

2016

Port of Rochester & Genesee River Harbor Management Plan



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City of Rochester, NY
Lovely A. Warren, Mayor
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Port of Rochester-Genesee River Harbor Management Plan

City of Rochester, New York

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1.0 INTRODUCTION

1.1 Purpose & Benefit of the Harbor Management Plan

Located at the confluence of the Genesee River and Lake Ontario, the Port of Rochester-Genesee River Harbor is a regional destination for water-based recreation, entertainment, and commerce. The Harbor services a variety of public and private interests along a small segment of the Genesee River. Given the popularity of the Harbor, coupled with the City's recent redevelopment of the Port of Rochester site, a management plan is needed that will provide a multi-jurisdictional and mutually agreed upon strategy to guide and manage the use of waters in the Harbor.

The *Port of Rochester-Genesee River Harbor Management Plan* (HMP) is intended to facilitate management of the Harbor and nearshore areas in conjunction with New York State's Coastal Management Program. Management considerations discussed in the HMP include:

- Surface water uses and issues including public safety and user coordination;
- River sedimentation and dredging;
- Multi-jurisdictional responsibilities, law enforcement, existing regulations and agency facility needs;
- The International Joint Commission water level proposal;
- Public safety/boater education regarding the rules of navigation;
- Wave surge impacts and mitigation;
- Harbor infrastructure maintenance responsibilities;
- Future harbor development and marketing; and
- Water quality issues within the Rochester Embayment Area of Concern (AOC);

HMP MISSION:

The mission of the Port of Rochester-Genesee River Harbor Management Plan is to inform and direct operations in the harbor that will facilitate and promote sustainable economic development and tourism, preserve the unique natural environment, seek opportunities to upgrade infrastructure, and support the collaboration among public safety agencies.

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1.2 Legislative Authority for Local Harbor Management

In order to resolve harbor management issues, the NYS *Waterfront Revitalization of Coastal Areas and Inland Waterways Act* (Article 42 of the Executive Law) was amended to provide local governments with the clear authority to comprehensively manage activities in harbor and nearshore areas by developing comprehensive harbor management plans and laws to implement those plans.

Article 42 and Department of State regulations (19 NYCRR Part 600, 601.1, and 603) contain procedures for the development and approval of harbor management plans and their local implementing legislation. According to the regulations, harbor management plans must be developed with the participation of the public and federal, state and local governments and agencies. The Department of State provides information, technical, and financial assistance to municipalities for the development of Harbor Management Plans as components of their Local Waterfront Revitalization Programs.

1.2.1 *The HMP as a Component of the Local Waterfront Revitalization Program*

Following passage of the federal Coastal Zone Management Act (CZMA) in 1972, New York State developed a Coastal Management Program (CMP) and enacted implementing legislation in 1981. Following the enactment of that legislation, NYS implemented the Waterfront Revitalization of Coastal Areas and Inland Waterways Program offering local governments the opportunity to participate in the State's CMP on a voluntary basis by preparing and adopting a Local Waterfront Revitalization Program (LWRP). When an LWRP is approved by the New York State Secretary of State, state agency actions are required to be consistent with the approved LWRP to the maximum extent practicable. When the federal government concurs with the incorporation of an LWRP into the CMP, federal agency actions must be also be consistent with the LWRP.

In 1990 the City of Rochester prepared an LWRP, which was approved by City Council, the New York State Secretary of State, and the U.S. Office of Ocean and Coastal Resource Management. The purpose of the LWRP is to recommend how the Genesee River and Lake Ontario will be protected as a unique and unified resource and developed to enhance Rochester's quality of life and stimulate economic growth. It establishes policy that land uses should take maximum advantage of their waterfront location, enhance the unique neighborhood and maritime ambience, provide public access to the river, increase public recreational opportunities and rehabilitate existing structures to the extent possible. The boundaries of the plan include the lakefront and the riverfront from Lake Ontario south to the Lower Falls.

In 2007, the City began planning an update to the 1990 LWRP to extend the current boundary of the LWRP along the Genesee River Gorge from the Lower Falls south through downtown Rochester to the Erie Canal and to re-examine waterfront development issues and priorities. Section 915 of Article 42 of the NYS Executive Law requires that an LWRP include a comprehensive harbor management plan. In keeping with the requirements of that law, the LWRP update includes this HMP as an integral component.

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1.3 Harbor Management Area

1.3.1 Harbor Management Area

The Rochester-Genesee River Harbor Management Area (HMA) shown on Maps 1 and 2 includes the river and the adjacent uplands that are integral to the use and management of and dependent on surface waters and underwater lands. The HMA is primarily located in the City of Rochester, with a portion of it extending into the Town of Irondequoit.

The HMA begins approximately 1,500 feet north of the Ontario Beach shoreline and extends upstream to the terminus of the federal navigation channel approximately 200 yards south of the Essroc Cement Corporation facility, near Turning Point Park. The 1,500-foot northern boundary was established in accordance with New York State Executive Law Article 42 §922, whereby authority is granted to cities with an HMP to regulate uses in, on or above surface waters to a maximum distance of 1,500 ft. from the shoreline.

Generally, the HMA is bounded by the Charlotte Running Track (a railroad right-of-way owned by CSX Transportation) and Lake Avenue on the west, while the eastern boundary generally follows the municipal boundary between the Town of Irondequoit and the City of Rochester From Seneca Park north to Pattonwood Drive, where it turns northeast and winds its way around the marinas and yacht club properties before reaching Lake Ontario. The HMA includes approximately 340 acres of lands abutting the shoreline or directly associated with those shoreline parcels.

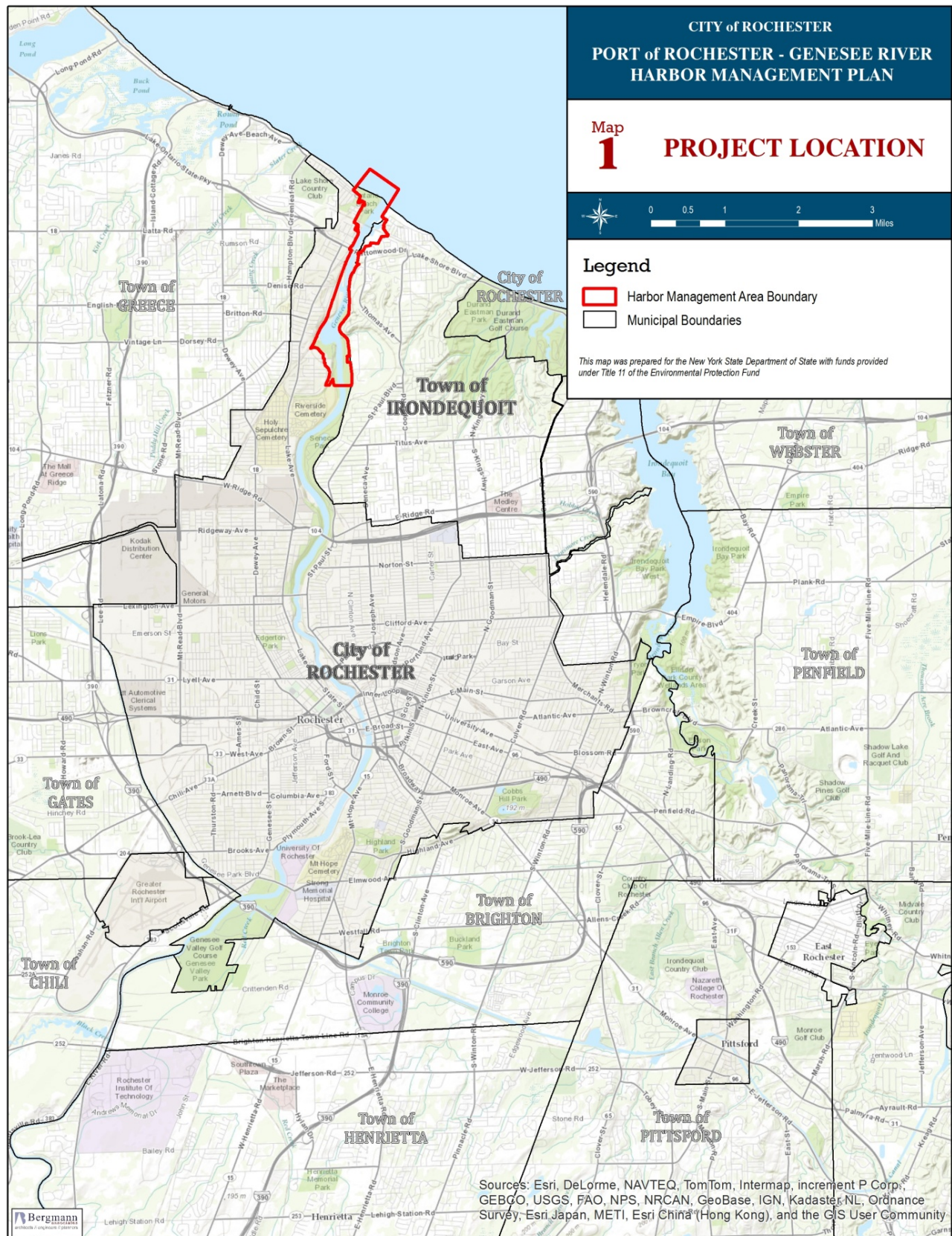
The Genesee River within the HMA lies entirely within the City of Rochester. Along the western border of Irondequoit, the city claims a thin strip of land that extends northward along the banks of the river from Seneca Park to Lake Ontario, at some points less than 50 yards (46 m) from the shore so that the entire east bank is located within the boundary of the City and the border of the Town of Irondequoit never reaches the river.

In total, the HMA encompasses 557 acres, of which the majority (approximately 340 acres) is located land-side; the remaining 217 acres encompass the Genesee River and Lake Ontario. As it relates to municipal boundaries, the HMA includes 431 acres within the City of Rochester and 42 acres within the Town of Irondequoit; the remaining 84 acres are associated with Lake Ontario and do not fall within municipal boundaries (see Map 2).

The HMA is in close proximity to several additional waterfront resources in the region, including Durand Eastman Park (3 miles east), Irondequoit Bay (4 miles east), Seabreeze Amusement Park (4 miles east), Webster Park (11 miles east) and Hamlin Beach State Park (23 miles west).

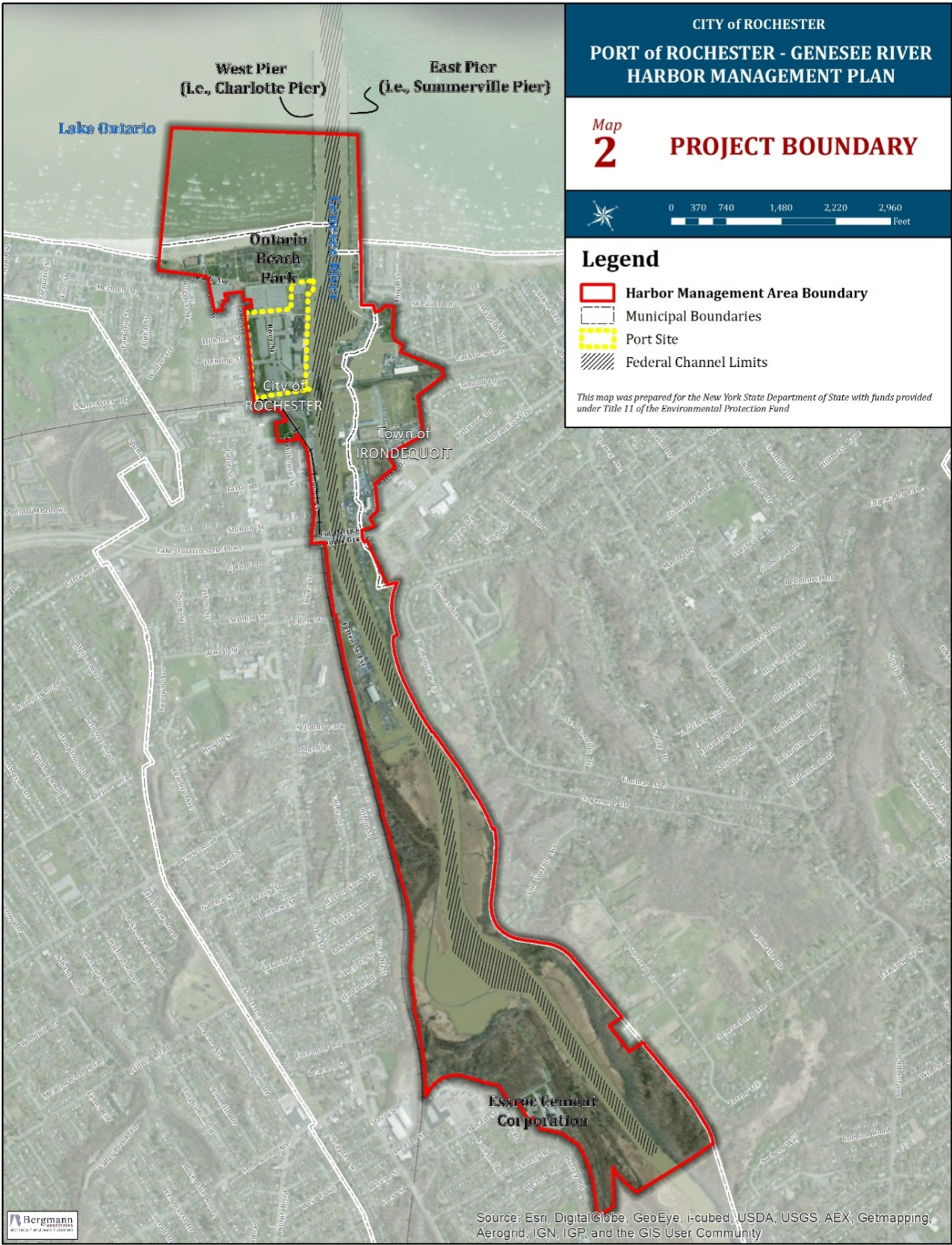
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1.3.2 Port of Rochester and Rochester Harbor Designations

Rochester's HMA includes both a harbor and a port, two similar and often confused terms. According to the U.S. Army Corps of Engineers (USACOE) *Planning Guidance Notebook* (ER 1105-2-100), harbors are defined as “places that offer vessels shelter from weather”. Rochester's harbor is suitable for offering shelter to vessels during most storm events and, in fact, is designated as a Critical Harbor of Refuge by the USACOE. According to the latest ACOE guidance, having a Coast Guard Search and Rescue Station and the nearest adjacent Harbor of Refuge being more than 50 miles away are the determining factors for the category of Critical Harbor of Refuge designation. This designation raises the harbor's status for USACOE maintenance priorities.

A harbor can also be defined as a port if it “provides facilities for the loading or unloading of cargo or passengers.” Rochester's Port Terminal Building offers provisions for the loading and unloading of passengers, while the Essroc facility upriver within the harbor provides facilities for unloading cement ships. For purposes of this document, the Port of Rochester is the land area in the HMA that contains the City-owned land that has a history of being used for port purposes and contains the Port Terminal Building.

The Rochester harbor is the entire area outlined as the Harbor Management Area in Maps 1 and 2, and includes the Port of Rochester.

1.3.3 Port Redevelopment Project

The Port of Rochester Public Marina and Mixed Use Development Project (Port Redevelopment Project), currently underway, involves creation of a marina basin and public promenade constructed in two phases; installation of broadside docking along the river wall adjacent to the Port Terminal Building; construction of new and realignment of existing streets and infrastructure; enhancement of pedestrian and bicycle access with new trails and sidewalks including extension of the Genesee Riverway Trail from its terminus at Latta Road north to Ontario Beach Park; creation of two new public overlooks to the waterfront; new zoning regulations for the Port of Rochester; and, sale of City-owned land for private development.

The new zoning regulations were adopted by City Council in May of 2012. Construction of the phase 1 marina, right-of-way and infrastructure improvements, and one of the two new overlooks were completed in June 2016, including:

- An approximately five-acre public marina with access to the Genesee River to be located adjacent to and west of Port Terminal Building and north of the existing public boat launch, primarily within the property at 1000 North River Street. The marina replaces paved parking and inspection areas associated with the defunct fast ferry service;
- A public promenade around the perimeter of the marina, as well as adjacent public open space;
- Boater amenities, including a boater facility building (rest rooms, showers, laundry, etc), a pump-out station, and appropriate utility connections including Wi-Fi, electricity and water;

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- Thirty transient and 54 seasonal boat docks up to 80 feet in length. The basin was designed to also function as a venue for local, regional and national in-water boat shows and regattas. Reconstruction of the existing broadside dockage along the river wall adjacent to the Port Terminal Building is designed to provide broadside docking for approximately 39 boats;
- Realigned and extended streets, including N. River Street, providing a new secondary north-south access into the Port of Rochester and changed access to the Port Terminal Building;
- Reconfiguration of the public boat launch access and parking, extension of the Genesee Riverway Trail and installation of an overlook north of the boat launch at the intersection of Portside Drive and N. River Street. The overlook will provide vistas of the harbor and the new marina; and
- Construction of the Lighthouse trail and overlook located at 4576 and 4580 Lake Avenue.

Phase 2 of the planned public improvements includes expansion of the marina, relocation of the public boat launch and relocation of the Ontario Beach Park labor operations center. The City's investment in phase 2 will be predicated upon private investment and market demand in the parcels available for development and demonstrated interest within the development community. Although the marina expansion will require the relocation of the boat launch facility, the timing of these three components is uncertain, and it is unknown whether they would be undertaken together as a single project or as multiple projects over time.

1.3.4 HMA Historical Context

The Genesee River is a tributary of Lake Ontario flowing northward through the Twin Tiers of Pennsylvania and New York. Located 83 meters (272 ft) above sea level, the Port of Rochester on the Genesee River is today a primarily recreational harbor with most surface water use focused on fishing, sailing and boating, but this harbor has a rich and diverse history as a port, summer resort and iron manufactory. While the history of the former waterfront communities- Charlotte, Summerville, Windsor Beach and White City - are embroiled in the history of the harbor, the story recounted here focuses on the activities on the river and its banks and is intended to provide context for future operation, management and development within the HMA.

Harbor Management and Development

Harbor Management

Records indicate that the lands along the river were first inhabited by the Seneca Indians who used the area as hunting grounds into the late 18th century. In 1788, the Mill Yard Tract, a parcel of land approximately 12 miles wide and 24 miles long, along the banks of the Genesee River was purchased from the Seneca Indians by Oliver Phelps and Nathaniel Gorham, of which the Rochester Harbor is a part. They also purchased six million acres east of the River from the State of Massachusetts, where the Town of Irondequoit is today.

Official management of the river as a harbor began when the *Customs District of the Genesee* was established in 1805 by President Thomas Jefferson who appointed Samuel Latta as the first

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Collector of Customs for the Port of Genesee. This management existed until the 1920's when in 1924 the last *Collector of Customs* was appointed. During this time, the Charlotte settlement had been incorporated into the Town of Greece in 1869, and in 1916, Charlotte was annexed into the City of Rochester. The *Collector of Customs* was a federal officer who was in charge of the collection of import duties on foreign goods that entered the United States by ship and for keeping records.

In 1930, a *Joint Harbor Survey Commission* was created consisting of five (5) members; two (2) from the City of Rochester, two (2) from the County of Monroe and one other from either the City or the County to be elected by the other four. The function of this committee was to use money equally appropriated by these two municipalities and to retain competent engineers to furnish a comprehensive economic engineering survey of harbor requirements.

In 1958, Governor Averill Harriman approved a bill for a new management structure for the harbor, the *Rochester Monroe County Port District and Port Authority*. Among other responsibilities the *Authority* was charged with operation and oversight of the development and maintenance of city and county port facilities and with responsibility for all legal matters related to real property transactions. Both City and County staff served the *Authority* in carrying out these responsibilities for 18 years until the *Port Authority* was dissolved in 1976 and responsibility for operation of the Port was transferred to the City of Rochester and remains the city's responsibility.

Harbor Development

At the time Port of Genesee was established, the entrance to the mouth of the Genesee River was a triangular marshy inlet and navigation was severely hindered by treacherous sandbars. Sailors and lake ships were guided through the inlet by way of lantern-lit pilot trees until 1821 when a lighthouse was constructed on the bluff and 157 acres of trees were cleared to provide unobstructed views of the lighthouse lantern. It is said that the beam could be seen 12 miles out into the lake. Today the Charlotte Genesee Lighthouse stands as the second oldest lighthouse in the Great Lakes, though it was deactivated in 1881.

Keepers remained at the house, however, through 1947 to service the pier lights. In 1893, a steam whistle replaced the fog bell that had been placed at the entrance to the harbor; a foghorn was used until the last decade of the 20th Century. This 1858 photo, courtesy of the National Archives, is of the original lighthouse structure.



The beginning of development of the harbor is said to have occurred in 1829, when Congress appropriated funds to construct parallel piers into the lake and to excavate the river channel. The construction of these breakwaters was for the purpose of confining and directing the action of spring freshets. Ultimately, the placement of these piers caused sand and other debris to build up

beside it and this buildup along with placement of other fill extended the lake shore out into the lake and over many years, gradually "moved" the lighthouse back from the lake shore. The

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Lighthouse keeper would light torches at the end of each pier until lanterns and light houses were installed on the piers. In 1883 the length of the piers was extended.

In 1935, the federal government assumed the cost of dredging the lower basin and created a turning basin 600' wide opposite the municipal docks alongside the City's terminal. Ten years later, the federal government additionally undertook the regular maintenance of the upstream channel above the turning basin for a distance of approximately 2.5 miles to a point 200' south of the Genesee Docks, with a project depth fixed at 20' below low water. This assured vessel access to the docks which handled large volumes of interstate and international trade, primarily coal, and provided for a second turning basin in what is now part of Turning Point Park.

In 1916, construction of the two lane Stutson Street 28 foot clearance bascule (lift) bridge across the river to the Town of Irondequoit began. It was built as three (3) connected bridges - one over land, one over the river, and one over a set of railroad tracks. Before construction, motorists drove several miles south to the Veterans Bridge, or used a ferry to cross the river. The bridge was replaced by the Colonel Patrick O'Rourke Memorial Bridge in 2004 by NYS DOT with federal, state and local funds. The new bridge, aligning with the Lake Ontario State Parkway, is located just south of the former Stutson Street Bridge.

In 1932, based on recommendations of the Joint Harbor Survey Commission, influenced by the completion of the enlarged Welland Canal, the first publicly owned Port of Rochester terminal opened on the west bank of the river located north of the former Hojack Rail line. The terminal building was two-stories designed to provide for freight storage, passenger traffic, U.S. Customs and administration offices. The project included a quay wall 1200' long placed 70' back from the existing shoreline to provide ships with berths away from the federal channel thus widening the turning area. This was the first major City investment in the harbor and the Port of Rochester.

In the late 1990's the City of Rochester initiated three major public improvement projects on the west bank: the Port of Rochester Fast Ferry Terminal project, the River Street Public Marina project and the Genesee Riverway Trail project. These projects were financed with federal, state and local funds. The Ferry Terminal was completed in 2004 and a vehicle and passenger ferry service between Rochester and Toronto operated until 2006 when it was shut down due primarily to a lack of anticipated truck trade and the high cost of fuel. The River Street Public Marina facility, including 112 docks and a boaters services building, was completed in 2006 and is operated privately for the City through a License agreement. Construction of both these projects included substantial improvements to the river wall. In 2006, the City completed the Genesee Riverway trail project extending the trail from Turning Point Park near Boxart Street northerly to Petten Street, a portion of which is a pedestrian bridge located within the river that incorporates some structures which were a part of the former Genesee Docks.

U.S. Coast Guard

The Life Saving Station at Charlotte was authorized in 1875 as part of a service buildup throughout the Great Lakes. The station was operated under a volunteer system until at least 1885. It was located about a mile upriver from the mouth of the Genesee River, near the lighthouse and back from the water. In 1878, a new station was built in the same basic location, a mile from the river mouth, but this station did include an inclined ramp so boats could be launched directly into the

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river. In 1885, the station was moved to the lakeshore near the east pier in Summerville. Lifeboats were getting larger, to carry more equipment, and it was more efficient to respond to disaster calls on the lake from the mouth of the river. In March 1939, Charlotte Station became one of fifteen stations equipped with radios on the Great Lakes. Later that year construction of a new station was completed which included: a main building which had a basement, two floors, an attic and 21 rooms; a lookout tower; and an equipment building. Over the years, rescue equipment, radio communication, warning signal equipment, etc. was modernized and expanded as technology advanced and rescue requirements evolved and an air patrol was added. In 1944, the name of the Station was changed from Charlotte to Rochester.

During World War II, the participation of the Coast Guard Reserve, later called the Auxiliary/Temporary Reserve, (converted from military to civilian personnel in 1945) was essential to the operation of the station. Subsequently, the Auxiliary continued to assist the Coast Guard during manpower shortages, the Korean conflict, and special events. An Auxiliary station remains in the harbor on the west bank, just below the lighthouse.

The Railroads

In 1852 construction of the Rochester and Lake Ontario Railroad began (later part of the New York Central Railroad) providing convenient passenger transportation from Charlotte. As these lines were expanded, trains brought thousands to the Charlotte beach and boardwalk and also provided



From the Albert R. Stone Negative Collection, Rochester Museum & Science Center, Rochester, N.Y.

a convenient route for those arriving by boat to travel to Chicago, New York City and in between.

It was in 1883, when the Buffalo, Rochester & Pittsburgh Railroad (BR&P) laid tracks for a spur to the Genesee Docks for the transportation of coal which was additionally improved with a large trestle for loading coal barges by gravity. The trestle was demolished and removed in 1974, and the spur to the docks was removed.

In 1875, a turn bridge was built across Lake Ontario Shore Railroad. It was a that one man with a pole could move 1905, the newly formed Rome Ogdensburg Railroad (RW&O) bridge. Records indicate that King Iron Company Pivot Bridge was steam



than 40 years until a gas or electric installed. Eventually, the bridge served the New York Central Railroad (which had absorbed RW&O) for its Ontario Branch, the Hojack Line - which ran from Niagara Falls to Oswego. The line was abandoned and torn up in the late 1970's after years of declining service and track deterioration. All that remained was a 3 mile section in the Charlotte area which serviced Rochester Gas & Electric Russell Station in Greece, and a 40 mile segment in Wayne County. The bridge itself was placed out of service in the 1990's. After much controversy in the local community to save the bridge, it was

replaced by the light structure so the bridge. In Watertown replaced the and Bridge powered for more motor was

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removed in 2012 by CSXT, as ordered by the U. S. Coast Guard during planning and design of the harbor improvements associated with now defunct Rochester-Toronto fast ferry service. Mitigation to demolition of the bridge included installation of interpretive signage to be placed on both river banks to tell the story of the bridge, both its structure and its use.

In the bridge's heyday, it remained in a closed position across the river to facilitate rail traffic and was opened by a fulltime bridge keeper stationed there. In later years when service on the Hojack ceased and only local traffic needed to get to the other side of the river, the bridge remained open and was closed as needed; a rail employee would row across to the bridge to close it.

Today, rail activity is limited to a connection at the nearby former power plant at Russell Station in the Town of Greece. Owned by CSXT, it serves only one customer located within the HMA at Boxart Street adjacent to Turning Point Park.

In 1905, the BR&P and Canadian Grand Trunk Railroad of Canada (Canadian National Railway) obtained rights to handle coal traffic across the lake from Rochester to Cobourg, Canada. There were two vessels, the Ontario No.1, and the Ontario No.2 which operated until 1949 and 1950. While the primary function was to carry coal, these vessels also carried passengers.

Port Activity

Trade and Industry

By the end of the 18th century, the Genesee River was already noted as an active port on Lake Ontario. When the War of 1812 began Charlotte was a principal settlement on the lake controlling the exportation of frontier produce to Canada, including fruit and wheat among other things. The wheat was shipped to millers on the Genesee River south of Charlotte in Rochester, milled, transported to Charlotte and shipped primarily to Canadian dealers by schooners first and then steamship. By 1869, when the Village of Charlotte was incorporated as part of the Town of Greece, the harbor on the Genesee was an active and bustling commercial port replete with boat-building yards, grain elevators, dry docks, warehouses, shipping offices, hotels, and, along the docks, luxurious steamers. Also by 1869, a blast furnace for the manufacture of pig iron had begun operation along the river, continuing operation through 1893 and then off and on until the 1920s.

In the 1870's, trade relations between the USA and Canada became more restrictive, the number of American Ships dwindled, commerce between the two countries diminished sharply, and when the American Line of steamships was sold to the Canadian Steam Navigation Company, the shipping of fruit and wheat from Charlotte essentially ended. This signaled the passing of an era in the history of the Port of Charlotte. The port remained active in the early 20th century, but rail became the primary mode for transportation of goods. It is reported that neither the port nor the NYS canal system carried more than a fraction of the tonnage shipped by rail.

Shipbuilding

Among some of the earliest industries of Charlotte was the building of schooners and other boats. Sources reported that in 1828 the vessels "General Brown," "Julia," "Mary Jane" and "Charlotte" were built and ran between Charlotte and Cobourg and Port Hope. The "Clara Guernsey" and "Cleveland" were built in 1832 and 1833. The "Commerce" was built about 1850 and in 1856-57 the "Joseph Cochrane", a three-mast vessel, 135 feet in length, 56 feet in breadth of beam, and 350

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tons, and the "Fairchild" were built. A Gazetteer of New York State published in 1860 recorded three shipyards in Charlotte. One of them, on the east side of the river built the schooners, "Samuel T. Atwater," "George J. Whitney," "Polly Rogers" and "Thomas Parsons", the last launched in August, 1868. Dozens of crafts, large and small, were launched into the river and lake in those years. The river steamer "United States" was built here. Later in the 1870's-90's, skiffs, canoes, small pleasure steamers that ran on the river and Irondequoit Bay, racing canoes and yachts were being built including the "Nox," "Pedro," "Rochester," "Kee Lox III and IV". There are some accounts that at one time there were five (5) shipyards at the harbor.

Tourism

Charlotte became a transportation hub and a destination place for recreation. They came by boat, by rail, by trolley and by bicycle. Travel to the new "frontier" of Michigan and the western Great Lakes began with the opening of the Welland Canal in 1829. The "Mapleleaf" and the Highlander, side-wheel steamers, made weekly trips from Canada between 1851 and 1862, and the "Mapleleaf" also carried passengers from Charlotte to Point Breeze, NY. It was about this time that residents in the nearby city of Rochester began to summer at the shore. They came to enjoy the cool breezes at the beach, to dine on fresh fish, to take excursions on the river, out onto the lake, and the ports along both shores. They erected tents and stayed in hotels, or came for the day. With the arrival of the rail in 1854, travel between the Port and places as far away New York City and Watertown became commonplace.

In 1884, the Ontario Beach Improvement Company was formed to establish a lake front resort area on land owned by the New York Central Railroad and leased to local entrepreneurs. This was



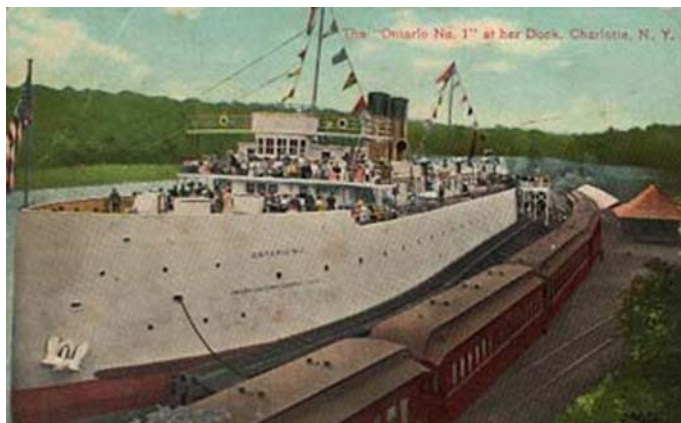
common practice by railroad companies at the time, to create destinations with hotels, attractions and amenities. The trains were run into the park on a loop and for those who arrived by train, their fare included admission to the park.

Ontario Beach Park opened in August 1884. There were hotels, restaurants, a beer garden, a tea garden, a midway, roller coasters, a bandstand, a skating rink, a shooting gallery, a bathhouse and special attractions. By 1889, a new electric trolley from Ridge Road had

reached Charlotte, and Canadian steamers were running regularly between Canada and Charlotte, including the "Toronto", capable of sleeping 300 passengers, and her larger sister ship the "Kingston" and then the even larger "Rochester" came in 1909 serving Rochester and the Thousand Islands.

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The “Ontario No.1” and “Ontario No.2,” built primarily for the transportation of coal, also had passenger decks and held up to 1,000 passengers. These were magnificent ships to see, and people on the shore would gather to watch them approach. The company never carried passengers between October and May due to Lake storms and ice. By the mid-1920s they had begun carrying automobiles on flat cars and were carrying about 70,000 passengers per season.

It was in the 1920s that Ontario Beach as a resort and amusement center and Charlotte as a destination and transportation hub declined and the park saw its last season in 1919. By 1931, all the structures except for the Dentzel Carousel were razed and the bathing beach and bath house (now the Roger Robach Center) supplanted the once infamous “Coney Island of the West”.

Recreational Sailing

Sailing at the harbor began at least 140 years ago, as it is recorded that the first yacht club was established in 1874, known as the Genesee Yacht Club and its first regatta held in 1875. It is also recorded that by year end 1876, the Genesee Yacht Club ceased to exist, and that in 1877 the Rochester Yacht Club was founded, though record of incorporation at the City of Rochester shows the papers were filed in 1887. Today there are two yacht clubs on the Genesee River, the Rochester Yacht Club being one of the oldest clubs in the country, and the Genesee Yacht Club which was founded in 1934.

The Rochester Yacht Club (RYC) held its first regatta with eight sail boats competing in 1877 and in July 1887, it held its first regatta under the auspices of the newly formed Lake Yacht Racing Association (L.Y.R.A.), and many of the major yacht clubs on Lake Ontario took part. It wasn’t long after that the Rochester yachtsmen were touted as some of the nation’s most skilled yachtsmen. For nearly 60 years the RYC was a dominating factor in the Canada Cup contests as the only American Club to earn the Cup, won first in 1899, by the “Genesee” sailing under the Chicago Yacht Club Burgee. Over the years it has been host to L.Y.R.A. District and National Regattas, World Championships, Star Class, International 14's, Flying Dutchmans, and the World Dragons. And when the “Women’s Worlds” was first held in the U.S. in 1979, it too was hosted by the RYC.

The first club house opened in June 1877 and was located “on the beach of Summerville” and was reportedly destroyed by a fire soon after. The second club house was built in 1889 on the west bank just north of the Hojack Rail line. Another move brought the RYC back to the east bank when they constructed their third clubhouse in 1902 just east of the east pier. This building later became an inn and survived until the 1950's. In 1922 the fourth and current club house was built.

The Genesee Yacht Club, now more than 80 years old, remains at its original location on the east bank. The clubhouse today, built by the members in 1984 is located a bit north of the original, (a construction shack that its members moved to the site from the Rundel Memorial Library). The

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club's premier event is the Scotch Bonnet Light Race which has been hosted by the Genesee Yacht Club for 43 years. A global celebration of sailing, racing begins near sunset on a Friday evening in June (always about the time of the summer solstice) from the Genesee River, overnight across Lake Ontario to round Scotch Bonnet Island (on the south shore of Canada) and then back to Rochester Harbor the next day, covering approximately 92 NM. The race was originally designed as a test of navigation skills and an offshore challenge to regional racers. It is an honored tradition and rite of passage for Genesee Yacht Club members and other Lake Ontario sailors, and is one of the first major racing events on the Lake every year. The club has also been host to the Women Skippers Invitational Regatta, a three (3) race event which requires a woman at the helm.

The RYC and GYC have played a major role in promoting the Rochester waterfront enticing participants and spectators from near and far.

The Underground Railroad

A history of Rochester's harbor on the lake would not be complete without mention of the Underground Railroad activity. In the mid-1800s, travelers departing from the Port included fugitive slaves who left the U.S. aided by Underground Railroad Conductors who would get them to the river on the west shore where they hid until they were able to board the steamers bound for settlements in Canada. While this activity did not impact life along the waterfront, it was said that the number of fugitive slaves who escaped to Canada through Rochester averaged 130 per year. There were several homes in Charlotte where escaped slaves were hidden including the George C. Latta House, which was located at Lake Avenue and Latta Road. Mr. Latta was one of the first frontier merchants, his family having settled here in the 1790s, and his older brother, Samuel, named the first *Collector of Customs* in 1805.

The United States Power Squadron (USPS)

The USPS was formed in 1914 to address what was believed to be a serious lack of knowledge of the proper handling of power boats and instituted special activities for power boats, including instructional classes in their operation. At the onset of World War I, USPS offered classes in the study of seamanship, signaling, navigation and naval procedures, the first of many civic services offered to the public. When the war was over, emphasis changed and the USPS as we know it today began to take form and continues to evolve as a premier educational program for power and non-power boats, its members now some of the best informed and most enthusiastic boatmen in the country. When a boat displays the symbol of United States Power Squadrons, it is under the command of an individual who has earned the right to display this symbol.

The Rochester division was founded in 1938, to the credit of F. Ritter Shumway, who took the USPS piloting course by mail shortly after he arrived in Rochester in 1934. At the request of the RYC, Mr. Shumway began teaching USPS boater safety to its members. Subsequently, Shumway and 10 men who passed the course moved forward to establish the Rochester Squadron. Shumway was elected as the first commander (1938-1939) and in 1948 he was elected Chief Commander of USPS.

For more than 75 years the Rochester Squadron has taught USPS Boating Courses to thousands. Advanced grade courses range from seamanship through piloting, advanced piloting, and junior navigation to navigation. Elective courses include weather, sail, marine electronics, engine maintenance, cruise planning and instructor qualification. The Squadron actively participates and

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educates through special events and at boat shows in the area. The Rochester Squadron conducts meetings within the HMA, the last 15 or more years at the Genesee Yacht Club House. ⁱ

1.4 Public & Stakeholder Outreach During HMP Preparation

Community and stakeholder outreach is an important component of any planning process. As part of the HMP, it was essential to engage the public and community stakeholders to ensure that the most critical issues are identified and that the strategies resulting from this planning effort adequately address the needs of the Harbor. The public and stakeholder outreach efforts for the HMP included:

- A public meeting/open house designed to engage the community in a discussion of the issues facing the Harbor and solicit feedback and a second public meeting to present the draft plan as a component of the LWRP.
- Several meetings with key project stakeholders, the purpose of which was to gain insight into daily Harbor operations and to better understand the views, needs and concerns of particular users of the HMA. Key stakeholders included public safety agencies, marina operators, local advisory boards and other relevant individuals and organizations.
- Several Project Advisory Committee (PAC) meetings to attain feedback and guidance in the development of the HMP. The PAC included representatives from the various local, state and federal agencies that operate in the Harbor, as well as local residents and business owners.

These community and stakeholder outreach efforts occurred over the course of the development of the HMP and the results of these efforts are found throughout the document. A summary of each of the public meetings can be found below.

1.4.1 Project Advisory Committee Meetings

A Project Advisory Committee (PAC) was formed which included representation from the City of Rochester, Monroe County, Town of Irondequoit, HMA property owners, public safety agencies and others that have an interest in the future of the HMA. PAC meetings were held at key intervals over the course of the planning process to share information and solicit feedback from the PAC. Presentations from each of the committee meetings can be found in Appendix A.

The first PAC meeting was held on August 13, 2012 at the Port Terminal Building. The purpose of this meeting was to introduce the project and provide an overview of the goals and objectives for the planning process. The HMP boundary was reviewed and refined based on PAC feedback. Committee members were also provided the opportunity to share their ideas and thoughts regarding issues and opportunities as they relate to the HMA. Feedback from this meeting established a framework for topics to be addressed in the HMP.

The second PAC meeting was held on November 14, 2013. PAC members were provided an update on the planning process and other activities and projects taking place in and around the HMA. The project team reviewed key findings from the inventory and analysis under 8 general categories, with the PAC providing comment and feedback:

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- Harbor Services & Amenities
- Jurisdictions
- Enforcement
- Dredging
- Commercial Activity
- Surface Water Use: Fishing & Boating
- Water Quality/Lake Levels
- Education

The third PAC meeting was conducted on April 7, 2015. At this meeting, the priority objectives were reviewed and the overall action plan. The PAC was supportive of the direction of the action plan.

1.4.2 Stakeholder Meetings

In addition to PAC meetings, stakeholder meetings were held over the course of the planning process to better define and understand key issues and opportunities associated with management of the harbor. These were individual and small group meetings held at numerous times during the preparation of the HMP. Stakeholder meetings included the Town of Irondequoit, Monroe County, Essroc, marina and yacht club operators, and agencies involved in harbor management and operations including the Rochester Police Department, Rochester Fire Department, Army Corps of Engineers, US Coast Guard, Monroe County Sheriff, US Border Patrol, and the New York State Department of Environmental Conservation.

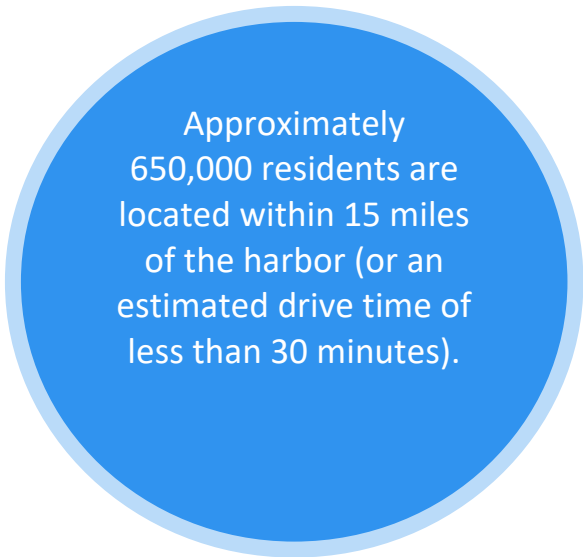
1.4.3 Public Informational Meetings

A Public Informational Meeting was held on March 31, 2014 at the Port of Rochester Terminal Building. The purpose of the meeting was to introduce the project to the community and to solicit information and ideas from the community regarding the future management of the harbor. The meeting began with an overview of the project, including a discussion regarding how the HMP fits into the City's ongoing LWRP effort and the Port Redevelopment Project. This was followed by a summary of the key findings that were developed based on a review of available data and stakeholder outreach efforts. Finally, meeting attendees were provided the opportunity to visit a series of key findings boards and provide their comments to the project team. In total, more than 70 local residents attended the meeting and provided input to the planning process. A summary of the comments received is provided in Appendix A.

2.0 HMA INVENTORY AND ANALYSIS

2.1 Demographic Overview

The entrance to the Harbor is located just east of the approximate center of Monroe County's Lake Ontario shoreline (see Map 1). Approximately 650,000 residents are located within a 15 mile radius of the Harbor or an estimated drive time of less than 30 minutes. The HMA falls within the City of Rochester and Town of Irondequoit and is also in close proximity to the Town of Greece. Together, these three municipalities account for 48 percent of Monroe County's 2010 population. Between 2000 and 2013, Monroe County experienced population growth of approximately 1.9%.



Approximately 650,000 residents are located within 15 miles of the harbor (or an estimated drive time of less than 30 minutes).

Based on a review of parcel data, few people currently reside within the HMA. This will likely change as the Port Redevelopment Project moves forward and new residential units are added to the area.

Other census data examined included median age and median household income:

- Median age for the City of Rochester is 30.8 in 2010, which is much younger than that for the Towns of Greece (42.1) and Irondequoit (44.1) and Monroe County (38.5).
- The 2013 estimated median household income for the City is \$30,741, \$52,871 for the Town of Irondequoit, and \$55,351 for the Town of Greece. The 2013 median household income for all of Monroe County is estimated to be \$51,778.

2.2 Access and Transportation Overview

2.2.1 Roadways

The HMA is accessed by three primary transportation corridors: Lake Avenue from the south, the Lake Ontario State Parkway from the west, and Pattonwood Drive/NYS Route 18 from the east (see Map 3). Lake Avenue is owned and maintained by the City of Rochester. Based on traffic data for 2011 provided by the NYSDOT, Lake Avenue experiences the greatest amount of traffic within the HMA, carrying approximately 18,000 cars per day to and from the Port of Rochester and Ontario Beach Park. The Lake Ontario State Parkway is owned and maintained by the New York State Department of Transportation (NYSDOT), carrying approximately 13,000 vehicles per day eastbound toward the HMA. Pattonwood Drive/NYS Route 18 carries approximately 4,900 vehicles

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per day and is owned and maintained by Monroe County. Truck traffic is prohibited on the Parkway due to the roadway classification as a Parkway. During the summer months, significant additional traffic volumes are experienced on Lake Avenue heading to and from Ontario Beach Park.

In addition to these primary roads, there are several secondary streets that provide vehicular access into the HMA, including Beach Avenue, Latta Road, Stutson Street, River Street, Petten Street and Boxart Street on the west side of the river and St. Paul Blvd and Marina Drive on the east side.

2.2.2 *Parking*

Public parking is available at various locations within and around the HMA (See Map 3). These locations include:

- Ontario Beach Park (east and west of Lake Avenue);
- Parking lot north of the Port Terminal Building;
- Boat Launch;
- Corner of Lake Avenue and Stutson Street;
- Petten Street near its intersection with the Genesee Riverway Trail;
- Turning Point Park at Boxart Street; and
- East Harbor Fishing Access site (terminus of St. Paul Blvd.)

In addition to the aforementioned public parking facilities, on-street parking is available along most streets in and adjacent to the HMA. For additional information regarding traffic and parking within the HMA, see Section IV.K (*Port of Rochester Traffic and Parking Analysis*) of the Draft Environmental Impact Statement for the City's Port Public Marina & Mixed Use Development Project. A parking analysis, in the context of the marina and development project, can be found in Appendix B.

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2.2.3 Public Transportation

The HMA is also served by two Regional Transit Service (RTS) bus routes – the 1/1X (Lake) Route in Rochester and the 5/5X (St. Paul) Route in Irondequoit. The 1/1X Route travels along Lake Avenue between downtown Rochester and the Park, where it then travels along Beach Avenue to Dewey Avenue and eventually looping back to Lake Avenue at Latta Road (note that the 1X route does not extend to Dewey Avenue). The 1/1X Route currently offers regular transit service to the Port of Rochester on weekdays, weekends, and on holidays from approximately 6:00 AM until 1:00 AM. Depending on the day, the frequency of stops for 1/1X Route ranges from 25 minutes during the morning rush on weekdays, to more than one hour during non-peak hours. Service frequency during daylight hours on weekends and holidays is approximately every 45 minutes.

The 5 Route provides service to the Irondequoit side of the HMA, making its way along St. Paul Boulevard from downtown Rochester to its northern-most terminus at Club Terrace. This Route currently offers regular transit service at levels similar to the 1/1X, with buses running from approximately 5:30 AM until 10:00 PM on weekdays, weekends, and on holidays. Depending on the day, the frequency of stops ranges from 20 minutes during the morning rush on weekdays, to more than one hour during non-peak hours.

In 2014, RTS provided an expanded bus service that facilitated the transport of people from a remote vacant Kodak parking lot on Lake Avenue to the beach for the Wednesday night concerts.

2.2.4 Bicycle/Pedestrian Access

Pedestrian and bicycle access to the HMA is along a network of trails and sidewalks. Sidewalks are located along most streets in the HMA. There are also several existing and proposed trails within and around the HMA, including:

- The Genesee Riverway Trail;
- The Irondequoit Lakeside Trail;
- The Lake Ontario State Parkway Trail;
- The proposed Sea Breeze-Charlotte-Seneca Park Trail;
- The Irondequoit River-Rail Corridor, and
- The proposed Irondequoit Seneca Multi-Use Trail.



A more detailed discussion of these trail facilities can be found in Section 2.6.2.

2.2.5 Water Access

Visitors also arrive via boat to reach land-based attractions or participate in on-water special events such as regattas or fishing derbies. As such, these visitors often depend on transient boat docks at one of the marinas located within the HMA, including (see Figure 1):

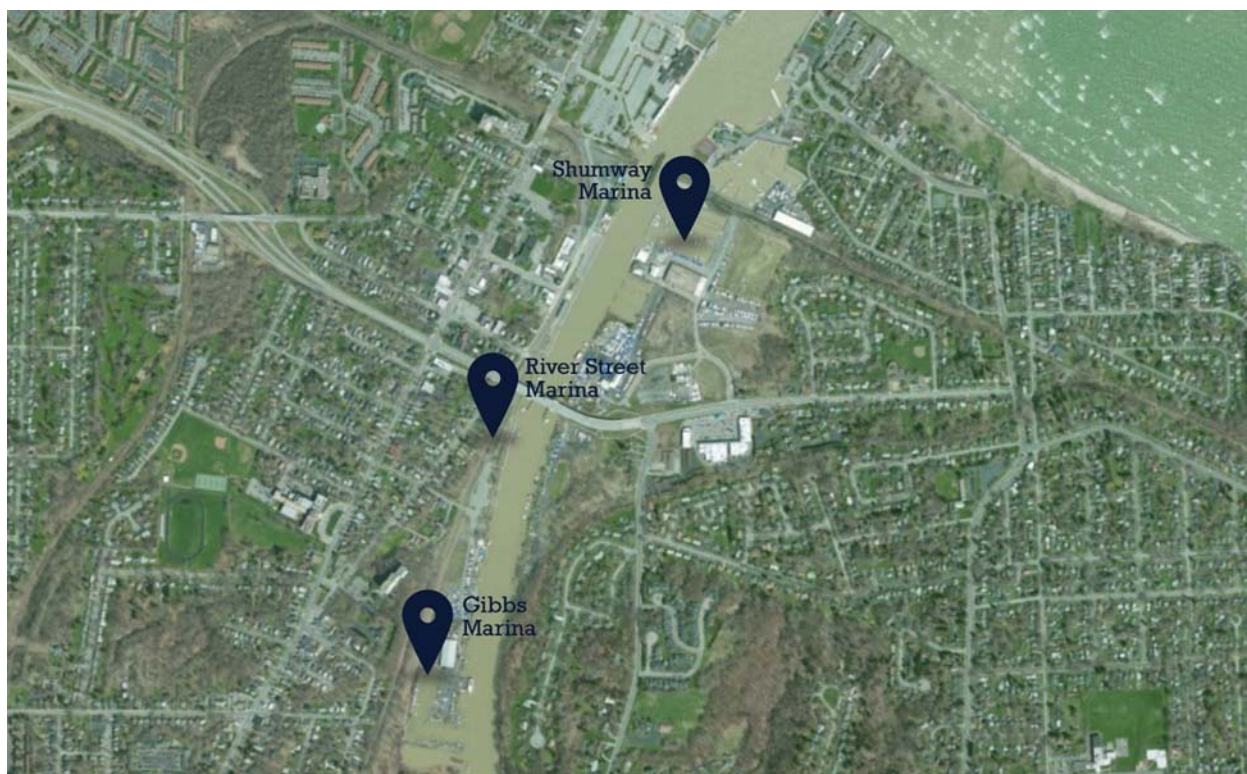
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- Gibbs Marina;
- Shumway Marina/Schooners Riverside Pub;
- River Street Marina; and
- New public marina at the Port of Rochester (not indicated in Figure 1).

In addition, Pelican's Nest restaurant offers short-term docking at 566 River Street for restaurant patrons. A more detailed discussion of these water-side access locations can be found in Section 2.7.5.

Figure 1. Transient Dock Locations



2.3 Harbor Services

2.3.1 Services available along the waterfront

The HMA currently offers a variety of services for users of the harbor and its shoreline. Fuel delivery, pump-out facilities, potable water, trash removal, electricity, crane service and marine supplies are available from the various marinas located in the harbor (see Section 2.7.2 for additional details). Landside services/amenities include the following:

- Convenience ship stores at both Gibbs Marina and Shumway Marina;
- Several restaurants and entertainment venues;

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- ATMs located at many of the restaurants and entertainment venues, as well as at the Port Terminal Building; and
- Public restrooms at Ontario Beach Park and inside the Port Terminal Building.

2.3.2 *Additional services available within 1/2 mile of the HMA*

In addition to the amenities noted above, there are several additional services available within close proximity of the HMA.

- Immediately across Lake Ave from the HMA's western boundary is a small commercial strip that contains a number of restaurants, bars and other commercial establishments.
- While there are no hotels or motels within the HMA boundaries or within a half mile of the boundary, there are area homeowners who advertise their properties for short- and long-term rentals. The HMA is also served by RGRTA bus service, making hotels in downtown Rochester accessible to visitors that travel to the region via watercraft. The City is currently working with a developer that has proposed the construction of a new 50-room hotel and spa to be located at River Street and Corrigan Street.
- There is also a drug store, a full-service grocery store and liquor store within one mile of the HMA.
- There are no medical/urgent care facilities within ½ mile of the HMA. The closest hospital is Rochester General Hospital in Rochester.

2.4 Land Use & Zoning

2.4.1 *Existing Land Use Patterns*

As discussed in Section 1, the determination for the boundary of the HMA was largely limited to lands that are occupied by water-dependent uses. These are uses that are primarily waterfront parks, marinas, an industry that relies on water-based shipping of materials, and a port. The distribution of land uses in the HMA is depicted in Figure 2 and Map 4.

Almost two-thirds of the land in the HMA is classified as Conservation & Parks (this does not include land in rights-of-way or open water). Most of this land is located in the southern portion of the HMA and is associated with Turning Point Park, Seneca Park and Rattlesnake Point State Park (see Section 2.5.3 for additional details regarding these parks). A second concentration of park land is located in the northern portion of the HMA along the Lake Ontario shoreline and is part of Ontario Beach Park. All of these parks are directly on the waterfront and provide public access to the water and recreational opportunities.

Commercial is the next largest land use category in the HMA, making up nearly 20 percent of the land area. Most of these lands comprise private marinas, including Shumway Marina, and Voyager Marina along the east side of the Genesee River, and the River Street Marina and Gibbs Marina along the west side. There are also a few commercial uses scattered throughout the HMA.

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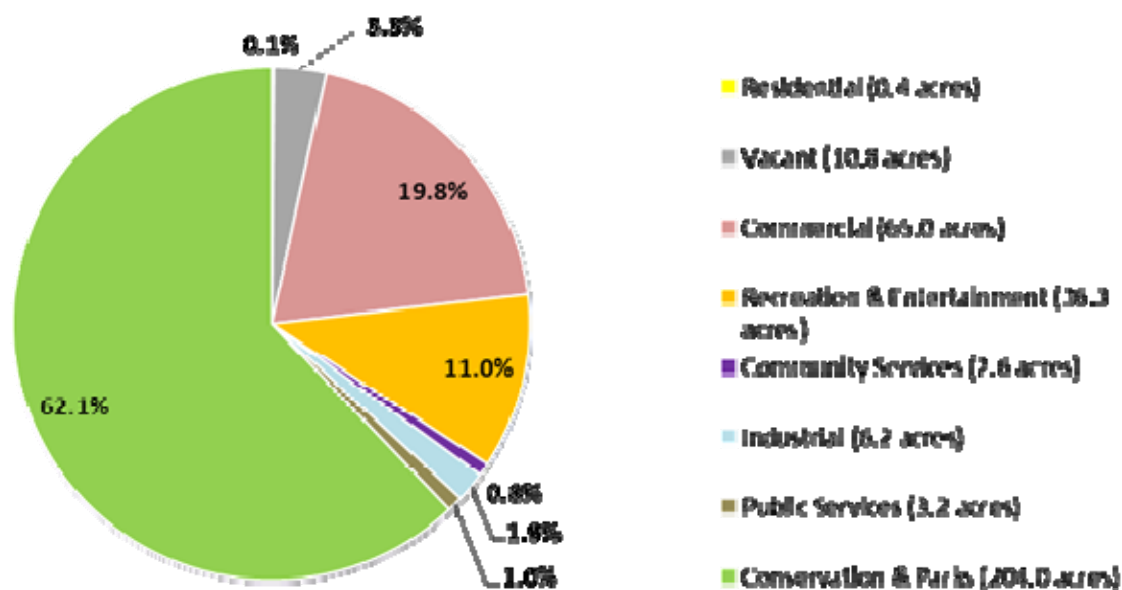
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The next largest category of land uses includes Recreation & Entertainment lands, which comprise approximately 11 percent of the HMA. These lands include the Genesee and Rochester Yacht Clubs, River Street Marina (owned by the City of Rochester), and the Port of Rochester.

Essroc Cement Corp, the only industrial land use within the HMA, is located at the southern end of the HMA on Boxart Street. Essroc's cement ship is an important factor in the Genesee River's harbor designation as a commercial harbor.

The remaining land area is a mix of four land use categories, including Vacant Land (3.3 percent), Public Services (1.0 percent), Community Services (0.8 percent) and Residential Land (0.1 percent).

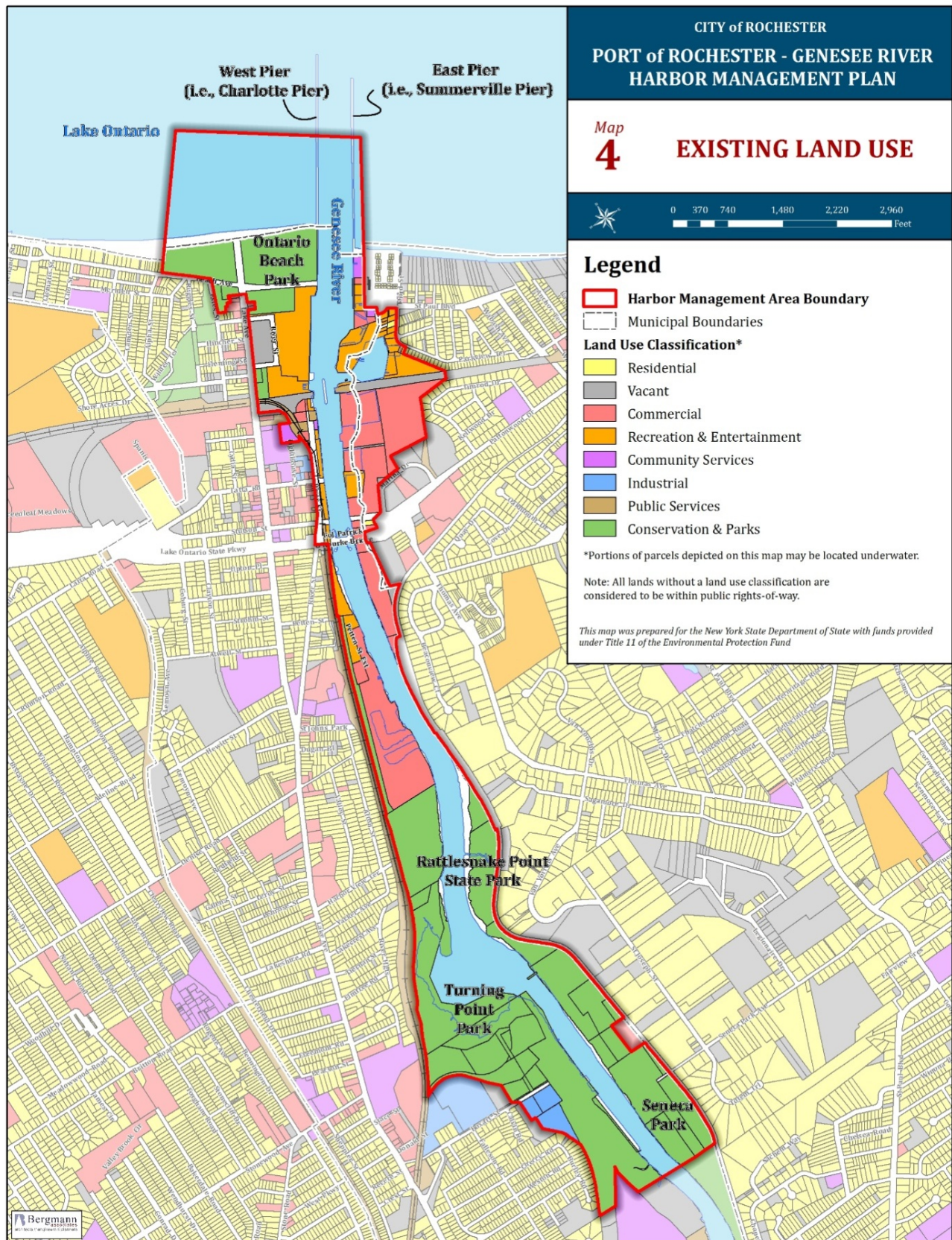
Figure 2. Existing Land Use in HMA



SOURCE: Monroe County Parcel Database (2011)

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2.4.2 Land Use Planning in the HMA

Over the past several years, the City of Rochester and Town of Irondequoit have completed (or are completing) a range of planning efforts that either wholly or partially address activities in the HMA. An overriding theme in land use planning for lands in the HMA is to preserve waterfront lands for public access and water-dependent uses. A brief summary of those planning efforts are included below:

City of Rochester

Local Waterfront Revitalization Program

As the City's official statement of land use and development policy for its waterfront areas, the LWRP establishes a land use and planning framework that will guide and influence future decision-making at all levels of government. The updated LWRP identifies waterfront policies and recommendations for future development and infrastructure improvements and may help leverage potential funding opportunities.

Old Port Charlotte Strategic Plan

In 2013, the Charlotte Community Development Corporation completed a strategic plan for the historic village area of Charlotte in the area of the River Street and Latta Road intersection. The purpose of this community-based planning study was to identify a "long-range strategy for transforming the historic neighborhood into a vibrant and economically healthy place to live, work and play".

To achieve the vision set forth in the strategic plan, ten initiatives were identified, two of which are relevant to the HMA:

- *Design Themes & Guidelines* – Design Guidelines that would serve as a high quality guide to implementation of projects in the Old Port Charlotte area have been recommended for adoption by the City. It was also recommended that the Design Committee of the Old Port Leadership Organization provide technical assistance to businesses and property owners to help comply with the guidelines and further a quality theme.
- *The Public Realm: Projects* – The Plan recommended that the Design Committee work with the City of Rochester and other public and private entities to ensure that the public realm, streetscape and urban infrastructure supports goals, projects and design guidelines.

Town of Irondequoit

Master Plan

The Town of Irondequoit Master Plan was recently adopted in October 2014. The Master Plan focuses on the waterfront areas of the town and includes the delineation of and vision for "Waterfront Opportunity Areas." Three of these areas (see Figure 3) are within or adjacent to the HMA:

River-Rail Corridor Opportunity Area. The River-Rail Corridor is a former railroad bed that parallels the Town's western boundary. The corridor extends from the Rochester city line northward along

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the rim of the Genesee River gorge. Just south of Pattonwood Drive, the railroad right-of-way turns eastward crossing St. Paul Boulevard and then intersecting with the Hojack Line rail bed which runs from the Genesee River eastward to Rock Beach Road. The corridor connects a proposed river trail in the city with Seneca Park, numerous Irondequoit neighborhoods, the Pattonwood commercial district, the Summerville area, and the existing Lakeshore Trail. The *Rochester Regional Trails Initiative* study completed for the Genesee Transportation Council in 2002 identified Irondequoit's River-Rail corridor as a regional priority for trail development. The *Irondequoit Seneca Trail Feasibility Study* completed in March 2014 identified the preferred alignment and amenities for a future trail corridor in this area.

Pattonwood Opportunity Area. The Pattonwood Opportunity Area is located in the northwest corner of Irondequoit on the east side of the Genesee River largely within the HMA. According to the Irondequoit Master Plan, this area is an important neighborhood commercial district serving the northwest corner of Irondequoit as well as the Charlotte neighborhood across the river. The Town's River Harbor District zoning, including the entire Pattonwood Opportunity Area, encourages high density, mixed use development incorporating pedestrian accommodations. The existing code is consistent with the community input received for this area during the master plan preparation and the vision for this area indicated in the plan.

The Summerville-Lakeshore Opportunity Area. The Summerville-Lakeshore area is located in the extreme northwestern corner of town just east of the outlet of the Genesee River adjacent to the HMA. The area includes a public alley leading to a small section of Lake Ontario waterfront. This public footpath is bounded by the United States Coast Guard Station (USCG), the Westage condominium complex, Silk O'Loughlin's Restaurant, and the NYS fishing access site. Public access to the lakeshore and the Summerville pier is available here. However, this area also includes private beach and pathways, which restrict public access via deeds of property owners.

The Master Plan recommends pedestrian improvements to the area including improving the pedestrian route from the end of Saint Paul Boulevard to the Summerville Pier, the East Harbor Fishing Access site, and the public lakeshore area.

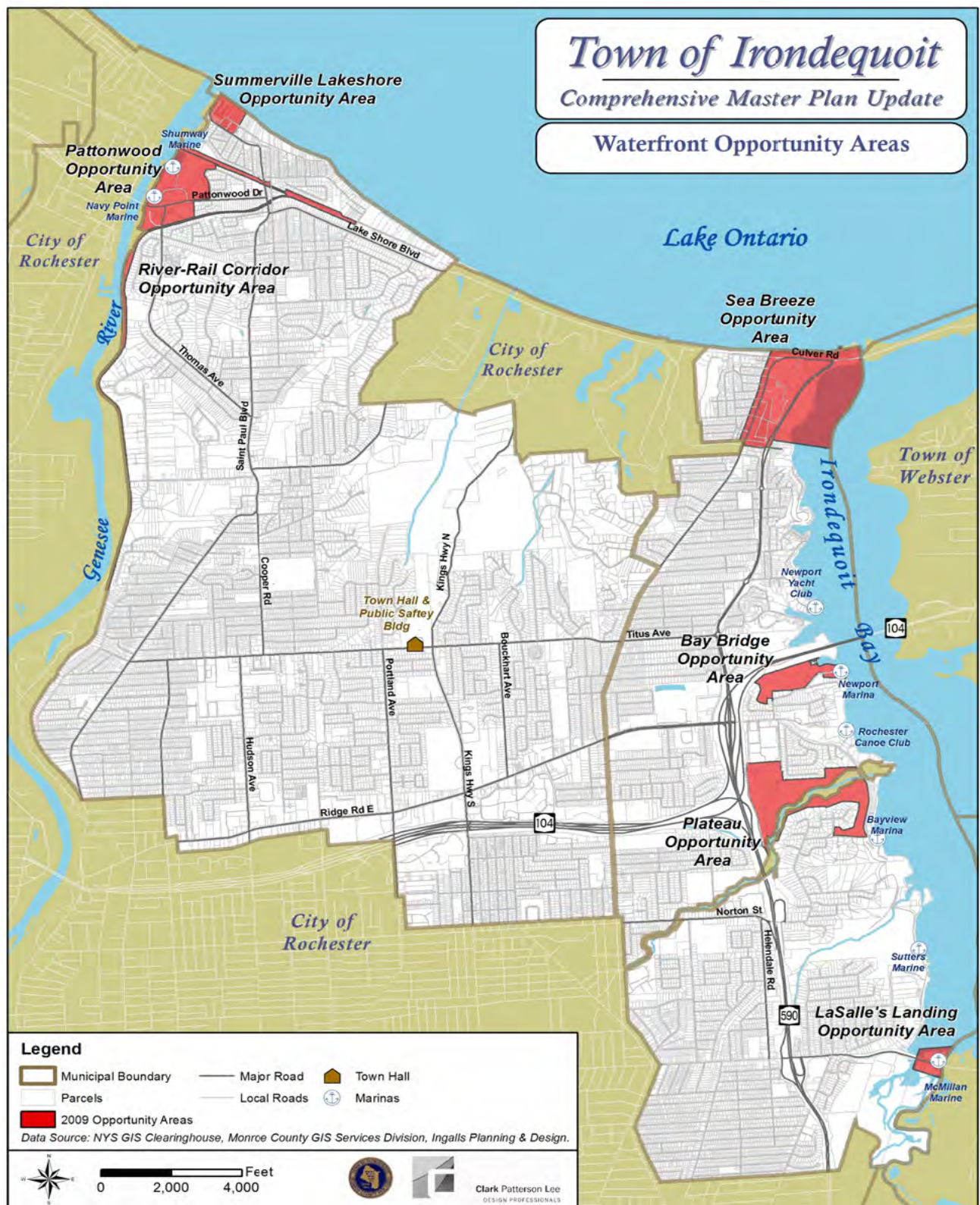
LWRP

The town's existing LWRP was adopted in 1988 and includes recommendations for mixed-use development with a maritime theme for vacant parcels around Stutson Street (since removed) and the areas around Thomas Avenue and Pattonwood Drive. The LWRP is currently undergoing an update to ensure alignment with community priorities outlined in the town's recently updated master plan. Building on the master plan's broad land use and design preferences for Irondequoit's waterfront opportunity areas, the LWRP update will provide a more detailed examination of redevelopment priorities and outline strategies and policies to ensure appropriate environmental conservation and protection. Together, the LWRP and the master plan will provide a balanced view of how Irondequoit's waterfront resources can be used wisely for public benefit.

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Figure 3. Town of Irondequoit Waterfront Opportunity Areas



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2.4.3 Zoning Regulations

Map 5 depicts the location and relative distribution of the seven zoning districts within the HMA, respectively. Four of the districts are within the City of Rochester (Open Space, Harbortown Village, Marina District, and Industrial) and three are within the Town of Irondequoit (River Harbor, Waterfront Development, and Residential). Below is a brief description of the four largest districts, which cover 96 percent of the land area in the HMA.

City of Rochester

Open Space (OS) District

Just under two-thirds of the land within the HMA is zoned as Open Space, including the four major parks; Ontario Beach Park, Turning Point Park, Rattlesnake Point Park and Seneca Park. The purpose of this district is to “preserve and enhance Rochester's open spaces and recreational areas by protecting these natural amenities and restricting development that does not respect these environmentally sensitive areas.” The permitted uses in the district include:

- Publicly owned parks, recreational areas, natural wildlife areas and other open areas.
- Cemeteries, including associated facilities.
- Botanical gardens, arboretums and conservatories.
- Public marinas, boat launches, boat docks and fishing docks.
- Outdoor recreational facilities, such as hiking and bicycle trails, greens and commons, sitting areas and picnic areas.

Based on a review of the land use data provided in the Monroe County Parcel Database (2011), there are no existing conflicts between the land use and the zoning in the Open Space District within the HMA.

Harbortown Village (HV) District

The Harbortown Village district covers 20 percent of the HMA. The Harbortown Village District provides for a “distinct neighborhood developing around the mouth of the Genesee River and the shore of Lake Ontario as a unique and lively water- and pedestrian-oriented area.” The district regulations promote public access, encourage tourism and preserve the waterfront environment. Permitted uses and structures include:

- Public boardwalks, paths, biking trails and outdoor seating/assembly areas.
- Boating and fishing docks.
- Marinas.
- Water passenger transportation terminals.
- Boating and sailing instruction schools.
- Boat sales, rental and charter facilities.

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There are several additional land uses permitted within the district when located 30 feet or more from the edge of the Genesee River including but not limited to single-family attached dwellings, live-work spaces, mixed-use development and restaurants, bars and offices when 2,500 square feet or less in size. There are also several specially permitted uses when located within 30 feet of the River including retail sales and services, bars, taverns and cocktail lounges, museums and aquariums and private clubs.

Based on a review of the land use data provided in the Monroe County Parcel Database (2011), there are no land use/zoning conflicts in the Open Space District within the HMA.

Marina District (M-D) District

The Marina District covers six percent of the HMA. It includes the area bounded generally by Ontario Beach Park to the north, Lake Avenue to the west, the Genesee River to the east and the railroad embankment to the south. The Marina District will be the next chapter in Charlotte's history as a lakeshore resort community. The ultimate goal of the Marina District code is to foster the creation of a district that will attract visitors because it is distinctive and memorable and will endure because it is valued by residents and visitors alike. This district incorporates a form-based code intended to govern the development of the Port of Rochester, including the Terminal Building. In the Marina District, the primary emphasis is placed upon the physical form of buildings, civic spaces and place making.

Town of Irondequoit

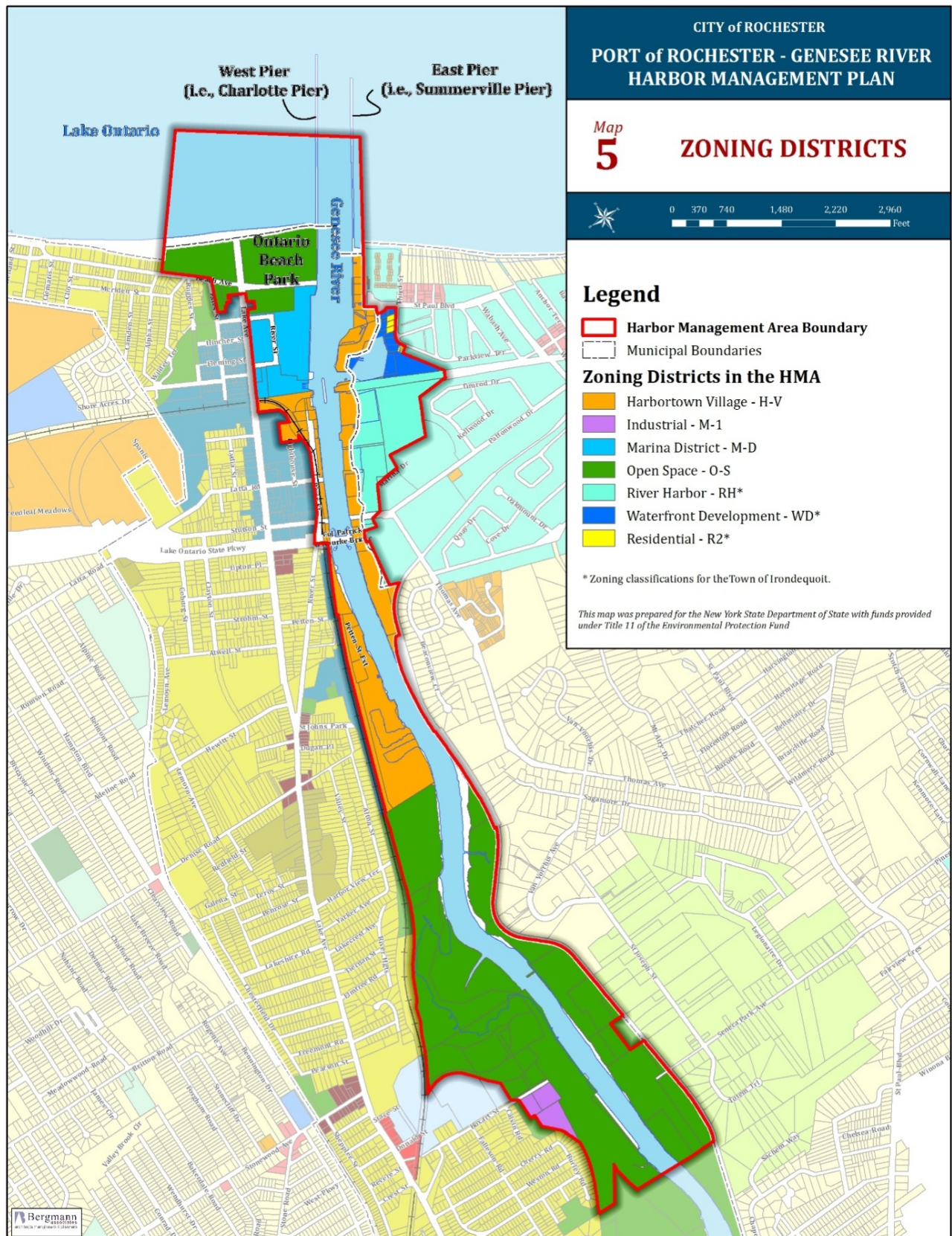
River Harbor (RH) District

The River Harbor District is a Town of Irondequoit zoning district that encompasses more than eight percent of the HMA. The River Harbor (RH) District is “designed to provide a suitable character and stable environment for the establishment and maintenance of water-dependent and/or water-enhanced uses and activities along the east bank of the Genesee River near the Port of Rochester.” The district also aims to promote appropriate residential and economic development and to provide improved public access to the riverfront. The River Harbor district permits a wide range of uses, including single-family detached dwellings, townhouses, parks, community centers, hotels, marinas, boat sales, retail and restaurants, just to name a few.

Based on a review of the land use data provided in the Monroe County Parcel Database (2011), there are no land use/zoning conflicts in the Open Space District within the HMA.

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2.5 Land Ownership

2.5.1 Public Lands

Public entities are the primary property owners in the HMA. This is beneficial for ensuring public access to valuable waterfront resources and protecting the natural resources, particularly water quality. As shown in Map 6 and Figure 4, more than 260 acres or 76 percent of the HMA land area is publicly owned.


Based on a review of the Monroe County Parcel Database, the City of Rochester is the largest landowner in the HMA, holding title to 47 parcels covering just less than 200 acres (58 percent of the total parcel land area in the HMA). The vast majority (146 acres) of this land is parkland. Additionally, the City owns two parcels located along the eastern shore of the Genesee River, one of which lacks direct access to the existing street network (i.e., land-locked). This land is currently leased to Voyager Marina on an annual basis.

New York State and Monroe County are the next two largest public landowners in the HMA, with the State owning just less than 40 acres and the County owning approximately 22 acres. The majority of this land owned by the State and the County is also parkland. The United States Government owns 1.6 acres on 3 parcels, all of which are associated with the USGC.

Significant publicly-owned properties in the HMA include:

- Ontario Beach Park (City of Rochester);
- The Port of Rochester (City of Rochester);
- River Street Marina (City of Rochester);
- Parcel leased to Voyager Marina (City of Rochester);
- Turning Point Park (City of Rochester)
- Seneca Park (City of Rochester and Monroe County); and
- Rattlesnake Point State Park (New York State);

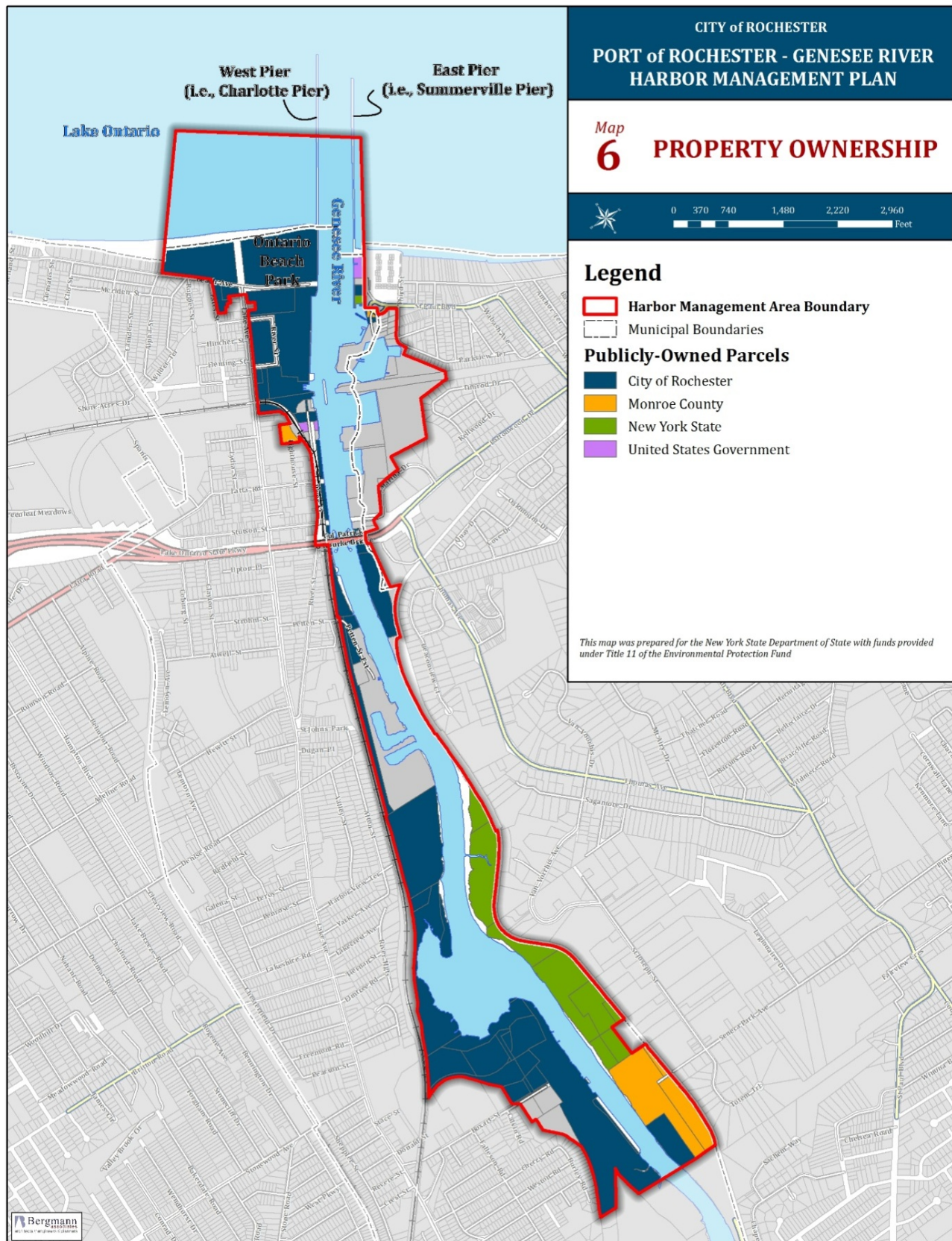
A detailed description of these park properties can be found in Section 2.6.1.



76% of the land in the HMA is in public ownership and over 200 acres are dedicated parkland.

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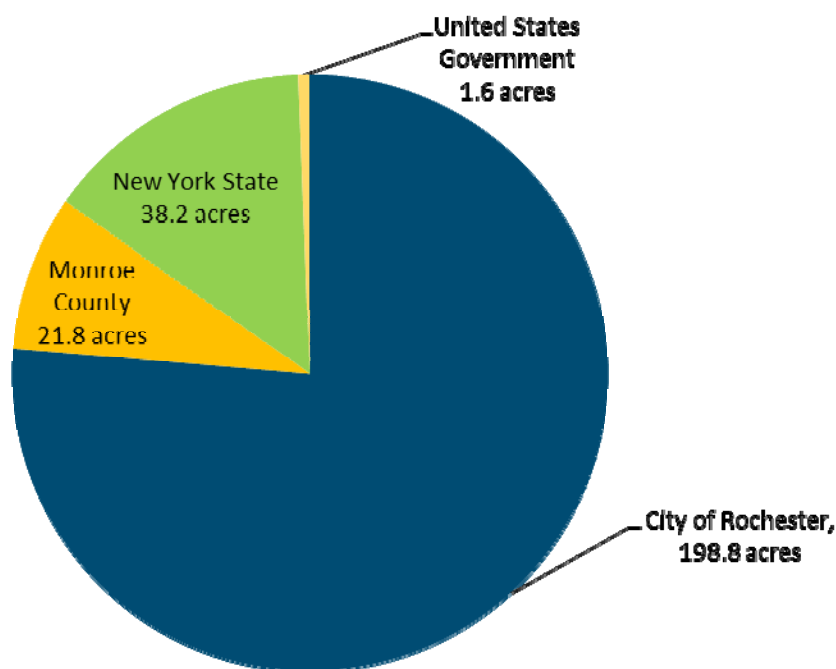
City of Rochester, New York



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Figure 4. Publicly-Owned Lands in the HMA



SOURCE: Monroe County Parcel Database (2011)

2.5.2 Land Under Water

Based on a review of the Monroe County Parcel Database, only one parcel in the HMA is specifically classified as “Land Under Water”. This 16-acre parcel is owned by the City of Rochester and is associated with Turning Point Park. More specifically, this parcel is located entirely within the confines of the Genesee River and the Turning Point Basin.

Ownership of the riverbed throughout the HMA is an issue that needs clarification. There are differing opinions about who owns the underwater lands of the River. This issue becomes important when work is being conducted that impacts the riverbed, such as dredging or the construction of docks and piers. More specifically, to receive permits (e.g., dredging), private property owners must demonstrate that they own the land to be impacted. Since parcel boundaries do not extend into the River (in most instances), demonstrating ownership to permitting agencies such as NYSDEC or USACOE has been difficult.

2.6 Recreational Facilities and Public Access

2.6.1 Parks

Ontario Beach Park

One of the most significant recreational facilities within the HMA is Ontario Beach Park (see Map 7). The park is owned by the City of Rochester, operated and maintained by the County of Monroe

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through a formal agreement between the City and the County. The facilities at the park include the beach, a boardwalk, a large historic “bathhouse” facility now functioning as the Robach Community Center, the Ontario Beach Carousel, picnic facilities, a performance bandstand/pavilion, playground equipment, basketball courts, sand volleyball courts, soccer fields, etc. People from across the region come to enjoy this waterfront destination.

Port Public Marina Project

The City of Rochester Port Public Marina and Mixed Use Development Project includes new parkland and waterfront amenities. Most of the area of the marina basin, along with the public amenities, including an open space at the north end of the marina and a promenade around the marina perimeter, include new parkland because they are in areas that were not parkland.

The following park amenities and improvements have been added as part of the project:

- Development of an approximately five-acre public marina with access to the River;
- A public promenade around the perimeter of the marina basin (varying in width from 10 to 15 feet), as well as adjacent public open space;
- Construction of the Lighthouse trail and overlook located at 4576 and 4580 Lake Avenue; and
- A second overlook north of the boat launch where Portside Drive and N. River Street intersect.

Rattlesnake Point State Park

Located on the eastern shore of the Genesee River, the southern boundary of Rattlesnake Point State Park adjoins the northern boundary of Seneca Park and runs north along the gorge for approximately one mile. Scenic views of the river gorge and the turning basin from a minimally maintained trail are abundant in this 50-acre park.

Seneca Park

Located along the eastern shore of the Genesee River, Seneca Park encompasses more than 290 acres (25 acres are within the HMA). Designed by Frederick Law Olmsted, the Park offers a variety of natural and recreational opportunities including picnic shelters, the newly renovated Wegman Lodge, playgrounds, a zoo, scenic views of the Genesee River gorge, hiking trails, open fields and a large pond with a paved perimeter walking path.

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Turning Point Park

Located in the southern portion of the HMA, Turning Point Park includes 275 wooded acres along the western bank of the Genesee River. Hiking and biking trails will help you discover the park's distinct areas, from the wooded oak forest called "Bullock's Woods" to the cattail lined shores of the river. Turning Point's boardwalk and trail won an American Public Works Associations' "Transportation Project of the Year" award in 2008. The trail consists of 3 main parts: 1) the 2,968 ft land-based trail that utilized an old railroad bed to transition from the top of the bank to the river's edge, 2) a 3,572 ft-long bridge over the Genesee River Turning Basin, and 3) an all-new land-based trail, 3,406 feet in length, through Turning Point Park North and adjacent to the Genesee Marina. Turning Point Park also features a Rain Garden, an eco-friendly way to use natural vegetation as sediment filters. When it rains or snows, flowing sediments and pollutants from the nearby parking lot are captured by the garden's vegetation. The plants act as filters and clean the runoff before it reaches the river. The rain garden is stocked with a wide variety of hardy plants that aid in the process, from ostrich fern and filipendula to coneflower and New England aster.



2.6.2 Multi-Use Trails

The HMA is served by portions of three multi-use trails – the Genesee Riverway Trail, the Irondequoit Lakeside Trail, and the Lake Ontario State Parkway (LOSP) Trail. There are two additional currently-proposed trails that would also serve the HMA – the Sea Breeze-Charlotte-Seneca Park Trail and the Irondequoit Seneca Multi-Use Trail (see Map 7). A brief overview of each is provided below.

Genesee Riverway Trail

The Genesee Riverway Trail is a multi-use trail located along the Genesee River and is a designated National Recreation Trail. The trail system extends from Genesee Valley Park north to Latta Road (the City of Rochester Port Public Marina and Mixed Use Development Project will extend the trail to Ontario Beach Park). The Riverway Trail provides access to the Genesee River, its scenic



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gorge, three waterfalls, eight pedestrian bridges, and eleven parks, including four historic parks designed by Frederick Law Olmsted. The Genesee Riverway Trail is marked with a system of wayfinding and interpretive signs to encourage and guide public use. Most of the trail is paved and easily accessible. Steep, rough, or narrow sections of the trail are clearly signed.

In September 2012, the Environmental Health Sciences Center of the University of Rochester Medical Center completed the *Genesee Riverway Trail Count and Survey Data Report*. This report summarizes data collected from trail user counts and surveys conducted along the Genesee Riverway Trail throughout the City of Rochester during June and July 2012 as part of *Healthy Waterways, a Health Impact Assessment of the City of Rochester's LWRP*. The report included data from the following locations found within the HMA:

- Turning Point Park;
- Intersection of LOSP and the Genesee Riverway Trails at River Street; and
- Irondequoit Lakeside Trail at Durand Eastman Park.

As noted in Figure 5, the study found that the portions of the trail located in the HMA appear to be used more often during weekend (recreation) hours than during commute times (“commute” and “recreation” are used to describe the selected sampling time and do not represent the users’ purpose for the trip). Additionally, the average number of people per hour was calculated to demonstrate overall density of use during sampling times.

Figure 5. Genesee Riverway Trail User Counts for the HMA

Site	Total Trail Users	Commute Time Total		Recreation Time Total		Number of Sampling Times	Users per Hour
		Users	Percent	Users	Percent		
Turning Point	151	37	25%	114	75%	2	37.8
LOSP	137	54	39%	83	61%	2	34.3
Lakeside Trail	203	68	33%	135	67%	2	50.8

Irondequoit Lakeside Multi-Use Trail

The Irondequoit Lakeside Multi-Use Trail was established in November 2007 and runs for approximately 5 miles between the Irondequoit Bay Outlet Marine Park and the Colonel Patrick O'Rorke Memorial Bridge. This multi-use trail is a paved pedestrian and bicycle path running along Lake Ontario in Irondequoit, primarily on an old CSX railroad bed. As it exits the western side of Durand Eastman Park, the trail begins to follow Lake Shore Blvd until reaching Pattonwood Drive, where it continues to the Colonel Patrick O'Rorke Memorial Bridge.

Lake Ontario State Parkway (LOSP) Trail

The LOSP Trail is a multi-use trail that runs along the north side of Lake Ontario Parkway. Trail users enjoy scenic views of wooded areas, surrounding bodies of water and wetlands as they make their way along the 3.3-mile trail between Island Cottage Road and Latta Road and then continuing along Latta Road to Lake Avenue.

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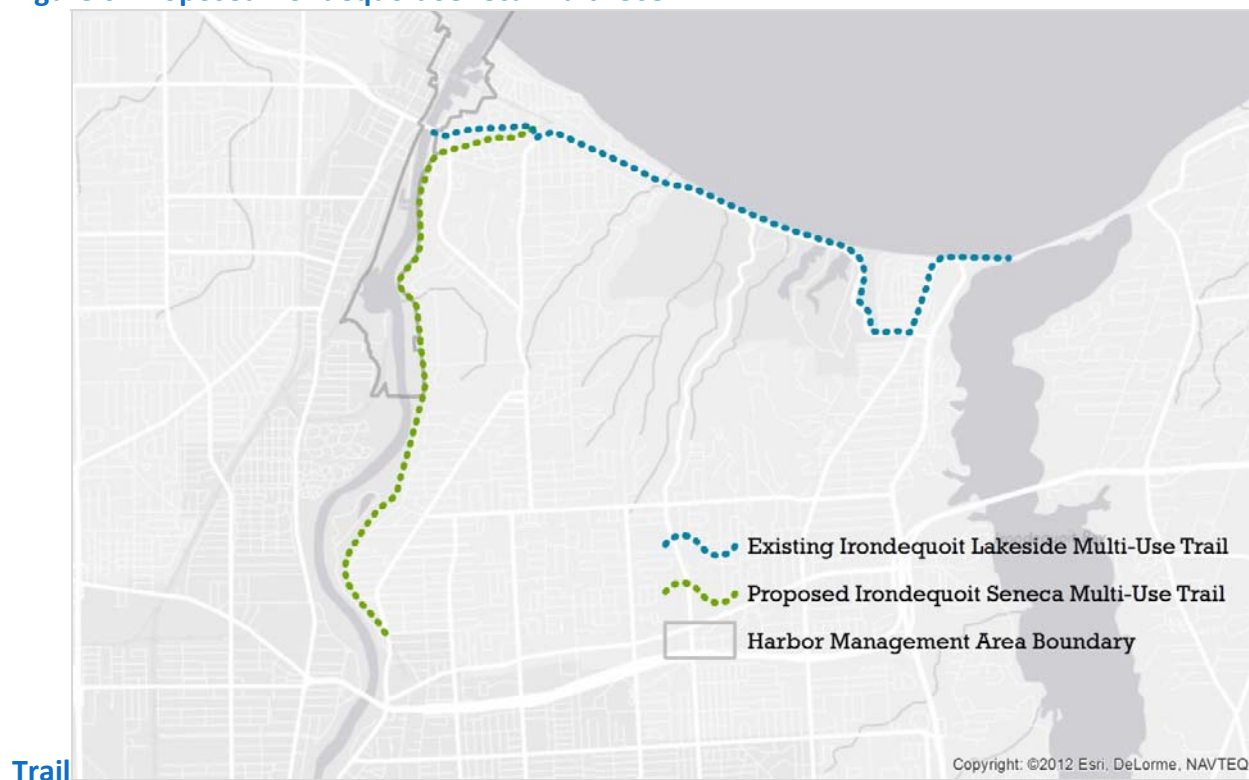
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Irondequoit Seneca Multi-Use Trail (proposed)

The Irondequoit Seneca Multi-Use Trail (Figure 6) is proposed along the abandoned CSX railroad bed along the east side of the Genesee River connecting Seneca Park, the recently completed El Camino Trail, and the Lakeside Multi-use trail that runs along Lake Ontario in Irondequoit.

The Town of Irondequoit completed a feasibility study in 2014 which identified the preferred alignment and amenities for this future trail.

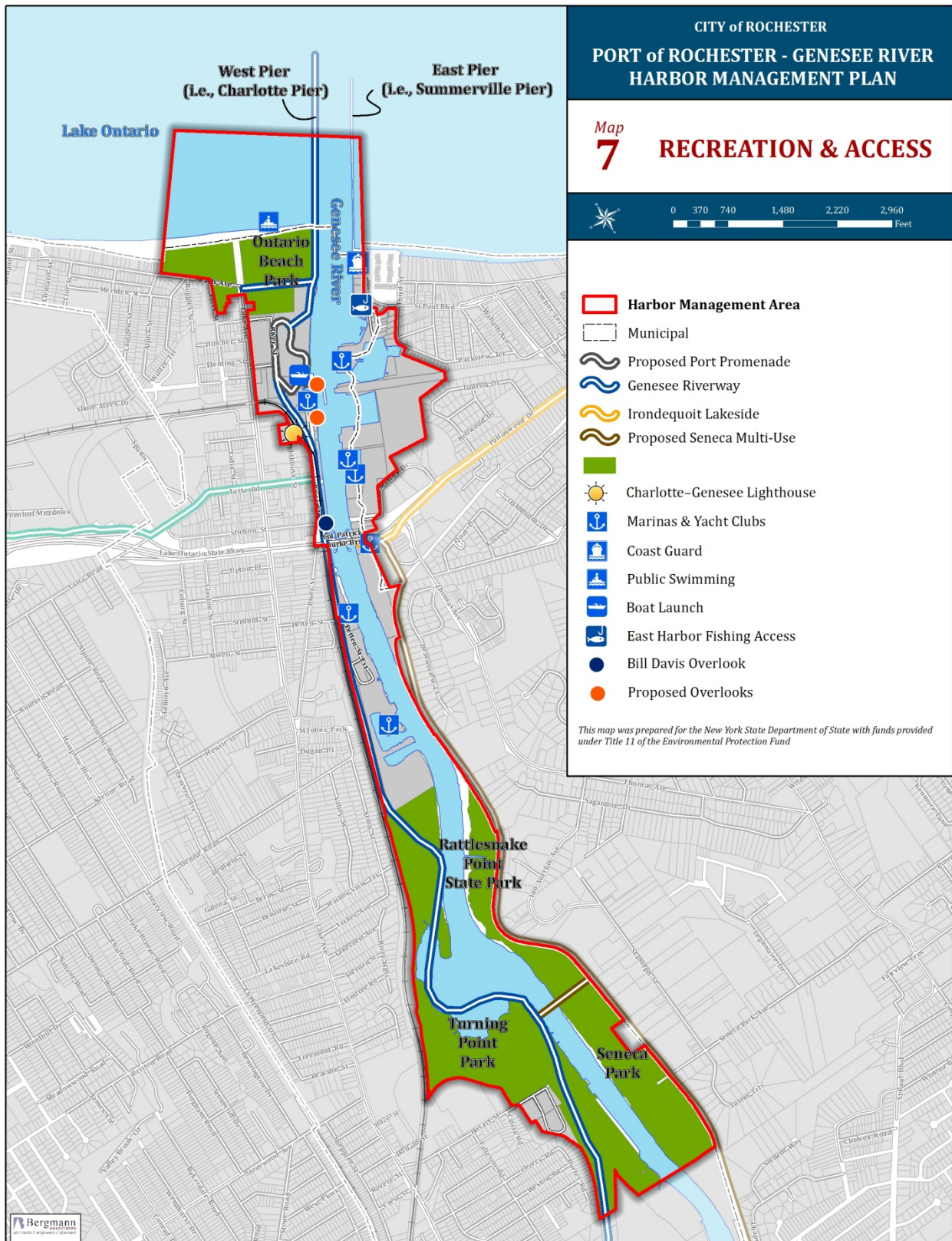
Figure 6. Proposed Irondequoit Seneca Multi-Use



Trail

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2.6.3 Piers & Overlooks

Charlotte Pier (i.e., West Pier)

The Charlotte Pier is located next to Ontario Beach Park on the western shore of the Genesee River. The Pier is approximately 3,036 feet long with railings on both sides and a light tower at its northern end. The Pier is easily accessible from Ontario Beach Park, Lake Avenue and Beach Avenue. The Pier is a popular place for strolling, especially in summer, and fishing.

Summerville Pier (i.e., East Pier)

The Summerville Pier is located on the eastern shore of the Genesee River at the end of St. Paul Boulevard in Irondequoit and is approximately 2,699 feet long. The pier is accessed by parking in the lot next to the Genesee River and walking north along the driveway past the USCG Station. Like the Charlotte Pier, the Summerville Pier is best known for its fishing although the lack of railings can make it unsafe in wet weather. Both piers are also known for bird watching as it is a popular resting spot for migratory birds.

Bill Davis Overlook

Located at the site of the old Stutson Street Bridge, the Bill Davis Overlook was installed in 2005 and is located in the public rights-of-way. The overlook provides excellent views of the Harbor and Genesee River and includes a number of interpretive signs depicting various aspects of local history.

East Harbor Fishing Access

The East Harbor Fishing Access site (5575 St. Paul Boulevard) is located at the end of St. Paul Boulevard next to the Rochester Yacht Club on the east side of the River. It is owned and operated by the New York State Department of Environmental Conservation. This fishing site is open year-round and features parking and benches.

Port Overlooks

New overlooks were constructed as part of the City of Rochester Port Public Marina and Mixed Use Development Project - the Lighthouse trail and overlook located at 4576 and 4580 Lake Avenue and the new overlook at the intersection of Portside Drive and River Street.

Proposed Overlook

A proposed overlook, located on the western abutment of the former Hojack Swing Bridge, is currently undergoing design.

2.7 Water Surface Use

All waters within the HMA are considered navigable waters. Lake Ontario and the Genesee River federal navigation channel are both considered navigable waters of the United States, while the Genesee River outside the federal channel is considered navigable under New York State laws.

2.7.1 Recreational Boating

Boating is a popular activity in New York State which is 3rd in the country for recreational boat ownership. There were more than 27,000 boat registrations in Monroe County in 2012. Recreational boating, including motorized boats, sail boats, canoes, kayaks, windsurfing, etc. is an essential part of the fabric of the HMA.

Given the large number and variations of recreational boats that operate within the HMA, there is the potential for operational conflicts. At this time, however, water use conflicts were not identified as an issue by boaters within the HMA. As the popularity of harbor increases, user conflicts may in fact become an issue. In many harbors across New York State, municipalities have delineated “designated use zones” to address potential boater conflicts. These use zones are typically for harbors where other restrictions, such as speed limits and “no wake” zones are not already in effect. Establishing use zones may also be an effective strategy for protecting environmentally sensitive areas in a harbor.



New York State
ranks 3rd in the
country for
recreational boat
ownership.

Motor Boats

Approximately 50 percent of the boat slips in the Harbor are usually occupied by motorized boats.

Not all motor boats operating in the HMA, however, own or lease a boat slip. For these boat operators, a boat launch is necessary to access the Genesee River and Lake Ontario. To provide maximum accessibility, a public boat launch is an essential component to harbor operations. The following public and private launches are located in the HMA.

- Public boat launch located on the west side of the River at the Port of Rochester;
- Car-top launch at Turning Point Park;
- Shumway Marina; and
- Voyager Marina.

The City-owned public boat launch at the port site has parking capacity to accommodate more than 75 cars with trailers. Figure 7 below provides annual data on paid launches at the public boat launch. Boat launch data for either privately-owned launches or the car-top launch is not readily available.

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Figure 7. Paid launches from the public boat launch

Year	Paid Launches	Owner
2008	1,889	Monroe County
2009	1,757	Monroe County
2010	1,307	Monroe County
2011	2,582	City of Rochester
2012	3,603	City of Rochester
2013	3,059	City of Rochester
2014	2,632	City of Rochester
2015	3,834	City of Rochester

SOURCE: Monroe County Department of Parks, City of Rochester Dept. of Recreation & Youth Services, and City of Rochester Municipal Parking

Sailboats

Sailing is a popular activity in the HMA. Approximately 50 percent of the boat slips in the harbor are owned or leased to sailors. Of the sailboats that use the harbor, many are equipped with trolling motors to facilitate entry and egress from their respective marinas/launches.

The Rochester Yacht Club is a major presence in the sailing and yachting community on the Genesee River and in Lake Ontario for recreation and racing. The Rochester Yacht Club, located on the eastern shore of the Genesee River, was established in 1877 and is one of the oldest yacht clubs in the country. It often hosts internationally renowned regattas that bring in people from all over the world. The Yacht Club also offers sailing instruction for adults and children as young as 6 years old. The Club has a sailing lesson area in the River where visitors can regularly watch as young sailors learn the skill of sailing. The Rochester Yacht Club hosts between many on-water special events each year. In 2014, the Club hosted the following seven events:

- Hospice/ Regatta – this event is held in August and is co-hosted by the Genesee Yacht Club. In 2014, 29 boats participated in the event.
- Great Lakes Match Racing – this three-day event is held in June each year. In 2014, 10 boats participated in the event.
- J/70 North American Championship – the four-day annual event is held in July. The maximum number of boats that can participate is 120 and many boats are turned away each year.

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- US Sailing's Junior Olympics – this three-day event is held in August each year. In 2014, 54 boats participated in the event.
- Rochester Race – this single-day event is held in August each year.
- US Laser Masters Championship – in 2014, 98 boats participated in this annual event held over four days in September.
- J/24 District 7 Championship Regatta – this two-day event is held in June each year. In 2014, eight boats participated in the event.

The Genesee Yacht Club, located on the eastern shore of the Genesee River, also hosts several regattas and recreational racing opportunities for its members. A summary of the events hosted by the Genesee Yacht Club includes:

- Tuesday Night races – between 36 and 41 boats participated in each of 17 races held from May through September in 2014.
- Weekend Club races – between 16 and 25 boats participated in each of 18 races held during weekends from May through September in 2014.
- Pizza races (informal) – there were three informal Pizza races during June and July 2014.
- The Scotch Bonnet Regatta – 27 boats participated in this annual event in June 2014.
- The Woman Skipper Invitational – 21 boats participated in this annual event in August 2014.
- Hospice/ Regatta – this event is held in August and is co-hosted by the Rochester Yacht Club. In 2014, 29 boats participated in the event.

Other Recreational Boating

Canoeing and kayaking occur along the Genesee River, but there are no canoe, kayak or rowing clubs or rental locations within the HMA. Canoe and kayak owners can launch their vessels at Ontario Beach Park (only during the swimming off-season) and Turning Point Park. Windsurfing and kite surfing enthusiasts in the Rochester region can also launch at Ontario Beach Park (only during swimming off-season), although no formal clubs or schools are located within the HMA.

2.7.2 Commercial Boating

Cargo Vessels

Use of the harbor by the Essroc cement company is a significant commercial operation that is critical to the designation of the HMA as a commercial port by the ACOE. Essroc's cement is shipped in on a freighter, usually the *Stephen B. Roman*, or if the water depth is insufficient for the freighter, the cement is shipped in on a barge



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powered by tug boats.

The *Stephen B. Roman* is a 488-foot long cement carrier that docks at the Essroc docks located at the southern terminus of the federal navigation channel. Essroc is the only major cement supplier in the region and, due to the transportation cost savings associated with water-borne shipping, is able to provide this material at lower costs than would be possible were the material to be shipped into the region via truck. While there is no set schedule associated with cement delivery, Essroc representatives indicated that large shipments occur every 2 to 3 months, on average.

Charters

The harbor is an attractive and profitable launching point for many area fishing charters due to its accessibility to the Genesee River, Lake Ontario and its tributaries. Within these waters live a variety of sought-after fish including salmon, walleye, trout and perch, with charters receiving the most requests for salmon. There are approximately 20 to 30 licensed charters that launch from the Harbor. Some are docked in the harbor, while others are trailered and use the public boat launch. There are two charter boat associations that operate in the Rochester area - the Genesee Charter Boat Association and the Lake Ontario Charter Boat Association.

The Genesee Charter Boat Association (GCBA) was founded in 1984 with the mission of advancing the charter boat industry in Lake Ontario. The GCBA actively works to educate the angling community and to promote information exchange among charter boat operators. The organization also works with the charter boat industry to set standards of conduct to ensure that customers are receiving a quality product across all charters. To complete its mission, the GCBA has a range of involvements with a number of government and non-government agencies for the betterment of the Lake Ontario fishery, including:

- Pen Rearing Project
- Red Cross Casting for Caring
- National Association Of Charter Boat Operators
- Lake Ontario Sport Fishing Stakeholders Coalition (LOSSC)
- Monroe County Fish Advisory Board

The GCBA provides two levels of membership - Charter Captain membership (for all licensed captains) and Associate membership (individuals or area businesses). There are currently 43 Charter Captain members and 20 Associate members.

The Lake Ontario Charter Boat Association (LOCBA) is an organization consisting of professional charter captains that operate on the waters of Lake Ontario. The primary objective of the LOCBA is to “advance and promote the charter boat industry on Lake Ontario and connecting waterways”. To accomplish this objective, the LOCBA and its members actively participate in a number of projects and activities in the region, including:

- Net Pens

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- Fishing Tournament
- Fishing Seminars
- Outdoor Shows
- Activities geared toward Kids and Families

Like the GCBA, the LOCBA also provides two levels of membership - Charter Captain membership (for all licensed captains) and Associate memberships (individuals or area businesses). There are currently 33 Charter Captain members and 25 Associate members. .

Excursion Vessels

Recently, only one passenger excursion vessel operated out of the HMA– the Harbor Town Belle. Built along the banks of the Genesee River and berthed in the HMA, the 80-foot paddle wheel boat departs up to three times per day for two-hour excursions on the Genesee River, Irondequoit Bay and along the Lake Ontario shoreline. Able to accommodate up to 128 people, the Harbor Town Belle offers lunch and dinner cruises, as well as special events such as private parties, corporate events, weddings, charity functions and school excursions from approximately the middle of June until the end of October. The Harbor Town Belle operates approximately 80 trips per year, depending on the weather.

There are several cruise ships currently operating in the Great Lakes. Rochester has had periodic visits from different cruise ships over the years. In summer of 2009, the 290-foot Clelia II docked in Rochester. The Captain and his crew of 72 sailed from Portugal to Newfoundland to Quebec to Rochester, along with a few other stops in between. The Clelia II carries approximately 100 passengers and has a draft of 14'9". Other popular Great Lakes cruise ships include the Pearl Mist (335' long) which carries approximately 200 passengers and has a draft of 12 feet; and the Grand Mariner (184'long) and Grand Caribe (184'long) both carrying approximately 88 passengers and have a draft of 6'6".

For the HMA to function as a regular port of call for cruise ships, there are several improvements that would likely need to occur:

- Regular and guaranteed dredging of the navigation channel and the terminal dock wall where the ships would moor;
- Tourism opportunities within the HMA;
- Improved connections between the HMA and local points of interest through multi-modal transportation (e.g., buses, shuttles, taxis); and
- Depending on the passengers and itinerary, US Customs may have additional personnel and facility requirements.

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2.7.3 Public Safety/Environmental Protection/Maintenance Vessels

As discussed in Section 3, there are several public agencies operating within the HMA, many of which utilize watercraft as part of their daily operations. The agencies and their respective watercraft are listed below:

- U.S. Coast Guard (USCG) – The USCG operates three boats out of the Rochester harbor. They are docked at their facility at 5500 St. Paul Blvd.
- U.S. Customs & Border Patrol (USCBP)– The USCBP operates two 40-foot watercraft in the Harbor;
- Monroe County Sheriff (MCSO)– The MCSO operates five patrol boats and two jet skis in and around the HMA;
- Rochester Police Department (RPD)– The RPD currently moors one SCUBA boat (27-feet) in the Harbor;
- Rochester Fire Department (RFD) – The RFD currently operates one 17-foot inflatable rescue boat in and around the HMA;
- U.S Environmental Protection Agency (USEPA) – The USEPA operates the Lake Guardian, its largest research and monitoring vessel on the Great Lakes. This vessel is 180 feet long, has a 40' beam and has a 12-foot draft; and
- New York State Department of Environmental Conservation (NYSDEC) – The NYSDEC operates a wide range of patrol boats on NYS waters, including Lake Ontario and the Genesee River.

The need for a common public safety facility was identified during meetings with public safety agencies. It was suggested that this facility could be shared by several agencies operating in the HMA. The facility could include slips for public safety boats and provide space for such things as offices, a fueling station for public safety vessels, parking for official vehicles, restrooms and meeting rooms. A public safety facility would provide a central location for agencies to manage incident and tactical operations and coordinate all public safety efforts in the HMA. A harbor master could also be housed in this facility.

2.7.4 Marinas and Waterside Boat Storage

There are three commercial marinas, two public marinas, and two private yacht clubs within the HMA totaling approximately 1,000 boat slips. Based on interviews with these HMA stakeholders, it was determined that occupancy rates are very high, indicating a healthy boating market in the region, currently. The inventory of boat storage is summarized in Figure 8 below.

The Port of Rochester Marina (Phase 1) opened in 2016 and added approximately 84 slips inside the marina basin and about 39 transient broadside slips along the river wall. Additionally, if expanded in the future, Phase 2 of the new marina could add an additional 70 slips in an expanded basin; no timeframe for Phase 2 has been identified.

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Marina operators indicated approximately 90% of boat traffic is recreational boaters either traveling to Lake Ontario or to one of the region's bays, while the remaining 10% typically travel outside the area.

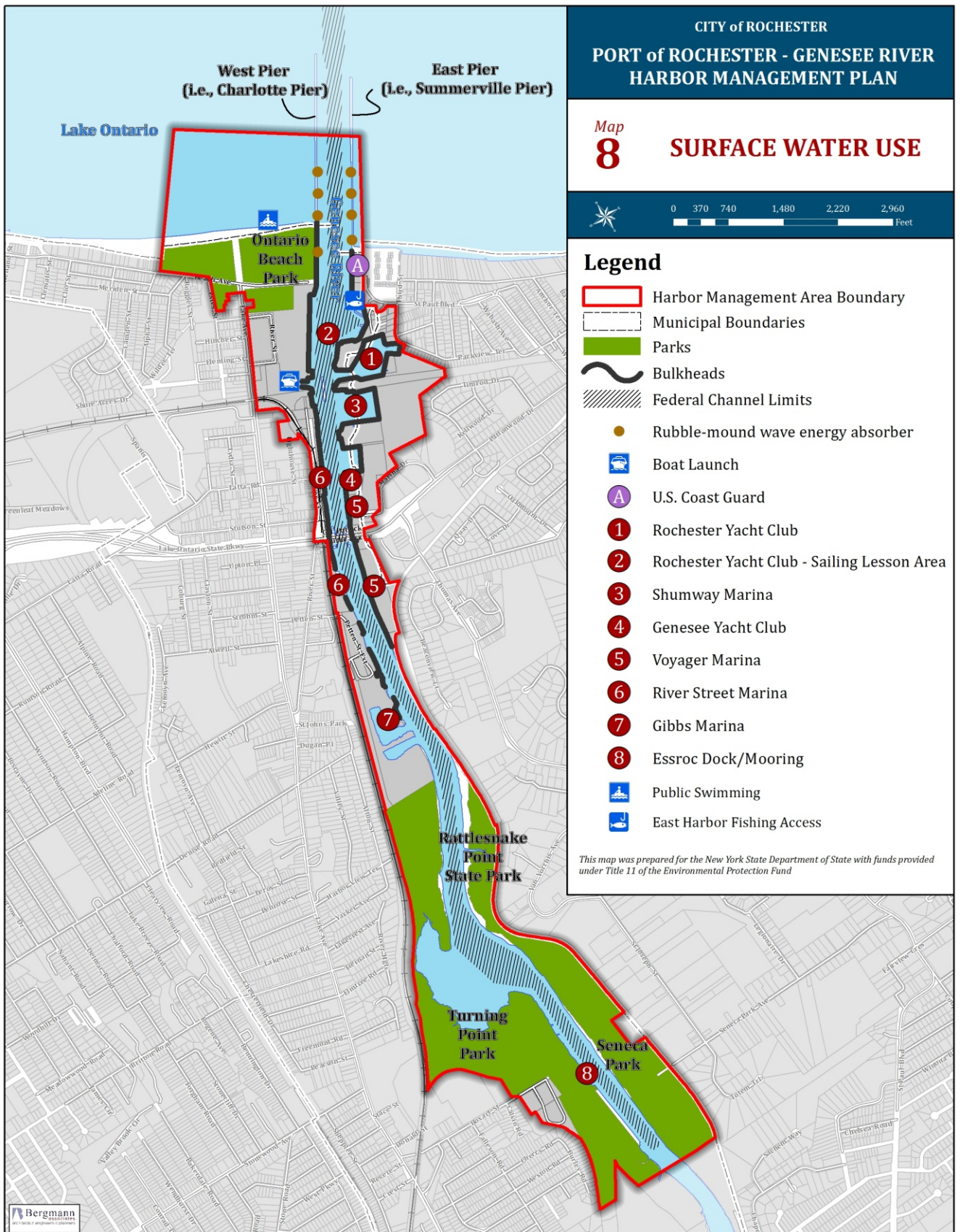
Figure 8. Boat Storage Inventory

Marina	Dock location	Percent Occupancy	Number of Slips	Average Slip/Boat Length (ft)	Dry Storage	Transient Docking Available
Shumway	basin	95-100%	219	30	Yes	Some
Voyager Marina	basin	65%	100	28	Yes	Some
	finger docks	95%	100	35		
River Street	finger docks	80%	112	25	No	All
Gibbs	basin	90%	70	35	Yes	Some
	finger docks	100%	85			
Rochester Yacht Club	basin	100%	175		Yes	Reciprocal Club Members
Genesee Yacht Club	basin	100%	22	16-35	Yes	Reciprocal Club Members
	finger docks	100%	27			
Port of Rochester Marina (Phase 1 and Broadside)	basin	Just opened	84	35-45	No	Yes
	dock wall		39			

SOURCE: Stakeholder Interviews

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2.7.5 Fishing

Lake Ontario is New York's largest and most diverse sport fishery, both in terms of angler days and expenditures. Between October 1, 2012 and August 9, 2013, 19,835 fishing licenses were issued in Monroe County. An additional 7,390 seasonal sportsman licenses were issued, which include fishing, and 4,458 one-day fishing licenses were issued in Monroe County during the same period.

The most recent data available (2007) indicated that angler effort on Lake Ontario (including the Rochester embayment) exceeded 1.5 million angler days, and expenditures of Lake Ontario anglers in counties bordering the lake topped \$54 million. The Lake's salmon fisheries have been important to anglers and an important economic generator to local communities since their introduction around 1970. Additionally, warm water fishing for bass is important, particularly in the Eastern Basin of the Lake, accounting for approximately 21% of all angler days lake-wide in 2007. (Lake Ontario Sportfishing: Trends, Analysis, and Outlook, HDRU Series No 09-3, Tommy L. Brown and Nancy A. Connelly, Human Dimensions Research Unit, Department of Natural Resources, Cornell University, June 2009).

As one of Western New York's most productive sport fisheries, the Lower Gorge of the Genesee River offers excellent summer fishing for smallmouth bass, walleye, perch, catfish and carp as well as excellent spring and fall fishing for king salmon, steelhead, brown trout and lake trout. The Genesee River is also part of a lake sturgeon restoration program, with the NYSDEC releasing hatchery-reared sturgeon in an attempt to restore the self-sustaining fishery that once flourished here (additional details regarding release numbers is provided in Section 2.9.6).

Within the HMA, the Charlotte and Summerville Piers offer excellent fishing for landside anglers. Turning Point Park and the Genesee Riverway Trail provide direct public access to the river and many local residents use these facilities for fishing access. The NYSDEC also runs the scenic East Harbor Fishing Access site, which is located at the end of St. Paul Blvd. on the eastern shore of the River. It features parking and benches and is open year-round for public landside fishing access.

Fishing Derbies

Building on the excellent sports fisheries available in Lake Ontario, there are several fishing derbies that occur in the HMA. The largest of these derbies – the Lake Ontario Counties (LOC) Trout and Salmon Derby – is held during the spring and fall each year. The LOC Trout and Salmon Derby allows anglers to compete for cash and prizes in four separate categories – salmon, steelhead, lake trout and brown trout. These events attract people from across the country to compete and enjoy the world class fishing found in Monroe County. During most years, there is usually a weigh station for this event hosted somewhere in close proximity to the HMA, but is typically not located on the waterfront itself.

The Greater Rochester Chapter of the American Red Cross also hosts the Casting for Caring Sport Fishing Tournament in the HMA. This annual summer event started in 1993 and draws approximately 200 anglers each year.

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2.7.6 *Swimming*

The only location where public swimming is supervised in the HMA is at the public beach at Ontario Beach Park, which offers one of the Great Lakes' best natural sand beaches. Supervised swimming is offered each day from June 1st through Labor Day, 11 a.m. to 7 p.m. Water quality issues have been an ongoing problem at the beach and result in limiting access for swimming. Swimming is prohibited in the Genesee River per the Rochester City Code (§44-7 Swimming and Bathing).

Per New York State Parks regulations, boats are restricted from entering designated swimming areas. Additionally, the location of the beach immediately behind and adjacent to the West Pier reduces the likelihood of boats entering the designated swimming area.

2.7.7 *On-Water Commercial Activities*

As previously noted, the Genesee River Harbor currently offers a variety of services for users of the harbor and its shoreline. Specific to boaters, the following is a list of on-water commercial activities and services in the HMA.

Gibbs Marina

Gibbs Marina is a privately-owned marina located on the western bank of the Genesee River, approximately one-half mile south of the Colonel Patrick O'Rorke Memorial Bridge. This full-service marina offers on-water fueling; a convenience store; maintenance and repair services for most inboards, sterndrives, and outboards; 24-hour access to bathrooms with showers; head pump-outs; fresh water; dockage; and, hauling, storage and winterizing services.

River Street Marina

River Street Marina is located on the west bank of the Genesee River, both north and south of the Colonel Patrick O'Rorke Memorial Bridge. The marina is a public-private partnership between the City of Rochester, who owns the marina, and a private company that operates the facility under a long-term license. River Street Marina offers public restrooms (available from 8:00 AM to 6:00 PM in-season), a waste pump-out station, on-site dockmaster, laundry (for slip lessees), power and water at each slip, and free wireless internet north of the bridge. River Street Marina does not offer mechanical repairs, hauling, land storage or related services.

Shumway Marina

Shumway Marina is a full-service, private marina located along the eastern shore of the Genesee River. Shumway offers on-water fueling; a convenience store; maintenance and repair services; boat docks; free wireless Internet access; 24-hour access to bathrooms with showers; head pump-outs; fresh water; and, hauling, storage and winterizing services. The Marina is also home to Schooner's Riverside Pub, seasonal bar and grill with an open air gazebo and large deck overlooking the Genesee River. Transient docks are available for patrons of the Pub.

Voyager Marina

Voyager Marina is a privately-owned commercial marina operation located on the eastern shore of the river. The majority of the land on which the marina facilities are located is owned by the City of

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Rochester and leased to the marina operator on an annual basis. Voyager provides shore power, potable water, and outdoor storage.

Harbor Town Belle

The Harbor Town Belle is the only passenger excursion vessel operating out of the HMA. The paddle wheel boat offers lunch and dinner cruises, as well as special events such as private parties, corporate events, weddings, charity functions and school excursions from approximately the middle of June until the end of October. It departs from Voyager Boat Sales on the east side of the Genesee River.

Pelican's Nest Restaurant

Pelican's Nest is a seasonal waterfront restaurant located on the western bank of the Genesee River. Patrons can reach the restaurant by land and water and free guest dockage is provided for customers. In addition to both indoor and outdoor dining facilities and nighttime entertainment, Pelican's Nest also has restrooms and payphones available.

Port of Rochester Terminal Building

Constructed in 2004, the Port of Rochester Terminal Building is a 70,000 square foot structure located on North River Street at the mouth of the Genesee River. The building features an atrium main concourse that includes restaurants and public restrooms. It contains departure and arrival halls which can be used to accommodate loading and unloading passengers of excursion vessels or for special



events and community meetings. The Terminal Building's second floor includes restaurant space, City administrative offices, and conference rooms. A portion of the building's second floor is also being reconstructed for a boater services area for the new public marina.

Silk O'Loughlin's Restaurant

Silk O'Loughlin's is a seasonal bar and restaurant overlooking the Genesee River and Lake Ontario. Located on the River's eastern shore, Silk O'Loughlin's offers both indoor and outdoor dining

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facilities. Patrons can reach the restaurant by land and water and free guest dockage is provided for customers.

2.7.8 Water Surface Use Regulations

The New York State Navigation Law (Article 3 - Navigable Waters of the State) regulates water surface activity within the HMA. The Office of Parks, Recreation & Historic Preservation (OPRHP) through its Bureau of Marine Services, is the lead agency in charge of coordinating marine law enforcement efforts. The Bureau oversees the distribution of boater registration funds to qualifying counties and municipalities. It also conducts training seminars for law enforcement officers at the state, county and local levels. As it relates to enforcement, the Navigation Law is enforced in the HMA primarily by the Monroe County Sheriff's Office, while all local and state police agencies, including the Rochester Police, the Irondequoit Police, the NYS Police, NYSDEC, and the OPRHP Park Police, have enforcement authority.

Federal navigation regulations are provided in Title 33 Code of Federal Regulations (CFR) - *Navigation and Navigable Waters* which regulates water use and activity of federal waterways. Lake Ontario and the Genesee River federal navigation channel are regulated in accordance with these regulations.

With regard to permitting special events on the water, for events occurring outside federal waterways, water surface use permitting is handled by the NYS OPRHP. Within federal waterways, the USCG administers Maritime Event Permits. That permit is processed out of the USCG Station Buffalo, which determines to what level an event, if at all, should be supported and monitored by the USCG.

There are no local laws regulating water surface use in the HMA.

The harbor is posted as 6 MPH and "NO WAKE" at the harbor entrance on the end of the east pier and at the guard walls around the O'Rourke Bridge piers.

Additional details regarding jurisdictional and regulatory authority can be found in Section 3.0.

2.8 Navigation System, Water Depths & Dredging

2.8.1 The Navigation Channel

The USACOE has designated approximately three miles of the Genesee River as a federal channel, generally from Lake Ontario upstream to just beyond the Essroc facility (see Map 9 - the NOAA Chart 14815). The federal channel is divided into sections for the purposes of defining the parameters of the channel dimensions. The maintenance of those dimensions depends on the commercial needs of the harbor and funding allocations. As identified on the NOAA Chart 14815, there are seven reaches within the Genesee River federal navigation channel, including:

- *Reach A: Lake Approach Channel* – the 2,800 foot-long and 300-foot wide approach channel is located north of the piers. It was constructed to a depth of 24 feet and is currently maintained to a depth of 22 feet.

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- *Reach B: Entrance Channel (between the piers)* – this portion of the entrance channel extends for 4,400 feet from the southern end of the Lake Approach Channel upstream. This reach was constructed to a depth of 23 feet and is currently maintained to a depth of 21 feet. The width of the channel reach is approximately 200 feet.
- *Reach C: Lower Turning Basin* – this portion of the entrance channel extends from the southern end of the Entrance Channel upstream for about 1400 feet. This reach was constructed to a depth of 23 feet and is maintained to a depth of 21 feet. The width of the channel ranges from 200 feet to 350 feet. The channel was historically maintained to a width of 600 feet to create a turning basin in this area of the harbor. There is no longer a need for the turning basin and the channel is thus maintained to a maximum width of approximately 350 feet in the channel adjacent to the port site.
- *Reach D: Genesee River* – this portion of the channel is the longest identified reach (10,800 feet) and extends from Reach C to where the Turning Basin at Turning Point Park begins to flare out. This portion of the channel was constructed to a depth of 21 feet and maintained to a depth of 21 feet. The width of this channel ranges from approximately 250 feet where it meets Reach C and narrows to 150 feet until it approaches Reach E.
- *Reach E: Upper Turning Basin* – this reach was originally constructed as a turning basin for the channel at a depth of 21 feet. It is no longer maintained as a portion of the navigation system.
- *Reach F: Genesee River, Upstream* – this reach is subdivided into two portions:
 - *Reach F: Genesee River, Upstream to Dredging Limit* – this northern portion of Reach F is the upstream extent of the maintained channel in the Genesee River. This part of the reach is approximately 150 feet wide, 1,580 feet long and is maintained to a depth of 21 feet. The upstream limit of the maintained channel is approximately 150 feet south of the Essroc dock.
 - *Reach F: Genesee River, Upstream 1,200 Feet of Navigation (not maintained)* – the southern (upstream) portion of Reach F is not maintained. The depths transition between the maintained channel to the north and the natural channel outside the Federal Channel Limits to the south.
- *Reach G: Upper Turning Basin* – this portion of the channel is located between Reaches F and D and ranges from 150 to 500 feet in width and is maintained to a depth of 21 feet.

The above descriptions are based on the Rochester Harbor Channel Depths as tabulated from surveys by the Corps of Engineers – Report to January 2014 and Surveys to December 2013 as presented in NOAA Chart 14815, last corrected on April 25, 2014. Dredging activities in the channel in 2015 and 2016 by the Army Corps of Engineers were intended to maintain depths described above.

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2.8.2 Water Depth Requirements by Use Type

Each specific model of boat has a different draft and each individual boat will draft at a different depth depending on the specific load displaced at a given time. The following section provides an overview of the general water depths required by four different use types – cargo vessels, excursion vessels, recreational boats and public safety watercraft.

Cargo Vessels

The Essroc cement ship, *Stephen B. Roman*, is currently the only cargo vessel that visits the Rochester harbor on a regular basis. It primarily sails in Lake Ontario between the ports of Picton and Toronto, Ontario; and Oswego and Rochester, New York. The vessel has a capacity of 7,600 tons and a 21-foot draft under fully loaded conditions. Not fully loaded, The *Stephen B. Roman* can operate with less than 21-foot depth; Essroc prefers not to have the water depth in the channel at less than 19 feet.

Excursion Vessels

The Harbor Town Belle is the only excursion vessel currently operating in the Harbor. Due to this vessel's shallow draft, 3 feet, it is able to navigate the river at shallow depths

The cruise ships currently operating in the Great Lakes generally have drafts between 12 and 15 feet. Water depth should be two feet more than the drafts so to have the maximum opportunity for docking cruise ships in Rochester, the navigation channel and the port terminal building dock wall should be maintained to a depth of 17 feet.

Recreational Boats

While the size and depth of recreational boats vary considerably, most small and medium size recreational boats have a relatively shallow draft. Based on information received from stakeholders on the River, the vast majority of recreational boats are able to operate at the natural water depth of 10 feet (although some boats require depths up to 15 feet). If, however, the depth were to dip below 8 feet, many of the boats that typically travel the Genesee River could not operate.

Public Agency Vessels

There are several agencies currently operating boats on waters located within the HMA. Information provided by stakeholders indicates that the vast majority of agency vessels that operate within the HMA are similar in size and type to many of the recreational watercraft that operate in the area, which require no more than 15 feet depth and no less than 8 feet.

The USEPA's Lake Guardian occasionally visits the Rochester HMA and has a 12-foot draft

2.8.3 International Joint Commission

Established as part of the 1909 Boundary Waters Treaty between the United States and Canada, the purpose of the International Joint Commission (IJC) is to provide assistance to these

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governments relating to the cooperative use and management of waterbodies that lie along or flow between their borders. The IJC comprises six members – three are appointed by the President of the United States, with the advice and approval of the Senate, and three are appointed by the Governor in Council of Canada, on the advice of the Prime Minister.

The IJC has four main responsibilities - regulating shared water uses, improving water quality, improving air quality, and investigating transboundary issues. When resolving disputes and deciding on issues, the Commissioners are bound to the Treaty and must act impartially and not represent the views of their respective governments. Additionally, any recommendations and decisions must take into account the needs of a wide range of water uses, including drinking water, commercial shipping, hydroelectric power generation, agriculture, industry, fishing, recreational boating and shoreline property. To help carry out its responsibilities, the IJC has set up more than 20 boards made up of experts from the United States and Canada.

The IJC's responsibilities related to regulating water levels and water quality have direct implications to the HMA and are discussed below.

Water Level Management

As part of its management efforts, the IJC is developing a new approach for managing water levels and flows in the Lake Ontario-St. Lawrence River (LOSLR) system. The current water level management plan (1958-D), developed in 1963 based upon water supply data gathered from 1860 to 1958, allows water levels within Lake Ontario and the St. Lawrence River to fluctuate approximately four feet, from 243.3 to 247.3 above sea level.

The IJC believes the 1958-D plan is severely impacting coastal environmental processes, in particular emergent wetland communities. These communities are not experiencing sufficient water level fluctuations to thrive, and are being invaded by invasive upland species which is reducing overall biodiversity within the Lake Ontario basin. Additionally, the 1958-D plan was developed with data from the mid 1800's. Weather patterns have changed, and the amount of impervious coverage within the LOSLR basin has also increased significantly since 1950. The 1958-D plan was also not modeled to take into consideration water supplies larger than those experienced between 1860 and 1958, and the IJC believes that the current plan fails to take into consideration a larger range of possible future water supplies.

The regulation plan currently proposed (i.e., Plan 2014) will specify the operational rules for managing Lake Ontario outflows at the Moses-Saunders Dam (near Cornwall in Ontario, Canada) to more closely follow natural patterns of water levels and flows than does the 1958-D plan, while moderating extreme water levels and establishing an "adaptive management strategy." The proposed plan allows more variability in water levels from year to year on Lake Ontario and the upper St. Lawrence River in an effort to improve the health and diversity of coastal wetlands.

More specifically, based on water supply data from the 20th century, the maximum level of Lake Ontario under the most extreme conditions would increase by 2.4 inches (from 248.3 feet to 248.5 feet) compared to the current plan; the minimum water level would be lowered by 8 inches, from 242.1 feet to 241.4 feet; and the average water level would increase by 2.4 inches (from 245.2 feet to 245.4 feet). The average seasonal changes under the proposed plan would raise the monthly

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average water level in Lake Ontario by 2.4 inches in April, 1.2 inches in June, and 2 inches in October, again based on the water supply data from the 20th century. High water levels would increase by approximately 5.5 inches, while low water levels would decrease by approximately 1.6 inches.

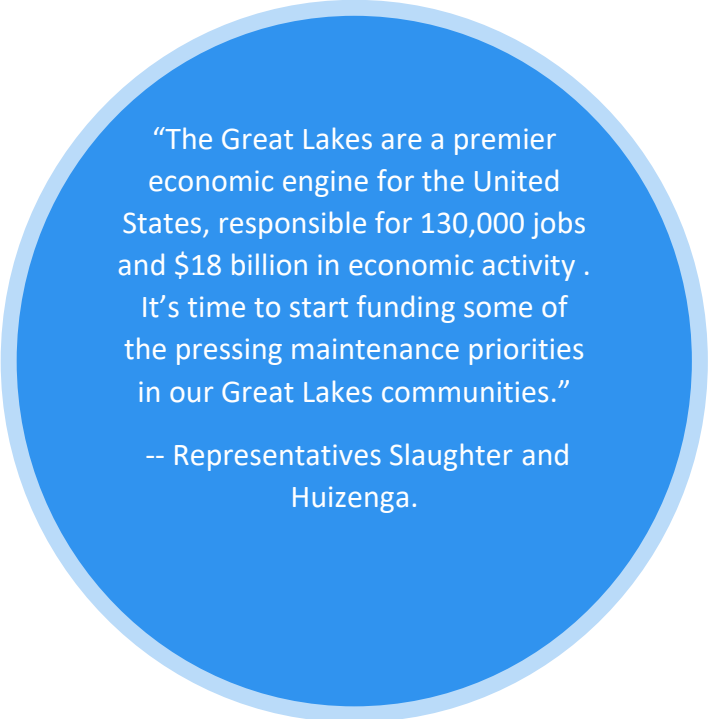
The IJC proposal has been forwarded to the Canadian and U.S. governments for consideration. No decisions have been made regarding implementation.

As it relates to the HMA and the Genesee River, the Plan 2014 could result in potentially increased costs for shoreline protection of the Genesee River – the estimates by the IJC indicate that the annual cost of shoreline protection will increase by approximately 13 percent. However, the proposed changes have not been subjected to a rigorous study of the effects specific to the Rochester harbor with due consideration of the magnitude of the changes occurring during the navigation or non-navigation season. Increased water levels may extend the effective length of the navigation season to later in the fall. Having lower water levels that occur during the non-navigation season may have little impact on usage and only have slightly increased “wear-and-tear” effects on permanent harbor infrastructure that remains in-place through the winter season. The results of the proposed Plan 2014 water level changes in combination with storm surge events cannot be gauged readily; a hydraulic study of separate and combined effects would be required.

2.8.4 Great Lakes Navigation System

Extending from the western shore of Lake Superior at Duluth, Minnesota to the Gulf of St. Lawrence on the Atlantic Ocean, the Great Lakes Navigation System (GLNS) is a 2,400-mile long, 27-foot deep draft waterway. The GLNS also includes an international network of harbors, channels, locks, and dams that provides for interstate and international transportation of goods and materials. In the United States, the GLNS includes 60 commercial harbors and 80 recreational harbors, two operational locks, 104 miles of breakwaters and jetties, and over 600 miles of maintained navigation channels, including those in the Rochester HMA; each year, 145 million tons are transported between and within U.S. ports located on the GLNS. The GLNS also connects to several shallow-draft waterways, including the New York State Barge Canal. The GLNS is a vital component of America’s transportation system.

In 2013, Congresswoman Louise M. Slaughter introduced H.R. 2273, the



“The Great Lakes are a premier economic engine for the United States, responsible for 130,000 jobs and \$18 billion in economic activity .

It’s time to start funding some of the pressing maintenance priorities in our Great Lakes communities.”

-- Representatives Slaughter and Huizenga.

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Great Lakes Navigation System Sustainability Act, which would establish the GLNS as a single, comprehensive system for better budgeting. This legislation passed the House in December 2013 and awaits further progress. In early 2014, Congresswoman Slaughter and a bipartisan coalition of Great Lakes Representatives pushed for \$30 million in additional funding for the GLNS to provide for increased maintenance of its navigational locks, harbor channels and harbor structures.

Rochester Harbor is ranked 60th of the 60 commercial harbors in the GLNS, as reported by the USACOE GLNS Fact Sheets published in March 2014. The ranking is based on the average tonnage of materials handled between 2007 and 2011. Rochester Harbor shipped and received an average of 99,000 tons of material during that period. Cement arriving at the Essroc facility is the only major commodity being handled in the Rochester Harbor. For comparison, during the same period the two other US harbors on Lake Ontario, Ogdensburg and Oswego, handled an average of 104,000 tons and 400,000 tons for rankings of 59th and 47th, respectively. Ogdensburg is primarily receiving road salt and corn gluten while Oswego handles a wider range of commodities including metals, agricultural products, cement, salt, petroleum products, and windmill and nuclear power components. All three ports primarily receive cargo with only minor volumes of export shipping. This ranking is critically important for prioritizing harbors for infrastructure construction and/or maintenance.

According to section 230 of the Water Resources Development Act of 1996, cruise ship traffic can be considered in the ranking criteria for commercial harbors. Specifically, it states, “In evaluating potential improvements to navigation and the maintenance of navigation projects, the Secretary shall consider, and include for purposes of project justification, economic benefits generated by cruise ships as commercial navigation benefits.” This was further clarified in Planning Guidance Letter No. 97-6, Cruise Ships and Benefits to Navigation (Appendix C) wherein it states that cruise ships that operate out of existing federal channels and harbors will receive equal consideration with other commercial navigation vessels for federal harbor or channel improvements.

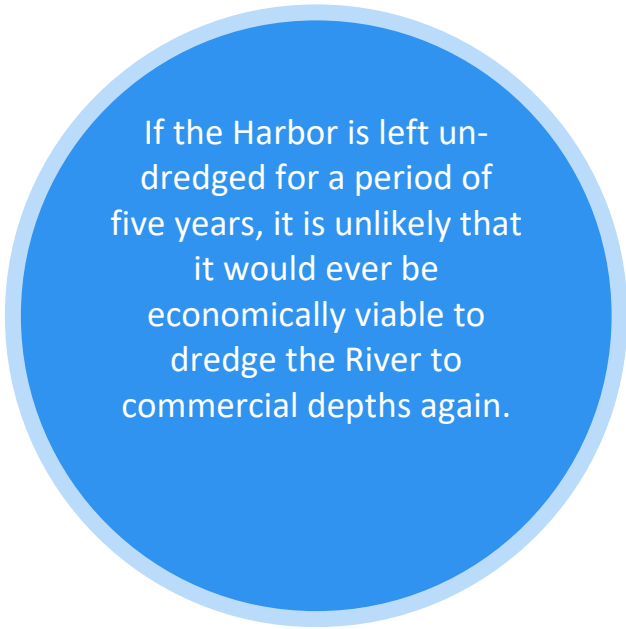
2.8.5 Critical Harbor of Refuge

A Critical Harbor of Refuge is a designation by the USACOE that a harbor is considered a safe haven where mariners can moor their vessels in the event of foul weather. The Port of Rochester is designated by the USACOE as a Critical Harbor of Refuge due, in part, to the location of the USCG Search and Rescue Station. This designation raises the Harbor's status for USACOE maintenance priorities. However, as noted by harbor stakeholders and in USACOE reports, for northeast storms (Nor'easters) the lower portion of the harbor may not function as an adequate harbor of refuge due to intense wave action.

2.8.6 Dredging

USACOE Dredging in the Federal Navigation Channel

Sediment that is carried via runoff into the Genesee River deposits in the harbor causing shoaling that can interfere with the River navigability. Based on information provided in the 2016 USACOE fact sheet (Appendix D) for the Rochester harbor, approximately 220,000 cubic yards of sediment must be dredged every two years to maintain channel depths at 21'. Routine maintenance dredging of the navigation channel carried out by the USACOE ensures the continued operation of commercial traffic in the HMA. To lobby for their continued dredging efforts, the USACOE prepares an analysis of the economic benefits of each maintenance project. According to the 2016 USACOE fact sheet, the bulk commodities that are handled by the harbor annually generate \$610M annually in business revenue while supporting 3,681 direct, indirect, and induced jobs that produce over \$183M in personal income. In spite of these numbers, however, the Rochester harbor is categorized as a low-use commercial port as it transits less than 1 million tons of commercial loads per year and, as stated above, is ranked 60th out of 60 commercial harbors in the GLNS.



If the Harbor is left undredged for a period of five years, it is unlikely that it would ever be economically viable to dredge the River to commercial depths again.

Given Rochester's low ranking on the GLNS, national priorities, and limited availability of funds to conduct dredging, the USACOE discontinued routine maintenance dredging of the Rochester harbor and by the spring of 2007 the *Stephen B. Roman*, for the first time, was unable to transit the Genesee River since depths in the harbor were reduced to less than 14 feet.

Fortunately, with emergency federal aid, the USACOE was able to resume dredging in 2008 and 2009, which partially restored the channel maintenance depth of 21 feet for the time being. There were still, however, no plans for ongoing routine dredging.

By 2011, the *Stephen B. Roman*, which requires a minimum of 19 feet of water, was again unable to enter the harbor, so in late 2011 Essroc and the City of Rochester were approached by the USACOE with a proposal for a "Pilot Program for Dredging in Low Use Commercial Ports." The underlying idea was that the USACOE would fund and provide essential technical assistance related to dredging within the federal navigation channel (e.g., permitting, surveying sediment sampling, and technical advice), while the participating stakeholders would fund the actual dredging activity. Essroc agreed to participate in the pilot program, while the City and County agreed to contribute

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nominally. As a result of this public-private partnership, more than 200,000 cubic yards of sediment was removed from the Genesee River in 2013.

In the spring of 2013, Congresswoman Louise Slaughter, as Co-Chair of the Congressional Great Lakes Task Force, announced that she had secured funding for the USACOE for dredging in 2014, partially through emergency relief funds associated with the sedimentation impacts of Super Storm Sandy.

In 2015, 290,000 cubic yards of material was removed during maintenance dredging. In December 2015, Schumer announced that the FY 2016 Omnibus Appropriations bill included \$2.32 million in federal funding to dredge the Harbor in 2016. While this funding for dredging is beneficial to the Rochester harbor, the year to year funding decision making, however, is not necessarily beneficial to the long-term planning and growth for the harbor. The ongoing uncertainty is a challenge for existing businesses and will discourage new business. For instance, absent a regular and predictable maintenance dredging schedule, cruise ships that travel the Great Lakes Navigation Channel throughout the Great Lakes cannot put Rochester on their list of ports of call. The potential positive economic impact that cruise ships would bring to the City of Rochester and the region goes unrealized due to dredging uncertainty.

Essroc has indicated that they will be unable to continue supplying cement by vessel unless maintenance dredging continues to occur in the navigation channel. Without the use of the water for delivery of cement, there is no guarantee that Essroc would remain at the current Boxart Street location in Rochester. The *Preliminary Economic Impact Analysis: Genesee River Dredging Proposal* prepared for the City of Rochester in 2012 (Appendix E) explored the economic impacts of the cessation of Essroc in Rochester. This analysis found that the following impacts would likely occur:

- Loss of at least 17-20 jobs in the City of Rochester;
- Loss of approximately \$3-4 million in annual economic output in Monroe County; and
- Loss of approximately \$400 thousand in annual state and local tax revenue.

This analysis also noted that there are other potentially significant negative impacts of losing the only major cement supplier in the area, notably the presumed 15% increase in the cost of cement and its ripple effects to the local economy.



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Disposal of Dredged Material

Open Lake Disposal

Open Lake disposal is the placement of dredged material into an area of the lake that is permitted by state and/or federal agencies for sediment disposal. Disposal of dredged material into inland waters (e.g. Lake Ontario), is governed by section 404 of the Clean Water Act (CWA). Open lake disposal is typically less costly than disposal on land. However, the permissibility of open lake disposal is dependent on the degree and type of contamination of disposed material, the disposal site, and the seasonal timing of the work.

Routine dredging to maintain adequate depth in navigational channels and harbors occurs in many locations throughout the Great Lakes. Chemical specific guidelines have historically been used in both the U.S. and Canadian portions of the Great Lakes to assess the suitability of disposing of the dredged material in open lake environments. In cases where chemical contaminants exceed the open lake disposal guidelines the dredged material is not considered suitable for disposal in the lake and must be disposed or managed in a more expensive manner within an engineered confined disposal facility or in an appropriate landfill or other upland disposal site.

Dredging operators in the Rochester HMA currently use an USACOE-permitted open lake disposal site in Lake Ontario. This site is located 1½ miles northeast of the east pier light. Marina and yacht club owners indicated that disposal of dredged materials to an upland site would be cost prohibitive.

Beneficial Use of Dredged Material

An important goal of managing dredged material is to ensure that the material is used or disposed of in an environmentally sound manner. According to the USEPA, much of the several hundred million cubic meters of sediment dredged each year from U.S. ports, harbors, and waterways is disposed of in open water, confined disposal facilities, and upland disposal facilities. Most of this dredged material could be used in a beneficial manner instead, such as for nourishment of beaches with clean sand or development of wetland habitats.

The USACOE offers a Beneficial Use of Dredged Material program which is an opportunity for reusing the dredged material from navigation dredging by the USACOE, including the channel in the Rochester HMA. Instead of disposing of dredged material in the open water disposal site, it could be used for ecosystem restoration in and around the HMA. The USACOE has indicated that they would even be willing to explore alternative disposal locations (e.g. brownfield cover) if a sponsor, such as the City, is willing to pay any additional costs.

Dredging outside of the Federal Navigation Channel

While dredging of the Federal Channel is key to ensuring the longevity of the harbor, there are several areas outside of the channel that also require regular maintenance dredging. Marina and yacht club operators must periodically dredge outside the channel to ensure access to their slips. Private dredging is accomplished in accordance with NYSDEC permits, which are required every five years. NYSDEC provides a guidance document entitled, *In-Water and Riparian Management of*

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Sediment and Dredged Material, which outlines recommended procedures to be followed during dredging and dredged material management (Appendix F). Dredged sediment from the Genesee River, that meets the proper sediment classification and USACOE requirements, is currently disposed of at the USACOE open lake disposal site, as allowed by the NYSDEC permit.

Collaborative Dredging

One potential strategy to address Harbor dredging needs is collaborative dredging. Collaborative dredging is the process by which a group of individual entities (e.g., marina owners, commercial shippers, and municipalities) develop a plan to coordinate all of the individual dredging activities into one master dredging plan. This has many potentially positive impacts on harbor operations, including the reduction of mobilization costs and permit administration costs and time. Currently, within the HMA, there is occasional informal collaboration among individual stakeholders who are interested in simply sharing a particular dredger for a cost savings. Formalizing harbor-wide collaboration for the Rochester harbor was discussed in stakeholder meetings as a desirable cost saving opportunity.

On a regional scale, the Orleans County Planning Department has led an effort with Lake Ontario harbor stakeholders to prepare the *Regional Dredging Management Plan (RDMP)* (Appendix G). The RDMP provides a comprehensive approach to the on-going dredging needs for harbor access channels along the south shore of Lake Ontario. Figure 9 presents a list of all the participating harbors in that regional plan.

Figure 9. RDMP Channels

Channel / Waterbody Designation	Municipality	County
Wilson Harbor	Wilson (T)	Niagara
Olcott Harbor	Newfane (T), Olcott (V)	Niagara
Oak Orchard Harbor	Carlton (T), Point Breeze (Hamlet)	Orleans
Sandy Creek	Hamlin (T)	Monroe
Braddock Bay	Greece (T)	Monroe
Long Pond Inlet	Greece (T)	Monroe
Genesee River	Rochester (C)	Monroe
Irondequoit Bay	Irondequoit (T), Webster (T), Penfield (T)	Monroe
Bear Creek Harbor	Ontario (T)	Wayne
Pultneyville	Pultneyville (Hamlet), Williamson (T)	Wayne
Great Sodus Bay	Sodus Point (V), Sodus (T), Huron (T)	Wayne
East Bay	Huron (T)	Wayne
Port Bay	Huron (T), Wolcott (T)	Wayne
Blind Sodus Bay	Wolcott (T)	Wayne
Little Sodus Bay	Sterling (T), Fairhaven (V)	Cayuga

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Oswego Harbor	Oswego (C)	Oswego
Mexico Pt. - Little Salmon River	Mexico (T)	Oswego
Salmon River - Port Ontario	Richland (T)	Oswego
Sandy Pond Inlet	Sandy Creek (T)	Oswego

Source: Draft Regional Dredging Management Plan Update, F-E-S ASSOCIATES, 7/3/2013

One of the obstacles to collaborative dredging is permitting conditions and restrictions. Every dredging location is subject to permit conditions related to protection of aquatic habitat and fish spawning seasons. In fact, in the Rochester HMA alone there can be up to 3 different scheduling windows when dredging is allowed, and aligning those windows may challenge collaboration efforts.

Dredging Permits & Restrictions

Several agencies are involved with the approval of a dredging permit which is administered through the NYSDEC in the HMA. A NYSDEC dredging permit references authorizations under the following laws:

NY Code Article 15, Title 5, Section 15-0505– Excavation and Fill in Navigable Waters

NY Code Article 15, Title 5, Section 15-0501- Protection of Streams

NY Code Article 24 – Freshwater Wetlands

Clean Water Act, Section 401 – Water Quality Certification

Dredging schedule windows are indicated on each permit and vary by location within or outside of the Federal Channel and by reach (e.g., as one moves upriver, the habitat value of the shoreline areas increases and the windows of allowable dates become smaller). The current dredging restrictions are influenced by the Genesee River's designation as a Significant Coastal Fish and Wildlife Habitat from its mouth at Lake Ontario upstream to the Lower Falls. In accordance with the *Coastal Fish & Wildlife Habitat Rating Form for the Genesee River* the current NYSDOS dredging restrictions for the Genesee River include:

- The existing navigation channel should be dredged between mid-May and mid-August or between mid-November and early April in order to avoid impacts on the habitat use by migrating salmonid.
- Activities that would affect the habitat above the navigation channel should not be conducted during the period from March through July in order to protect warmwater fish habitat values.
- New dredging (outside the existing navigation channel) would likely result in the direct removal of warmwater fish habitat values and should not be permitted.
- Contaminated dredge spoils should be deposited in upland containment areas.

Dredging permits in the HMA are issued in 5-year terms and sediment testing is required as part of the permitting process. If sediment quality exceeds specified parameters, then instead of taking advantage of the open-lake disposal site, an upland disposal site would need to be used.

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Harbor Maintenance Trust Fund

The Harbor Maintenance Trust Fund (HMTF) was established in the U.S. Treasury in 1986 to fund the operation and maintenance of Federal ports and harbors and is funded by the Harbor Maintenance Tax (HMT). The HMT is based on the value of both imports and domestic goods at U.S. ports that have federally-maintained harbors and channels; the revenues are deposited into the HMTF. The primary uses of HMTF appropriations include maintenance dredging, dredged material disposal areas, jetties, and breakwaters. Monies from the HMTF are appropriated by the US Congress and allocated for use at different projects throughout the country through the USACOE. The distribution of funds is primarily controlled by those two government entities with only limited local-level involvement. Although enough HMT revenue is generated annually to meet the entire nation's authorized harbor maintenance needs, it is not all appropriated for harbor maintenance. According to Congresswoman, Louise Slaughter, every year, Congress spends less than half of this revenue on harbor maintenance, and instead diverts funding away from small harbors like Rochester toward other federal programs.

The Water Resources Reform and Development Act (WRRDA) (Appendix H) that was signed into law on June 10, 2014 addresses this issue. The legislation gradually increases HMT expenditures on operations and maintenance so that, beginning in 2025, 100 percent of HMT funds will be used toward its intended purposes. In WRRDA 2014, low-use commercial harbors are referred to as "emerging harbors." And, emerging harbors are specifically provided for in terms of receiving a portion of the HMT funds. According to the Act, between fiscal 2015 and 2022, no less than 10 percent of the first \$800 million of HMT collected would go to emerging harbors.

2.8.7 Navigation Hazards

The depth of the federal navigation channel is maintained by the USACOE, as described in 2.8.1. The river, between the southern boundary of the navigation channel and the Lower Falls, is not dredged and is therefore subject to variable depth, snags, obstructions, and other hazards of a natural river channel. Although smaller craft such as recreational motor boats, kayaks and canoes can navigate this stretch of the River, larger boats may have difficulty.

Additionally, due to changes in elevation, there is no navigable connection between the area north of the Lower Falls and the upper River which connects to the New York State Canal, approximately 11 miles upstream from Lake Ontario.

While docks, floats and anchored/moored vessels can pose potential obstructions for boats traveling within the HMA, this was not raised as an issue by harbor stakeholders.

Based on information provided in the *Rochester Harbor – Genesee River to Head of Navigation* Nautical Chart 14815 (Appendix I), published by the National Oceanic and Atmospheric Administration, National Ocean Service Office of Coast Survey, the following potential navigation hazards exist within the HMA and its vicinity:

Within the HMA

- Two sets of deteriorated dolphins (noted as Piles on the NOAA Chart 14815) are present adjacent to the east bulkhead wall approximately 300 feet upstream from the USCG station.

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They are located outside the federal navigation channel. They are not an obstruction to vessel mooring as the bulkhead has pedestrian railing running its full length, thus prohibiting mooring. The southern dolphin may be difficult for boaters to see as it is mostly missing above the waterline and is unmarked.

- In its closed (lowered) position, the O'Rourke bascule bridge, including the guard walls around its piers, has a vertical clearance of 41 feet at the edges and 45 feet at the center and a horizontal clearance of 131 feet. The vertical clearance is unlimited with the bridge span open, which removes the overhead hazard.
- Overhead power cables are present approximately 350 feet north of the Essroc dock. The vertical clearance below the power cables is 141 feet. This clearance is of sufficient height as to be neglected as a potential hazard for vessels traveling along the Genesee River.
- Two mooring cells, three abandoned jetties, and old dolphins or piles are present to the west of the maintained navigation channel between the Essroc dock and the turning basin. These hazards are minor as they are mostly contained within vegetated marsh areas along the west bank of the river.
- The west side of the turning basin in Reach G is not maintained between the federal navigation channel and the Genesee Riverway Trail foot bridge. This area is very shallow (reported between 6 feet and 1 foot) but unmarked.
- There are six dolphins located along the western edge of the navigation channel, just south of Gibbs Basin. There are often vessels moored to these dolphins.

In addition to those noted in the aforementioned nautical chart, prior to 2001 the Tug *Cheyenne* sunk in the Genesee River and is only a few feet below the surface of the water. Although the exact location of the tug is not precisely mapped and thus unmarked, its approximate location is along the western edge of the Federal Navigation Channel, 0.4 mile north of the Turning Basin.

Outside the HMA

- A large rock approximately ½-foot below the water surface is located close to shore approximately 0.7 mile southeast of the Genesee River entrance in Lake Ontario (at the northern end of the piers).
- A dangerous wreck approximately 1.4 feet below the water surface is located 0.2 mile offshore (43°17.6'N., 77°40.2'W).
- Lewis Shoal, covered by approximately 14 feet of water, located 1.2 miles offshore and extends from about 43°18.5'N., 77°40.5'W. to 43°18.8'N., 77°39.5'W., with a width of approximately 600 yards.

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- An unmarked dumping ground with a least reported depth of 35 feet is located approximately 1.8 miles northeast of the mouth of the Genesee River.
- A dangerous sunken wreck is located 0.8 mile east-northeast of Rochester Harbor Light at the end of the west pier.

2.9 Natural Resources

2.9.1 Land

Topography

The Genesee River, which originates in Pennsylvania, flows north, through the center of Rochester, to Lake Ontario. It descends over three waterfalls as it traverses the City and drops nearly 300 feet in elevation.

Within the HMA, upland elevations range from 257 feet to 177 feet, with the highest elevations occurring along the ridgelines located in the southern portion of the HMA near Seneca Park, Turning Point Park and the Essroc facility (see Map 10). This portion of the HMA is characterized by steep slopes (greater than 15 percent) that form a gorge around the River. As the River continues downstream towards Lake Ontario, the adjacent lands flatten out.

Geology

As depicted in Map 11, the surficial geology of the HMA consists primarily of recent alluvium (90.6 percent), with lacustrine silt and clay also underlying a portion of the study area (9.4 percent). The recent alluvium layer is composed of oxidized fine sand to gravel resulting from stream deposition and is generally confined to flood plains within a valley. This layer ranges in thickness from one to ten meters and may be overlain by silt. The lacustrine silt and clay layer is composed of laminated layers of silt and clay, deposited in lakes existing at the time when glaciers historically covered western New York. Lacustrine silt and clay contains calcareous soil with low permeability, resulting in the potential for land instability.

According to *New York State Museum Bedrock Geology* mapping, the HMA lies above the Queenston bedrock formation. The Queenston formation is the oldest bedrock formation in Monroe County and was deposited more than 410 million years ago during the last stages of the Ordovician period.

Soil Erosion

The susceptibility of soils to erosion is important to understand, particularly as it relates to sedimentation of the Genesee River in the HMA. To determine how susceptible the soils within the HMA are to erosion, k-factor data provided by the Soil Survey of Monroe County was investigated. K-factor is a measure of soil erodibility that represents both a soils susceptibility to erosion and its rate of runoff (note that this is independent of other factors such as vegetative cover and stream stability). K-factor values in the HMA range between 0.10 and 0.49 which represents soils that are fairly stable and moderately susceptible to erosion. Soils high in silt content are the most erodible;

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values for these soils tend to be greater than 0.4(see Map 12). Medium-texture soils are characterized by moderate k-factor values (i.e., 0.25 to 0.4) and are moderately susceptible to erosion.

Coastal Erosion Hazard Areas

Coastal Erosion Hazard Areas (CEHAs) are those mapped areas along coasts that are prone to erosion. In the HMA, the CEHAs are along the Lake Ontario shoreline. This area is subject to permitting in order to limit activities that may interfere with natural shoreline protection against coastal erosion, or exacerbate erosion. The City of Rochester administers its own CEHA program using NYSDEC maps on file at City Hall and at Regional NYSDEC offices. For more information on local, state and federal coastal erosion hazard programs, see Section 3.4.

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2.9.2 Water Quality

International Joint Commission

In 1972, the United States and Canada signed the Great Lakes Water Quality Agreement following an extensive IJC scientific study. The result was a series of agreed upon actions that each nation would take to improve water quality in the Great Lakes (e.g., building new sewage treatment plants, reducing industrial discharges). The IJC was required by the agreement to report on progress by each government as it relates to restoring the chemical, physical and biological integrity of the waters of the Great Lakes basin. A new agreement was signed in 1978 that added a commitment to rid the Great Lakes of persistent toxic substances, while amendments in 1987 established a process for restoring contaminated Areas of Concern in the Great Lakes and St. Lawrence River.

The Agreement was further amended in 2012 to include measures that will prevent ecologic harm. The amended agreement includes new provisions that address the nearshore environment, aquatic invasive species, habitat degradation and the effects of climate change, as well as support for continuing work on existing threats such as harmful algae, toxic chemical and vessel discharges.

Through the Water Quality Agreement, the United States and Canada designated water areas that were particularly degraded as “Areas of Concern.” An Area of Concern (AOC) is defined in the agreement as a geographic area *“that fail[s] to meet the general or specific objectives of the agreement where such failure has caused or is likely to cause impairment of beneficial use of the area’s ability to support aquatic life.”*

Lake Ontario

Water quality in Lake Ontario is largely a reflection of water quality in Lake Ontario Watershed and the nearshore waters and embayments of the Lake. The legacy of toxic discharges to the Lake and its tributaries has resulted in fish consumption advisories for numerous species. While phosphorus levels in Lake Ontario have declined over the years, nutrients and resulting aquatic plant growth continues to impact recreational uses in nearshore waters. To address these issues, NYSDEC reports that legacy industrial discharges are currently being remediated in Great Lakes Program Areas of Concern in Oswego, Rochester and Eighteen Mile Creek.

According to the NYSDEC, major water quality concerns in the Lake Ontario Watershed include:

- Invasive and Other Aquatic Plant Growth which discourage recreational uses;
- Legacy Industrial Discharges in Areas of Concern currently being remediated; and
- Great Lakes Management Plans to restore uses in Lake Erie.

The Lake Ontario Lakewide Action and Management Plan (LaMP) is a binational plan under the Great Lakes Water Quality Agreement directed at restoring and protecting Lake Ontario by reducing the amount of pollutants entering the lake and addressing the chemical, biological and physical stressors impacting the lake. The LaMP guides activities of the participating U.S. and

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Canadian federal, state and provincial government agencies and other partners and includes ecosystem goals, objectives and indicators. Ecosystem objectives have been identified for aquatic communities, wildlife, human health, habitat, and stewardship. The indicators track progress toward achieving the lake ecosystem objectives.

In 2012, a new Great Lakes Water Quality Agreement expanded the scope of the Lake Ontario LaMP to include both the Niagara and St. Lawrence rivers.

Rochester Embayment Area of Concern

Located between Bogus Point in the Town of Parma and Nine Mile Point in the Town of Webster, the Rochester Embayment Area of Concern (AOC) is the area formed by the indentation of the Monroe County shoreline and six miles of the Genesee River influenced by lake levels, beginning at the River's mouth and stretching upstream to the Lower Falls (see Map 13). In 1985, the Water Quality Board of the International Joint Commission designated the Rochester Embayment a category 4 AOC and identified several embayment problems, including conventional pollutants, heavy metals, toxic organic substances, contaminated sediments, and fish consumption advisories. The report identified pollutant sources as municipal and industrial point sources, combined sewage overflows, and in-place pollutants.

To ensure that AOCs in the Great Lakes Basin are remediated, each is required to have a Remedial Action Plan (RAP) that is implemented through an ecosystem-based, multi-media approach for assessing and remediating impaired uses. According to Annex 2 of the Great Lakes Water Quality Agreement, each Remedial Action Plan "*shall embody a systematic and comprehensive ecosystem approach to restoring and protecting beneficial uses in Areas of Concern or in open lake waters*" and "*serve as an important step toward virtual elimination of persistent toxic substances and toward restoring and maintaining the chemical, physical and biological integrity of waters of the Great Lakes Basin Ecosystem.*"

Coordinated through the Monroe County Department of Public Health, the Rochester Embayment RAP identifies a series of beneficial use impairments (BUIs) that were used to assist in developing management actions necessary to remediate the AOC. BUI's are specific indicators of a condition that is damaging or inhibiting one or more beneficial uses of the embayment area. Once the identified management actions succeed in removing the indicator and/or restoring beneficial uses, the AOC is eligible for delisting. The Rochester Embayment RAP was initially completed in 1993 with ongoing updates and addendums. Twelve BUIs and two other use impairments were identified. Figure 10 provides a list of the impairments identified for the Rochester Embayment AOC, as well as the status of each. NYS DEC, working with the Monroe County Department of Public Health, will be preparing the BUI removal documentation during 2015 with the goal of the AOC being delisted in 2016.

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Figure 10. Rochester Embayment Remedial Action Plan BUI Status

Beneficial Use Impairment	6/2016 BUI Status
Restrictions on fish and wildlife consumption	Fish testing complete. Proposed as a lake-wide issue. BUI removal documents to be generated.
Tainting of fish and wildlife flavor	Phenol study completed and shows that AOC is same or better than non-AOC control sites. Public meeting held Nov, 2015. BUI Removal documentation submitted for review.
Degradation of fish and wildlife populations	Benthic invertebrate analysis complete. Mink studies complete. BUI removal documentation in preparation.
Fish tumors or other deformities	Removed in 2014.
Bird or animal deformities or reproduction problems	Mink studies complete. Findings support BUI removal. BUI removal documents to be generated.
Degradation of benthos	Benthic invertebrate analysis complete. Public meeting held Nov, 2015. BUI Removal documentation submitted for review.
Restriction on dredging activities	Final Legacy Act report found that navigation channel sediments are suitable for open lake disposal. Removal document to be generated.
Eutrophication or undesirable algae	Ontario Beach Algae Control Project implemented. Education programs in place aimed to reduce nutrient sources. This is Lake-wide issue.
Restrictions on drinking water consumption, or taste and odor problems	Removed in 2010
Beach closings	Ontario Beach Algae Control Project implemented. BUI removal documentation in preparation.
Degradation of aesthetics	All assessments and surveys are complete. BUI removal documents in technical draft form.
Added costs to agriculture or industry	Removed in 2010.
Degradation of phytoplankton and zooplankton populations	Plankton analysis complete. All findings support BUI removal. Public meeting held Nov, 2015. BUI removal documentation in final stages of review with EPA.
Loss of fish and wildlife habitat	Mink evaluation and USFWS wetlands evaluation completed. All habitat restoration projects to be substantially complete by end 2016. Post construction monitoring to follow.

SOURCE: Monroe County Department of Public Health (Updated 6/2016)

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Great Lakes Restoration Initiative

The Great Lakes Restoration Initiative (GLRI) was launched in 2010 in an effort to accelerate the protection and restoration of the Great Lakes Basin. The GLRI represents the largest investment in the Great Lakes in two decades and has acted as a catalyst for unprecedented federal agency coordination – a task force of eleven federal agencies worked together to develop an action plan for realizing the goals of the GLRI. The GLRI Action Plans I and II focus on five priorities necessary to achieve the long-term goals for this important ecosystem:

- Cleaning up toxins in areas of concern;
- Combating invasive species;
- Promoting nearshore health by protecting watersheds from polluted run-off;
- Restoring wetlands and other habitats; and
- Working with partners on outreach.

The GLRI Action Plan I, implemented between 2010 and 2014, has funded more than 2,000 projects. Under the first priority of the GLRI, the Great Lakes Legacy Act provides federal funding to accelerate the pace of contaminated sediment remediation in AOCs. The GLRI's Legacy Act has been a tremendous success. In 2011, through the GLRI's Legacy Act, the USEPA conducted a sediment characterization program in the Genesee River outside the federal navigation channel within the HMA and found elevated levels of some contaminants, including silver and cadmium, but not at levels warranting a Legacy Act-funded project. NYSDEC and Monroe County Health Department (MCHD) requested additional information related to the sediment toxicity. They requested that the USEPA Great Lakes National Program Office (GLNPO) resample eight locations due to concerns about the sampling method. As a result of this request, in July 2013, GLNPO resampled and analyzed eight samples from locations selected by NYSDEC and MCHD. Seven of the sampling locations were in the same location as the prior sampling and one location was approximately 50 feet from a prior sampling location. The 2013 sampling round successfully addressed the NYSDEC and MCHD question regarding the 2011 sampling methodology and results. The results of the 2013 sampling found that sediment silver concentrations were lower than those found in the 2011 samples and indicated that the probability is low for silver to impacts benthos in the River. The results of both the 2011 and 2013 sampling showed that there are no significant impacts to the growth and survival of the amphipod. The two sampling events are consistent and confirm the 2011 conclusion that sediment remedial action under the Legacy Act is not warranted in the lower Genesee River.

Federal agencies have drafted GLRI Action Plan II, which summarizes the actions that federal agencies plan to implement during FY15-19 using GLRI funding (Appendix J). The GLRI Action Plan II will combine Great Lakes Initiative resources with agency base budgets in an effort to strategically target the biggest threats and accelerate progress towards the GLRI's long-term goals. By continuing to work with state and local partners, federal agencies will implement a range of management actions necessary to delist eleven additional AOC's, including the Rochester Embayment AOC.

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Genesee River

To comply with the Federal Clean Water Act (CWA), the NYSDEC maintains the Waterbody Inventory/Priority Waterbodies List, a statewide inventory of waterbodies that characterizes each in terms of “water quality, the degree to which water uses are supported, progress toward the identification of water quality problems and sources, and activities to restore and protect each individual waterbody”. The most recent Genesee River Basin Waterbody Inventory/Priority Waterbodies List Report was issued in March 2003. This report includes an overall evaluation of water quality in the Genesee River Basin, as well as assessments for specific waterbody segments in the basin.

Based on information provided in the report, the Genesee River (0401-0001) is classified as Impaired and has well-documented water quality problems:

- A number of water quality studies have indicated impacts to aquatic life in the river. A biological (macroinvertebrate) assessment of the river below the Lower Falls was conducted in 1999. Sampling results indicated water quality borders between slight and moderate impact. An Impact Source Determination indicated nutrient enrichment and municipal/industrial impacts. At the time of the survey, the fauna was dominated by caddis flies and midges. (NYSDEC/DOW, BWAR/SBU, January 2000)
- Fish consumption in the Lower Genesee is not recommended due to a NYS Department of Health advisory for Lake Ontario that applies to the first impassable fish barrier (i.e., Lower Falls). These advisories are a result of elevated PCB levels (i.e., mirex and dioxin) found in Lake Ontario sediments. (2000-01 NYS DOH Health Advisories).

Additionally, NYSDEC Rotating Intensive Basin Studies (RIBS) were completed in the Genesee River between 2009 and 2011 (RIBS monitoring is conducted in 2 to 4 of the State's 17 major drainage basins each year, resulting in data available statewide over a 5-year cycle). Data collected during these monitoring periods include water column, sediment, and organism tissue chemistry and biological assessment of water quality using macroinvertebrate community analysis and toxicity testing. RIBS program water quality data and information are used to support assessment and management functions within NYSDEC, including the Waterbody Inventory/Priority Waterbodies List, New York State's Clean Water Act Section 305(b) Water Quality Report, and Section 303(d) List of Impaired Waters of the State.

The NYSDEC also provides a class and standard designation for all waters of the State based on existing or expected best usage of each water or waterway segment. As indicated by the NYSDEC, the Genesee River is a Class B waterbody, indicating that its best uses are for swimming (restrictions apply) and other contact recreation, but not for drinking water.

The *Genesee River Basin Action Strategy* is a report prepared in 2004 for the New York State Department of Environmental Conservation and United States Army Corps of Engineers by the Genesee/Finger Lakes Regional Planning Council to address priority water quality and natural resource needs throughout the Genesee River Basin. The purpose of the Action Strategy is to develop and/or compile and document a strategy for the Basin that brings together all appropriate

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agencies and stakeholders to focus support in the form of grant dollars, technical assistance and other resources to address the priority water and natural resource needs in that watershed.

The NYSDEC is currently (as of the drafting of this plan) implementing the *Work Plan for RCRA Facility Investigation and Corrective Measure Study for OU-5 Lower Genesee River Area of Concern*, which outlines the work plan for sampling, laboratory analyses and scientific and engineering evaluations conducted on behalf of the NYSDEC's Division of Environmental Remediation for the portion of the lower Genesee River downstream of the State Route 104 (Veteran's Memorial) Bridge. The objectives of the activities described in this work plan are to improve the understanding of the nature and extent of contamination and the loadings of contaminants (if any) continuing to enter the lower reach of the Genesee River, to assess whether remedial action is warranted, and to develop and evaluate corrective measure alternatives as warranted. Field and laboratory activities include the following:

- Sampling and chemical analyses of sediment, surface water, and suspended sediment in the lower river, wetland-floodplain soils adjoining the lower river, benthic macroinvertebrates and fish;
- Physical characterizations of the river channel, river flows and potential cultural resources in the river;
- Further assessing sediment toxicity;
- Updating groundwater conditions at the Kings Landing Wastewater Treatment Plant;
- Assessing sediment bed mobility;
- Assessing upstream sites potentially impacting the lower river;
- Further assessing types and diversity of benthic macroinvertebrates and fish in the lower river; and
- Sampling and chemical analyses of benthic macroinvertebrates and fish.

During 2015, DEC's engineering consultant conducted field sampling to assess the sediments, water, biota and floodplains in the lower Genesee River in Rochester from near the Lower Falls to the mouth of the river at Lake Ontario. The sampling program started in August 2015 and was completed in December 2015. The consultant is currently evaluating information collected during the investigation and will be preparing a report that is expected to be available to the public in the late summer of 2016. DEC will keep the public informed about this project through periodic posting of updates/documents on their website, issuance of factsheets, and public meetings at key project milestones.

This study is funded through a trust fund provided through an EPA Settlement Agreement. On March 12, 2014, the US Department of Justice on behalf of the EPA reached a Settlement Agreement with the US Bankruptcy Court under which Eastman Business Park (EBP) agreed to fund a trust in the total amount of \$49,000,000 to allow the DEC to clean up EBP contaminated sites, including the lower Genesee River. The Genesee River allocation, however, will likely only be sufficient to contribute to studies of sediment conditions and remediation work plan development.

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Sediment sampling conducted in 2011 and 2013 under the GLRI Legacy Act will be instrumental in informing the RCRA study.

In 2014, the Center for Environmental Initiatives launched the Genesee RiverWatch Initiative “whose goals are to ensure that the water in the Genesee River, its tributaries, and the near-shore waters of Lake Ontario are fishable, swimmable and drinkable now and for future generations.” This initiative hopes to pull together an array of stakeholders to take a systemic approach to improving water quality of the entire Genesee River Basin.

2.9.3 *Floodplains/Floodways*

Flooding, a natural and recurring event, results from heavy or continuous rainfall that exceeds the soil’s absorptive capacity and the flow capacity of rivers and streams. Once these capacities are exceeded, the waterway overflows its banks and spills into adjacent low-lying areas. Floodplains are these adjacent low-lying areas that are most subject to recurring inundation.

Floods, and floodplains, are generally defined according to their statistical frequency of occurrence. A 100-year floodplain is an area that is subject to a one percent chance of flooding in any given year. 100-year floodplains are also known as Special Hazard Flood Areas. A 500-year floodplain is an area that is subject to a 0.2 percent chance of flooding in any given year.

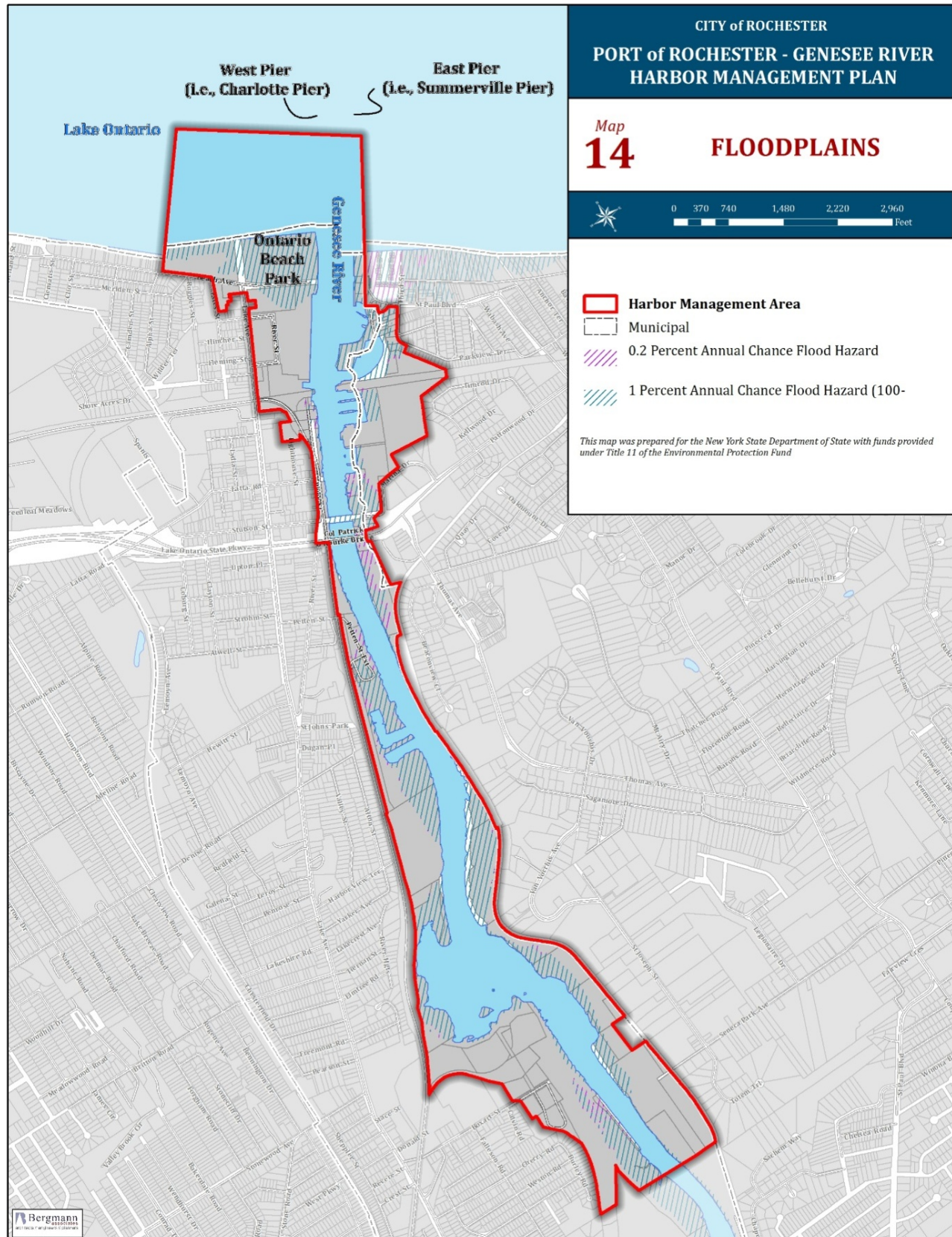
Floodways consist of the stream channel and adjacent areas that carry flood flows and are those areas where the floodwater is likely to be deepest and fastest. For the purposes of this HMP analysis, 100-year and 500-year floodplains, as well as floodways, were evaluated. Based on a review of the FEMA floodplain data, just over 300 acres of 100-year and 500-year floodplains are within the HMA (see Map 14). Much of these areas are located along the River near the Turning Basin and along the Lake Ontario shoreline near the confluence of the Lake and the River. Also within the HMA are approximately 175 acres of floodway (see Map 15).

To promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions, the City of Rochester enacted a Flood Damage Prevention ordinance (Chapter 56 of the City Code). Key provisions of this ordinance regulate floodplain encroachments, and the development of structures in floodplains.

Given that much of the lands mapped as floodplains in the HMA are typically associated with a park or water-based use (e.g., marinas), it is unlikely that new development will occur in floodplain areas. As such, impacts from flooding on commercial activities in the harbor should be minimal. It should be noted that this assessment relies on continued dredging of the harbor. If maintenance dredging in the harbor ceases or decreases, the buildup of sediment and the resultant change to the river bottom elevations may increase the risk of flooding.

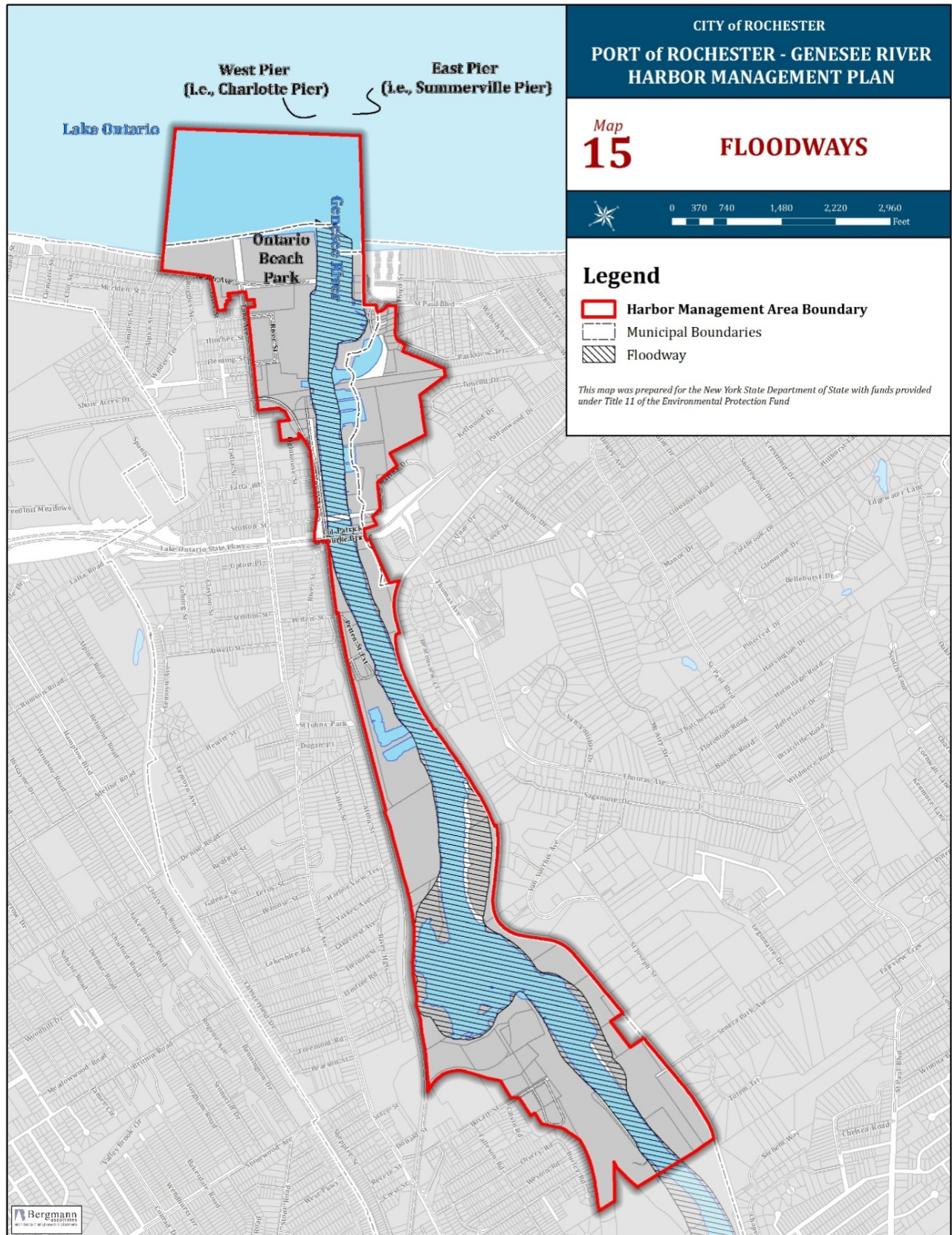
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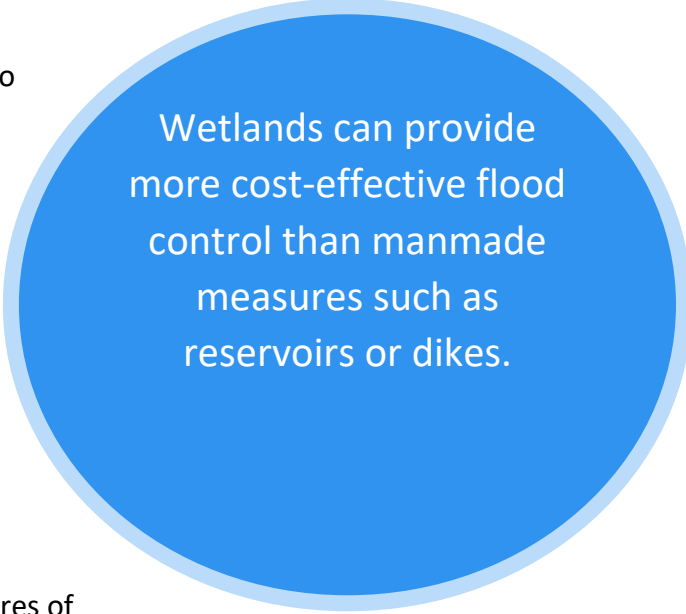
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2.9.4 Wetlands

Wetland areas within the HMA are identified by two separate agencies using different qualifying characteristics – NYSDEC wetlands and U.S. Fish and Wildlife Service’s National Wetlands Inventory (NWI) wetlands. The NYSDEC identifies and regulates all freshwater wetlands greater than 12.4 acres in size. An adjacent buffer area of 100 feet around every wetland is also protected. The NWI identifies all wetlands, regardless of size and regulatory status, based on a combination of the interpretation of aerial photography, soils maps, and on-the-ground surveys.



Wetlands can provide more cost-effective flood control than manmade measures such as reservoirs or dikes.

Within the HMA, the NYSDEC has identified 79.2 acres of wetlands (does not include 100-foot buffer), all of which are categorized as Class II wetlands (see Map 16). Class II wetlands provide important wetland benefits, the loss of which is acceptable only in very limited circumstances.

Based on the NWI data, approximately 299 acres of wetlands can be found in the HMA (see Map 16):

- Emergent wetlands (37.6 acres) – wetlands with erect, rooted herbaceous vegetation present during most of the growing season.
- Forested/shrub wetlands (5.8 acres) – wetlands dominated by woody vegetation either less than or greater than 6 meters (20 feet) tall. Woody vegetation includes tree saplings, trees that are stunted due to environmental conditions and full-grown trees.
- Lake wetlands (76.4 acres) – this system includes any large body of water that is greater than 8 hectares (20 acres) in size or is more than 2 meters (6.6 feet) deep
- Riverine wetlands (179.1 acres) – this system includes all wetlands and deepwater habitats that are within natural and artificial channels and contain either continuous (perennial) or intermittently flowing water.

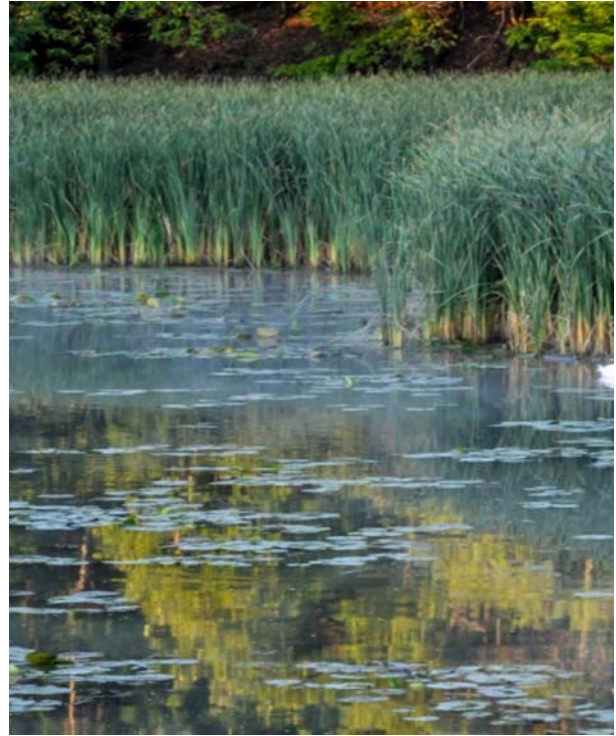
The NWI data classifies a large section of the Genesee River as Riverine wetlands and the entire portion of Lake Ontario within the HMA is classified as Lake wetlands. Removing these areas from the total NWI acreage results in approximately 67.9 acres of non-Lake and Riverine wetlands located within the HMA. As such, only those NWI wetlands located outside of the actual River and Lake are depicted in Map 16. As can be seen, the majority of NWI wetlands located outside of the river and lake are classified as either freshwater emergent wetlands or freshwater forested/shrub

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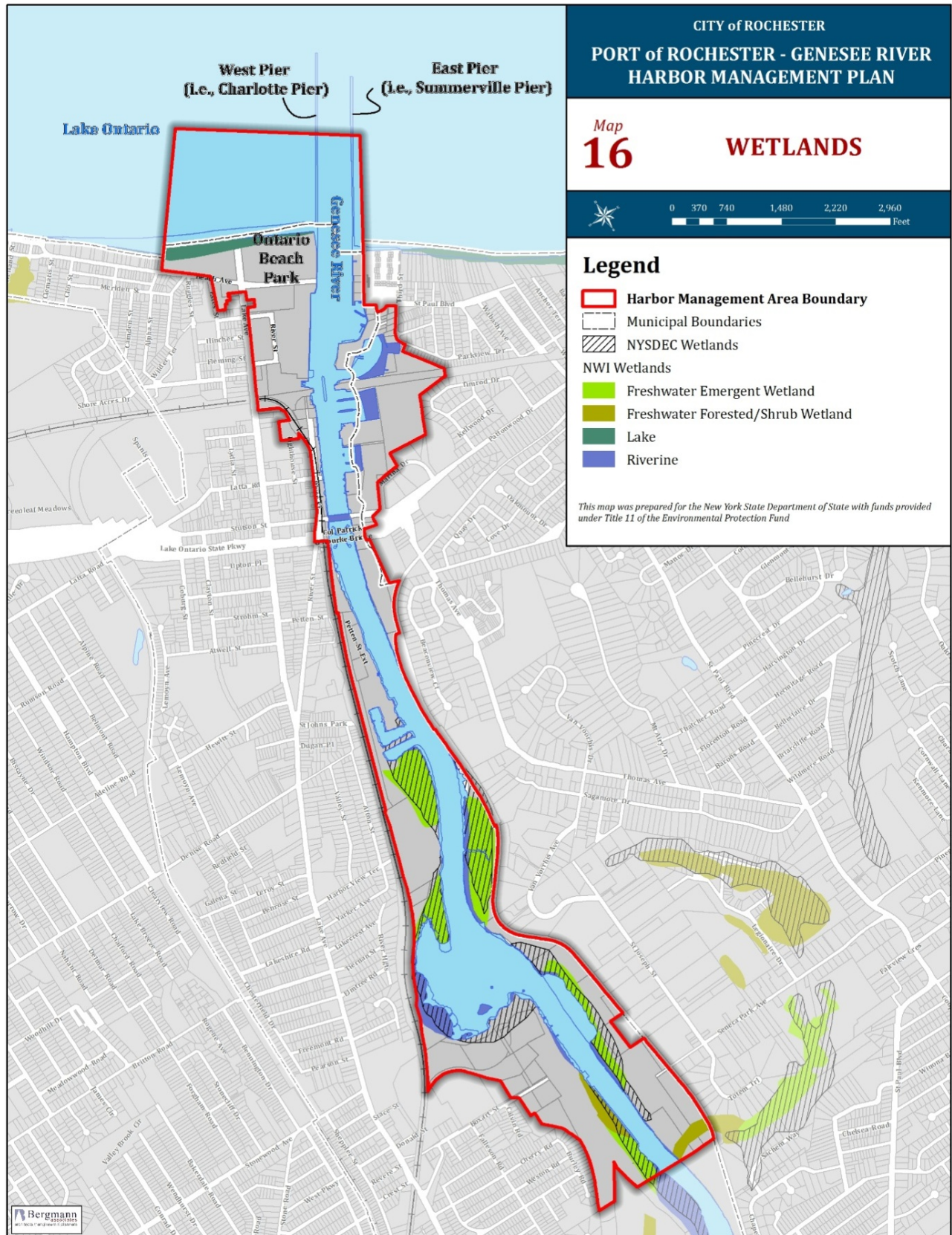
wetlands. There is, however, a small section of lake wetlands located along the entire portion of the Lake Ontario shoreline within the HMA.

In addition to providing food and habitat for a wide range of plant and animal species, wetlands also contribute to water quality and flood mitigation. By impeding drainage flow from developed land, wetlands can filter out pollutant- and sediment-laden runoff prior to it entering streams, thus improving water quality. Riparian wetlands located along streams and rivers also provide valuable flood protection, acting as storage basins and reducing the amount of downstream flow. This temporary storage of water results in decreased runoff velocities, reduced flood peaks, and delayed distribution of storm flows. In some instances it has been found that wetlands provide more cost effective flood control than manmade measures such as reservoirs or dikes.



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2.9.5 *Wildlife*

Terrestrial Habitat

Two large expanses of forests are located on either side of the Genesee River in the HMA, both of which are located in the southern portion of the study area. The first is associated with Turning Point Park and is located on the western shore of the River. Turning Point Park covers approximately 275 acres (266 acres in the HMA), most of which can be characterized as oak forest. It is not uncommon to see whitetail deer, opossums, raccoons and other widespread species of mammal and, in recent years, sightings have included non-resident species such as coyote and black bear (at Turning Point Park). Bird species are much more numerous and include typical urban species (e.g., sparrows, blue jays, robins), as well as species more common in woodland habitats such as pileated woodpeckers, northern flickers, owls, and a variety of warblers and other small songbirds.

The second wooded area is located on the east side of the Genesee River in Seneca Park and Rattlesnake Point Park. Similar to the forest habitat found in Turning Point Park, a variety of tree species can be found along the River's eastern shore, including oak, hemlock, shagbark hickory, hornbeam, witchhazel, and basswood. Bird and mammal species similar to those found in Turning Point Park can also be found at Seneca Park.

Wetland Habitat

Wetland habitats, defined in terms of their physical geography, are those areas located at the interface between terrestrial and aquatic ecosystems and comprise a wide range of hydrologic and vegetative conditions. Wetland vegetation is predominantly comprised of species that are tolerant of anaerobic soil conditions resulting from inundation (i.e., hydrophytes) and includes both woody and non-woody plants.

Wetlands are some of the most productive and diverse ecosystems in the world and, as such, provide valuable habitat for a variety of species. Serving as critical feeding, spawning, and brood-rearing habitat, many species of wildlife live their whole lives in wetlands, while others depend on wetlands only for essential parts of their life cycle (e.g., breeding).

Aquatic Habitat

The Genesee River provides habitat for a range of aquatic species. With the help of stocking by NYSEDC, the salmonid concentrations in the Genesee River are among the largest in all of Lake Ontario's tributaries. The major salmonid runs in the River are as follows:

- In the spring (late February - April), steelhead run up the river to the Lower Falls and lake trout occur at the mouth.
- In the fall (September - November, primarily), concentrations of coho and chinook salmon, brown trout and steelhead are found throughout the river during their spawning runs.

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The *Assessment of Habitat Use by Experimentally Stocked Juvenile Lake Sturgeon* report, prepared by the U.S. Geological Survey, states that the substrate of the River between Seth Green Island (approximately 3 miles south of the HMA) and the River mouth consists of sand, silt, silty clay, and sandy gravel at depths of two to seven meters. This study also conducted a pre-stocking assessment of the benthic community and identified several orders of insects in the River, including Megaloptera, Ephemeroptera, Mollusca, and high densities of Chironomidae and Oligochaeta. The highest densities of these insects were found in the silty-sandy dredged areas within four kilometers of Lake Ontario.

Additionally, as indicated in the NYSDOS *Coastal Fish & Wildlife Habitat Rating Form for the Genesee River* (Appendix K), the Genesee River is a highly productive warmwater fishery. Resident warmwater fish species include smallmouth bass, brown bullhead, northern pike, channel catfish, walleye, carp, and white sucker, while lake-run species include white bass, yellow perch, white perch, smelt, bowfin, sheepshead, rock bass and American eel.

The Genesee River supports extensive warmwater and salmonid fisheries and is an important recreational fishery, attracting anglers from throughout New York State and beyond. Locally, the Genesee River is very popular with City residents primarily at the mouth of the River and between Seth Green Island and Lower Falls. As such, the River, from its mouth at Lake Ontario upstream to the Lower Falls, has been designated as a *Significant Coastal Fish and Wildlife Habitat* by the NYSDOS.

2.9.6 Fish Stocking

Each year DEC releases over one million pounds of fish into more than 1,200 public streams, rivers, lakes and ponds across the state. These fish are stocked for two main purposes-- to enhance recreational fishing and to restore native species to waters they formerly occupied. The DEC runs 12 fish hatcheries, each specializing in raising one or more species of fish, including brook trout, brown trout, rainbow trout, lake trout, steelhead, chinook salmon, coho salmon, landlocked salmon, walleye, muskellunge and tiger muskellunge.

According to a DEC website, the following list reflects the fish stocking by DEC in the Genesee River in Monroe County during 2015.

Water	Number	Species	Size in inches
Genesee River	1000	Lake Sturgeon	0.5
Genesee River	85250	Chinook	3
Genesee River	85250	Chinook	3.5
Genesee River	41930	Coho	4.5
Genesee River	8580	Steelhead	5
Genesee River	7090	Steelhead	6

2.9.7 Threatened & Endangered Species

Based on a review of the NYSDEC Environmental Resource Mapper, no New York State rare or protected species are located within the HMA. Also, based on information provided by the New York Natural Heritage Program, there are “no records of rare or state-listed animals or plants, significant natural communities, or other significant habitats” in or in the vicinity of the HMA (Appendix L).

Lake sturgeon is a native fish species that has been designated a species of concern across the Great Lakes Region. Historically abundant in Lake Ontario, this unique primitive fish has virtually disappeared due to overfishing and habitat degradation. Releasing fingerlings is one of the efforts being undertaken to remove the lake sturgeon from the New York Threatened Species List. In September 2003, the NYSDEC released 900 fingerling lake sturgeons in the Genesee River downstream of the Lower Falls. The fingerling sturgeon had an average length of 210 mm and an average weight of 44 g when released. The NYSDEC released an additional 1,000 fingerlings in September 2004, each averaging 169 mm and 23 g when released. Those 2003/2004-released sturgeons now measure up to 4 feet long with weights ranging from 10 to 25 pounds.

In October of 2013, 1,000 hatchery-reared sturgeons were again released just south of the HMA at the Genesee River Lower Falls as part of a DEC lake sturgeon restoration program. This was the first release of hatchery-reared sturgeon since the 2004 release.

The U.S. Fish and Wildlife Service's New York Field Office supports the collaborative DEC lake sturgeon restoration program through funding provided from the US Fish and Wildlife Service's *Fish Enhancement, Mitigation and Research Fund*, a settlement with the New York Power Authority resulting from the relicensing of the St. Lawrence Power Project. The funding facilitates the cooperative sturgeon conservation field efforts in the St. Lawrence River valley, as well as the rearing of sturgeon fingerlings at the U.S. Fish and Wildlife Service Genoa National Fish Hatchery. As stated above, the DEC has released lake sturgeon fingerlings in the Genesee River just south of the HMA.

2.9.8 Aesthetic and Scenic Visual Resources

The HMA contains diverse aesthetic and scenic resources, ranging from open panoramic views of Lake Ontario to rich and diverse vistas of the Genesee River. North of the Colonel Patrick O'Rorke Memorial Bridge, the scenery primarily comprises man-made historic structures and sites with vast views of the water. South of the Bridge, however, the scenery changes and becomes more defined by upland natural resources such as woodlots and wetlands, as well as significant topographical changes. Both short and long vistas of the River are also characteristic of the southern portion of the HMA.

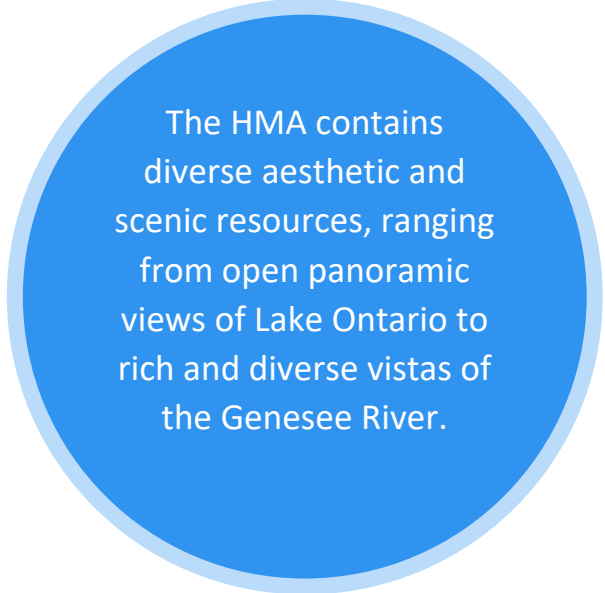
Lake Ontario is an expansive waterbody, forming the northern border of the City of Rochester and Monroe County. Lake Ontario provides miles of scenic shoreline and many opportunities for scenic vistas and views. The Charlotte Pier and Ontario Beach Park, both located within the HMA, are

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popular destinations to view the Lake. Both physical and visual access to and from these public lands must be preserved.

The Genesee River and adjacent lands are a significant aesthetic resource for the City and the region. Beyond the natural beauty of the flowing water, the river valley harbors natural ecological communities that enhance the aesthetic value of the River. South of the O'Rorke Bridge, large wetlands and limited river development contribute to the aesthetics of the area. The steep slopes in this area are home to many different types of trees, shrubs, and aquatic plants with a variety of colors and textures. Along the river's edge, many wetland ecosystems are home to birds, fish, and insects. The topographical and ecological characteristics of the river bolster its value as a scenic asset. Moreover, its placement within an urban area enhances its aesthetic and natural value. These areas are currently zoned by the City of Rochester as open space districts (O-S) which is a restrictive zone that seeks to preserve their natural beauty and retain them for public access.



The HMA contains diverse aesthetic and scenic resources, ranging from open panoramic views of Lake Ontario to rich and diverse vistas of the Genesee River.

The following areas were observed to have important scenic value within the HMA (see Map 17):

Scenic Views (extensive or large range of vision)

1. Charlotte Pier
2. Summerville Pier
3. Ontario Beach Park Boardwalk directly adjacent to the beach
4. Summerville Shore
5. Port of Rochester Boardwalk
6. NYSDEC East Harbor Fishing Access site
7. Historic Charlotte-Genesee Lighthouse
8. Bill Davis Overlook
9. Col. Patrick O'Rorke Memorial Bridge
10. Rattlesnake State Park
11. Genesee Riverway Trail boardwalk and dolphins
12. Turning Point Park
13. Seneca Park

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Scenic Vistas (a distant view through or along an avenue or opening)

- a) Ontario Beach Park Boardwalk
- b) Beach Ave & Lake Ave
- c) Lake Avenue Railroad Bridge
- d) Lake Ave & Latta Rd
- e) Petten St & Railroad

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2.10 Historical Resources

As previously noted, the Port of Rochester has a rich and varied history as a center of trade and amusement in the region. Throughout the 19th century and during the pre-war years of the 20th century, the port was the hub of import and exports to Rochester, including significant amounts of coal and other bulk goods. Although the mid-20th century marked the end of passenger and goods shipments at the port, it still remained a center for recreation and entertainment. While many of the structures that were once located here are no longer standing, there are still a number of historic sites remaining within the HMA. A summary of these sites is provided below.

2.10.1 Hojack Swing Bridge Removal and Mitigation

In 2011, the USCG initiated an enforcement proceeding requiring CSX Transportation, Inc. (CSXT) to dismantle, remove and dispose of the Hojack Railroad Swing Bridge and all its appurtenances to restore the free, easy, and unobstructed navigation on the Genesee River. Removal of the bridge took place in 2013. To mitigate for the loss of this historic resource, CSXT developed a series of mitigation measures to preserve a substantial part of the bridge's historical and cultural legacy. The following mitigation measures will or may impact the HMA:

- *Historical Interpretive Signage* – CSXT will provide historical signage that will consist of a single flat panel, installed in two prominent public locations (detailed locations to be provided at a later date). The flat panel will focus on key points of the history of the Bridge, its usage, and its design. The signage would be posted on both the east and west sides of the River within the Project area, provided access and approvals are granted.
- *Contribution to a Bricks and Mortar Fund* – To further offset the loss of the Bridge and to benefit other cultural and historical resources in the area, CSXT will contribute \$30,000 to a “Bricks and Mortar Fund.” The Fund will be used to support one or more project(s) associated with a historic resource on or eligible for listing on the National Register of Historic Places, which is accessible to the public within the City and preferably in or near the Project area. The only project selected thus far is the Charlotte-Genesee Lighthouse.
- *Preservation of Bridge Components at Local and State Museums* – Several components have been identified as potentially salvageable pieces for preservation, including date plaques, the steam engine and fly wheel, the lever control assembly and the rotation indicator stand. How those pieces will be incorporated into the HMA will be determined at a later date.

More recently, the removal of the Hojack Swing Bridge has resulted in anecdotal reports of changes in the magnitude of storm surge in the harbor. Reports from the marina and yacht club owners in the harbor vary from noting reduced surge effects or no discernable change to worsening damages and wave heights. There has not been an analysis or review of water level measurements for the harbor or any modeling of the hydraulic channel to compare with the anecdotal reports. Due to the variability of the reports and lack of analysis, no conclusion can yet be made regarding the effects that the removal of the Hojack Bridge had on storm surge waves in the harbor; further study is required.

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2.10.2 Other Historic Resources

Several additional historic sites found on the National and State Registers of Historic Places are located within the HMA, including:

- *The Charlotte-Genesee Lighthouse* – This lighthouse is located at 70 Lighthouse Street and is America's oldest surviving lighthouse on Lake Ontario. Listed on the State and National Registers of Historic Places (S/NRHP – 90NR01478), the Charlotte-Genesee Lighthouse was constructed in 1822 and includes a 40-foot high tower (with an additional 12 feet of height for the lantern room). When the lighthouse was originally constructed, much of the Port of Rochester and Ontario Beach Park was wetland, which resulted in its location away from the lakeshore. The lighthouse is owned by Monroe County and operated by the Charlotte-Genesee Lighthouse Historical Society.
- *The Former New York Central Railroad Station* – Located at 490 River Street at the River Street Marina, the wood frame structure was built during the early 20th century by the New York Central Railroad. The station served both passengers and freight and was determined individually eligible for S/NRHP listing. The station can be accessed from the Genesee Riverway Trail.
- *Ontario Beach Park* – The Park and eleven buildings, including the Dentzel Carousel (a locally designated landmark) and bath house (now the Roger Robach Community Center), have been determined to be eligible for S/NRHP listing as a group.
- *Seneca Park East and West* – Although not fully located within the HMA, Seneca Park does border its southern boundary and is listed on the S/NRHP. The park was designed by Frederick Law Olmsted.
- *Old Customs House* - The Charlotte-Genesee Lighthouse Historical Society, new owner of the historic U.S. Custom House at 10 Latta Road, is renovating the structure for use as a museum. The building is outside, but immediately adjacent to, the HMA boundaries. The two-story frame structure, circa 1840, served as the launching site for some of the port's most heavily traded products, like lumber, and hosted stores to provide the vital supplies needed by ships using this U.S. port before the Civil War. The government moved both its customs operations and post office into the building where both federal functions served the harbor from the 1870s into the 20th century. The renovations will be accomplished in phases over the next few years.

2.11 Public Infrastructure

2.11.1 Utilities

The HMA is served by storm sewer, sanitary sewer, public water, natural gas, electric, fiber optics, and telecommunications utilities. Given that the southern portion of the HMA is mostly undeveloped, the vast majority of the utilities serving the HMA are located in and around the Port

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of Rochester. A summary of each utility is provided below, while the utilities available for boaters at each marina are discussed in Section 2.6.5.

Sanitary Sewer

Based on a review of geographic information system (GIS) data provided by Monroe County in 2013, the 7.8 miles of sewer lines within the HMA comprise the following:

- 0.2 mile of abandoned sewer mains
- 0.5 mile of forced sewer mains
- 2.3 miles of sanitary sewer mains
- 1.8 miles of storm sewer mains

A 21-inch sewer main runs south from Beach Ave, through the Port of Rochester, to the Monroe County Pure Waters Charlotte Pump Station located on River Street that ranges from approximately 7 to 15 feet below the ground surface. The location/placement of this main will be affected by the new marina project.

One 24-inch forced sewer main crosses the River in close proximity to the Historic Charlotte-Genesee Lighthouse and, based on information provided in the *Port of Rochester Redevelopment Planning Assistance* document, this sewer main is submerged approximately 35.5 feet below the Low Water Datum.

Water

Based on data provided by the City of Rochester Water Bureau, water mains serving the HMA are typically located along the existing street alignments. In the port area, the existing water mains create a loop around Corrigan Street, Portside Drive and North River Street. Given that no water lines are located in the Genesee River or Lake Ontario, these facilities should not impact harbor operations and management or interfere with surface water use in the HMA.

Natural Gas

Natural gas in the HMA is supplied by RG&E with gas mains entering the Port of Rochester from several locations. Based on information provided in the Port Public Marina & Mixed Use Development Project Environmental Impact Statement, there is currently sufficient capacity for the existing Terminal Building and its occupants; however, there is little to no additional capacity in the existing mains for new natural gas users in the Charlotte area. As it relates to harbor operations and management, the current gas main locations do not interfere with surface water use in the HMA.

Fiber/Telecommunications/Electricity

The majority of fiber, telecommunications and electric lines are located in the upland areas surrounding the Genesee River. There is one overhead line that crosses the River in the vicinity of

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the Colonel Patrick O'Rorke Memorial Bridge. The aerial placement of this line does not interfere with surface water use in the HMA.

2.11.2 Navigation Channel, Channel Protection & Shoreline Structures

USACOE Facilities

Section 22 of the Water Resources Development Act of 1974, as amended, allows the USACOE to provide Planning Assistance to States, Indian Tribes, and local governments (PAS) for Water Resource planning efforts. PAS studies generally involve the analysis of existing data and serve as the basis for state, tribal or local planning decisions and include efforts such as water quality, environmental restoration, flood plain management and harbor/port studies. Projects pursued under the Section 22 authority are cost-shared 50% Federal, 50% non-Federal.

Pursuant to this authority, in 2008, the USACOE prepared a report wherein they developed a scope of work and cost estimate for the sixteen several projects identified by the City of Rochester. Each project has a path forward identified by the USACOE that could be pursued at the discretion of the City. Project prioritization remains at the City's discretion. Outlined are the ways in which the USACOE could provide support to redeveloping the harbor and the specific authorities under which this work could be completed. This report still serves as a resource document for project planning and implementation.

Piers and Navigation Channel

The piers and the navigation channel are USACOE structural facilities within the HMA. The east and west piers are breakwaters or, as described by the USACOE, “protective structures” that define the entrance into the harbor and protect the harbor entrance from weather and the impacts of wave action. The maintenance of the piers as protective structures is the responsibility of the USACOE. The piers were constructed as stone-filled timber cribs, which have been encased in a parallel steel sheet pile structure with anchor rods and capped with concrete. The East and West Piers total approximately 1.1 miles in length and are approximately 450 feet apart. The west pier is marked with a harbor light atop a cylindrical tower, and has a white light that flashes over Lake Ontario every five seconds, and on the east pier there is a flashing green light.

The USACOE has designated approximately three miles of the Genesee River as a federal navigation channel, generally from Lake Ontario upstream to just beyond the Essroc facility. The federal channel is divided into sections for the purposes of defining the parameters of the channel dimensions (See Section 2.8.1). Currently, the channel is classified for commercial use and is subject to maintenance dredging by the USACOE.

River Bulkhead Walls

Located just south of the west pier, adjacent to 1000 N. River Street, is the City's north dock river wall, which was reconstructed in the early 2000s. This wall provides shoreline and channel stability while serving as a vehicle loading platform with a dead man/tieback system for about 50 to 60 percent of the structure's overall length.

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Most of the developed length of the harbor has bulkhead walls or finger docks along the river bank. These bulkhead walls are generally owned and maintained by the adjoining land owners (public or private entities) and are in good condition. The undeveloped portions of the river bank consist mostly of parkland with marsh vegetation along the natural bank and are not maintained or anticipated to be developed.

Storm Surge Mitigation

When large Nor'easter storms occur in the vicinity of the harbor, a surge of lake water is directed through the parallel east and west piers and up the Genesee River. Nor'easters derive their name from the direction in which the winds are blowing and can cause severe coastal flooding, coastal erosion, hurricane force winds or blizzard conditions. Large storms can result in surges that make the River non-navigable, make mooring north of the public boat launch dangerous, and can cause damage to docked boats, particularly those that are docked in the River. The surge can also hamper the ability of emergency responders to respond to a boater emergency during a storm event.

In 1997, the USACOE installed eight rubble-mound wave energy absorbing revetments along the piers. The purpose of the project was to reduce wave heights to 1.0 foot or less within the harbor during the occurrence of a 20-year navigation season (April to October) wave.

Testimonials from harbor stakeholder indicated that, although the impacts from the storm surge have been reduced, the surge continues to be a problem and the removal of the Hojack Swing Bridge changed the wave action in the harbor and should be studied.

2.11.3 Colonel Patrick O'Rourke Memorial Bridge

The only bridge crossing the Genesee River within the HMA is the Colonel Patrick O'Rourke Memorial Bridge. Located in the northern portion of the HMA, the O'Rourke Bridge is a bascule bridge with two side spans connecting the City of Rochester to the Town of Irondequoit. Named for Civil War Colonel Patrick O'Rourke, the movable span of this lift bridge is 243 feet long and provides approximately 45 feet of vertical clearance above the River in the closed position. There is approximately 131 feet of horizontal clearance between the guide walls inside the bascule span piers. The drawbridge span opens at the center with both sides able to rise to near vertical to allow boats requiring higher clearances to pass underneath.

The bridge opens on signal from April 1 through December 15, with the following exceptions:

- From 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM Monday through Friday except Federal holidays, the draw need be opened only for the passage of commercial vessels.
- From 9:00 AM to 4:00 PM and 6:00 PM to 11:00 PM Monday through Friday except Federal holidays, and from 7:00 AM to 11:00 PM on Saturdays and Sundays, and Federal holidays, the draw need be opened only on the hour and half hour, except that commercial vessels shall be passed at any time.

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- From December 16 through March 31, the draw shall open on signal if at least 12-hours notice is provided.

The Colonel Patrick O'Rorke Memorial Bridge is located along NYS Route 18 and the Seaway Trail and is operated and maintained by Monroe County. The construction of this bridge included installation of a scenic overlook at the former approach to the Stutson Street Bridge; the overlook is located within City public right-of-way and was dedicated to local Genesee River historian Bill Davis and is improved with interpretive historic signage that tells the story of the Genesee River Harbor at Charlotte.

2.11.4 Navigation Lighting

The Rochester Harbor Light is a red light that flashes every four seconds. It is located 40 feet above the water and is shown from a white cylindrical tower with red band located on the outer end of the west pier. This light was installed on the west pier in 1995 and replaced a skeletal steel tower that was installed in 1931. Although this structure is more of a beacon than true lighthouse, its purpose is to mark the entrance to the Port of Rochester and Genesee River. The east pier provides a green light flashing every four seconds. According to the USCG, lighting of the piers is currently in conformance with all requirements (33 U.S. Code 735).

Boats crashing into the east pier have been an ongoing concern in the HMA for several years. Boats have struck the pier several times in recent years, including an accident in 2008 that claimed three lives. After two separate accidents during the summer of 2014, U.S. Senator Charles Schumer announced that he was calling on the USCG and USACOE to make the east pier more visible to boaters at night. That call was followed up with a letter from the USCG, endorsed by the USACOE, stating that the navigational lighting is in conformance with federal regulations and additional lighting could in fact confuse boaters.

2.12 Current Harbor Management

2.12.1 Dockage and Boat Launch Operations

Docking operations and use of the boat launch at the Port of Rochester are managed through the City of Rochester Department of Recreation and Youth Services. Public boat launch users are required to either purchase a pass for the entire season or pay a daily use fee in order to launch trailered boats at the launch.

A permit and fee are required to temporarily dock a boat at the Port of Rochester (Appendix M). The permit is handled through the permit office in the Bureau of Recreation in a manner similar to renting other City park facilities.

The upkeep and maintenance of the boat launch, the dock wall along the River adjacent to the Terminal Building, and the adjacent parking lots and lighting for those facilities are the responsibility of the City of Rochester Department of Environmental Services, Bureau of Operations and Parks.

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If a ship or other vessel intends to dock in the Port of Rochester, unless they have prior knowledge of who to contact to make those arrangements, there is currently little direction on how to secure a transient dock or to pull up along the dock wall at the Port of Rochester.

2.12.2 Port Terminal Building Management

The Terminal Building is owned and operated by the City of Rochester. Use of the facility is managed through the City's Department of Neighborhood and Business Development, Division of Real Estate. The City leases space to tenants, and meeting/party rooms can be obtained by making reservations and submitting fees through the City's Division of Real Estate.

Maintenance and security of the Terminal building is managed through the Department of Environmental Services.

2.12.3 Dredging/Harbor Maintenance

Maintenance dredging of the federal navigation channel is performed by the USACOE. Coordination of public dredging activities including City port maintenance dredging and coordination with the USACOE for dredging the federal navigation channel is handled in the Department of Environmental Services, Division of Environmental Quality (DEQ).

The dock wall on the west side of the the River along the terminal building offers opportunities for transient docking and docking of excursion vessels such as cruise ships. Maintenance dredging along the wall is required to retain these docking opportunities, and is the responsibility of the City of Rochester which has secured state and federal permits for dock wall dredging. The City has periodically contracted with the USACOE for terminal dock wall dredging when the USACOE is performing maintenance dredging of the navigation channel.

2.12.4 Public Marina Operations

The Harbor includes two City-owned and operated public marinas – the new Port of Rochester Marina adjacent to the terminal building and the River Street Marina located at 490 River Street. Management of the River Street Marina is by a private operator through a contract with the City. That contract is managed in partnership with DEQ and the City's Division of Real Estate. An agreement was also executed with another private marina operator for the operation of the Port of Rochester Marina. DEQ is responsible for managing this agreement.

2.12.5 Events Management

Management of special events in the HMA is largely coordinated through the City's Communications Bureau's Office of Special Events, the Monroe County Parks Department, the Ontario Beach Park Program Committee (OBPPC), or the USCG, depending on where in the HMA the event will take place.

The City of Rochester Bureau of Communications' Office of Special Events administers Special Event Permits, which are essentially a coordination mechanism. For events in the HMA, the Office of Special Event administers permits for events on land and outside of the County-maintained Ontario Beach Park. The event coordinator/sponsor submits a completed application form to the Office of

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Special Events where it then is routed throughout involved agencies (e.g., Rochester Police Department) before a decision is made about whether to approve the event or impose parameters.

The Monroe County Parks Department administers a Special Use Permit for events or rental of park's facilities. Ontario Beach Park is a County-maintained City-owned park. The County manages the operations in the park and therefore is responsible for event permits in the park.

Established in 1984, the OBPPC attracts and manages events in the HMA, primarily at Ontario Beach Park. The committee is comprised of volunteers from non-profit organizations from the local Charlotte area, and staff from City of Rochester and County of Monroe. This committee is largely responsible for the renewed interest in the harbor, bringing approximately 300,000 of the 500,000 annual visitors to Ontario Beach Park. The OBPPC is a not-for-profit corporation and finances events by fund raising, individual and private contributions, corporate sponsors and grants. All monies raised are put back into activities and improvements for the beach and harbor area.

Lastly, the USCG issues permits for approval of a "Marine Event." A marine event permit is required when an individual, organization, or government entity is planning an event that has any possibility of impacting the navigable waters of the United States, which includes Lake Ontario and the navigation channel within the Genesee River. A marine event would include any concentration of traffic on water, whether participant or spectator, craft or not, and competitive or non-competitive. The permit application provides additional criteria for determining if the planned event would be considered a regulated marine event.

As has been general practice over the last several years, event sponsors are required to manage any parking deficiencies associated with their event by establishing off-site parking locations and offering shuttling services to event attendees. Similarly, traffic management that requires additional police may result in a charge back of those costs to the event sponsor. Use of vacant Kodak lots have been successfully used for events in the HMA, but there currently is no permanently established offsite parking lot to accommodate large-scale special events that exceed parking capacities and strain traffic movement.

2.12.6 Promotion and Marketing

In general, promotion and marketing of parks, events, and facilities in the HMA are handled by individual entities, both public and private, for different purposes and events. The County offers on-line information and promotion for those facilities and events for which it is responsible. Likewise, the City has on-line information that provides information and promotion for its events and facilities. The OBPPC promotes the events it is sponsoring using various forms of media, such as print ads, and radio commercials. In addition, the private operations and businesses in the HMA, such as the marinas, yacht clubs and restaurants promote the area through advertising their own operations and events. There is no central coordination or location for advertising and promoting activities and events in the HMA.

VisitRochester is this region's tourism sales and marketing organization. Their mission is to attract conventions, meetings, group tourism, and leisure visitors to the Greater Rochester area. They help to promote and market the waterfront as part of their overall mission to promote the region, but it is not their central focus.

3.0 HARBOR AUTHORITIES

The roles and responsibilities of agencies that have a role with respect to harbor management are described below and summarized in Figure 11.

3.1 Local Agencies

3.1.1 *Monroe County Sherriff's Office*

The Monroe County Sheriff's Office (MCSO) has jurisdiction on both the shore and on the water of Lake Ontario and the Genesee River, where it enforces the New York State Navigation Law. The MCSO has an active marine unit that patrols throughout the river and lake, including federal waters, and within some adjoining counties where they have mutual aid agreements. The Sheriff also has jurisdiction over county parks, although this is part-time and seasonal. When the parks are out of peak season, they are patrolled by the Rochester Police Department (RPD). The Sheriff collaborates most often with the Rochester Police Department, the USCG, and the NYSDEC.

The MCSO has a landside office on the eastern shore of the Genesee River at 5575 St. Paul Boulevard. It currently operates five patrol boats and two jet skis in and around the HMA.

3.1.2 *Monroe County Department of Transportation*

The Monroe County Department of Transportation plays an active role in the transportation system in the HMA. Not only is it responsible for many highways and bridges, it handles countywide traffic, highway and bridge engineering, pavement markings and the fabrication, installation and maintenance of signs. It is also responsible for the installation and maintenance of all traffic control devices on county highways and streets within the City of Rochester and the Town of Irondequoit.

3.1.3 *Monroe County Parks Department*

The Monroe County Parks Department manages the Monroe County Parks System. Ontario Beach Park is owned by the City of Rochester but is managed by the Monroe County Parks Department through an agreement with the City. The park attracts tens of thousands of visitors annually. It is a total of 39 acres and offers seven shelters that are available for rent in the summer months, a swimming beach, and the Roger Robach Community Center (Bathhouse) that is available to rent for picnics, parties and weddings. The park office is located at 4650 Lake Avenue.

3.1.4 *Monroe County Department of Public Health*

The Monroe County Department of Public Health monitors and permits swimming at Ontario Beach Park pursuant to the provisions of Part 6, Subpart 6-1 and 6-2 of the New York State Sanitary Code. The department also provides public information on water quality and beach access.

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Figure 11. Agencies Function / Roles

	Function / Role													
	Review Development Projects	Establish Land Use Regulations	Establish Environmental Regulations	Resource Management Permits	Enforce Regulations	Planning & Technical Assistance	Natural Resource Management	Land Ownership / Management	Environmental Management	Land Use Planning Studies	Navigation	Recreational Facilities & Public Access	Public Information / Education	Conservation Advocacy
Monroe County														
Sheriff's Office					x						x		x	
Department of Transportation	x					x								
Department of Public Health				x								x	x	
Department of Parks												x	x	
Fishery Advisory Board							x						x	x
City of Rochester														
Police Department					x						x		x	
Fire Department	x				x								x	
Administration	x	x	x		x	x	x	x	x	x		x	x	x
New York State														
State Police					x						x		x	
Department Environmental Conservation (DEC)	x		x	x	x	x	x	x	x		x	x	x	x
Department of State (DOS)						x	x					x	x	x
Office of Parks, Recreation, and Historic Preservation	x			x	x				x			x	x	x
Office of General Services				x				x						
Federal														
U.S. Coast Guard				x	x	x					x		x	
U.S. Customs and Border Protection					x	x					x		x	
U.S. Army Corps of Engineers	x		x	x	x	x	x	x	x	x	x	x	x	x
National Oceanic and Atmospheric Administration (NOAA)			x			x	x		x				x	x
U.S. Environmental Protection Agency (EPA)	x		x	x		x	x		x				x	x
U.S. Fish and Wildlife				x	x	x	x						x	x
Other														
Town of Irondequoit	x	x	x		x	x	x	x	x	x		x	x	x

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3.1.5 Monroe County Fishery Advisory Board

Appointed by the County Legislature, the purpose of the Monroe County Fishery Advisory Board is to study the issues associated with maintaining and improving the Monroe County fisheries and to advise the County Legislature and other agencies and organizations on those actions necessary to realize the full potential of the County's fishing resources.

The Monroe County Fishery Advisory Board currently undertakes the following:

- Assisting and advising County and local governments on how to plan for increased access to shoreline and the need for related facilities and services such as boat launches and public fishing access;
- Providing information on fishing in Monroe County to the general public, including working with tourism agencies to provide information and promote the fishery;
- Working on issues affecting Monroe County's fishery with the New York State Department of Environmental Conservation, and the Fish and Wildlife Management Act (FWMA) Board, as well as other agencies, including, but not limited to the New York State Legislature, Congressional representatives, United States Geological Survey, U.S. Fish and Wildlife Service, and New York Sea Grant; and
- Providing a public forum for sportsmen, businessmen and government officials to address the problems and potential of the County's fishery resource.

3.1.6 Rochester Police Department

Although all law enforcement agencies enforce the navigation law, all do not actively patrol the water. While the MCSO has on-water jurisdiction for law enforcement on the Genesee River and Lake Ontario, the Rochester Police Department (RPD) focuses on patrolling the HMA's nearby parking lots and other landside areas. With regard to enforcement, the RPD primarily addresses issues in the harbor with vagrants, vandalism and burglaries on boats.

The RPD operates under a mutual aid agreement with the Town of Irondequoit for calls to the eastern side of the Genesee River. This agreement stipulates that emergency calls go to both the City of Rochester and the Town of Irondequoit – whichever agency arrives on the scene first is responsible for addressing the issue, unless additional support is required.

RPD will become involved with on-water emergencies, such as a boat accident or a person falling into the river. The RPD currently moors one SCUBA boat (27-feet) in the harbor. Often times, the RPD will conduct joint SCUBA training exercises with other agencies, particularly the Rochester Fire Department.

3.1.7 Rochester Fire Department

The Rochester Fire Department (RFD) provides firefighting and emergency medical services (EMS) services in the HMA and also works with the RPD for in-water rescues. While both the RFD and RPD respond to active drowning, the RFD responds to in-vessel emergencies.

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The RFD currently operates one 17-foot inflatable rescue boat in and around the HMA. However, this vessel does not have the ability to fight fires. If fire suppression is required, the RFD seeks assistance from the West Webster Fire Department (WWFD), which operates a 25-foot boat with a fire pump. This is not an ideal situation as the WWFD is all-volunteer department; therefore, response time can be an issue. Additionally, the WWFD cannot always maneuver in Lake Ontario, depending on conditions. The City of Rochester does reserve one slip for the RFD at the River Street Marina. The slip can accommodate a boat up to 40 feet long.

3.1.8 City of Rochester Administration

The City Bureau of Planning and Zoning

The City Bureau of Planning and Zoning is responsible for comprehensive planning, administering the New York State Uniform Fire Prevention and Building Code (Chapter 39), which includes the Site Preparation and Stormwater Pollution Prevention code (Article IV), and the City of Rochester Zoning Code (Chapter 120).

The Bureau coordinates comprehensive planning, zoning changes, supports the making of community and neighborhood visions and plans, ensures that development is in accordance with all laws and regulations, and protects the unique urban character of City neighborhoods.

On behalf of the Commissioner of the Department of Neighborhood and Business Development, the Bureau performs normal and customary administrative functions required by the City relative to the implementation and administration of a coastal erosion management program pursuant to the Rochester Coastal Erosion Hazard Area Law, Chapter 43A of the City Code. For more information regarding the program, see section 3.4.3 in this document.

The Bureau leads the oversight of the LWRP and advises the Commissioner of the Department of Neighborhood and Business Development, who is responsible for making consistency recommendations to City agencies for actions proposed within the boundaries of the City's LWRP. For further details on LWRP consistency review see section 3.4.2 of this document.

City Department of Environmental Services

The Department of Environmental Services (DES) comprises three bureaus, all of which are involved with operations and maintenance in the HMA. The Bureau of Operations and Parks is responsible for solid waste management, street maintenance, snow and ice control, facilities management, fleet management, forestry, and parks maintenance. The Bureau of Water has oversight and administration of the City's water system. The Bureau of Architecture & Engineering serves as the steward of the City's infrastructure. Using in-house resources, consultants, and contractors it provides design and construction services in the public realm related to streetscapes, street lighting, trails, bridges, and City-owned buildings.

The DES Division of Environmental Quality (DEQ) operates out of the DES Commissioner's office. DEQ provides services in the HMA related to environmental compliance; pollution prevention; brownfield investigation, cleanup and redevelopment; Port of Rochester redevelopment planning

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and implementation; harbor management planning; and, environmental planning and regulatory assistance.

City Department of Recreation and Youth Services

Docking operations and use of the boat launch at the Port of Rochester are managed through the City of Rochester Department of Recreation and Youth Services. A permit and a fee are required in order to temporarily dock a boat at the Port of Rochester. The permit is handled through the permit office in the Bureau of Recreation in a manner similar to renting other City park facilities.

3.1.9 Town of Irondequoit

The Town has regulatory authority over land use in the Town of Irondequoit and provides fire and police protection on the east side of the river within the township. In addition, the Town adopted an LWRP in 1988 and is in the process of updating it. The process for review of actions proposed within the boundaries of the Town's LWRP boundary for consistency with the Town's LWRP is set forth in Town of Irondequoit Code (Chapter 123).

3.2 State Authorities

3.2.1 New York State Police

Although the New York State Police has jurisdiction in the HMA, it typically gets involved on an as needed basis. It provides specialty services and coordinates with local law enforcement agencies as necessary. The closest available State Police watercraft is stored in Canandaigua.

3.2.2 New York State Department of Environmental Conservation

The New York State Department of Environmental Conservation (NYSDEC), among other environmental responsibilities, manages the State's recreational and commercial fisheries, tidal and freshwater wetlands, and water quality. Under the Freshwater Wetlands Act (NY Code Article 24), the NYSDEC regulates activities within and within 100 feet of a freshwater wetland. The agency issues permits to "protect and conserve freshwater wetlands and the benefits derived therefrom." Under the Use and Protection of Waters (NY Code Article 15), the NYSDEC regulates and controls the water resources of NY. Under this provision, NYSDEC issues permits for activities such as dredging, filling in a waterway, disturbing the bank of the waterway, or installing docks and moorings.

The New York State Department of Environmental Conservation also has oversight responsibilities for the cleanup of hazardous material spills, including spills within the water and unauthorized upland discharges that can threaten harbor waters (e.g., into storm drains, tributary streams, wetlands, etc.). During an emergency situation related to a spill, NYSDEC oversees the cleanup operation to ensure that the spill is effectively contained and environmental impacts are minimized.

The NYSDEC has more than 300 sworn Environmental Conservation Police Officers; five are located in Monroe County and five in nearby Orleans and Wayne counties. Although they focus their efforts on enforcing the NYS Environmental Conservation Law, they are empowered to enforce all

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laws of the State, including the navigation law. According to the Sherriff's office, NYSDEC officers play an active role in law enforcement in the HMA.

3.2.3 New York State Department of State

As the State's designated coastal management agency, the New York State Department of State (NYSDOS), through the Office of Planning and Development, is responsible for administering the New York State Coastal Management Program (CMP) as well as coordinating activities essential to the program's implementation. NYSDOS renders determinations on whether actions within the state's coastal area directly undertaken by, or on behalf of, federal agencies; or which require a permit or other regulatory approval from a federal agency; or involve federal financial assistance are consistent with the CMP. In addition to the consistency determination, if a proposed activity involves the alienation of parkland and includes the elimination or reduction of public access to the water, the park alienation process would typically require a review by the NYSDOS to analyze the benefits and detriments for the proposed alienation.

The NYSDOS also provides assistance to communities for the preparation of LWRP's and HMP's. In coordination with the New York State Department of Environmental Conservation, NYSDOS also administers the State's Significant Coastal Fish and Wildlife Habitats program.

3.2.4 New York State Office of Parks, Recreation and Historic Preservation

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) administer both the National and State Registers of Historic Places. The National and State Registers of Historic Places are the official lists of buildings, structures, districts, objects and sites significant in the history, architecture, archeology and culture of New York and the nation. The same eligibility criteria are used for each register. All sites, structures, etc. within New York State that are listed on the National Register are also listed on the State Register.

As with the NYSDEC, the OPRHP also have law enforcement officers that are empowered to enforce all laws of New York State. In addition to patrolling and enforcing laws in State Parks, the Park Police also provide special services including marine law enforcement and education duties on New York waterways. According to discussions with the Genesee Region office, the OPRHP involvement in the HMA relates to historic preservation, environmental conservation, and the issuance of permits (e.g. regatta permits and floating object permits) in non-federal waters (outside the navigation channel in the Genesee River).

3.2.5 New York State Office of General Services

The New York State Office of General Services (NYSOGS) manages and leases state-owned real property, designs and builds facilities, contracts for goods, services, and technology, and delivers a wide array of support services. Its role in the HMA is limited due to the fact that the only state-owned land is located in the southern portion of the HMA along the eastside of the River in Rattlesnake Point Park.

The State of New York usually owns and manages the land beneath coastal waters, and waters of large lakes and rivers. However, according to NYSOGS in an email dated on December 16, 2013:

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The bed of the Genesee River is not State owned, having been conveyed by the State of Massachusetts to Oliver Phelps and Nathaniel Gorham in 1788. This determination has been upheld by the courts over the years. Certain acts of the legislature (Chapter 250, Laws of 1828, for example), have declared the bed of the river to be a public highway. This legislation gave the State the ability to regulate activity in the river. I believe that our office in the past has used this regulatory ability as a basis from which to issue fee grants and easements, mostly in the area between the first falls and Lake Ontario. Presently, this office is of the opinion that the bed of the river, for its entire length, is in private ownership.

3.3 Federal Authorities

3.3.1 Department of Homeland Security

In 2002, the creation of the Department of Homeland Security combined 22 federal departments and agencies into a unified, integrated agency. Within the HMP, the Department of Homeland Security has two components actively involved: the U.S. Coast Guard and U.S. Customs and Border Protection. The Rochester harbor is an international Port of Entry requiring screening of all foreign visitors, returning American citizens and imported cargo that enters the U.S. through the harbor.

United States Coast Guard (USCG)

The USCG is responsible for promoting the safety and security of the nation's waters. The USCG enforces maritime laws, promotes vessel safety, conducts inspections of commercial and recreational vessels, participates in homeland security, undertakes illegal drug interdiction, responds to oil and hazardous materials spills, and performs emergency searches and rescues. The USCG is responsible for maintaining public aids to navigation (buoys, lights) and regulating the placement of private aids to navigation. In Federal waters (channel and Lake), the USCG also handles the permitting for regattas and other events involving water surface use. The Coast Guard is also responsible for ensuring that navigational lighting on the piers conforms to legal and regulatory requirements.

The Rochester-based USCG has jurisdiction over navigable water from Sodus to 30 Mile Point, extending to Canadian border and all navigable waterways inland, including the Genesee River up to the Route 104 Bridge.

United States Customs and Border Protection (USCBP)

United States Customs and Border Protection is a federal law enforcement organization charged with keeping terrorists and their weapons out of the U.S. The agency takes a comprehensive approach to border management and control, combining customs, immigration, border security, and agricultural protection into one coordinated and supportive activity.

The Rochester Border Patrol Station has existed since October 2004 and is responsible for 54 linear miles of border on Lake Ontario. Agents in Rochester perform border patrol duties within the Buffalo Sector Area of Responsibility in support of the National Border Patrol Strategy. During the

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summer months, agents conduct joint marine patrols with other federal, state and local law enforcement agencies.

USCBP is responsible for monitoring international travelers and transportation of goods in the HMA. There is a video phone at Shumway Marina for customs check-in.

U.S.C.App.289, which was enacted in 1886 to reserve United States vessels the right to transport passengers between one U.S. port and another U.S. port. The U.S. Customs service is the agency responsible for interpreting this statute and issuing the necessary regulations.

Ships involving travel to and/or from Canada are subject to regulations pertaining to U.S. vessel entry and clearance as well Canadian vessel entry and clearance. Regulations can be found throughout Title 19 part 4 of the Code of Federal Regulations.

The *Great Lakes / St. Lawrence Seaway System Cruise Vessel Information and Reference Guide* is a good resource for general explanation and citations of laws. However, specific questions or interpretation of the laws should be directed to the U.S. Customs Service.

In addition to water depth, surge and the need for regular maintenance in the harbor area, there are several laws that impact the potential operation of cruise ships in the Port of Rochester. The laws regulating cruise ships vary considerably based on whether ships include international travel. United States port-to-port regulations can be found in the "Passenger Services Act."

3.3.2 United States Army Corps of Engineers

The United States Army Corps of Engineers (USACOE) is the federal government's largest water resources development and management agency. The Corps began its water resources program in 1824 when Congress for the first time appropriated money for improving river navigation. The USACOE is authorized to carry out projects in seven mission areas: navigation, flood damage reduction, ecosystem restoration, hurricane and storm damage reduction, water supply, hydroelectric power generation and recreation. Navigation projects include both inland and deepwater projects. The USACOE plays an active and integral role in the management of the HMA. It is the federal agency responsible for surveying, dredging, and maintaining the federal channel in the Genesee River and it also owns and maintains protective structures, which include the East and West Piers.

Regulatory

Two laws delegate the authority to regulate waters of the United States to the USAC: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act which governs the permitting process for discharge of dredged or fill material. A USACOE permit is required for any structure or work that takes place in, under, or over a navigable water, or wetlands adjacent to or abutting navigable waters (Sec. 10, Rivers and Harbors Act). The Genesee River is a navigable water subject to this permit requirement. And, a USACOE permit is required for activities which involve a discharge of dredged or fill material into a water of the United States (Sec. 404, Clean Water Act). Lake Ontario and the Genesee River federal navigation channel are classified as waters of the United States.

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Civil Works

Continuing Authorities Program

The Continuing Authorities Program establishes a process by which the USACOE can respond to a variety of water resource problems without the need to obtain specific congressional authorization for each project. This decreases the amount of time required to budget, develop, and approve a potential project for construction. Under the Continuing Authorities Program, the USACOE is authorized to construct small projects within specific federal funding limits. The total cost of a project is shared by the federal government and a non-federal sponsor(s). The following list is a brief reference for each area of programming:

- Section 14 of the Flood Control Act of 1946 - Emergency Streambank and Shoreline Protection
- Section 103 of the 1962 River and Harbor - Beach Restoration and Shoreline Protection
- Section 107 of the River and Harbor Act of 1960 - Small Navigation Projects
- Section 111 of the 1968 River and Harbor Act - Mitigation of Shoreline Erosion Damage
- Section 204 of the Water Resources and Development Act of 2007 - Regional Sediment Management
- Section 205 of the Flood Control Act of 1948- Flood Risk Management
- Section 206 of the Water Resources Development Act of 1996 - Aquatic Ecosystem Restoration
- Section 1135 of the Water Resources Development Act of 1986, - Modifications to Projects for Improvement of the Environment

General Investigation Program

The General Investigation Program, known as the G.I. Program, establishes a process by which the USACOE can help a community solve a water resource problem.

Under the G.I. Program, the USACOE would jointly conduct a study and, if shown by the study to be feasible, construct a project. This approach requires that Congress provide the USACOE first with authority to accomplish a feasibility study and second, to construct a project. Local sponsors share the study and construction costs with the USACOE, and usually pay for all operation and maintenance costs. The G.I. Program may be used to address a variety of water resource problems including navigation, flood risk management, ecosystem restoration, and hurricane and storm damage reduction. The following list is a brief reference for each area of programming:

- Section 905(b) - Reconnaissance and Feasibility Studies
- Section 729 - Watershed Planning
- Section 22 - Planning Assistance to States and Indian Tribes

Great Lakes Program

Congress has authorized programs, specific to the Great Lakes, which offer additional capabilities for the USACOE, Great Lakes Districts (Buffalo, Chicago, and Detroit) to protect, maintain, and restore the natural resources of the Great Lakes (Appendix O). These programs are:

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- Great Lakes Fishery and Ecosystem Restoration
- Great Lakes Remedial Action Plans
- Great Lakes Restoration Initiative
- Great Lakes Tributary Model

Planning Guidance Notebook

The USACOE Planning Guidance Notebook (ER 1105-2-100, Appendix P) provides the overall direction by which Corps of Engineers Civil Works projects are formulated, evaluated and selected for implementation. It is useful in understanding the planning processes and direction of the USACOE. The purpose of the notebook is to:

Provide the overall direction by which the Corps of Engineers civil works projects are formulated, evaluated, and selected for overall implementation. It contains a description of the Corps of Engineers planning process, Corps of Engineers missions and programs, specific policies applicable to each mission and program, and analytical requirements.

3.3.3 National Oceanic and Atmospheric Administration

The overall mission of National Oceanic and Atmospheric Administration (NOAA) is to undertake oceanographic and atmospheric investigations and to conserve and manage the coastal and marine resources of the United States. NOAA's National Marine Fisheries Service is responsible for rebuilding and maintaining the health of coastal marine habitats and managing fisheries as well as assessing the impacts of proposed projects on Essential Fish Habitat, marine mammals, and rare, threatened, and endangered species.

The NOAA also partners with coastal states through its National Coastal Zone Management Program to address some of today's most pressing national coastal issues including climate change, ocean planning, and planning for energy facilities and development. Based on the 1972 Coastal Zone Management Act to develop comprehensive programs to manage and balance competing uses of and impacts to coastal resources, NOAA approved the New York Coastal Management Program in 1982.

In addition to navigation maps that include the location of potential navigation hazards that exist in the vicinity of the HMA, NOAA also has several weather stations in the vicinity that provide valuable information and data to boaters via the National Weather Service.

3.3.4 United States Environmental Protection Agency (USEPA)

The mission of the United States Environmental Protection Agency (USEPA) is to safeguard human health by protecting the integrity of the environment. USEPA pursues this mission by developing legislation and national environmental protection programs and by administering funding to states and municipalities for the development and implementation of environmental plans, policies, projects, and programs. USEPA sponsors a number of programs for the protection of natural resources, such as various Clean Water Act programs, and publishes a variety of environmental protection and planning guidance documents to provide technical support and educational assistance to the public.

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The EPA has a research vessel called the Lake Guardian. The vessel is the largest dedicated science vessel on the Great Lakes. It has been doing a long-term study of the Great Lakes water quality under the terms of the US/Canada Great Lakes Water Quality Agreement, and in addition is serving as a research platform for various universities (including Cornell and SUNY), and other federal and state agencies who are concerned with the Great Lakes. The ship is 180' in length, 40' beam, and draws a maximum of 12'. It has 4 laboratories and 40 berths, with a permanent ship's crew of 14.

3.3.5 *United States Fish and Wildlife Service*

The United States Fish and Wildlife Service (USFWS) provides technical assistance to private individuals and organizations, as well as federal, state, and local agencies pursuant to the Endangered Species Act of 1973. The USFWS must be consulted when a proposed project or action may impact endangered or threatened species. They offer a seven step process, found at <http://www.fws.gov/northeast/nyfo/es/section7.htm>, to assist a project sponsor or reviewing agency determine whether a federally-listed, proposed, or candidate species, and/or designated "critical habitat" may occur within a proposed project area and when it is appropriate to contact the USFWS offices. The USFWS works with individuals as well as public and private agencies to preserve, protect, and enhance the viability of fish and wildlife habitats within the United States. The USFWS also oversees the Boater Infrastructure Grant (BIG) program to promote transient boating in the United States. The New York State Office of Parks, Recreation, and Historic Preservation administers the BIG program in NYS.

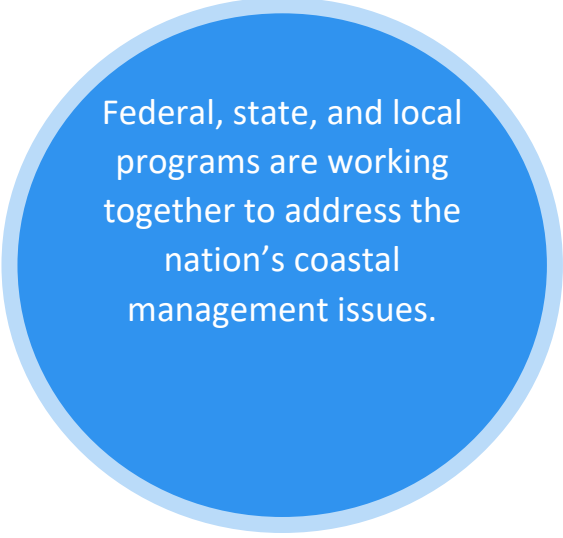
3.4 Cross-jurisdictional Programming Specific to the HMA

3.4.1 *Coastal Zone Management*

Federal, state, and local programs are working together to address the nation's coastal management issues. Programming started at the federal level with the adoption of the Coastal Zone Management Act (CZMA) in 1972, which led to approval of the NYS Coastal Management Program (CMP), followed lastly by the City's adoption of an LWRP.

The CZMA and ensuing federal Coastal Zone Management Program, administered by the NOAA, provide the basis for protecting, restoring, and responsibly developing the nation's important and diverse coastal communities and resources. The NOAA also works with states to interpret state and local policies and standards.

New York State is one of 34 states currently participating in the National Coastal Zone Management Program authorized by CZMA. NYSDOS was designated, pursuant to the Waterfront Revitalization and Coastal Resources Act of 1981, and Chapter 464 of the 1975 Laws of New York State, to prepare and implement a CMP. As the State's designated coastal management agency, the NYSDOS is



Federal, state, and local programs are working together to address the nation's coastal management issues.

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responsible for administering the CMP as well as coordinating activities essential to the program's implementation. The CMP provides a means for coordinating all state agencies by describing forty-four coastal policies with which all state agency actions must be consistent. Generally, the policies fall under three headings: promotion of beneficial use of coastal resources; prevention of their impairment; and management of major activities substantially affecting numerous resources. Actions (i.e., permits, funding approvals, etc) by state agencies in a coastal area are subject to a Consistency Determination from the NYSDOS. No state agency can undertake, issue a permit for, or fund a project affecting New York's coastal area until the NYSDOS issues a Consistency Determination. Likewise, a copy of all federal application materials for proposals in a coastal zone must also be submitted to the NYSDOS at the same time they are sent to a federal permitting agency. In this process, the applicant certifies to the federal agency and NYSDOS that the proposed project complies and is consistent with the CMP. No federal agency can undertake, issue a permit for, or fund a project affecting New York's coastal area until the NYSDOS concurs with this consistency certification.

The New York State Waterfront Revitalization of Coastal Areas and Inland Waterways Act (Article 42 of the Executive Law) offers local governments the opportunity to participate in the CMP on a voluntary basis by preparing and adopting an LWRP. When an LWRP is approved by the NYSDOS, state and local actions are required to be consistent with the approved LWRP to the maximum extent practicable. When the federal government concurs with the incorporation of an LWRP into the CMP, federal agency actions must also be consistent with the approved LWRP. The consistency review process is described below.

3.4.2 LWRP Consistency Determination Process

The Waterfront Consistency Review Ordinance (Chapter 112 of the City Code) is one of the primary tools used to implement the City's LWRP. This ordinance requires that a City agency prior to approving, funding or undertaking a action, as defined in the law, located in the LWRP boundary, make a determination that the action is consistent with the LWRP with the applicable LWRP policies and purposes. Whenever a City agency receives an application for approval or funding of an action or as early as possible in the agency's undertaking of a direct action, the applicant or, in the case of a direct action, the agency shall prepare a coastal assessment form (CAF) to assist with the consistency review. The CAF is reviewed by the Commissioner of the Department of Neighborhood and Business Development with the assistance of the Bureau of Planning and Zoning. The Commissioner must render his or her written recommendation to the decision-making agency within 10 working days following the submission of the CAF. The recommendation shall indicate whether, in the opinion of the Commissioner, the proposed action is consistent, to the maximum extent practicable, or inconsistent with one or more of the applicable LWRP policy standards or conditions. The decision-making agency makes the determination of consistency based on the information in the CAF, the recommendation of the Commissioner and other information as is deemed to be necessary in its determination.

In addition, many federal funding, permitting and direct actions must be consistent with an approved LWRP. These federal actions are reviewed by NYSDOS who then concurs with, or objects to, them being undertaken. If the NYSDOS objects to the action, it cannot be funded, permitted, or undertaken. State agencies, when undertaking, permitting or funding SEQRA Type I or Unlisted

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Actions are generally required to submit a completed Coastal Assessment Form (CAF) to the NYSDOS as part of their responsibilities in ensuring their compliance with the enforceable policies contained within the LWRP. NYSDOS reviews these CAFs and comments as appropriate while the state agency in question directly consults with the LWRP community. NYSDOS serves as a mediator between the LWRP community and the state agency if requested by either party. This consistency provision is a strong tool that helps ensure all government levels work in unison to build a stronger economy and a healthier environment.

3.4.3 Coastal Erosion Hazard Law

The Waterfront Revitalization and Coastal Resources Act of 1981 gave the CMP authority to advocate for managing erosion and flooding hazards. To protect lives and reduce the loss of property due to coastal erosion and flooding, the State Legislature mandated that vulnerable shore areas be designated as Coastal Erosion Hazard Areas, where construction or excavation is controlled through a permit. The Coastal Erosion Hazard Areas Law (Environmental Conservation Law Article 34) empowers NYSDEC to identify and map coastal erosion hazard areas and to adopt regulations (6 NYCRR Part 505)¹ to control certain activities and development in those areas. The Coastal Erosion Hazard Areas, consisting of the Natural Protective Feature Area and the Structural Hazard Area, are delineated on a map prepared by the DEC entitled "Coastal Erosion Hazard Area Map of the City of Rochester."

Within the Coastal Erosion Hazard Areas, the construction or placement of a structure, or any action or use of land which materially alters the condition of land, including grading, excavating, dumping, mining, dredging, filling or any disturbance of soil is a regulated activity requiring a Coastal Erosion Management Permit. The permit provides written approval granted by DEC or a local government, whichever has the jurisdiction. Rochester is 1 of 42 communities in New York State that has been certified by NYSDEC to have a coastal erosion hazard area law (City Code Chapter 43A) and therefore has jurisdiction for issuing permits. The permits are administered through the City's Bureau of Planning and Zoning on behalf of the Commissioner of Neighborhood and Business Development.

NYSDEC works with USACOE to study coastal erosion problems along coastlines and develop coastal erosion solutions. These are typically large scale projects that impact entire communities.

3.4.4 Water Use Permitting

Floating Objects

New York State Office of Parks Recreation & Historic Preservation, Bureau of Marine Services has the responsibility of administering the permit system for floating objects on non-federal waters (outside the navigation channel in the Genesee River). Mooring buoys, mooring fields, swim area

¹ At the time of this writing, NYSDEC is reviewing and updating Part 505 regulations to make it easier for people to understand and comply with the regulations. This will include outreach to stakeholders and a public comment period.

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markers and vessel speed zones as well as swim platforms are all considered floating objects by New York State Navigation Law Section 35A.

In federal waters (channel and Lake), the USCG issues permits for floating objects, which are referred to as “private aids to navigation.” Private aids to navigation are designed to allow individuals or organizations to mark privately owned marine obstructions or other similar hazards to navigation, or to assist their own navigation operations. They are required to be maintained by the owner as stated on the U.S. Coast Guard permit. Private citizens, marina and yacht clubs, municipal and state governments, construction and dredging companies, research and non-profit organizations, beach front associations, and large industrial companies are required to apply for a permit for any private aid to navigation.

Regattas and Other Events

In order to conduct a regatta on the waters of the State of New York a permit must be granted by New York State Parks. A regatta is defined as “an organized event of limited duration, which is conducted according to a prearranged schedule” according to section 34 of the NYS Navigation Law. Applications for permits may be obtained online at the NYS Parks website.

As stated in 33 Code of Federal Regulations (CFR) Chapter 1 PART 100, an individual or organization planning to hold a regatta or marine parade which, by its nature, circumstances, or location, introduces any extra or unusual hazard to the safety of life on the navigable waters of the United States, must have the event approved by the USCG. Applications need to be submitted no later than 135 days prior to the start of the proposed event. If the event meets certain provisions it may be submitted no later than 60 days prior to the start of the event. Applications for permits may be obtained online at the USCG’s website.

3.4.5 Emergency Responders Mutual Aid Agreements

Mutual aid is an agreement among emergency responders to lend assistance across jurisdictional boundaries. There are several mutual aid agreements relevant to the public safety in the HMA. Rather than a detailed description for each agreement, which can change periodically, this section includes a brief summary of relevant agreements. Please see agreements for details.

Monroe County Comprehensive Emergency Management Plan

The purpose of this plan is to formulate a comprehensive action of search, rescue, and recovery operations for marine emergencies that may occur within Monroe County and on the adjacent waters of Lake Ontario. The plan was developed and coordinated with the cooperation of law enforcement, fire departments, County Public Safety Officials, 911/ Emergency Communications Department (ECD), Office of Emergency Management, and USCG advisors. According to the Plan, as the lead agency for emergency response on the water, the USCG is the Water Branch Director and will assess the seriousness of the incident and relay this information to the 911/ECD.² For emergencies on land, the Senior Fire Officer of the jurisdiction affected, is the Land Branch Director

² Monroe County Comprehensive Emergency Management Plan – Revised June 2008

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who will assess and report information to the 911/ECD. The 911/ECD will dispatch/notify emergency responders as specified in this Plan.

Monroe County Emergency Medical Services Mutual Aid Plan

For this plan, mutual aid is “organized, supervised, coordinated, cooperative and reciprocal assistance in which personnel, the physical facilities and the equipment of all participating EMS agencies, regardless of type or size, are utilized for EMS or emergencies throughout Monroe County.”³

County of Monroe Mutual Aid Fire Plan

The purpose of this Plan is to ensure that mutual aid is an “organized, supervised, coordinated and cooperative reciprocal assistance in which personnel, equipment and physical facilities of all participating fire departments, companies or districts, regardless of type or size, are utilized for a fire or other emergency in which the services of fire personnel would be used throughout the County of Monroe.” This Plan is reviewed each year, by the Monroe County Fire Coordinator where corrections and/or changes are processed.⁴

3.4.6 Joint Permit Application

In an effort to reduce applicant paperwork and ensure all agencies involved in a project review the same information, the NYSDEC; Office of General Services (OGS); NYSDOS; and, New York and Buffalo Districts of the USACOE developed a joint permit application for Permits and Determinations within their jurisdiction that affect streams, waterways, waterbodies, wetlands, coastal areas and sources of water withdrawal. The Joint Application Form and instructions are in Appendix Q.

³ Monroe County Emergency Medical Services Mutual Aid Plan – Draft October 2013

⁴ County of Monroe Mutual Aid Fire Plan – Revised April 2012

4.0 Issues and Opportunities

Using the information detailed in Sections 2 and 3 above and stakeholder meetings, the following key issues and opportunities were identified for the Rochester HMA. These create the basis and framework from which the Action Plan described in Section 5.0 was developed.

The key issues and opportunities are divided into six categories:

- Harbor Services and Amenities;
- Management, Operations, and Communications;
- Harbor Infrastructure;
- Surface Water Use;
- Dredging; and
- Natural Resources.

The issues identified in each section are the concerns that require attention and problem solving to improve harbor operations. Often these issues represent a complex situation requiring the cooperation of more than one agency/stakeholder and may require multifaceted funding solutions.

The positive aspects of the HMA, represented in the list of opportunities, deserve action steps toward promotion or advancement. Opportunities often require attention and funding and should be given the same consideration as issues.

4.1 Management, Operations & Communications

4.1.1 Issues

- There is the need for a responsible entity to oversee, coordinate, and manage the varied activities and operations of the HMA, including but not limited to boater notifications, dredging coordination, facilities management, education, information dissemination, advocacy, and grant writing.
- There is confusion for HMA users regarding regulations, permitting, and oversight.
- There is a perception among stakeholders that over-patrolling is occurring in the harbor.
- The IJC's *Plan 2014* could result in operational and economic impacts to the Port of Rochester, although the specific impacts are currently unknown (the IJC notes that *Plan 2014* could increase shoreline protection costs by 13 percent). Impacts could include increased maintenance costs for piers and breakwalls and increased operational costs for marinas.
- Facilities for onsite Customs and Border Protection agents would be required if Rochester becomes a regular port for cruise ships.

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- Public safety agencies indicate the need for dedicated support facilities in the HMA for use on a regular basis, not just during emergency and special events. A secure, dedicated space would ideally include office space, a meeting table, computer terminals, conferencing facilities, arrest processing area, and off-season storage for bikes, ATV's and boats. Agencies also expressed the need for additional dedicated docking and water access facilities.
- The Rochester Fire Department indicated that it does not have a fire safety boat that can effectively put out a fire on the water or near the shoreline. The closest boat with a fire pump is docked in Irondequoit Bay.
- The future use of the Terminal Building is undefined.
- While there is a significant amount of information and educational materials available to boaters and other harbor users, there is no centralized access point to retrieve information. Important information to harbor users includes permitting processes, educational materials, boater safety, debris removal, special events, commercial boat arrivals, and the availability of services and amenities.
- There are different legal opinions pertaining to ownership of the river bottom. This is an issue whenever activities (e.g., installing dock systems, dredging) involve contact with the river bottom.

4.1.2 Opportunities

- There are a range of potential organizational and management structures for the HMA that may be considered.
- The City's new public marina and/or the new hotel may play a role in the operations and management of the harbor.
- The Terminal Building is currently underutilized. Utilization of the terminal building to address immediate needs and potential value-added services and amenities for harbor users, public safety agencies, and HMA visitors may be an opportunity.
- Marketing and promoting the HMA in conjunction with surrounding amenities and resources would help to attract visitors year round.
- While all agencies operating in the HMA currently work well together, there may be opportunities for improved communication and coordination.
- Some of the infrastructure remains to support a passenger ferry service.
- Collaboration and partnerships among the various HMA organizations, business and landowners would improve the year round viability of the HMA.
- The Great Lakes Restoration Initiative (GLRI) was launched in 2010 to accelerate efforts to protect the Great Lakes. The Initiative directs advocacy and funding to strategic activities

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targeting the largest threats to the lake ecosystem, including controlling invasive species, reducing nutrient runoff and restoring habitat. The opportunities of the GLRI should be pursued for HMA improvement projects.

- Future roadway and infrastructure projects can positively contribute to the long-term sustainability of the HMA. The application of Complete Streets and LEED for Neighborhood Development (or LEED-ND) principles in street design and construction can support and enhance mobility, access, and natural resource protection.
- Funding through the Harbor Maintenance Trust Fund, as well as other federal funding resources, can be used for a variety of planning and implementation activities in the HMA.

4.2 Harbor Services and Amenities

4.2.1 Issues

- Due to limited transportation options, traveling within the HMA or to some destinations outside the HMA is currently complicated or unavailable.
- Managing traffic during special events is challenging due to limited options for alternate routes and limited access management.
- Parking demand can exceed supply during special events that draw large crowds into the HMA. Parking demand will likely increase as additional amenities and events are introduced into the HMA.
- The absence of dedicated transient boater slips in the HMA limits the potential for visitors arriving via water to take advantage of landside amenities and attractions.
- The HMA lacks overnight accommodations and other services and amenities that would help to make it more attractive for longer-term visitors and cruise ship operators.
- Boater services and amenities, including fuel dispensing, boat-oriented convenience shopping, boat mechanics and winter storage may need to be increased within the HMA.
- The HMA lacks fishing amenities such as bait shops, weigh stations, and fish cleaning stations. These amenities are desirable for fishing and would make the HMA more attractive to large-scale fishing events, such as fishing derbies.
- Public boat rental services are absent in the HMA and could be attractive to casual boaters and increase day-use visitor traffic.

4.2.2 Opportunities

- Existing events, including regattas, fishing derbies, and celebrations, create a market for nearby landside amenities.

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- With easy access to both high quality coldwater and warmwater fisheries, the HMA could increase its prominence for sport fishing in Upstate New York.

4.3 Harbor Infrastructure

4.3.1 Issues

- The on-going maintenance of the piers by the Army Corps of Engineers is critical to the harbor.
- Although the piers were constructed for the purpose of providing safe entrance into the harbor, their continued maintenance for public access is important for visitors to the HMA.
- Storm surge continues to be an issue reported by HMP stakeholders. The specific impacts of storm surge on the HMA have not been fully evaluated since the stone revetment was installed along the piers for wave attenuation. Stakeholders have reported that the removal of the Hojack Swing Bridge has altered how the surge impacts the harbor, further necessitating an evaluation of the surge. Storm surge can cause damage to docked boats and make the Genesee River non-navigable. This occasionally limits the harbor's ability to function as a Critical Harbor of Refuge during large nor'easter storms.
- There is fragmented management and oversight and no comprehensive maintenance program of City-owned harbor infrastructure, including the terminal dock wall, terminal building, River Street Marina, train station, future Port of Rochester Marina, boat launch and former swing bridge abutment.
- During maintenance activities, such as dredging, there is the potential for impacts to utilities that cross the river.
- There are three known but unmarked navigation hazards in the vicinity of the HMA: the sunken tug *Cheyenne*, the west side of the turning basin in Reach G (between the federal navigation channel and the Genesee Riverway Trail footbridge), and the southern dolphin approximately 300 feet upstream of the Coast Guard Station. Several less prominent hazards located along the shoreline also exist and are described in Section 2.8.7.
- Senator Schumer prompted the United States Coast Guard and Army Corps of Engineers to develop a plan to make the east pier more visible during the night, following a number of boat accidents. Although both agencies have indicated that the current lighting meets navigation requirements, the visibility of the east pier at night remains a stakeholder concern.
- The effectiveness and resiliency of the current infrastructure has not been evaluated in response to climate changes and potential lake level changes.

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4.3.2 Opportunities

- The former ferry vehicle loading platform remains in place situated along the north entrance to the new public marina and connects to the boardwalk that runs along the waterfront east of the Terminal Building. This platform provides a large space for public gatherings, signage, and/or public art.
- The City-acquired Hojack Swing Bridge abutment provides a similar programming opportunity as the loading platform bulleted above.

4.4 Dredging

4.4.1 Issues

- The ACOE prioritizes harbors for maintenance dredging based on total commercial tonnage that passes through the harbor. The Rochester harbor was ranked 60th of the 60 commercial harbors in the Great Lakes Navigation System in 2014.
- If the Federal Channel is not maintained to 21 feet, Essroc will no longer be able utilize water-based shipping for transporting cement to their facility in the HMA. This could cause the company to move the facility to another municipality, resulting in significant economic impacts on the region, including the loss of 17-20 local jobs, the loss of \$3-4 million in annual economic output, and the loss of \$400 thousand in annual state and local tax revenue.
- Dredging in the federal navigation channel is conducted by the ACOE. Dredging outside the federal navigation channel is managed by individual marina and yacht club operators under individual permits. Renewals of these individual permits are required every five years. This individual approach is more costly to mobilize and administer than a collaborative, harbor-wide approach.
- The disposal of dredged material can be very costly, especially if the option for open-lake disposal was eliminated.
- There is limited developable land along the HMA shorelines. The lack of developable lands limits the development opportunities for short-sea shipping that would result in increased tonnage and commercial activity in the Harbor.

4.4.2 Opportunities

- Increasing cruise ship traffic into the Rochester Harbor would improve the port's ACOE maintenance dredging priority.
- New landside development to attract visitors and enhanced infrastructure to accommodate cruise ships would improve the Port's viability as a cruising destination.

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- A collaborative dredging strategy among property owners and agencies could reduce dredging mobilization costs and permit administration.
- Dredged material from the Genesee River is clean enough to be considered for beneficial uses, such as ecosystem restoration.
- Implementing natural or engineered systems that facilitate sedimentation to occur upstream of the navigable sections of the harbor may help to reduce the need for frequent dredging.
- Reducing overall suspended particles in the water column through appropriate local and regional land use and storm water runoff management measures may help to reduce the need for frequent dredging.

4.5 Surface Water Use

4.5.1 Issues

- While boater conflicts were not identified as a problem in the lower reach of the HMA, speed of motor boats in the upper reaches of the HMA has reportedly occasionally, impacted non-motorized boaters.
- Water users would benefit from improved wayfinding and informational signage within the HMA.
- Water users would benefit from a centralized website for information about events, activities, educational programs, and public safety warnings.
- The adequacy of existing car top boat launches to support current and future activity is unknown and has not been evaluated.
- Fishing charter operations are a valuable use in the HMA. The most suitable location for dock space, parking, and associated amenities has not been fully evaluated.
- The east and west piers continue to be popular locations for fishing. Unlike the west pier, there are no railings located along the east pier, presenting a potential safety hazard for users.
- While there are no documented conflicts associated with the various surface water uses taking place in the HMA, future expansion of uses has the potential to increase user conflicts.
- Water dependent support uses, such as trailer parking and dry dock facilities, currently meet the needs of HMA users. Long-term adequacy of these facilities, based on future demand, has not been evaluated.

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4.5.2 Opportunities

- Sport fishing and charter excursions bring visitors to the HMA creating spin-off impacts such as demand for overnight accommodations, restaurant activity, and other support businesses.
- With easy access to both high quality cold and warm water fisheries, the Port of Rochester could be a major destination for sport fishing in Upstate New York. This will require a coordinated effort to bring amenities (e.g., bait shops, weigh stations) and develop a marketing and outreach strategy to promote the HMA for fishing.
- The Monroe County Fisheries Advisory Board, created by the County Legislature to advise them on issues related to fishing in the county, is a valuable resource that the City and County can team with to promote and advocate for fishing in the HMA.
- The Lake Ontario Sport Fishing Promotion Council, formed to ensure the long-term sustainability of fishing derbies in Lake Ontario, is a not-for-profit organization financially supported by nine counties in the region. The Council is a potential resource and partner for the growth and sustainability of recreational fishing in the HMA.
- The public boat launch is an important amenity that should remain in the HMA.
- City-owned vacant land at the end of Petten Street offers opportunities for waterfront access and is a potential site for a car-top and/or motorized boat launch.
- Construction of the new marina will provide additional transient slips which may result in greater visitation to the HMA and surrounding landside amenities via watercraft.

4.6 Natural Resources

4.6.1 Issues

- Water quality and sedimentation issues in the HMA result from watershed-wide point and non-point sources and thus must be addressed at both the local and regional levels (the Genesee River watershed encompasses 2,373 square miles of land in New York State).
- Water quality issues are an ongoing problem at Ontario Beach resulting in beach closures and other impacts to visitors, including algae blooms, fish kills, and resulting foul odors.
- It is currently unclear how issues such as climate change, potential lake level changes associated with IJC Plan 2014, or any change in dredging patterns will impact the current extent of floodplains in the lower Genesee River.

4.6.2 Opportunities

- Ensuring the long-term protection of the River's riparian areas would contribute to improving water quality in the HMA and the eventual delisting of the Rochester Embayment Area of Concern.

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- The implementation of upland best practice techniques identified in the *Genesee River Basin Action Strategy* could contribute to a reduction in the need for frequent dredging and improve overall water quality conditions in the HMA.
- The NYS DEC is currently implementing the *Work Plan for RCRA Facility Investigation and Corrective Measure Study for OU-5 Lower Genesee River Area of Concern*, which outlines the plan for analyzing contamination levels in the lower four miles of the Genesee River and evaluating the potential impact on fish, wildlife, and human health. The results will provide additional information about contamination in the HMA, resulting in potential remedial efforts in the River.
- The warm water and salmonid fisheries associated with the Genesee River and Lake Ontario provide excellent fishing opportunities for visitors to the HMA and could create additional economic spin-off impacts for the local community.
- Existing and potentially constructed wetlands can play an important role in reducing sedimentation in the Genesee River and provide habitat for fisheries and water fowl.

5.0 HMP Implementation Strategy

5.1 Introduction

Section 5.0 identifies the key HMP objectives and lists specific implementation steps necessary to achieve them. The objectives are the culmination of Sections 1.0 through 4.0 of the HMP, providing a framework and direction for future decision-making and activities. Priority objectives, indicated with an asterisk (*), are discussed in more detail in Section 5.3.

The objectives and implementation steps are organized under the same six overarching categories as the issues and opportunities in Section 4.0. Implementation steps are further classified as capital projects, operational/legislative actions, or studies/research. For each implementation step a timeframe for completion is identified as one of the following:

- Short-term (0-3 year activities)
- Medium-term (4-6 year activities)
- Long-term (7+ years)
- On-going (implementation activity is underway/ongoing)

An indication of the implementing agencies and potential funding sources completes the Action Plan. The names of the agencies are abbreviated as follows:

- **ACOE:** Army Corps of Engineers
- **CHFM:** City Harbor Facilities Management
- **City DES:** Department of Environmental Services
- **City NBD:** Department of Neighborhood and Business Development
- **City OMB:** Office of Management and Budget
- **City RFD:** Rochester Fire Department
- **HME:** Harbor Management Entity
- **NYSDEC:** New York State Department of Environmental Conservation
- **NYSOGS:** New York State Office of General Services
- **USFWS:** US Fish and Wildlife Service

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5.2 The Action Plan

5.2.1 Management, Operations and Communication

Objectives <small>*Priority Objectives - detailed further in Section 5.3</small>		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference <small>(see Maps 18 & 19)</small>
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Establish a management structure for overseeing harbor operations.*	A	Establish a structure for City harbor facilities management (CHFM) within City government for the management of City-owned harbor facilities, including but not limited to, the Terminal Building, boat launch, Port Marina, River Street Marina, train station, parking lots and dock wall.		X			Short-term	Mayor, City Council, City DES	NA
		B	Accept the objectives of the HMP as official City policy. Facilitate the implementation of the HMP objectives by identified City departments.		X			Short-term	Mayor, City Council	NA
		C	Identify existing and future agency budget allocations for harbor projects, facilities, and on-going harbor oversight and maintenance of infrastructure.		X			Short-term	CHFM, Mayor, City Council	NA
		D	Identify and establish a long-term harbor management entity (HME) to oversee harbor activities including the management of city facilities.		X			Long-term	CHFM, Mayor, City Council	NA
2	Evaluate the future use, programming and ownership of the Port Terminal Building.*	A	Prepare a financial feasibility analysis for various ownership options and programming of the Terminal Building in the context of a vibrant harbor destination.			X		Short-term	CHFM, City OMB	1
		B	As part of future ownership options for the Terminal Building, ensure a portion of the building is retained for passenger service for cruise ships, ferries and other excursion vessels.				X	Short-term	CHFM, City OMB	1
		C	Ensure space is retained in the building for use by public safety agencies for meeting rooms, holding cells, storage, first aid, etc.				X	Short-term	CHFM, City OMB	1
		D	Designate space in the building for use by the selected harbor management entity and the harbor advisory committee.				X	Short-term	CHFM, City OMB	1
3	Improve harbor-oriented communications, education, and promotion.*	A	Establish a Harbor On-water Operations Advisory Committee for collaboration of on-water stakeholders in the coordination, advocacy and promotion of the harbor.		X		X	Short-term	City DES, Mayor, City Council	NA
		B	With the help of the On-water Operations Advisory Committee, create a map of the harbor showing all areas of use, dredging, and needs.		X	X		Short-term	CHFM, On-water Advisory Committee	NA
		C	Develop a harbor logo and brand that can be used on materials produced for the harbor.			X		Short-term	CHFM, City Communications	NA
		D	Create a harbor website to facilitate the sharing of information related to the harbor and its functions, including education resources, special events, permitting information, amenities and services, contact information, etc.				X	Short-term	CHFM, City Communications	NA
		E	Convene regular meetings with VisitRochester to promote and market the harbor. Work with VisitRochester and other harbor service providers to develop tour packages.				X	Short-term	CHFM, City Communications, HME (long-term)	NA
		F	Meet with harbor service providers, such as the hotel operator, to discuss joint programs and promotional opportunities.				X	Medium-term	CHFM, City Communications, HME (long-term)	NA

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Objectives <small>*Priority Objectives - detailed further in Section 5.3</small>		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference <small>(see Maps 18 & 19)</small>
				Capital Projects	Operations/ Legislation	Study / Research	Other			
		G	Package and distribute information on educational programs via the harbor website, including trainings, the Vessel Safety Check Program and other available resources.				X	Long-term	HME	NA
		H	Consider the implementation of a formal education program with training, classes and programs provided in the harbor.				X	Medium-term	HME	NA
		I	Coordinate with the Rochester Central School District to identify on-site educational opportunities associated with the harbor and natural resources.				X	Long-term	HME, Rochester School District	NA
4	Promote the harbor as a destination for cruise ships.*	A	Prepare an economic impact analysis associated with the Port as a cruise ship destination.	X		X		Short-term	CHFM	NA
		B	Facilitate meetings with GLCC to determine a strategy for attracting cruise ships to the Port of Rochester.		X			Short-term	CHFM	NA
		C	Maintain terminal dock wall and provide necessary dredging from federal channel to dock wall.	X				Ongoing	CHFM, HME	2
		D	Retain space in the terminal building for customs and passenger services.				X	Short-term	CHFM	1
		E	Coordinate with VisitRochester to promote the City and region as a cruise destination and arrange tours from the Port.				X	Medium-term	CHFM, City Communications, HME (long-term)	NA
		F	Identify additional facilities necessary to support an expanded excursion and cruise industry and invest in those facilities, as necessary.	X				Long-term	HME	3
5	Evaluate the benefits of acquiring Ontario Beach Park.	A	Complete an analysis to identify the potential implications of City ownership and acquisition of Ontario Beach Park, including budget and revenue impacts.	X		X		Short-term	CHFM, County Parks Dept, Mayor, City Council	4
		B	Amend City / County Park Agreement if Ontario Beach Park is acquired by the City of Rochester.		X			Medium-term	CHFM, Mayor, City Council County Legislature	NA
6	Ensure emergency preparedness of harbor.	A	Prepare a HMA Disaster Response Plan.	X		X		Medium-term	City and County Emergency Preparedness Agencies	NA
		B	Seek funding for a pump boat for the Rochester Fire Department.	X			X	Ongoing	City RFD, CHFM	NA
7	Clarify the ownership of underwater lands.	A	Pursue a legal opinion and interpretation of underwater land ownership.		X		X	Short-term	City Law Department, NYSOGS	NA
8	In addition to attracting cruise ships, identify other revenue generating opportunities to support Port operations.	A	Complete a study to evaluate potential revenue that could be generated by charging for parking in the HMA. The study should evaluate full-time priced parking versus priced parking only during special events.	X		X		Short-term	CHFM, City Finance Department	NA
		B	Consider the development of a harbor-wide special assessment district for the Port of Rochester.		X		X	Medium-term	City Finance Department	NA

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5.2.2 Harbor Services and Amenities

Objectives <small>*Priority Objectives - detailed further in Section 5.3</small>		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference <small>(see Maps 18 & 19)</small>
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Enhance pedestrian and vehicular wayfinding.	A	Meet with harbor stakeholders to identify needs associated with a comprehensive wayfinding system.		X			Short-term	City DES, HME	NA
		B	Seek funding for and create a harbor-wide wayfinding plan.	X				Short-term	City DES, HME	NA
2	Ensure harbor services are provided that adequately meet demand.	A	Monitor the Intelligent Transportation Systems (ITS) installations to evaluate its effectiveness in management of parking and traffic flow.	X				Ongoing	City DES, County DOT, NYSDOT	NA
		B	Seek vendors for City facilities that respond to market demands.		X			Medium-term	City NBD, CHFM	NA
		C	Work with the private sector to fill gaps and address obstacles associated with providing harbor services.		X			Medium-term	City NBD, CHFM, Private Sector	NA
		D	Promote transportation amenities (water taxi, bike and scooter rentals, segways, etc.) that will enhance and improve the ability to travel within the harbor area.		X			Long-term	HME	NA
		E	Assess the market demand for a boat rental operation.			X		Long-term	HME	NA
		F	Consider options for remote, satellite parking options in conjunction with special events occurring in the HMA.	X				Ongoing	Event Sponsor	NA
		G	Coordinate with RGRTA to increase service to the Port area during peak summer events.				X	Ongoing	RGRTA, HME, Event Sponsor	NA
3	Support transient boaters with adequate amenities including dockage, services and connections to destinations.	A	Monitor transient dockage supply and demand.		X			Medium-term	CHFM, HME (long-term)	3
		B	Provide transient boater services including convenience shopping, showers, and restrooms.	X				Ongoing	City DES, Private Sector	3
		C	Establish tours and transportation options for harbor visitors to access destinations outside of the harbor area, including taxis, shuttles or limo services.		X		X	Medium-term	Private Sector, HME (long-term)	NA
4	Promote fishing in the HMA.	A	Set aside docks at River Street Marina for charter dockage and passenger interface.		X			Short-term	CHFM	5
		B	Convene a meeting with charter operators and the Genesee Charter Boat Association to discuss and assess interest in the establishment of the River Street marina as a charter hub.		X		X	Medium-term	CHFM	NA
		C	If warranted, secure space in the River Street Train Station for charter use, including ticketing, restrooms, bait sales, lounge, weigh station and other amenities determined to be necessary.	X	X			Medium-term	CHFM	6
		D	Advocate for the retention of access to and upgrade of the east pier for anglers.				X	Ongoing	CHFM , ACOE	11
		E	Retain the public boat launch within the HMA.		X			Ongoing	Mayor, City Council	7

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Objectives *Priority Objectives - detailed further in Section 5.3		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference (see Maps 18 & 19)
				Capital Projects	Operations/ Legislation	Study / Research	Other			
		F	Evaluate the need and location for a weigh station and fish cleaning station to support recreational fishing.			X		Medium-term	CHFM	NA
5	Increase/improve public waterfront access.	A	Transform the former ferry vehicle loading platform into a space for public gatherings, signage, and/or public art.	X				Short-term	CHFM, Mayor, City Council	8
		B	Convert the former CSX Hojak swing bridge western abutment into a waterfront overlook and fishing access.	X		X		Ongoing	City DES	9
		C	Ensure that the waterfront boardwalk running along the east side of the Port Terminal building remains open for public access unless it is in use with the loading or unloading of passengers of an excursion vessel such as a cruise ship.				X	Short-term	CHFM	10

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5.2.3 Harbor Infrastructure

Objectives *Priority Objectives - detailed further in Section 5.3		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference (see Maps 18 & 19)
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Work with USACOE Buffalo District to secure funding to prepare studies and sponsor projects in the HMA.	A	Advocate for an appropriation pursuant to the \$10 million WRDA authorization to the Rochester harbor in 2007.		X			Ongoing	CHFM, ACOE, HME (long-term)	NA
		B	Implement USACOE design recommendations for the east pier.	X				Short-term	ACOE	11
		C	Complete a study to fully evaluate the impacts of storm surge on the harbor.			X		Medium-term	ACOE, CHFM, HME (long-term)	NA
		D	Evaluate the effectiveness and resiliency of current harbor infrastructure with respect to climate change and water-level changes.	X		X		Short-term	CHFM, ACOE	NA
2	Monitor and maintain harbor infrastructure.	A	Centralize and organize harbor maintenance agreements and identify any gaps.				X	Long-term	HME	NA
		B	Identify a responsible entity to centralize and oversee utility and other essential mapping for the harbor.				X	Long-term	HME	NA
		C	Monitor conditions of infrastructure and pursue necessary maintenance funding.	X	X			Ongoing	CHFM, ACOE, HME	NA
3	Provide infrastructure to maintain the health, safety, and welfare of harbor users.	A	Assess the potential impacts of hazards to navigation on HMA users and determine if signage or markings are necessary.			X		Medium-term	ACOE, NYSDEC	NA
		B	Educate the public on locations of unmarked navigation obstacles in the HMA boundary.				X	Long-term	NYSDEC, HME	NA
		C	Continue to monitor lighting needs of the east pier.			X		Ongoing	ACOE, USCG	NA
		D	Provide space along the dock wall for public safety agencies to pull over boats for emergencies and boat inspections.				X	Short-term	CHFM	2
		E	Identify a designated location within the HMA for a first aid station.		X		X	Medium-term	Public Safety Agencies	1

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5.2.4 Dredging

Objectives <small>*Priority Objectives - detailed further in Section 5.3</small>		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference <small>(see Maps 18 & 19)</small>
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Cost-effectively maintain dredging depths sufficient for ongoing and long-term planning for excursion and commercial vessels.*	A	Advocate for and coordinate on-going maintenance dredging in the harbor.		X			Ongoing	CHFM , HME (long-term)	NA
		B	Maintain the federal navigation channel to a depth of 21 feet.		X			Ongoing	ACOE	NA
		C	Maintain the terminal dock wall to a depth of at least 16 feet for small cruise ships and 19’ for large cruise ships.	X				Ongoing	CHFM , HME (long-term)	2
		D	Advocate for the retention of open-lake disposal of dredged materials.		X			Ongoing	CHFM , HME (long-term)	NA
2	Work with USACOE to get assistance in promoting the Rochester Harbor as a cruise destination and to use that potential to raise the dredging priority rank of Rochester’s harbor.	A	Adopt a policy resolution indicating interest in advancing the use of the Terminal Building and dock wall for cruise ships.				X	Short-term	CHFM , Mayor, City Council	1, 2
		B	Meet with USACOE to discuss the use of Planning Guidance Letter no. 97-6 <i>Cruise Ships and Benefits to Navigation</i> in advocating for increased ranking priority and garnering ACOE support.		X			Ongoing	City DES, ACOE	NA
3	Support harbor-wide collaborative dredging to reduce costs and facilitate permit administration.	A	Evaluate feasibility of the Draft Regional Dredging Management Plan (7/3/13).			X		Medium-term	CHFM	NA
		B	Convene a meeting with DEC, ACOE and marina/yacht club operators to discuss potential for collaborative dredging.				X	Short-term	Harbor On-water Operations Advisory Committee, CHFM, ACOE, NYSDEC	NA
		C	Evaluate harbor-wide versus regional dredging management plan.			X		Medium-term	CHFM	NA
		D	Implement a collaborative dredging approach.		X			Medium-term	Harbor On-water Operations Advisory Committee, CHFM, ACOE, NYSDEC	NA
4	Promote engineering solutions in the river to reduce the rate of sediment deposition in the harbor, resulting in the reduced need for dredging.	A	Commission an engineering study to analyze sediment movement and deposition in the Genesee River and recommend solutions for reducing sedimentation in the harbor.	X		X		Short-term	CHFM , ACOE	NA

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5.2.5 Surface Water Use

Objectives <small>*Priority Objectives - detailed further in Section 5.3</small>		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference <small>(see Maps 18 & 19)</small>
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Improve the boater experience within the HMA.	A	Expand the harbor website to inform visitors of launching locations, fishing opportunities, weather, special events, water-use rules (swimming, fishing, etc.).		X			Short-term	CHFM, City Communications	NA
		B	Develop a wayfinding program to assist boaters in finding transient docks, boater services, commercial services and other cultural and recreational destinations.			X		Medium-term	City DES, HME (long-term)	NA
		C	Ensure speed limit signs are posted and are conspicuous to boaters.				X	Short-term	USCG, County Sherriff	NA
		D	Evaluate the need for additional boater services as demand increases.				X	long-term	HME	NA
		E	As use of the harbor increases, assess the need for designated water use zones.				X	Medium-term	CHFM	NA
2	Promote the establishment of landside support facilities and services for boaters.	A	Add a car top boat launch at the end of Petten Street, allowing boaters to utilize existing City recreational parking on Petten Street.	X				Medium-term	CHFM, City DES	12
		B	A public boat launch will stay within the boundaries of the HMA. If development pressures force the relocation of the boat launch from the port site, the end of Petten Street and the area where Voyager Marine is located have been identified as alternative boat launch locations.	X				Long-term	CHFM, HME, Mayor, City Council	12
		C	As demand increases, evaluate the need for additional trailer parking and dry dock storage.			X		Long-term	HME	NA
3	Promote and advocate for fishing in the HMA.	A	Convene a meeting with local charter boat operators and organizations to discuss the establishment of a charter hub at River Street Marina.				X	Medium-term	CHFM	NA
		B	Retain access to and provide upgrades to the east pier for anglers.	X				Short-term	ACOE	11
		C	Retain a public boat launch in the HMA.				X	Ongoing	CHFM	12
		D	Advocate for continued fish stocking in the Genesee River.				X	Ongoing	Private Sector, NYSDEC, USFWS	NA
		E	Evaluate the need and location for a weigh station and fish cleaning station to support recreational fishing.			X		Medium-term	CHFM	NA

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5.2.6 Natural Resources

Objectives *Priority Objectives - detailed further in Section 5.3		Implementation Steps		Implementation Classification				Timeframe	Implementing Agency	Action Plan Map Reference (see Maps 18 & 19)
				Capital Projects	Operations/ Legislation	Study / Research	Other			
1	Implement policies and practices that maintain and improve water quality in the river and lake.	A	Develop and implement design guidelines to ensure that future development projects in the HMA maintain and/or improve water quality.		X			Medium-term	City NBD, City DES, CHFM	NA
		B	Implement recommendations identified in the Genesee River Basin Action Strategy.	X		X		Ongoing	City Departments, State Agencies, Federal Agencies, HME (long-term)	NA
		C	Coordinate with the Center for Environmental Initiatives Genesee Riverwatch program and identify recommended approaches that may have beneficial impacts on water quality in the HMA.	X			X	Short-term	CHFM	NA
		D	Incorporate a riparian buffer ordinance into the City’s Open Space District regulations to prevent the clearing of vegetation along the Genesee River shoreline		X			Short-term	City NBD, CHFM	NA
		E	Continue to monitor the findings and recommendations presented in the USEPA <i>Work Plan for RCRA Facility Investigation in the Lower Genesee River Area of Concern</i> to identify future remedial efforts in the River.		X			Short-term	City DES, Monroe County Health Department, CHFM	NA
2	Implement policies and practices that ensure the long-term maintenance and protection of natural habitats.	A	Support the goals identified in the International Joint Commission Plan to enhance natural habitats along the lakeshore.		X			Short-term	CHFM, Mayor, City Council	NA
		B	Advocate for the USACOE and USFWS to select the City of Rochester for additional riparian wetland restoration projects along the Genesee River.		X			Short-term	ACOE, USFWS, County Health Department, City DES, CHFM	NA
3	Preserve and protect scenic resources.	A	Ensure significant aesthetic resources, as noted in Section 2.9.8 of the HMP, are considered as part of future planning and development projects in the HMA.		X			Ongoing	City NBD, City DES, CHFM	NA

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5.3 Priority HMP Objectives

5.3.1 Formalize Management of City-Owned Harbor Facilities

The City of Rochester is a major property owner within the HMA and is responsible for the oversight and maintenance of most of the amenities and infrastructure, including the Terminal Building, dock wall, train station, public boat launch, Port Marina, River Street Marina, overlooks, trails, and associated parking lots.

Interdepartmental coordination remains one of the most significant challenges to overall management of the Harbor. As noted in Section 2.12 there are a number of Departments and Bureaus within City government that have various responsibilities relating to harbor management, though there is no formal operational structure or communication protocols in place.

In order to accomplish the implementation activities identified in the Action Plan, the City must first formalize a management structure for harbor maintenance and operations. This may involve an organizational restructuring within city government, retaining a contractor to oversee City harbor facilities, or the establishment of a system of protocols established to ensure interdepartmental coordination. This newly-formed management is referred to as the City Harbor Facilities Management (CHFM) in the above Action Plan.

Currently, many efforts related to harbor management are the responsibility of the Department of Environmental Services (DES) Division of Environmental Quality. Due to the history of work, established relationships and institutional knowledge, the DES Division of Environmental Quality should lead the effort for forming the CHFM.

5.3.2 Program the Port Terminal Building

The Terminal Building is currently owned by the City of Rochester. It was constructed as a state-of-the-art transportation terminal and that investment should be maximized. The long-term ownership, occupancy and management of the Terminal Building must be fully evaluated. In order for the City to fully commit to a future as a cruise destination, it must ensure that regardless of future ownership, adequate space is allocated for municipal use in the Terminal Building to support the needs of cruise ships, customs, and public safety personnel.

The transportation component, however, is only one of the potential harbor assets that can be provided in the Port Terminal Building. It can also be a hub for public safety uses and in 2015 a portion of the building will provide boater services for the occupants of the new marina. The future use of the Port Terminal Building in the context of harbor operations and management must be carefully vetted. Its potential as an asset to harbor operations must not be lost in a disposition agreement, whether that be a sale or long-term lease.

5.3.3 Improve Collaboration, Advocacy, and Promotion in the Harbor

Through the HMP planning process, including stakeholder feedback, it was determined that an On-water Operations Advisory Committee would be beneficial to improving collaboration in the HMA and could provide a single voice for harbor advocacy and promotion. It is proposed that this advisory committee would be assisted and supported by City staff but would not equate to another

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level of governance within the harbor. The role of this group, as envisioned during this process, would be to serve in an advocacy role and to ensure there are open lines of communication between harbor property owners, harbor users, authorities and City Hall. The committee could also provide input into the decision-making regarding long-term management solutions for the harbor. The first task of the committee would be to collectively map out the areas of the harbor they currently use for their operations, areas they would like to use for future operations, and the areas they routinely dredge. The private use areas mapping would then be combined with the public areas currently included in the HMP map. This water use map would be useful for collaboration and information for public safety and other government agencies present in the harbor.

In addition to creating an advisory committee, overall branding, promotions, and communications that relate specifically to the harbor and harbor operations could be improved. A Rochester harbor logo and brand could create interest and excitement for harbor events and promotional materials. A unique website that promotes and coordinates harbor events and activities would benefit the community, region and visitors. There are great models from other harbors that the City could emulate. One example of a benefit of an interactive and harbor-oriented website is for a visiting boater who wishes to visit Rochester via the harbor; they could get directions on the harbor entrance and where to dock their boat, obtain a docking permit on-line, link up with tours to local and regional attractions, then make hotel reservations all from the City harbor website.

5.3.4 Promote Rochester as a Cruise Ship Destination

The Port of Rochester is seen by many as an attractive opportunity for an expanded cruise ship industry that takes advantage of the existing infrastructure, including the Terminal Building and dock wall. The assets and amenities of the harbor itself, coupled with its geographic proximity to many regional assets and an airport, make Rochester ideally situated to capitalize on a growing cruise industry. The Great Lakes Cruise Coalition has stated that Rochester is a desirable Great Lakes cruising destination for a variety of reasons. This fact, combined with the potential economic benefits of being a cruise destination and having the Port Terminal Building, leads to the Action Plan's direction toward exploring this opportunity further. To start, an economic impact study should be conducted to quantify the economic advantages of and establish parameters and requirements for being a successful cruise destination.

There are economic development benefits associated with an increase in the number of visitors and tourists to a port, a city, and the region. There is an added benefit which is the potential increase in federal funding for maintenance dredging of the navigation channel. Federal guidance documents indicate that an active cruising industry can contribute to economic justifications for USACOE funding for regular maintenance dredging of the federal channel. Regular and long-term maintenance funding for the federal channel is critical to establishing the Port of Rochester as a cruise destination as well as retaining the economic assets of the Essroc Company in Rochester. The USACOE is currently working with City DES to undergo a Planning Assistance to the States Study which will assist the City in exploring the navigational requirements for becoming a cruise destination.

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In addition to finding a long-term solution for dredging the federal navigation channel to accommodate a cruise industry, the City will need to commit to a long-term dredging plan for areas along the dock wall and ensure use of a portion of the Port Terminal Building for cruise and passenger services.

5.3.5 Collaborate and Advocate for Necessary Dredging

Use of the harbor by the Essroc cement company is a significant commercial operation that is critical to the designation of the HMA as a commercial port by the USACOE. Essroc's cement is shipped in on a freighter, usually the *Stephen B. Roman*. Essroc is the only major cement supplier in the region and, due to the transportation cost savings associated with water-borne shipping, is able to provide this material at lower costs than would be possible were the material to be shipped into the region via truck. Dredging of the harbor is essential to Essroc remaining viable at the Boxart Street location. The loss of Essroc would mean:

- Loss of at least 17-20 jobs in the City of Rochester;
- Loss of approximately \$3-4 million in annual economic output in Monroe County;
- Loss of approximately \$400 thousand in annual state and local tax revenue.
- 15% increase in the cost of cement and its ripple effects to the local economy.

Ongoing dredging that is part of a long-term dredging plan for the federal navigation channel is also essential to attracting and retaining cruise ships. Cost-effectively maintaining dredging depths sufficient for excursion and commercial vessels is an important economic driver for the City of Rochester. For dredging of the navigation channel, this will require the City to be vigilant in its advocacy for federal funding for dredging. In addition, the terminal dock wall must be maintained to a specific depth to allow for the docking of large excursion vessels, such as cruise ships. Dredging in this area of the River is outside the navigation channel and is therefore the responsibility of the City.

5.4 Harbor Management Entity (HME) to Oversee Harbor-wide Operations

While the City will continue to play a role in the long-term management and operations of the harbor due to the city ownership of many harbor facilities, an overall coordinating body may be warranted in the future to address the needs of a growing harbor with its many activities, events, competing interests, public safety matters, and stakeholder issues. A Harbor Management Entity (HME) that can identify, facilitate, and execute solutions within the HMA for positive community, environmental, and economic impact could become imperative to its long-term viability.

As part of the overall HMP development, a study was undertaken (Management Analysis, see Appendix R) which evaluated a range of potential management options that could effectively implement the initiatives identified in the HMP Action Plan. In addition, a meeting with harbor stakeholders and property owners was convened to gauge their feedback on a long-term management solution for harbor activities.

Both the results of the Management Analysis and stakeholder feedback indicated an On-water Operations Advisory Committee would be beneficial to regularly bring together harbor

stakeholders and provide an opportunity to advocate and promote for on-water actions in the HMP.

According to the Management Analysis, the recommended long-term HMP management and organization structure should be inclusive and responsive to a wide variety of identified HMP issues. The organization should allow for varied degrees of responsiveness and management agility to address issues, including those that are already identified in the HMP and those that are as yet unidentified. Organizational strength and sustainability, along with capability to take quick action when appropriate, should be defining qualities of the HME.

The role of the HME could be far-reaching, including but not limited to day-to-day operations, outreach, education, stakeholder collaboration, agency coordination, marketing, grant writing, advocacy and planning. The Action Plan, identified in Section 5.2, indicates specific implementation techniques identified through the HMP process that would be the responsibility of the HME. With limited City staff and resources, many of these action items may not be completed in the absence of a defined HME.

5.5 Summary of Potential Funding Resources

Implementation of the HMP will be driven, in part, by the availability of funding resources. Potential funding resources noted in Section 5.2, The Action Plan are described in further detail below.

City and County Operating Budget and Capital Improvement Plan Budget

The City and the County fund maintenance and operations of the City and County facilities and events out of their respective operations and capital budgets. The City Operating Budget is an annual budget that accounts for City staffing and programming. The City Capital Improvement Plan (CIP) is an annually updated five-year expenditure plan for City projects and infrastructure. The City Department of Environmental Services is currently in the primary role of managing CIP planning and requests for the facilities within the HMA that are under City control. The County Parks Department manages CIP planning and requests for facilities within Ontario Beach Park.

Consolidated Funding Application (CFA)

The New York State CFA consolidates over 30 programs available through 12 state agencies, acting as a single entry point for access to funding. The CFA replaces multiple applications for funding with a single, annual application for economic development resources. Applications are coordinated through the Regional Economic Development Councils and grant resources are available for projects that align with the Regional Economic Development Plan. Some of the resources described in this section are accessed through the CFA process.

Specific funding sources and programs can change from year to year and should be monitored. In future years, some programs may be phased out while other new programs are added.

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New York State Division of Homeland Security and Emergency Services

Emergency Management Performance Grant Program (EMPG)

The purpose of the EMPG program is to support a comprehensive, all hazard emergency preparedness system by building and sustaining the core capabilities contained in the National Preparedness Goal. Examples include:

- Completing the Threat and Hazard Identification and Risk Assessment (THIRA) process;
- Strengthening a state or community's emergency management governance structures;
- Updating and approving specific emergency plans;
- Designing and conducting exercises that enable whole community stakeholders to examine and validate core capabilities and the plans needed to deliver them to the targets identified through the THIRA;
- Targeting training and verifying identified capabilities;
- Initiating or achieving a whole community approach to security and emergency management.

New York State Environmental Protection Fund

Funding through various programs of the NYS Environmental Protection Fund are available through the Consolidated Funding Application process noted above.

Water Protection (WPIQ) Grants – New York State Department of Environmental Conservation

The WQIP program is a competitive, reimbursement grant program that directs funds from the New York State Environmental Protection Fund to projects that reduce polluted runoff, improve water quality and restore habitat in New York's waterbodies.

- Nonagricultural Nonpoint Source Abatement and Control (NPS)
- Municipal Wastewater Treatment (WWT)
- Aquatic Habitat Restoration (AHR)
- Municipal Separate Storm Sewer Systems (MS4)

Local Waterfront Revitalization Program (LWRP) – New York State Department of State

The NYSDOS administers LWRP funding which can be utilized for waterfront improvement projects in conjunction with an approved LWRP document. Funds can be utilized for planning, design and capital improvements, including the preparation of design and construction documentation for infrastructure and shoreline improvement projects, as well as trails and parks

NYS Environmental Facilities Corporation (EFC)

Funding from the NYS EFC is currently available through the Consolidated Funding Application process.

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Green Innovation Grant Program (GIGP)

The Green Innovation Grant Program (GIGP) supports projects across New York State that utilize unique stormwater infrastructure design and create cutting-edge green technologies. Eligible projects include:

- Permeable pavements
- Bioretention/bioswales
- Green roofs and green walls
- Stormwater street trees
- Construction or restoration of wetlands, floodplains, or riparian buffers
- Stream daylighting
- Downspout disconnection
- Stormwater harvesting and reuse

Clean Vessel Assistance Program (CVAP)

Provides grants to marinas for the installation, renovation, and replacement of pumpout stations for the removal and disposal of recreational boater septic waste.

CVAP provides up to 75% of eligible project costs up to \$60,000 to marinas, municipalities and not-for-profit organizations for installing pumpout boats and up to \$35,000 for installing or upgrading stationary pumpout units or upgrading pumpout boats. Additional CVAP grants are also available for the operation and maintenance of pumpout facilities, as well as educational projects that address the benefits, use, and availability of pumpout stations.

NYSERDA Cleaner, Greener Communities Program Implementation Grants for Planning Initiatives

The New York Cleaner, Greener Communities Program empowers regions to create more sustainable communities by funding smart growth practices and projects consistent with the Finger Lakes Regional Sustainability Plan (FLRSP). The FLRSP was developed through a partnership among public and private experts and recommends implementation projects that significantly improve the economic and environmental health of the region.

NYSERDA is offering a total of \$90 million in potential funding available to support the Implementation Phase (Phase II) of the Cleaner, Greener Communities Program. Funding is offered through the annual CFA process. According to the NYSERDA website, “grants will be awarded to market-transforming sustainability initiatives that accelerate the adoption of sustainable planning and development practices.” These grant funding opportunities have been categorized as follows:

- Category 1 – Photovoltaic and Electric Vehicle Supply Equipment Permitting Incentive;
- Category 2 – Planning Initiatives; and

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- Category 3 – Community-Scale Sustainability Projects.

NYS Office of Parks, Recreation, & Historic Preservation (OPRHP)

OPRHP funds are currently applied for and allocated through the annual CFA process, with the exception of the Boating Infrastructure Grant Program.

Boating Infrastructure Grant Program

The Sportfishing and Boating Safety Act of 1998 (Public Law 105-178), administered through the U.S. Fish & Wildlife Service, established the Boating Infrastructure Grant Program (BIG) which provides funding opportunities for the development and maintenance of facilities for transient non-trailerable recreational vessels. The New York State Office of Parks, Recreation, and Historic Preservation is the designated state agency to administer the BIG program in New York. Rochester's HMA was the beneficiary of BIG funding for the new public marina at the Port of Rochester.

Funding is available for the development and maintenance of boating infrastructure (facilities for transient non-trailerable recreational vessels), including mooring buoys, day docks, navigational aids, transient slips, safe harbors, floating docks and fixed piers, floating and fixed breakwaters, dinghy docks, restrooms, retaining walls, bulkheads, dockside utilities, pumpout stations, recycling and trash receptacles, dockside electric service, dockside water supplies, dockside pay telephones, debris deflection booms and marine fueling stations.

Eligible Activities:

- Construct, renovate, and maintain either publicly or privately owned boating infrastructure tie-up facilities;
- one time dredging only to give transient vessels safe channel depths between the tie-up facility and maintained channels or open water; (sometimes allow for depths greater than 6' if justified). The dredging cannot exceed 10% of total BIG project costs.
- install navigational aids, limited to giving transient vessels safe passage between the tie-up facility and maintained channels or open water;
- grant administration;
- preliminary costs (appraisals, environmental reviews, permits, feasibility studies, site surveys, site planning, preparing cost estimates, construction plans and specifications);
- information and education materials.

Ineligible Activities:

- Projects that do not provide public benefits or are not open to the public;
- involve law enforcement activities;

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- significantly degrade or destroy valuable natural resources or alter the cultural or historic nature of the area; construct or renovate principal structures not expected to last at least 20 years;
- maintenance dredging;
- fund operations or routine, custodial, and janitorial maintenance of the facility;
- tie-up facilities available for occupancy for more than 10 consecutive days by a single party;
- dry land storage;
- haul-out features;
- boating features for trailerable or "car-top" boats such as launch ramps and carry-down walkways;
- conduct surveys

Municipal Grants Program (parks, historic properties, heritage areas)

A matching grant program for the acquisition, development and planning of parks and recreational facilities to preserve, rehabilitate or restore lands, waters or structures for park, recreation or conservation purposes and for structural assessments and/or planning for such projects. Funds may be awarded to municipalities or not-for-profits with an ownership interest, for indoor or outdoor projects and must reflect the priorities established in the NY Statewide Comprehensive Outdoor Recreation Plan (SCORP).

U.S. Environmental Protection Agency (EPA)

Great Lakes National Program, Great Lakes Fish Monitoring and Surveillance Program (GLNP)

Funding can be granted directly to municipalities for planning, research, monitoring, outreach and implementation projects in furtherance of the Great Lakes Restoration Initiative and the Great Lakes Water Quality Agreement. The program collects fish from each Great Lake annually and analyzes them for contaminants that bioaccumulate to assess trends in the open waters of the lakes. The GLFMSP consists of two separate programs, the Open Lakes Trend Monitoring Program and the Emerging Chemical Surveillance Program. The Sport Fish Fillet Monitoring Program was eliminated in 2008.

- *Open Lakes Trend Monitoring.* This program, established in the late 1970s, monitors contaminant trends in whole fish in open waters of the Great Lakes and evaluates the effect of toxics on fish and fish consuming wildlife.
- *Sport Fish Fillet Monitoring Program.* This program was directed at monitoring potential human exposure to contaminants through consumption of popular sport fish species in the Great Lakes Basin.

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Urban Waters Small Grant Competition

Funding can be granted directly to municipalities. The program funds research, investigations, experiments, training, surveys, studies, and demonstrations that will advance the restoration of urban waters by improving water quality through activities that also support community revitalization and other local priorities. In previous years, grants ranged from \$30k – \$60k. In general, projects should meet the following four program objectives:

- Activities to improve and restore local urban water quality;
- Engage, educate and empower local residents and entities;
- Support community priorities; and
- Involve underserved communities.

Federal Emergency Management Agency (FEMA)

Pre-Disaster Mitigation Grant.

The Pre-Disaster Mitigation (PDM) program provides funds for hazard mitigation planning and projects on an annual basis. The PDM program is available to local governments. It was put in place to reduce overall risk to people and structures, while at the same time, also reducing reliance on federal funding if an actual disaster were to occur.

ACOE Funding

Water Resources Development Act

The Water Resources Development Act (WRDA), currently named the Water Resources Reform and Development Act (WRRDA), authorizes the United States Army Corps of Engineers to do various water related projects, such as improvements to ports or flood protection. WRDA is usually passed every few years since 1974, but there was a gap between 2007 and 2014. In WRDA 2007 (excerpts in Appendix N), Congress authorized the appropriation of \$10 million dollars for “the ecosystem restoration, navigation, flood damage reduction, and recreation components of the Port of Rochester Waterfront Revitalization Project.”

In WRRDA 2014 (Appendix H), funding authorizations in WRDA’s prior to 2007 that have not resulted in a project were “deauthorized.” This deauthorization of projects should be a warning that Rochester must work diligently with the ACOE to consider advancing, near term, a harbor project that meets the objectives indicated in this document.

Operations and Maintenance Budget

The ACOE manages its annual Operations and Maintenance budget to undertake projects that further their primary authorities of navigation, flood control, and environmental restoration. As an example, dredging of the federal channel and pier repairs would fall under their authority.

Planning Assistance to States

Section 22 of the Water Resources Development Act of 1974 provides authority for the Corps of Engineers to assist local governments and others in the preparation of comprehensive plans for the development and conservation of water and related land resources. These studies are called

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Planning Assistance to States (PAS). PAS studies are undertaken at the planning level of detail; they do not include detailed design for project construction

GLRI funding

The USACOE can use GLRI funding for water quality related activities including: removal of contaminated sediments from AOC's; restoration of wetlands and other critical habitat; planning and design of restoration projects; and, provision of technical support. The GLRI Legacy Act funding has been a particularly useful source of funds in the HMA. See Section 2.9.2.

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ⁱ Sources for Section 1.3.4

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