevations; the Niagara soils are mainly nearly level.

Natural drainage and slow permeability are the principal concerns for land development due to the flatness of the land. The soils in most areas can be drained with surface ditching. Tile lines can also be used to drain some of the wet, coarser textured inclusions. In many places the soils are unstable because they formed in deep lake deposits. Sanitary sewers and storm drainage facilities are recommended.

This soil association has a medium value for farming. Much of it is idle or is cropland that is not used intensively. Acreage closer to the lake is used primarily for fruit orchards, with increasing acreage being used for grapes. Where properly drained, these soils have good potential for apples, grapes, pears and other fruit, as well as grain and hay crops.

2.7.4 Flooding (See Map 5)

The Federal Emergency Management Agency (FEMA) developed a series of Flood Insurance Rate Maps (FIRMs) for the Town of Porter. The LWRA is covered by eight Community Panels Numbers: 36063C0156E for Sub-Area 1 and 36063C0014E to 360630041E for Sub-Area 2. The FIRM maps delineate the flood hazard boundaries (flood zones). These maps provide the basis for the implementation of the regular program phase of the National Flood Insurance Program within the Town. The FIRM maps for Porter were last updated in September of 2010.

FEMA flood zones are established based upon the degree to which an area is susceptible to flooding and flood damage. The flood zones that exist within the Town of Porter LWRA include "A" and "AE" Zones. Also known as the special flood hazard areas, the A and AE zones are the areas of land that would primarily experience still water flooding, without significant wave activity, during a 100-year storm event. In the A zone, no Base Flood Elevations or depths are shown on the FIRMs because no detailed hydraulic analyses have been done in these areas.



While in the AE zone, Base Flood Elevations have been derived and are shown on the maps as 249 feet above mean sea level along the Lake Ontario shoreline.

Within Sub-Area 1, the A zone special flood hazard area extends along the entire Niagara riverfront, potentially affecting any structures that are situated along the immediate shoreline (see Map 5). In Sub-Area 2, the AE zone encompasses the entire length of the Lake Ontario shoreline, as well as the lower portions of the Four Mile and Six Mile Creek corridors. The upper portion of Four Mile Creek, beyond the Niagara Scenic Parkway, is designated as an A zone. The A zone boundary extends south around the creek corridor all the way to the southern Town boundary, and beyond into the Town of Lewiston.

The AE one boundary for Six Mile Creek extends to the area just beyond the large marshland that is located on the south side of Lake Road. From there, the creek corridor is designated as an A zone, which terminates at Youngstown-Wilson Road.



In order for property owners who own lands located in the A and AE

zones to take advantage of the National Flood Insurance Program (NFIP), the Town Board has adopted federally approved floodplain management regulations to manage land use and development within the designated flood hazard areas (Chapter 93 of the Town Code). Property owners within designated special flood hazard areas are eligible to receive Federal flood insurance, and federally insured mortgage funding is available to buyers.

Chapter 93 is designed to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas, as designated on the Flood Insurance Rate Maps. Chapter 93 regulates development in special flood hazards areas and a Floodplain Development Permit is required for all construction and other development activities to be undertaken in areas of special flood hazard in the Town for the purpose of protecting the public from increased flood hazards and insuring that new development is constructed in a manner that minimizes exposure to flooding. Permits must be obtained from the Town of Porter Code Enforcement Officer, who is the designated Local Administrator of the Flood Damage Prevention Law.

2.7.5 Erosion

Certain sections of New York State's shoreline are vulnerable to coastal erosion through natural actions and human activities (including construction, shipping, boating and recreation). Erosion is the loss or displacement of land along the shoreline due to the action of waves, currents, tides, wind-driven water, waterborne ice and other storm impacts. It also means the loss or displacement of land due to the action of wind, runoff of surface waters and groundwater seepage. Other contributing factors that can significantly increase erosion include length of fetch,

wind direction and speed, nearshore water depth, tidal influence, wave height and length, and the duration of storm events.

While natural events play a major role in the coastal erosion process, human actions can intensify the effects of these processes and speed up the rate of erosion. Human contribute to the coastal erosion process by:

- removing or destroying vegetation and exposing bare soil to be easily eroded by wind, waves and precipitation;
- directing stormwater runoff over the bank or bluff, causing it to erode;
- constructing “hard” structures along the shore that block the natural movement of sand and sediment;
- building structures that are intended to prevent coastal erosion that may exacerbate erosion conditions on adjacent or nearby properties; and
- wakes from boats that produce wave action along the shoreline.

The Niagara River shoreline includes extensive areas with steep, vegetated bluffs that are highest at the northern extent of Sub-Area 1, with a gradual decrease in slope as you move further south along the river. The Lake Ontario shoreline also has areas of steep bluffs and high banks, as well as stony beaches and nearshore areas. The rugged appearance and lack of vegetated cover on the bluffs along Lake Ontario is an indication of the severity of the wave and wind action from lake storms. The shoreline of the lake is steeper to the west and gradually reduces in elevation as you move to the east. While steep bluffs are common in the area between Four Mile Creek State Park and Fort Niagara, where stairways extending down the bluff face can be seen, extensive lengths of stone beach and areas with lower banks are found in the eastern portion of Sub-Area 2.



Niagara River shoreline



Lake Ontario shoreline

▪ *Shoreline Protection*

The entire shoreline of Lake Ontario is subject to coastal erosion and has been designated by New York State as a Coastal Erosion Hazard Area (CEHA). Erosion along the lakeshore is

the result of wave action, tides and currents that run along the shore, as well as wind-driven water and ice. Stormwater runoff from the upland areas and groundwater seepage also contributes to shoreline erosion in the area. While also subject to erosion, the shoreline of the Niagara River has not been designated as a CEHA. The State requires that development and other activities in the CEHA be undertaken in a manner that minimizes damage to property and prevents the intensification of shoreline erosion. As necessary, such actions may be limited or prohibited to achieve these objectives.

To mitigate long standing shoreline erosion, various forms of shoreline protection are in place along small portions of the Niagara River and in numerous places along the Lake Ontario waterfront. Many private properties are protected by stone revetment, rip rap or rubble to protect the shoreline of the lake from erosion. There are also a few locations with seawalls. The most intensive erosion protection is found along the Fort Niagara State Park shoreline, where high concrete seawalls protect the historic Fort Niagara site.



Examples of shoreline modifications along Lake Ontario

In vulnerable areas, coastal erosion causes extensive damage to public and private property and to natural resources. While shoreline hardening may provide temporary relief from erosion in areas subjected to intense lake storms and significant wave action or current, structural measures are expensive to install, degrade shoreline habitat, interrupt natural shoreline processes, and may act to transfer erosion problems to adjacent areas. The NYSDEC discourages the use of seawalls because they do not dissipate wave energy properly and typically cause erosion in downdrift areas along the shoreline. Additionally, the wave action of the lake undermines the shoreline and overtime, can act to weaken existing seawalls and bulkheading where not well constructed. It is not uncommon to see structures fail during severe storm events. The NYSDEC stresses the importance of maintaining shoreline structures to ensure their integrity.

It should be noted, however, that in certain locations and where possible, alternative shoreline management techniques exist and should be considered for use as a first or next step for erosion protection, whenever possible. Examples of alternative measures for protecting the shoreline include bioengineering techniques and planted buffers that utilize deep rooted vegetation. These alternative solutions can result in a more naturalized shoreline, which has ecological and aesthetic benefits. Hard structural erosion protection measures should be used where there is a documented erosion problem and where alternative measures have been proven to be inadequate to protect the principal use. Conditions along the Lake Ontario shoreline, however, warrant the use of hard structures, primarily rock revetment, due to intensive wave action that has powerful erosive capacity. The planting of vegetation behind the revetment is highly encouraged, as it can help with water absorption, but these plantings alone will not provide adequate protection along the lake.

The construction or installation of erosion control structures in the CEHA is regulated by the NYSDEC pursuant to Article 34 of the Environmental Conservation Law. Pursuant to 6 NYCRR, Part 505 (the implementing regulations for Article 34), a permit is required for all proposed activities that are regulated in the CEHA (see Appendix D). The construction, modification or placement of any structure that would materially alter the condition of the shoreline, including grading, excavating, dumping, dredging, filling or any disturbance of soil is a regulated activity that requires a permit. The Town of Porter could consider adopting a local CEHA law, which would enable the Code Enforcement Officer to be more actively involved in permitting and the installation of erosion protection structures. It should be noted that any locality that adopts a local Article 34 law cannot weaken the regulations. The NYSDEC will work with local communities to provide assistance and ensure that they are properly regulating structures and issuing permits.

The area extending 25 feet landward from the top of the bluff is considered the Natural Protective Features Area (natural protective features include bluffs, dunes, beaches and nearshore areas). Structures are not permitted to be located within this setback area. In some areas along the shoreline, erosion is occurring at a more rapid rate of one foot or more per year. These areas have been designated as Structural Hazard Areas. The boundary for structural hazard areas starts at the inland boundary of the natural protective features area, with the full width of the area determined by the estimated rate of recession (the long-term average of one or more feet per year multiplied by 40). According to the NYSDEC, some areas of the Porter shoreline have erosion (recession) rates estimated at up to 2½ feet per year. Therefore, in a few areas where erosion has been more extreme, the building setback can extend up to 100 feet or more back from the shoreline (in addition to the 25-foot natural protective area setback). Although no homes in the area are known to be in danger, there are areas where residential structures are situated closer to the top of the bluff. These include the

Woodcliff Drive residential community situated immediately west of Four Mile Creek State Park, the Sunrise Lane community just west of Dietz Road, the Porter Center Road extension, the Old Lake Road area, the Uneda Beach area, and a few other homes scattered randomly along the shoreline.

Aside from the flooding and erosion experienced as a result of extreme weather conditions in 2017, shoreline erosion in Porter has not been severe in the past few years. Nonetheless, intense storms that bring large amounts of rainfall can (and do) have an impact. The springtime is the most vulnerable period when the ground can become very saturated. Experience in the area has also shown that erosion is more prominent where poor stormwater drainage in the upland area overburdens the bluff. Surface runoff is a considerable problem. When the soil becomes saturated at the top of bluffs it can exacerbate their failure, particularly if they are being impacted and undermined by wave action at the toe along the shoreline. Although the Code Enforcement Officer can only recommend that existing homeowners implement drainage improvements to help prevent erosion, newly built structures should be required to employ drainage measures to ensure that stormwater discharged from gutters and sumps is properly managed and not conveyed toward or over the bluff and down to the lake shore. Residents can install plantings above the top of bluffs to help absorb stormwater flows. French drains are also recommended. The NYSDEC can provide guidance to help property owners protect their lands.

- [Lake Ontario Water Levels](#)

Coastal flooding and erosion on the Great Lakes occurs when strong wind and storms increase water levels, particularly during the winter and spring. Lake Ontario is located at the eastern end of the five great lakes system, receiving flow from the other lakes as the system drains to the St. Lawrence River and ultimately, the Atlantic Ocean.



The water level in Lake Ontario is influenced by inflow received from the drainage basin surrounding the Lake (watershed areas), as well as inflow contributed from the upper great lakes, in particular Lake Erie, which contributes 85 percent of the total inflow of water to Lake Ontario. However, water depths in Lake Ontario are also affected by the regular diversion of lake water for the St. Lawrence Seaway Power Project (Moses-Saunders Dam),

which is located between Massena, New York and Cornwall, Ontario, at the eastern end of the lake.

The International Joint Commission was established under the Boundary Waters Treaty of 1909 to help the United States and Canada prevent and resolve disputes over the use of the waters that the two countries share. Its responsibilities include considering applications for project that affect the natural levels and flow of boundary waters, such as the Moses-Saunders Dam. In 1931, New York Governor Franklin D. Roosevelt signed the Power Authority Act, allowing for the development of the St. Lawrence River for power use. In 1952, President Dwight D. Eisenhower approved a hydroelectric dam for the river; in October of 1952, the International Joint Commission (IJC), authorized construction of the dam and a navigational lock. In 1956, the IJC established the International St. Lawrence River Board of Control, as a mechanism for regulating the river, above and below the dam. At that time, criteria were established for managing water levels and flow.



Natural factors, including precipitation, wind and evaporation, along with surface water runoff, are among the primary drivers of water levels in Lake Ontario and the St. Lawrence

River. The management of water levels has provided substantial benefits to the region by reducing flooding and erosion along the Lake Ontario shoreline and providing more favorable conditions for water intakes, recreational boating, commercial navigation and hydroelectric power generation. However, current day water levels and flows were still being managed according to criteria developed in the 1950's, which relied upon water supplies to Lake Ontario that were recorded between the 1860's and 1950's. The IJC recognized that the region's population, economy, mix of water uses and scientific knowledge were different today than they were over 60 years ago or more, and will be different in the future from what they are today. With an understanding that data, technology and knowledge of the cause and effects of fluctuating water levels are far superior today than what they were in the 1950's, the IJC decided to study an updated approach for managing water levels and flow. The intent of this approach could reflect what has been learned since the early implementation of the water level and flow regulation plan, and include a system to monitor social, economic and environmental impacts of water level regulation, as well as the effect of global climate change on water supplies and storm events, to be more responsive to the region's diverse and changing needs. The new approach was realized as Plan 2014, which is a new regulation plan for determining and managing water levels and flows in Lake Ontario and the St. Lawrence River.

Starting in 2000, extensive scientific study, public engagement and governmental review was conducted. Between 2000 and 2006, technical experts and stakeholders worked together to build evaluation models and tested hundreds of alternatives, with public involvement throughout the process. The IJC continued to evaluate and optimize the alternatives that resulted from the five-year Lake Ontario-St. Lawrence River Study, holding public meeting in 2012 and public hearings in 2013. The IJC issued an order of approval for Plan 2014 in December of 2016, to replace the outdated system for regulating flows that was developed in the 1950's. The IJC instructed the International St. Lawrence River Board of Control to set water levels and flows in accordance with the Plan 2014 recommendations, beginning in January 2017.

The sixteen years of study and review indicated that the existing regulation plan and criteria for managing water levels and flow has altered the natural patterns of water level fluctuations on Lake Ontario and the upper St. Lawrence River, and has severely stressed coastal wetlands, which are essential for the well-being of the lake and river ecosystems. The old regulation plan reduced the diversity of plant life in wetland areas and disrupted the cycles of wetland rejuvenation, creating conditions that favor areas dominated by cattails. Water level patterns have a direct influence on the breeding and nesting success of marsh birds, fish and amphibians that inhabit wetland areas. Re-establishing a more diverse ecosystem can better

resist impacts from environmental threats such as pollution and invasive species, which have taken a toll on the lake and river.

Since the implementation of Plan 2014 was commenced in January 2017, the region experienced record breaking rainfall (particularly between April and June of 2017), which has had a severe impact on the Lake Ontario and St. Lawrence River system. A combination of factors caused unprecedented flooding and erosion, including:

- an unusually mild winter and wet weather,
- above normal inflow from the upper great lakes,
- a record setting spring “freshet” in the Ottawa River basin (sudden rise in water levels from heavy rain and/or snow-ice melt), and
- heavy rainfall across the Lake Ontario and St. Lawrence River system that continued through spring and early summer.

Water entered Lake Ontario from the Niagara River and the St. Lawrence River from the Ottawa River, in addition to stormwater runoff that entered the entire system from watershed drainage throughout the region, all coming in much faster than it could be emptied. This resulted in significant flooding and erosion along the Lake Ontario shoreline, particularly the south shore of the lake, and in the Lake St. Louis area, particularly around Montreal, where water levels rose even higher above normal than in the lake. IJC representatives explained that as more water was released through the dam from the lake, it caused water levels to significantly rise in the Montreal area.

The Board of Control adjusted water levels in the lake in response to the rainfall impacts; as conditions continued to change, it became a balancing act (the Board increased outflow 17 times and reduced it 13 times between April 5 and early May, 2017 alone). It was more about how much water was coming into the system, and the rate of increase, rather than how much was being released, and lake level adjustments were made based on Plan 2014 guidance and the judgment of the Board of Control. With the agency facing the highest water levels since 1993, demands for the prevention of flooding and erosion were high. A State of Emergency was declared by the Governor of New York State, allowing the NYSDEC to issue emergency permits for flood and erosion protection. While many blame the Plan 2014, the IJC indicated that the extreme wet weather was the primary cause of the problems on Lake Ontario, noting that the lake water levels would be within two inches of where they were at the height of the crisis had the 1950’s regulation plan not been changed (see Appendix E). As spring is typically the rainy season, recent events set a good example for the IJC Board of Control to use for addressing future extreme water level fluctuations and regulation.

There is really no long-term solution for flooding and erosion as the Lake Ontario shoreline is actively changing and will continue to do so well into the future. Property owners should make an effort to understand the natural processes of the lake and act to keep existing shoreline protection maintained, plant vegetation as needed along the top of bluffs and behind (upland of) stone revetments, and locate structures a safe distance from the shore. Property owners also need to recognize that permanent docks and other such structures are subject to future impacts and storm damage.

2.7.6 Environmental Hazards and Constraints

There are no known inactive hazardous waste sites within the LWRA. The waterfront has no history of industrial or wide scale commercial use. The area has traditionally been used for recreation and residential development.

2.8 Historic, Cultural and Scenic Resources

2.8.1 Historic Sites and Structures

The Town of Porter is located in northwestern Niagara County, bounded by Lake Ontario to the north, the Town of Wilson to the east, Lewiston to the south, and the scenic Niagara River to the west. It was incorporated in 1812, formed from the Town of Cambria. The Town has one village, the Village of Youngstown (population 1,935), located on the Niagara River at the western edge of the Town.

Porter was named after the first judge of Niagara County, the Honorable Augustus Porter. Long before incorporation, the area had been inhabited by members of the Iroquois Confederacy. Early American settlers did not move into the area until the early nineteenth century.

The most significant historic and cultural site in the Town of Porter is Fort Niagara, prominently and strategically positioned on the shore of Lake Ontario at the mouth of the Niagara River. The Fort's grounds have changed hands several times throughout its history. The Iroquois Confederacy were the first to realize the strategic importance of the site. The French erected the first permanent fortifications on the site in 1726. Around 1759, the French began construction of a building that would become known as the "French Castle," which still stands as a major landmark in the Town.

The British captured the Fort from the French during the French and Indian War in 1759 and did not relinquish their control of the premises until 1796 when the United States gained control. America's first grip on the Fort was relatively short-lived, as the British re-captured it in 1813, during the War of 1812. Finally, at the end of the War of 1812, Fort Niagara was released back to

the United States. From 1815 to 1963 the Fort was utilized by the United States Army as a barracks and training station. The United States Coast Guard has had a station situated below the Fort's northwestern corner on the Niagara River since 1893, and retains an active presence.

Old Fort Niagara is an historic resource, consisting of over two dozen contributing buildings. The property is listed on both the National Register of Historic Places and the New York State Register of Historic Places. It also has the distinction of being designated as a National Historic Landmark (NHL) – one of only 268 NHLs in New York State. It is a critical component of the Niagara Falls National Heritage Area, which is one of only four National Heritage Areas in New York State. The property is located within Fort Niagara State Park. The centerpiece of the Fort is the circa 1759 French Castle, a stone, symmetrical/rectangular, imposing, three-story fortified chateau overlooking Lake Ontario. The French Castle features a hipped roof, over fifteen gabled dormers, and over eight chimneys. Other outbuildings include a bake house/ovens, a well, a furnace, a powder works, a warehouse, a garage, and the earthworks and brick/stone fortifications that comprise the Fort, as well as other minor structures.

The U.S. Coast Guard Station Niagara, which is part of the Sector Buffalo Area of Responsibility, is also located on the Fort's grounds. The current Station is a two-and-one-half-story Colonial Revival building, complete with gambrel roof, symmetrical fenestration, and gabled dormers. It was constructed circa 1925. The Coast Guard is the only member of the United States Armed Forces that maintains a presence at Fort Niagara.

Another prominent historic structure on the grounds of Fort Niagara State Park is the circa 1871 Fort Niagara Lighthouse, which was built to replace the light that was removed from roof of the French Castle. The lighthouse is constructed of rusticated stone and brick and features an octagonal shaft. A lighthouse keeper's building was built nearby circa 1897. The lighthouse was raised an additional 11'4" in 1900 to increase its visibility to ships entering the mouth of the Niagara River.

Directly across from Fort Niagara State Park on Lake Road is the John Carter Farmstead, which is listed on the National Register of Historic Places and the New York State Register of Historic Places. The Farmstead consists of two contributing buildings and two non-contributing buildings. The main house is a mid-nineteenth century Greek Revival/Italianate building constructed circa 1858. It was listed under Criterion A (Broad Patterns of History) and Criterion C (Distinctive Type, Period, or Method of Construction).

The Town's National Register and State Register properties are delineated on the Figures 2.4 and 2.5.

Figure 2.4



Figure 2.5

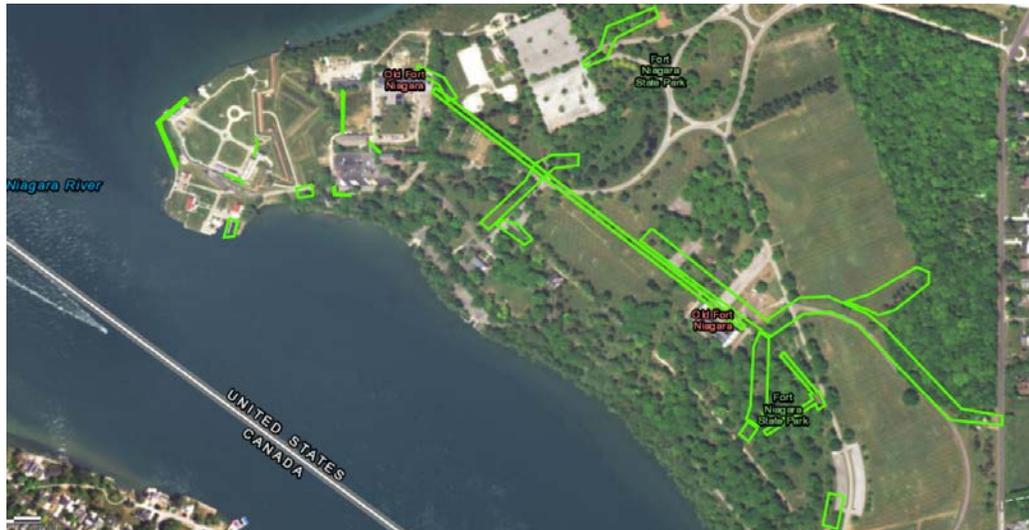


2.8.3 Archaeological Resources

Niagara County and, in particular, the Town of Porter are rich in cultural history. Long before Europeans arrived, Native Americans inhabited the area. The extensive pre-contact history, coupled with the more well-known and recent history of European settlement and interactions with Native Americans in and around Porter leads to a relatively high likelihood of finding artifacts during both light (e.g. simple grading/ earth disturbance) and intensive (e.g. construction of new buildings) site development processes. Several Phase 1 and Phase 2 archaeological

surveys have been conducted within the LWRP boundaries, in and around Fort Niagara and Fort Niagara State Park. A map depicting the location of these surveys can be seen in the aerial imagery (Figure 2.6) below, outlined in green:

Figure 2.6

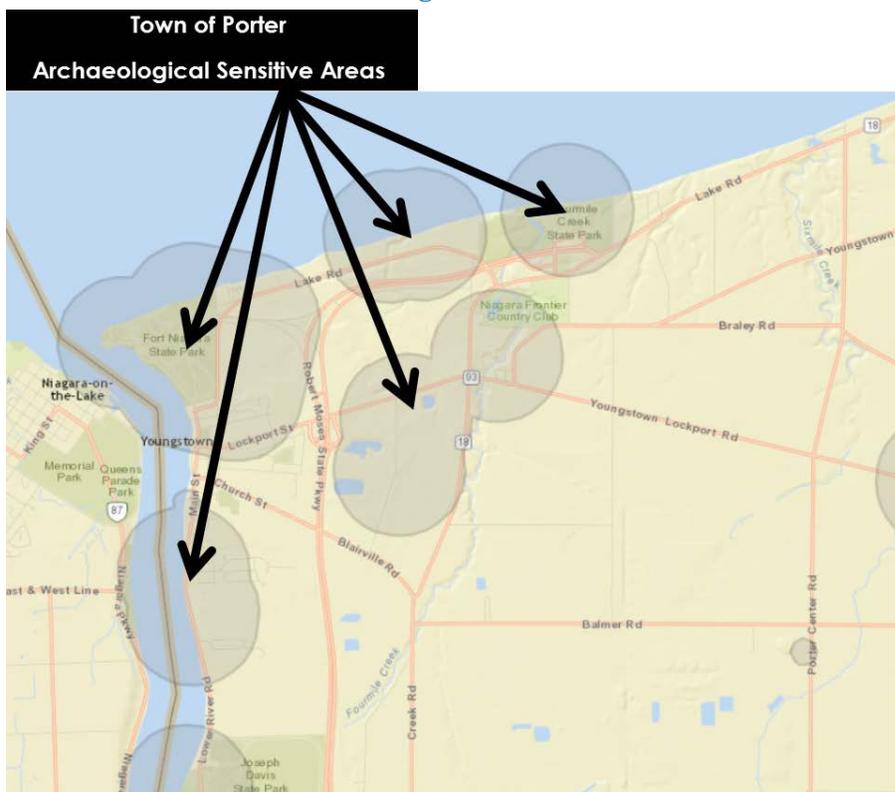


The State has identified over a dozen Archaeologically Sensitive Areas (ASA) within the Town of Porter corporate limits (see Figure 2.7). Many of these ASAs are located within the LWRA boundaries, along the Niagara River, near many of the creeks located within the Town, and along the Lake Ontario shoreline. Proposed projects occurring within these ASAs will most likely need to be reviewed by the State Historic Preservation Office and further archaeological investigation, in the form of Phase 1 and/or Phase 2 surveys, might be required. The ASAs are depicted on the map below with shaded circles, all the lands that fall within the shaded circles are considered archaeologically sensitive.

2.8.4 Scenic Resources

There are no Scenic Areas of Statewide Significance (SASS) within the Porter LWRA, as designated by the Secretary of State (SASS's are currently limited to six areas in the Hudson River Valley and on Long Island). Although not formally designated, the scenic resources along the waterfront areas in the Town of Porter are locally significant. These scenic resources consist primarily of the dramatic vistas of Lake Ontario and its shoreline, as well as the Niagara River. The Lake can be viewed from portions of Lake Road (SR 18), as well as from the State and Town parks. Lower River Road (SR 18F) provides excellent view of the Niagara River gorge.

Figure 2.7



There are a number of scenic trail resources that extend through the LWRA. These are discussed as follows.

- *NYS Great Lakes Seaway Trail*
 Lake Road (State Route 18) and Lower River Road (SR 18F) are segments of the NYS Great Lakes Seaway Trail and designated as National and State Scenic By-Ways. The Great Lakes Seaway Trail is a 454-mile scenic route that stretches across 10 counties that parallel Lake Erie, the Niagara River, Lake Ontario and the St. Lawrence River. Designated as a National Recreation Trail, this route is intended for use by car, RV, tour bus, bicycle or boat (where feasible). Green and white markers are posted along the trail to guide travelers who journey along the shoreline. In the Town of Porter LWRA, Lake Road and Lower River Road are segments of this trail system, providing stopping points and views of Lake Ontario and the Niagara River. Panoramic views of these waterways can be achieved from Fort Niagara State Park, Four Mile Creek State Park, Porter on the Lake Town Park and a few viewing locations along Lower River Road.



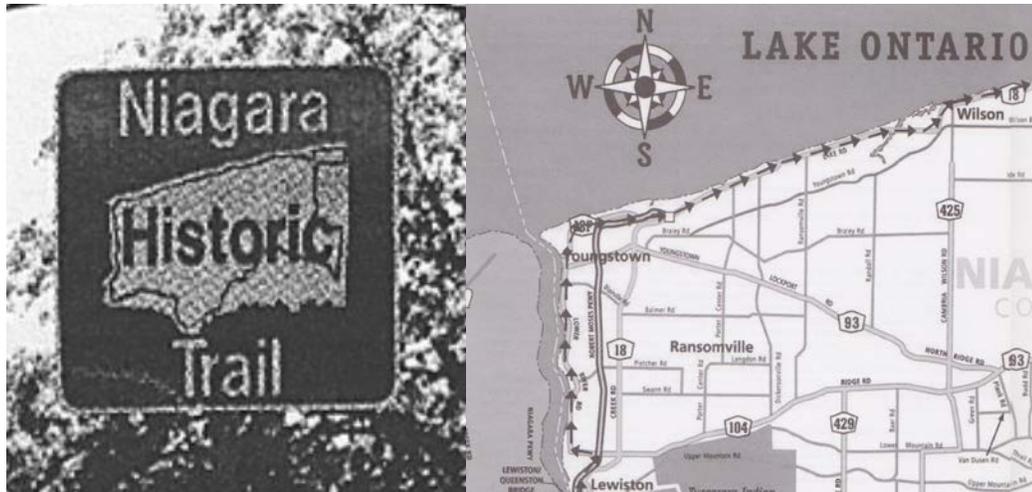
- *Audubon Niagara Birding Trail*

The Buffalo Audubon Society has identified a regional birding trail that extends 115 miles from the shores of Lake Erie at Woodlawn Beach State Park, in the Town of Hamburg, this trail follows the Niagara River to Lake Ontario, and then on east to the Iroquois National Wildlife Refuge in Orleans County. The Audubon Niagara Birding Trail, which is a portion of the larger trail system, starts in Niagara Falls and passes through the Town of Porter. This trail includes four State parks, including Joseph Davis, Fort Niagara, Four Mile Creek and Wilson-Tuscarora, which are identified as good viewing areas for birdlife. The Buffalo Audubon Society notes that “the Niagara River is the first site in North America to be identified bi-nationally as an Important Bird Area (IBA). The binational IBA was dedicated by the National Audubon Society, Canadian Nature Federation, American Bird Conservancy, and Bird Studies Canada on December 11, 1996.”⁴

- *Niagara Historic Trail*

Lake Road (SR 18) and Lower River Road (SR 18F) are also scenic segments of the Niagara Historic Trail. The Niagara Historic Trail was put into place in 1975 and, at the time, its official trail map served as the County’s official bicentennial publication to help commemorate and celebrate the 200th anniversary of the founding of the United States of America. The Trail roughly follows the perimeter of Niagara County, passing through the Town of Porter as it follows the Niagara River northward and then Lake Ontario eastward. This marked trail provides visitors with a self-guided tour of historic and cultural points of interest in each of the communities along the route. Points of interest in the Porter LWRA include Old Fort Niagara and the Oakland Rural Cemetery, among other locally historic sites.

⁴ Buffalo Audubon Society, *Nature Tourism in Buffalo Niagara*, <http://www.buffaloaudubon.org/docs/BufferoAudubonNatureTourism.pdf>



Efforts should be made to enhance and improve the trail corridors that extend through the LWRA in recognition of their designation. Efforts should also be taken to protect, and where possible, improve the visual quality and visual accessibility of the waterfront areas in the LWRA. Improved signage and the enhancement of gateway features should be considered. Furthermore, in accordance with federal regulations, the erection of any off-premise signs along State and National Scenic By-Ways is prohibited. In accordance with the Scenic By-Way designation, views of Lake Ontario and the Niagara River should also be protected and improved, wherever possible. This can be done locally, through the site plan review process.

2.9 Public Infrastructure (Maps 6 and 7)

2.9.1 Water Supply

The entire Town of Porter is served by public water that is provided from the Niagara County Water District. The source of water is the west branch of the Niagara River. The Niagara County Water Treatment Plant is located on Williams Road, just north of River Road, outside of the LWRA boundary (see Map 7A). Intake pipes for the treatment plant extend through a narrow parcel owned by the Water District, which is situated along the west side of the large trailer park facility, at the western end of Sub-Area 1.

2.9.3 Wastewater Management

The Town of Lewiston provides wastewater collection and treatment service to limited portions of the Town of Porter (Map 6). Sanitary sewer service is provided in two districts in the LWRA. The Porter West Sewer Improvement area provides service to Sub-Area 1, south of the Village of

Youngstown, and the western portion of Sub-Area 2. The Lakeshore Sewer Improvement Area covers the area east of Fort Niagara State park (and north of the Niagara Scenic Parkway), extending east to Four Mile Creek State Park. Both State Parks have sanitary sewer service. Sanitary sewer lines also extend south along Creek Road in Sub-Area 2, terminating at Youngstown-Lockport Road, with service provided to the Niagara Frontier Country Club. The remaining portion of Sub-Area 2 utilizes on-site septic systems for wastewater management and treatment. Wastewater from the Lakeshore Sewer Improvement area is conveyed through the Village of Youngstown to a pump station that is located on Swain Road, at the southern Village boundary. From this point it is carried through a force main to the Town of Lewiston Water Pollution Control Center for treatment (J. Ritter, WPCC Administrator, March 30, 2017).

The Town of Lewiston Water Pollution Control Center (WPCC) is located on Pletcher Road, south of Sub-Area 1. The WPCC was constructed in 1978 to provide secondary treatment for a design flow of 2.75 million gallons per day (MGD). It currently handles approximately 1.9 MGD of flow, having excess capacity for district expansion. The WPCC treatment process was expanded to provide additional treatment for phosphorus removal and nitrification under the existing design flow. The treatment process consists of a plant influent screen, primary clarifiers, aeration tanks with diffused air, final clarifiers and a chlorine contact tank. Ferric chloride is used for phosphate removal. Treated wastewater is discharged through an outfall into the Niagara River.

According to Jeff Ritter, the WPCC Administrator, the district experiences ongoing inflow and infiltration (I&I) problems, wherein stormwater runoff gets into sanitary sewer lines through cracks, illegal hookups or through manhole covers. Stormwater I&I impacts flows to the WPCC during storm events, effecting overall plant capacity. The WPCC presently utilizes an Overflow Retention Facility to manage the excess flow. The Town has been working to identify and remedy I&I. They utilize a camera system to televise sewer lines to find problem area. They Town is planning on undertaking a study in the Town of Porter in an effort to mitigate I&I issues in the Porter West and Lakeshore Sewer Improvement Areas.

Sanitary waste management in much of the Town of Porter is handled through on-site sanitary (septic) systems. The Niagara County Department of Health, Environmental Health Division, regulates the construction and use of new or modified septic systems for commercial or residential properties, pursuant to Chapter 3 of the Niagara County Sanitary Code. It is important that on-site sanitary systems be maintained on a regular basis to ensure their effectiveness and control water quality issues, particularly for systems situated in close proximity to local creeks and streams.

A primary area of concern along the waterfront is the Willow Beach campground. According to representatives from the Niagara County Department of Health, Division of Environmental Health, Willow Beach utilizes a communal sanitary waste collection system that employs a pump station to convey wastewater to a sand filter septic system. Wastewater is filtered and then chlorinated prior to discharge to the lake.

Willow Beach did suffer damage from flooding and erosion that occurred in the late spring and early summer of 2017. As a result, a number of campsites that were situated along the water were deemed uninhabitable by the County and removed from service. Subsequent problems with the on-site wastewater treatment facility were also remedied. The County conducts inspections of the campground, including the campsites and utility infrastructure at least once per season. The most recent permit for the campground was issued by the County on August 1, 2017.

2.9.3 Stormwater Management

Stormwater is conveyed in the Town of Porter through a combination of closed pipes and open ditches. There is one known stormwater outfall, which discharges to the Niagara River, in Sub-Area 1. It is located just south of the Collingwood Estates subdivision, where it collects and conveys stormwater runoff from this residential area to the river (D. Briton, GHD, March 30, 2017). As drainage has been a major issue in the Town, the Porter Highway Department has been systematically and aggressively addressing all major drainage channels in the Town. Existing creeks and ditches have been cleared of debris and new drainage systems have been constructed, where required. Efforts must be continued to keep roadside ditches and culverts open and free from growth and debris. Furthermore, drainage considerations must be included in all new development proposals.

The Town of Porter is a member of the Western New York Stormwater Coalition. The Coalition developed a Stormwater Management Plan as a shared resource to help local municipalities, including the Town of Porter, comply with the NYSDEC General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4). This Plan provides policy and management guidance, including minimum control measures and best management practices for Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Stormwater management, and Pollution Prevention / Good Housekeeping for Municipal Operations.

The Town adopted Chapter 200-84 of the Town of Porter Zoning Law to establish minimum stormwater management requirements and controls to protect and safeguard the general health safety, and welfare of the public. This section of the Law sets forth the requirements and

procedures for managing stormwater flows in the Town. It requires the preparation of stormwater pollution prevention plans for all construction and development activities.

2.9.4 Solid Waste Management

The Town of Porter Highway Department oversees the collection of municipal solid waste. The Town contracts with Modern Disposal for waste collection and disposal. The Town has an annual tire drop off day, which is usually held in the spring and has its own electronic waste collection program. The Town also requires that residents recycle as a part of the municipal waste collection arrangement with Modern. Accepted materials include paper (newsprint and office paper, junk mail, magazines/catalogs, cardboard, paperboard), metal cans and kitchen cookware, plastic (bags, containers, bottles), and clear glass.

The Niagara County landfill has a recycling center where Town residents can also dispose of certain waste materials, including electronics, appliances and certain household hazardous wastes.

2.9.5 Other Utilities

Other utility services available in the waterfront area include electric, telephone and natural gas. Cable and satellite television service is also provided by private carriers.

2.9.6 Transportation Systems

The Town of Porter LWRA is serviced by a number of roadways that provide access throughout the waterfront, as well as to the State Parks and Village of Youngstown (Map 7). These roadways are described below. Public transportation options are limited in this area. There are no active railroad lines in the LWRA.

The Niagara County Rural Niagara Transportation System provides one bus line that services the Village of Youngstown and surrounding area. Route 4A – 4D on the Ransomville-Youngstown-Lewiston line provide morning and afternoon bus service. There are two bus stops on Lower River Road in Sub-Area 1 and one stop on Main Street in the Village of Youngstown. Bus service travels to and from Niagara County Community College, with a small number of stops along the line where passenger can transfer to another line. Passengers may also flag a moving bus from any point along a route, where safety permits.

- *Roadways and Roadway Classifications*

There are approximately 22 miles of roadways under the jurisdiction of the New York State Department of Transportation in the Town of Porter. This includes the Niagara Scenic

Parkway and Parkway spur to Fort Niagara State Park, Lower River Road (State Route 18F – Sub Area 1), and Lake Road (State Routes 18F and 18 – Sub Area 2).

The Parkway (State Route 957A) is a principal arterial (expressway) and mainline segment of the national highway system that extends from the City of Niagara Falls to the Town of Porter. State Route (SR) 957A is a divided, limited access highway that has four travel lanes (two northbound and two southbound). This roadway consists of 48 feet of paved concrete travel lanes and 10-foot wide paved shoulders, with curbed edges and a mowed right-of-way. It has a posted speed limit of 55 miles per hour (mph). Data from the Greater Buffalo Niagara Regional Transportation Council (GBNRTC) from indicates that this parkway has an average annual daily traffic (AADT) volume⁵ of over 4,000 vehicles per day, with entrance and exit ramps at Youngstown Lockport Road (SR 93) that provide access to the Village of Youngstown. As shown in Table 2.10, a significant amount of traffic on the Niagara Scenic Parkway, travels to and from the Village. It should be noted that trucks with more than four axles (semi-tractor trailers, etc.) are not permitted to utilize the Niagara Scenic Parkway, although they are permitted on portions of State Route 18F and State Route 18.

The Parkway splits just north of SR 93, with a spur that extends to the west that services Fort Niagara State Park. The Niagara Scenic Parkway spur (SR 958A) is a divided, limited access highway that has four travel lanes (two northbound and two southbound). This roadway consists of 48 feet of paved concrete travel lanes and six-foot wide stabilized (treated gravel) shoulders, with an unmowed right-of-way. It has a posted speed limit of 55 miles per hour (mph).

The Niagara Scenic Parkway corridor that continues to the east (from the split) provides access to Four Mile Creek State Park and Lake Road (SR 18), in Sub-Area 2. This portion of the parkway remains as divided, limited access highway that has four travel lanes (two northbound and two southbound). It consists of 48 feet of paved concrete travel lanes and 10-foot wide paved shoulders, with curbed edges and a mowed right-of-way. It has a posted speed limit of 55 miles per hour (mph). The section of the parkway that extends from Lake Road (SR 18F) to Lake Road (SR 18), where the parkway terminates, is downgraded from a principal arterial to a minor arterial.

Lake Road is divided into two separate sections of roadway that provide service through Sub-Area 2 in the Porter LWRA. The first section, which is a portion of SR 18F, extends from the northern boundary of the Village of Youngstown to the intersection with Creek Road and

⁵ AADT – the total volume of vehicle traffic of a highway or road for a year divided by 365 days. AADT represents both directions of travel on a roadway and is a useful and simple measurement of how busy the road is.

Table 2.10
Functional Roadway Classifications and Traffic Counts

Route Name	Segment	Lanes	AADT Count	Year
PRINCIPAL ARTERIALS / EXPRESSWAYS				
NIAGARA SCENIC PARKWAY (957A)	Pletcher Road (Town of Lewiston) to State Route 93 (Youngstown Lockport Road)	4	4,701	2015
NIAGARA SCENIC PARKWAY (957A)	Northbound Off Ramp to State Route 93 (Youngstown Lockport Road)	1	1,326	2015
NIAGARA SCENIC PARKWAY (957A)	Southbound On Ramp from State Route 93 (Youngstown Lockport Road)	1	1,339	2015
NIAGARA SCENIC PARKWAY (957A)	State Route 93 (Youngstown Lockport Road) to Fort Niagara State Park Spur	4	1,909	2015
NIAGARA SCENIC SPUR (958A)	Niagara Scenic Parkway to the Fort Niagara State Park Entrance	4	704	2015
NIAGARA SCENIC PARKWAY (957A)	Fort Niagara State Park Spur to Lake Road (SR 18)/Four Mile Creek Park	4	1,246	2015
MINOR ARTERIALS (URBAN)				
NIAGARA SCENIC PARKWAY (957A)	Four Mile Creek Park to Lake Road (SR 18)	4	1,010	2015
LAKE ROAD (SR 18F)	Village of Youngstown boundary to State Route 18 (Lake Road)	2	535	2015
MINOR ARTERIALS (RURAL)				
LAKE ROAD (SR 18)	State Route 18F to Niagara Scenic Pkwy.	2	1,174	2015
LAKE ROAD (SR 18)	Niagara Scenic Pkwy. to Porter Center Road	2	1,868	2015
LAKE ROAD (SR 18)	Porter Center Road to Ransomville Road	2	1,620	2015
CREEK ROAD (SR18)	Route 93 (Youngstown Lockport Road) to Lake Road (SR 18F)	2	1,180	2015
LOWER RIVER ROAD (SR 18F)	Town of Lewiston boundary to Village of Youngstown boundary	2	3,078	2015

Source: GBNRTC, 2016

State Route 18, just west of Four Mile Creek State Park. This section of Lake Road is classified as an urban minor arterial; it has two travel lanes and a posted speed limit of 55 mph. It consists of 20 feet of travel lanes that are paved with asphalt over concrete, with four-foot wide stabilized shoulders and a mowed right-of-way.

The second section of Lake Road is a portion of State Route 18 (SR 18) that runs west to east, extending from the intersection of Creek Road and the terminus of SR 18F to the Porter-Wilson town line. This two-lane roadway provides access through the northern extent of the Town in Sub-Area 2. Lake Road is classified as a rural minor arterial and has a posted speed limit of 55 mph. This roadway consists of 22 feet of travel lanes that are paved with asphalt over concrete, with six-foot wide stabilized shoulders and a mowed right-of-way.

Lower River Road (SR18F) is the primary travel route through Sub-Area 1 in the Porter LWRA. A segment of State Route 18F, it extends north from the Porter-Lewiston town line to the southern boundary of the Village of Youngstown in the LWRA. It services commuter and other traffic from the Village of Youngstown, as well as local residential development and the two residential subdivisions located in Sub-Area 1. This roadway is classified as rural minor arterials, with two travel lanes and a posted speed limit of 45 mph. It has 22 feet of asphalt paved travel lanes, with four-foot wide unstabilized shoulders and a mowed right-of-way.

A small section of Creek Road is located in Sub-Area 2. It extends in a northerly direction from Youngstown Lockport Road (SR 93), terminating at the intersection with Lake Road (SR18), where it becomes Lake Road (SR 18). This roadway is classified as a rural minor arterial, providing a northerly connection between SR 93 and SR 18, SR 18F and the Niagara Scenic Parkway. It has two travels lanes and a posted speed limit of 55 mph. This roadway consists of 24 feet of travel lanes that are paved with asphalt over concrete, with 10-foot wide stabilized shoulders and a mowed right-of-way.

According to the most recent traffic counts, the Niagara Scenic Parkway, Lower River Road and Lake Road (SR 18), are the most traveled roadways in the LWRA. Truck traffic was the most prevalent on Lake Road (SR 18).

The New York State Department of Transportation calculates volume trends using a volume to capacity ratio to determine a roadway's ability to accommodate present and future traffic volume. The volume trends for the roadways in the Porter LWRA indicate that they adequately service existing traffic flows and have the capacity to handle potential increases in volume.

- Roadway Conditions

The New York State Department of Transportation (NYSDOT) uses a rating system to assess pavement conditions of all highways that are owned or maintained by the State. Since 1981, the NYSDOT has used a windshield survey to assess the severity and extent of distress of each highway segment and assign a surface rating to represent the dominant level of distress. Roadways are rated on a scale of 1 to 10, with 10 being the best condition.

Table 2.11
NYSDOT Highway Surface Ratings

Rating	Condition	Description
9-10	Excellent	No significant surface distress
7-8	Good	Surface distress beginning to show
6	Fair	Surface distress is clearly visible
1-5	Poor	Distress is frequent and severe
U	Under Construction	Not rated due to ongoing work

Source: NYSDOT, 2015 Pavement Data Report.

Table 2.12
Existing Roadway Conditions

Route Name	Segment	Rating	Condition	Last Work Year
NIAGARA SCENIC PARKWAY (957A)	Pletcher Road (Town of Lewiston) Four Mile Creek State Park	6	Fair	1965
NIAGARA SCENIC PARKWAY (957A)	Four Mile Creek Park to Lake Road (SR 18)	6	Fair	1997
NIAGARA SCENIC SPUR (958A)	Niagara Scenic Parkway Main to the Fort Niagara State Park Entrance	5	Poor	1967
LAKE ROAD (SR 18F)	Village of Youngstown boundary to State Route 18 (Lake Road) – western section	9	Excellent	2014
LAKE ROAD (SR 18F)	Village of Youngstown boundary to State Route 18 (Lake Road) – eastern section	6	Fair	2004
LAKE ROAD (SR 18)	State Route 18F to the terminus of the Niagara Scenic Parkway	7	Good	2006
LAKE ROAD (SR 18)	Terminus of the Niagara Scenic Parkway to Porter Center Road	7	Good	2006
LAKE ROAD (SR 18)	Porter Center Road to Ransomville Road	6	Fair	2004
CREEK ROAD (SR 18)	Route 93 (Youngstown Lockport Road) to Lake Road (SR 18F)	7	Good	2006
LOWER RIVER ROAD (SR 18F)	Town of Lewiston boundary to Village of Youngstown boundary	8	Good	2000

Source: NYSDOT, 2015 Pavement Data Report.

The NYSDOT 2015 Pavement Data Report includes roadway information on the physical characteristics, traffic volumes, pavement conditions and work that has been undertaken for all roads within its jurisdiction. As shown in Table 2.12, his report provides existing pavement condition ratings for Lower River Road (SR 18F), Lake Road (SR 18F), the

Niagara Scenic Parkway (SR 957A) and parkway spur to Fort Niagara State Park (958A), Creek Road (SR 18), and Creek Road (SR 18).

2.9.6 Emergency Services

The Niagara County Sheriff's Department and the New York State Police patrol the waterfront areas and responds to emergencies in the Town. Back up service is provided by the Village of Youngstown Police Department.

The lower portion of the Niagara River is patrolled and protected by the U.S. Coast Guard, Niagara County Sheriff's Marine Division and the NYSDEC Marine Enforcement Unit. The U.S. Border Patrol also cruises the Niagara River and patrols the upland areas in pursuit of illegal aliens.

The mission of the US Coast Guard's Niagara Station includes search and rescue, maritime law enforcement, homeland security, ice rescue, recreational boating safety, drug and alien migrant interdiction, military readiness and environmental response. Their area of responsibility is the Lower Niagara River and Lake Ontario, and 34 miles of Lake Ontario waters stretching to east from the Niagara River.

The Niagara County Sheriff's Marine Patrol focuses on boater safety and education, and the enforcement of the New York State Navigation Laws. This includes teaching Boater Safety Certificate Courses and vessel inspections. In addition, the Marine Patrol provides search and rescue capabilities and assistance for stranded boaters, accident investigation, regatta permit assistance, pollution control response and boating manufacturer standards compliance. The Marine Patrol operates multiple patrol boats within the 540 square miles of Niagara County waters. This includes parts of the Erie Canal, Upper Niagara River, Lower Niagara River, and Lake Ontario. New York State Navigation Law currently requires any operator of a Personal Watercraft (PWC), regardless of age, to first complete an approved Boater Safety Course. The Niagara County Sheriff's Marine Patrol conducts these courses throughout the year.

Fire protection within the Town of Porter is provided by local volunteer fire companies. The Youngstown Volunteer Fire Company services Sub-Area 1 (Map 7A). Sub-Area 2 receives service from the Youngstown Volunteer Fire Company, as well as the Ransomville Volunteer Fire Company. These fire companies provide fire protection and emergency medical services to their respective service areas.