



A CASE STUDY

THE VILLAGE OF ONTONAGON



Michigan Coastal Community Working Waterfronts

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This case study was compiled as part of a set of 11 working waterfront case studies in coastal communities. For more information on the series, please see the Introduction, Value and Context, Waterfront Land Use, Best Practices, and Recommendations and Next Steps sections.

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INTRODUCTION

Many coastal communities have areas known as working waterfronts — waterfront lands, waterfront infrastructure and waterways that are used for water-dependent uses and activities. These uses may include ports, small recreational boat and fishing docks and other types of places or businesses where people use and access the water. Coastal communities' working waterfronts offer economic and cultural value, contribute to a community's identity and are intrinsically tied to a region's natural resources.

A number of factors — such as population change, competing land uses and development pressure, fluctuations in water levels, changes in

fish stocks and regulations, aging and inadequate infrastructure, decline in waterfront industry and economic recession — threaten the viability of water-dependent businesses and access to the public trust waters. Left unchecked, these threats can result in the slow loss of working waterfronts and permanent conversion of waterfront property to non-water-dependent uses.

Active waterfront planning and the sharing and implementation of tools, resources and strategies for maintaining and protecting working waterfronts can ensure access for water-dependent uses and activities, as well as preserve options for future waterfront uses.

This case study:

- Characterizes one of many working waterfronts found throughout Michigan's diverse coastal communities.
- Identifies existing waterfront amenities, waterfront history, waterfront zoning and land area occupied by water-related uses.
- Highlights examples of waterfront challenges, threats and opportunities as well as tools and strategies for maintaining the working waterfront.

SUMMARY

Ontonagon, Michigan was founded in 1838 in the Northeastern Upper Peninsula at the mouth of the Ontonagon River on Lake Superior. Ontonagon is a small village in a rural, primarily undeveloped county. The village's population peaked at 2,400 in the 1970s. In 2010, the community's population of 1,494 was 16 percent less than the 2000 population.

Proximity to the Porcupine Mountains and the Keweenaw Peninsula, recreational opportunities and mining history draw visitors to the village. Ontonagon has approximately 7.6 miles of frontage on Lake Superior and the Ontonagon River. Ontonagon River provided transportation for lumber, copper, coal and supported the fishing industry. Ontonagon was the busiest port on Lake Superior circa 1880.

The Ontonagon Harbor is a federally authorized deep draft commercial and recreational harbor. The harbor supports several dock facilities as well as a marina and boat launch. There are over 1000 feet of publicly accessible beach along the Lake Superior shore as well as linear parks with fishing access within the village.

The harbor is an economic catalyst for the region and loss of industry along the waterfront has resulted in significant job loss. Closure of the county's last copper mine, Smurfit-Stone Corporation Paper Plant and the Upper Peninsula Shipbuilding Company resulted in significant local and regional employment and vacant waterfront property.

Recent economic setbacks, however, have resulted in the opportunity to re-envision the village's waterfront. The village rezoned the former paper mill property with frontage on Lake Superior and the Ontonagon River to mixed use to attract new residents and businesses and reserved the deep water port for future industry. Ontonagon adopted a hybrid zoning ordinance with form-based code and waterfront mixed use districts that is designed to promote connection to and support physical access to water resources. Additionally, the community's waterfront plans include increasing access to the lighthouse, developing a water trail on the river and continue to clean up contaminated property.

Land use along the waterfront in Ontonagon consists of approximately 80 percent mixed use and 20 percent residential zoning districts. Within a 1000-foot buffer of Lake Superior and the Ontonagon River, land use consists of approximately 59 percent mixed use, 34 percent residential and 8 percent industrial districts.

In addition to economic hardship, the remoteness of the community and its distance from markets, challenges associated with retrofitting uniquely configured vacant buildings and the lack of easy access to the marina from downtown Ontonagon on the opposite side of the river present additional hurdles to the community's working waterfront.

Best practices for maintaining access to the waterfront for the public and water dependent uses include creating a hybrid zoning ordinance to guide revitalization of the community's formerly industrial waterfront by enabling mixed use development along the waterfront and promoting connection to the public waterfront, open space and downtown through design, while maintaining deep water access for future industrial use.

ONTONAGON, MI



FIGURE 1. STATE OF MICHIGAN AND ONTONAGON COUNTY (LEFT) AND AERIAL IMAGE OF THE VILLAGE OF ONTONAGON WITH LAKE SUPERIOR AND THE ONTONAGON RIVER.

CONTEXT

Jurisdiction / Government	Village
Region	Upper Peninsula
County	Ontonagon
Land Area	2368 acres / 3.7 square miles
Watershed/Subwatershed	Lake Superior Basin / Ontonagon River
Dominant Land Use of Subwatershed	Forest
Adjacent Bodies of Water	Lake Superior, Ontonagon River
Type of Water Body	Great Lake, River
Percent of Land Area within the CZM	17%
Population (2010)	1,494
Percent of County's Population	22%
Percent of County's Land Area	<1%
Urban / Suburban / Rural	Rural
Federally Authorized Harbors/Projects	Ontonagon River
Type of Port	Commercial, Recreational



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COMMUNITY PROFILE

POPULATION

- The population of Ontonagon declined 16 percent from 2000 to 2010. In 2010, the village's population density was 404 persons/square mile.
- The population of Ontonagon County decreased by 13 percent from 2000 to 2010.
- The median age in Ontonagon increased from 47 in 2000 to 51 in 2010.

EDUCATION

- Of the village's population age 25 and older (75% of the village's total population), 45 percent have a high school degree or higher and 10 percent have a bachelor's degree or higher.
- Of the county's population age 25 and older (71% of the county's total population), 41 percent have a high school degree or higher and 11 percent have a bachelors degree or higher.

INCOME

- The median household income between 2006 and 2010 in the Village of Ontonagon was \$32,950, compared to the median household income in Ontonagon County of \$35,269.

EMPLOYMENT

Of the city's population over age 16:

- 51 percent are in the labor force and employed and 9 percent are unemployed.
- 60 percent are employed in the top 3 (of 13 total) industries classified in the American Community Survey: educational services and health care and social assistance (28%); manufacturing (16%); and retail trade (15%).
- 25 percent are in sales and office occupations, 22 percent percent production, transportation and material moving occupations, 21 percent service occupations, 18 percent management, business, science and arts occupations and 14 percent natural resources, construction and maintenance.

Ontonagon County Great Lakes Jobs Snapshot (NOAA)

- In 2009, Great Lakes related jobs accounted for 1 percent of total jobs in Ontonagon County, representing a decrease of 77 percent since 2005.
- Great Lakes related jobs provide employment for 14 people, provide \$116,000 in wages and provide \$220,000 in goods and services.

HOUSING

- From 2000 to 2010, the total number of housing units in Ontonagon increased by 2 percent and the percent occupancy of housing units decreased by 9 percent.
- Owner occupied housing units decreased by 11 percent and renter occupied housing units increased by 12 percent from 2000 to 2010.
- Residential construction in Ontonagon County decreased from 132 buildings in 1990 to 30 buildings in 2000 and then to 9 buildings in 2010.

COMMUNITY OVERVIEW

The Village of Ontonagon is located in Ontonagon County at the mouth of the Ontonagon River on the south shore of Lake Superior. Ontonagon is approximately 140 west of Duluth, MN. The village is accessible from three State and U.S. Highways and is at the northern terminus of the Escanaba and Lake Superior Railroad (2007 master plan).

Ontonagon is the county seat of Ontonagon County and the only incorporated community in the county. The village is characterized by low density residential neighborhoods and a small downtown core.

The village lies within the 1,384 square mile Ontonagon River watershed, which is primarily forested with some wetlands, agricultural land and small urban centers. There are 21 major lakes, 26 major trout streams, nine waterfalls, four named rapids and 52 miles of shoreline within Ontonagon County.

Recreational opportunities in the region, surrounding wilderness, mining history and the community's location near the base of the Keweenaw Peninsula and just east of over 90 square mile- Porcupine Mountains State Park draw visitors to the village.

The closure of the Smurfit-Stone Corporation Paper Plant and the Upper Peninsula Shipbuilding Company resulted in significant local and regional unemployment and left vacant, underutilized land along the village's waterfront.

CAPACITY

The Village of Ontonagon has a Village Manager form of government and is governed by a 7 member council. The village has a five member planning commission, six member recreation commission, a six member marina commission and a Joint Recreation Advisory Board with the township. The village manager is a voting member of both the marina commission and the recreation commission and acts as a liaison between the planning commission and the village council. The village manager also directly supervises staff in the marina and recreation areas.



Lake Superior shore in Ontonagon. *Elizabeth Durfee*



Ontonagon River. *Elizabeth Durfee*



Ontonagon Marina. *ExploringtheNorth.com*

WATERFRONT HISTORY

Ontonagon was founded in 1838 and incorporated as a village in 1885. The Ontonagon River provided a port for transportation of lumber, copper and coal, supported the fishing industry and played significant role in the development of the community.

In the mid-1800s, copper mining boomed with the opening of the Cliff Mine and Minnesota Mine in Ontonagon County. A mass of copper called the Ontonagon Boulder was discovered in the region and placed at the mouth of the Ontonagon River. Today, the boulder sits at the Smithsonian Institute.

The fishing and lumber industries also thrived in the late 1800s and early 1900s. One company that located in Ontonagon during this period was the Diamond Match Company, which moved to the area to harvest white pine and built two large mills. The opening of the Copper District in the 1840s, the construction of the first Soo Lock in 1855 and the Ontonagon River Improvement Company's use of log drives to transport logs down the Ontonagon River in 1879 led Ontonagon to become the busiest port on Lake Superior. The fire of 1896 destroyed the entire village, including Diamond Match Company.

In 1847 the U.S. Department of Commerce Lighthouse Service acquired land for a lighthouse in the village. The Ontonagon Lighthouse, one of the first five lighthouses build on Lake Superior, was built in 1852. The lighthouse operated until 1964 and was placed on the National Register of Historic Places in 1975. It is now open for tours.

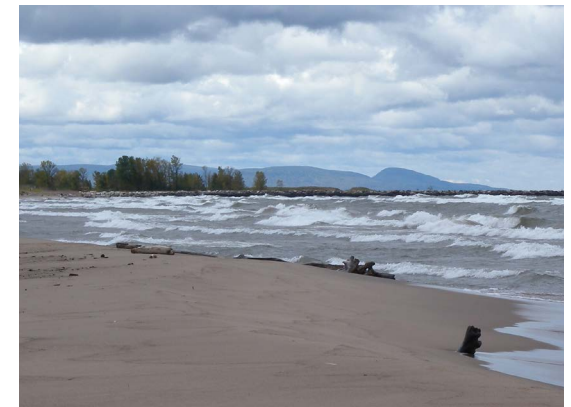
The village's population peaked at 2,400 in the 1970s. The Upper Peninsula Shipbuilding Company opened and then closed after just a few years in 1982. The county's last copper mine the Copper Range Company closed in 1995. The area has not fully recovered from this closure. In 2011, Smurfit-Stone, a paper company and major employer that provided nearly 200 jobs closed after almost 90 years of operating in the village.



River Street facing north circa 1936. michiganbackroads.com



Ontonagon Lighthouse. *Elizabeth Durfee*



Former U.P. Shipbuilding Company on Lake Superior. *Elizabeth Durfee*

WATERFRONT SUMMARY

Land use along Lake Superior on the west side of the village and along the east and west banks of the Ontonagon River is characterized by waterfront mixed use zoning. Lake Superior frontage to the east of the Ontonagon River consists of residential land uses. The village's downtown is located on the east side of the Ontonagon River. The former industrial property located between the west side of the Ontonagon River and Lake Superior has been rezoned to include mixed use waterfront uses, including residential uses. The community has over 1000 feet of publicly accessible Lake Superior beach front.

The Ontonagon River is the largest river on the south shore of Lake Superior. The river is 157 miles long and designated as a Wild and Scenic River. Lake Superior and the Ontonagon River provide many fishing and boating opportunities.

The Ontonagon Harbor is a federally authorized deep draft commercial harbor. The project consists of approximately 3/4 miles of maintained channels including over 4,800 feet of structures. Major stakeholders include the U.S. Coast Guard, Lake Carriers' Association and White Pine Power. In 2007, 412,000 tons of material were shipped or received, however since that time the harbor's primary user,

Smurfit Stone Container, has shut down. Annual dredging is required and maintenance dredging is contingent on the presence of commercial navigation. The harbor provides the main economic catalyst for the area and the loss of industry along the waterfront has resulted in loss of local and regional jobs. Ontonagon Harbor is a Harbor of Refuge; Failure to maintain the harbor may have repercussions for boater safety.

Ontonagon's port includes several dock facilities. The Ontonagon County Economic Development Corporation (EDC) receives approximately 100,000 tons of coal for the White Pine Electric Power LCC. Historically, the Smurfit-Stone dock received an equivalent amount of coal and the EDC received limestone in addition to coal. The village's marina has seven transient slips and 29 seasonal slips and serves the village and surrounding townships. In addition to amenities including restrooms, pump out facilities and a boat launch and hoist, the marina has a fish-cleaning station, park and picnic area. The strip of land running along the river south of Ontonagon Street ('the Island') has floating docks for fishing, seating areas and a nature walk and park. There are over 1000 feet of publicly accessible beach along the Lake Superior shore.



Ontonagon Marina. *Elizabeth Durfee*



Riverfront boardwalk on Island Shoreline Park. *Elizabeth Durfee*



Aerial view of Ontonagon Marina. *MI DNR*

CHALLENGES AND ACTIONS

In the last 15 years Ontonagon has faced a number of economic setbacks including the closure of a copper mine, shipyard and paper mill. Over 180 jobs were lost when Smurfit-Stone Corporation closed their paper plant in 2011. In addition to impacting the region's economy and employment rate, the loss of the shipyard and paper mill left vacant structures and land along a significant portion of the village's Lake Superior waterfront.

The village recently adopted a hybrid zoning ordinance that fosters mixed use development along the waterfront, connection to the public waterfront and to open space, preservation of viewsheds and walkability. The community has taken significant steps with regard to re-envisioning and redeveloping the former paper mill property. The village is in the process of subdividing and cleaning up portions of the property that were contaminated by former industrial use. Redevelopment of the site will occur in phases. The first redevelopment goal for this area is to develop the lakefront with residential property. The village intends to maintain the ability to use industry along the lakeshore. The actual mill site will likely be redeveloped to support a wood product industry such as a wood pellet producer. With access to rail, highways and a deep water port on the Ontonagon River, the site is a prime location for shipping and receiving commodities

As Ontonagon transitions to a more balanced industrial-recreational-public waterfront, the village has taken an active role in acquiring the land along the river. Waterfront access is provided by an easement to pier, parks along the river and road ends that abut Lake Superior beach, for example. Among the objectives in Ontonagon's Consolidated Recreation Plan's 5-year action plan include improvements to east and west pier and beach. Funding sources for these projects include DEQ Waterways Grants, DNR Trust Fund, among other sources.

The village's future waterfront plans include increasing accessibility to the lighthouse and developing a water trail on the river. The lighthouse can is currently only accessible by crossing private property. Because of this, access is limited to visitors who join a guided tour run by the historical museum. One potential option to increase public accessibility to this historical resource is to transport visitors across the river from downtown to the lighthouse by boat. The Ontonagon River is the longest river in the Upper Peninsula and provides ample recreational opportunities. The village has identified the opportunity to develop a water trail along the river and Lake Superior shore and aims to collaborate with the Forest Service to identify put in and take out points, including one on the Island.



Access to Lake Superior from road end. *Elizabeth Durfee*



Smurfit-Stone Co. paper plant. *Google Maps*



Former Smurfit-Stone Co. paper plant property. *Bing Maps*

ZONING ORDINANCE

ZONING DISTRICT	INTENT OF DISTRICT	PERMITTED USE	SPECIAL USE
Waterfront Mixed Use	Intent is to maintain a connection with the public waterfront, link downtown and village neighborhoods and provide uniform uses on both sides of the waterfront	Rental, sales and service of non-motorized recreational equipment such as canoes and kayaks, roadside parks and all other parks, boathouses and hoists	Boat works, marina/boat launch, parks/playground, campgrounds, boat motor repair, Marina sales and service, including short-term outdoor storage
Form Based District Downtown 2	Purpose is to provide expansion of mixed-use in a transitional area between residential areas, the highway corridor and downtown	Rental, sales and service of non-motorized recreational equipment such as canoes and kayaks, roadside parks and all other parks	Boat works, Ccampgrounds, boat motor repair, marina sales and service, including short-term outdoor storage
Form Based District Downtown 3	Designed to foster infill redevelopment in a sustainable mixed-use pattern as part of a vibrant, diverse urban area in the core of the village, intended to support physical access and a sense of connection to water resources	Rental, sales and service of non-motorized recreational equipment such as canoes and kayaks, roadside parks and all other parks	Boat works, boat motor repair
General Industrial	Includes industrial service, manufacturing, bulk commodities and marine uses which engage in intense scale or volume of activity and may store materials or vehicles	Boat motor repair, rental, sales and service of non-motorized recreational equipment such as canoes and kayaks, marina sales and service, including short-term outdoor storage, boat manufacturing establishment, roadside parks and all other parks, boathouses and hoists	Water and sewage treatment facility
Residential-1	Intent is to provide for single-family residential development and open space preservation development in areas that transition to open and wooded areas in the neighboring township	Roadside parks and all other parks, boathouses and hoists	Marina/boat launch, parks/playground, campgrounds, rental, sales and service of non-motorized recreational equipment such as canoes and kayaks
Residential-2	Intent is to provide for single-family residential development in transition areas between dense urban neighborhoods and the outlying rural residential areas	Roadside parks and all other parks, boathouses and hoists	Marina/boat launch
Gateway Corridor	Intent is to serve as a gateway into downtown with a variety of mixed-use activities and clustered commercial activity at important community intersections	Boat motor repair, rental, sales and service of non-motorized recreational equipment such as canoes and kayaks, roadside parks and all other parks	Parks/playground, campgrounds, marina sales and service, including short-term outdoor storage, water and sewage treatment facility

TABLE 1. INTENT, PERMITTED USES AND SPECIAL USES OF ZONING DISTRICTS THAT ACCOMMODATE WATER DEPENDENT USES AND/OR PUBLIC ACCESS.

ZONING

Ontonagon have seven zoning districts including three form-based code districts and a waterfront mixed use district. Five districts, including the form-based district downtown 3, form-based district gateway corridor, residential -1 and -2 districts and the waterfront mixed use district, abut Lake Michigan and/or the Ontonagon River. All seven districts fall within a 1000-foot buffer of these bodies of water. Figure 4 displays zoning within the 1000-foot buffer of Lake Superior and the Ontonagon River.

The village's waterfront mixed use district is designed to support a connection between the public waterfront, downtown and surrounding neighborhoods. This area is currently characterized by both water related and non-water related commercial and industrial uses, as well as vacant buildings and land. The form-based district downtown 3 is also designed to promote a connection and to support physical access to water resources. All zoning districts permit certain water related uses - from marina sales and services, boat rentals and boat houses, to marinas and boat launches - by right or special use permit (Table 1).

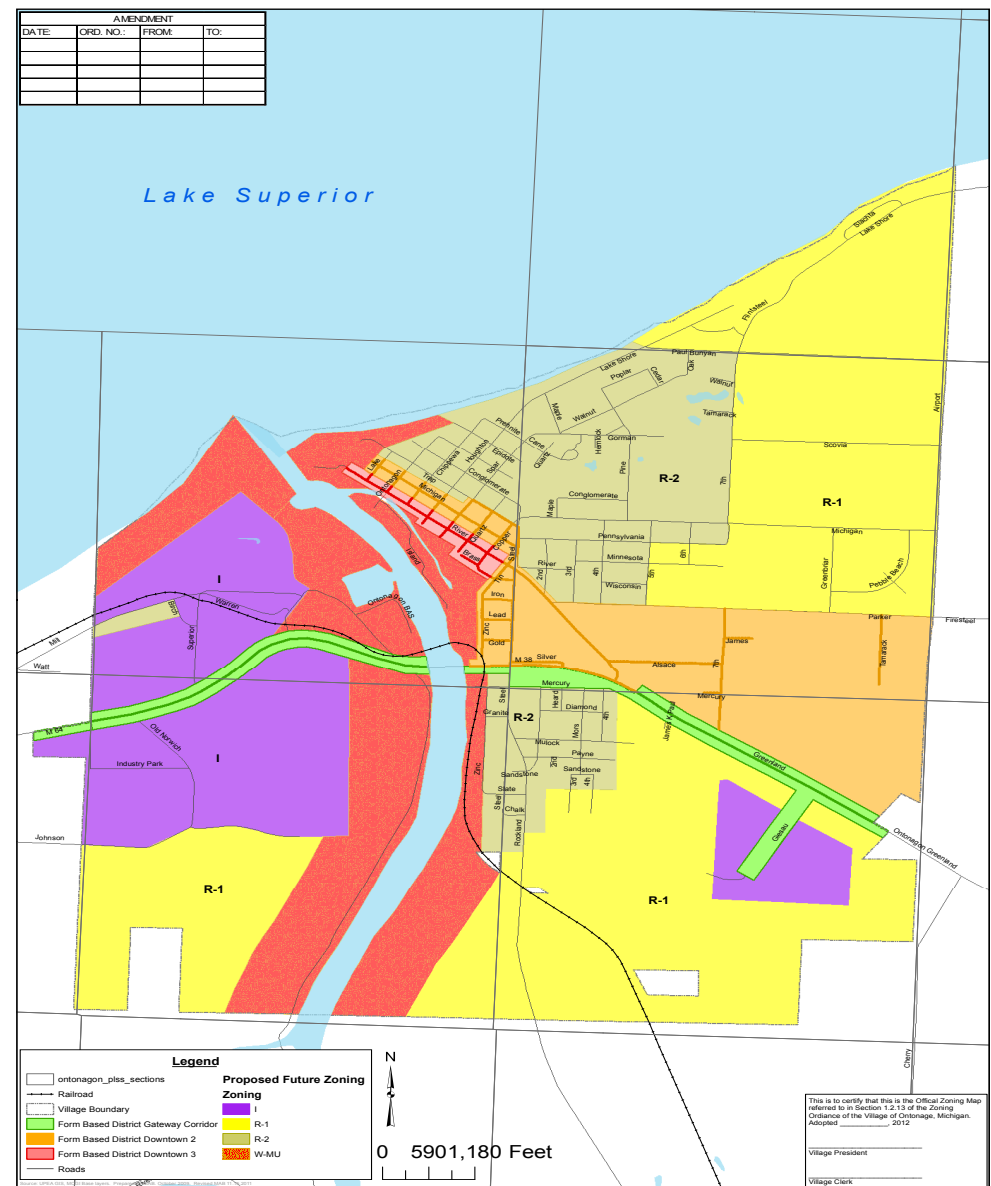


FIGURE 2. VILLAGE OF ONTONAGON 2012 ZONING DISTRICTS (SOURCE: VILLAGE OF ONTONAGON).

ZONING ADJACENT TO WATERFRONT

Mixed use districts including the Waterfront Mixed Use, Form Based District Gateway Corridor and Form Based District Downtown 3 account for approximately 81 percent of frontage along Lake Superior and the Ontonagon River. Residential land uses account for the remaining frontage along these bodies of water (Figure 3).

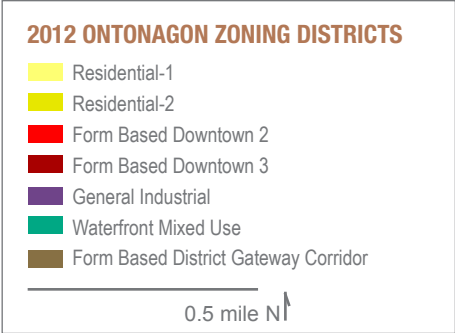
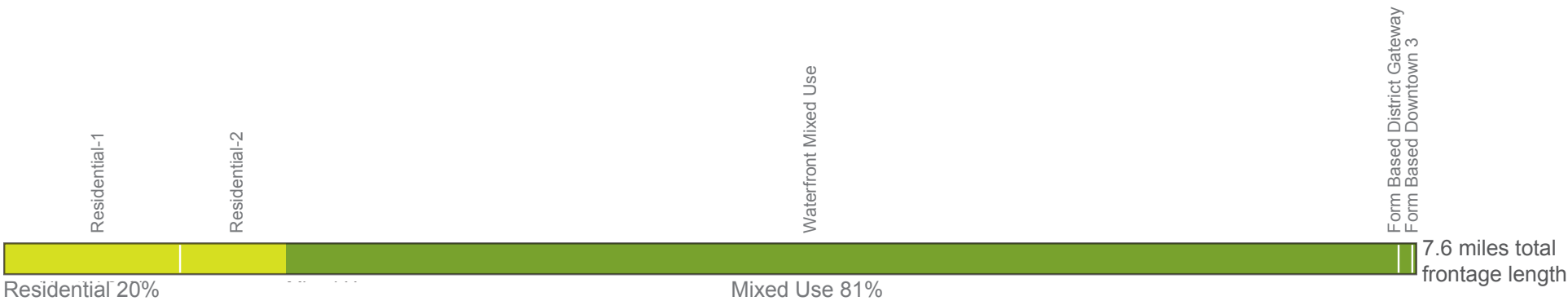


FIGURE 3. MAP OF ZONING ADJACENT TO WATERFRONT (RIGHT) AND FRONTAGE BY ZONING CATEGORY (BELOW).



ZONING WITHIN 1000 FEET OF WATERFRONT

Land use within a 1000-foot buffer of Lake Superior and the Ontonagon River consists of approximately 58 percent mixed use, 34 percent residential and 8 percent industrial uses (Figure 4).

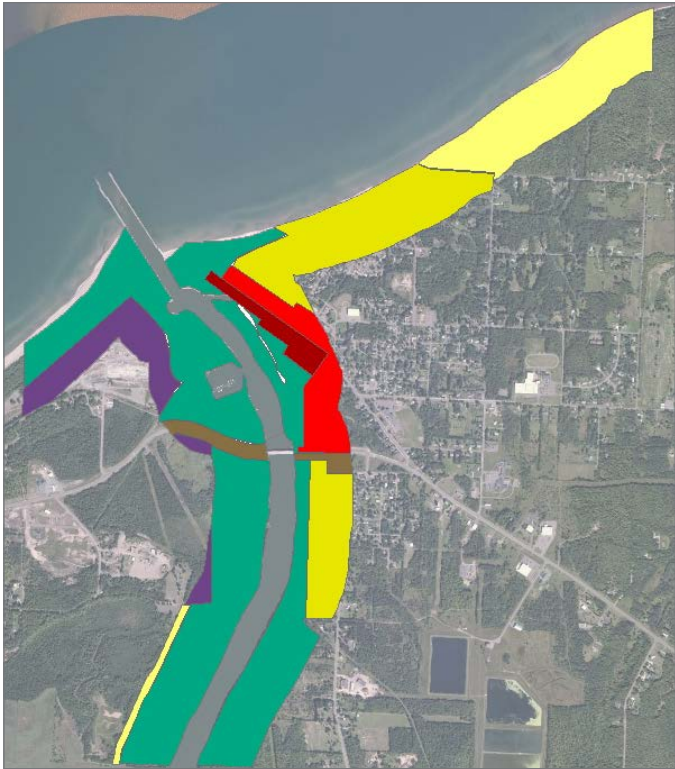
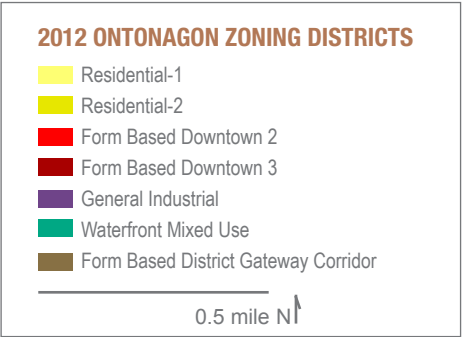
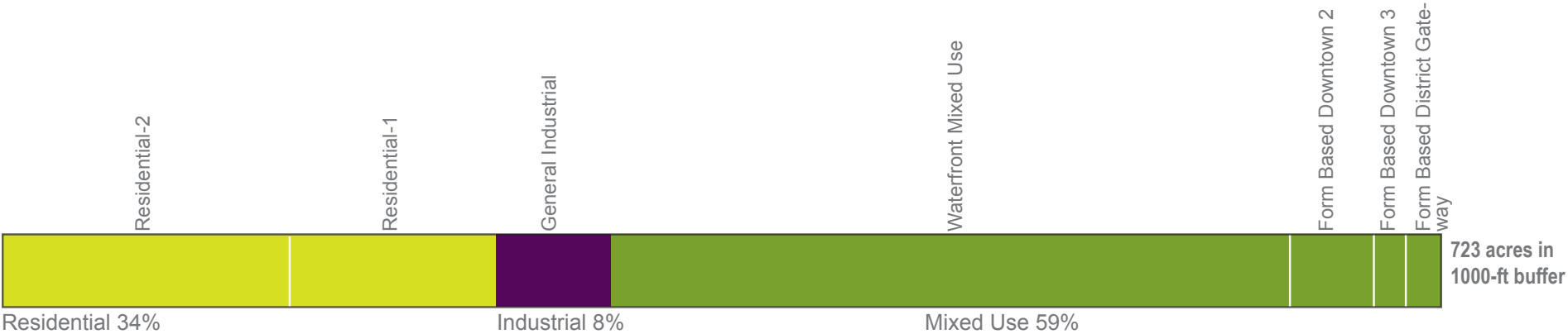


FIGURE 4. MAP OF ZONING AND LOCATION OF WATER-DEPENDENT USES WITHIN A 1000-FOOT BUFFER OF WATER BODIES (RIGHT) AND WATERFRONT LAND AREA BY ZONING CATEGORY (BELOW).



INFRASTRUCTURE AND ACCESS

Figure 5 displays aerial imagery with waterfront infrastructure within a 1000-foot boundary of Lake Superior and the Ontonagon River that have identified water related uses and highlights parks and beaches that provide public access.



FIGURE 5. WATER DEPENDENT AND ENHANCED USES, DOCKS, WATERFRONT PARKS ALONG THE WATERFRONT AND WITHIN 1000 FEET OF WATER BODIES.

WORKING WATERFRONT SWOT ANALYSIS

There are a number of factors that influence a community's ability to maintain a robust working waterfront. The strengths, weaknesses, opportunities and threats (SWOT) analysis below (Table 2) provides examples of the challenges and opportunities associated with maintaining Ontonagon's waterfront as a place that provides public access and supports and is well integrated within the community from a planning and physical perspective. A SWAT analysis is a

strategic planning tool with four elements: strengths, weaknesses, opportunities and threats. The analysis identifies the positive, negative, internal and external factors that influence an individual, business, organization or place's ability to achieve an objective. For example, internal factors may include human, physical or financial resources and past activities or programs. External factors may include future trends, the economy, or the physical environment.

<p>STRENGTHS</p> <ul style="list-style-type: none"> ■ New hybrid zoning ■ Tourism has remained strong ■ Marina serves region, has amenities including fish cleaning ■ Deep water port ■ Multiple docks along river ■ Lake Superior waterfront and beaches ■ History of region, Location near Porcupine Mountains ■ Harbor of Refuge ■ Recreational fishing, canoeing and kayaking opportunities ■ Accessible pier ■ Rose Island (the Island) ■ Historic lighthouse, historical museum ■ Water, road, rail connection ■ Port and role in transportation of coal for power plant 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> ■ Little beach access in town ■ Poor signage directing visitors to beach ■ Lack of bike paths ■ Community lost major employer ■ Contamination associated with former land uses ■ Lack of visual connection between the downtown and Lake Superior ■ Vacant buildings and land along waterfront ■ Aging population ■ County still recovering from closure of mines ■ River is underutilized ■ Marina and downtown on opposite side of river ■ Land on east side of river not currently accessible to the public except for several areas on the Island
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> ■ Downtown/bridge stripe future business development ■ Redevelopment of the former paper mill property ■ Increase recreational opportunities and appeal ■ Development of a water trail and other rec opportunities ■ Create a better connection between the downtown and Lake Superior waterfront ■ Re-envision character of waterfront, riverfront boardwalk ■ Role as transportation hub, water-road-rail access ■ Develop new transient slip boat basin on the east side of the river with walking access to shopping and entertainment ■ Lakeshore District town square park/gathering space 	<p>THREATS</p> <ul style="list-style-type: none"> ■ Depressed economy ■ High unemployment ■ Harbor requires regular dredging ■ Community needs to attract new businesses ■ Challenges to reusing former lakeshore 20 acre industrial site on the river and Lake Superior north of downtown for industrial or manufacturing purposes include remoteness and distance from markets, transportation issues, limited size for the labor force and the unique size and configurations of the buildings

TABLE 2. STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS RELATED TO MAINTAINING ONTONAGON'S WORKING WATERFRONT.

TOOLS, STRATEGIES AND BEST PRACTICE FOR MAINTAINING WORKING WATERFRONTS

CREATE A HYBRID ZONING ORDINANCE

Promote waterfront revitalization by adopting a hybrid zoning ordinance that fosters mixed use development along the waterfront, connection to the public waterfront and to open space, preservation of waterfront views, and walkability. Rezoning and subdividing former industrial property for mixed can prepare a parcel for redevelopment that meets evolving community needs.



Walkway along the Ontonagon River. *Elizabeth Durfee*



Docks on the Ontonagon River. *Elizabeth Durfee*



Island Shoreline Park. *Elizabeth Durfee*

GUIDING PRINCIPLES

MANAGING WATERFRONTS AND WATER-DEPENDENT USES AS AN IMPORTANT ELEMENT OF A SUSTAINABLE COASTAL COMMUNITY

PROCESS-BASED

- Engage diverse stakeholders and local, regional and state partners in waterfront planning.
- Integrate waterfront planning with local and regional master and comprehensive planning.
- Incorporate adaptation planning into waterfront planning.
- Articulate the community's vision for future of the waterfront.

OUTCOME-BASED

- Protect the natural resources that working waterfronts uses are intrinsically tied to and dependent upon.
- Maximize the public benefit of working waterfronts through visual and physical access and amenities.
- Permit compatible mixed uses along the waterfront.
- Emphasize the economic and cultural value of local water-dependent uses.
- Preserve visual and physical access to water resources.
- Balance waterfront land uses to meet the needs of residents, visitors, water-dependent uses and ecological communities.
- Increase resiliency by promoting diverse and flexible water-dependent uses.

VILLAGE OF ONTONAGON

- ✓+ Permit compatible mixed uses along the waterfront.
- ✓+ Balance waterfront land uses to meet the needs of residents, visitors and water-dependent uses.

How does your community stand up?

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