

A CASE STUDY

THE CITY OF SAUGATUCK



A CASE STUDY

THE CITY OF SAUGATUCK

Michigan Coastal Community Working Waterfronts

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.

OTHER CASE STUDIES IN THIS SERIES:

Alpena	Marquette	Port Huron
Charlevoix	Monroe	Sault Ste. Marie
Manistee	Muskegon	
Manistique	Ontonagon	

ACKNOWLEDGEMENTS

FELLOWSHIP MENTORS

Mark Breederland, Michigan Sea Grant Extension
Emily Finnell, Office of the Great Lakes

NOAA FELLOWSHIP ADVISORY COMMITTEE

Jon Allan	Richard Norton	John Warbach
Dave Knight	Chuck Pistis	Ronda Wuycheck
Carol Linteau	Jennifer Read	
Lynelle Marolf	Frank Ruswick	

OFFICE OF THE GREAT LAKES AND SEA GRANT STAFF

PREPARED BY

Elizabeth Durfee
2011-2013 National Oceanic and Atmospheric Administration Coastal Zone Management Fellowship with the Michigan Coastal Zone Management Program and Michigan Sea Grant.

Cover photos: Michigan Lighthouse Conservancy, Holland Sentinel, National Oceanic and Atmospheric Administration, U.S. Army Corps of Engineers.

June 2013 | MICHU-13-721



TABLE OF CONTENTS

Introduction.....	4
Summary	5
Context	7
Community Profile	8
Community Overview	9
Waterfront History.....	10
Waterfront Summary	11
Zoning.....	14
Parcel Classification	18
Infrastructure and Access.....	20
Working Waterfront SWOT Analysis	21
Tools, Strategies and Best Practices for Maintaining Working Waterfronts.....	22
Guiding Principles.....	23
References and Resources.....	24

FIGURES AND TABLES

Figure 1. State of Michigan and Allegan County and aerial image of the city of Saugatuck with Lake Michigan, Kalamazoo Lake and the Kalamazoo River	6
Table 1. Intent, permitted uses and special uses of zoning districts that accommodate water-dependent uses and/or public access	14
Figure 2. City of Saugatuck 2007 zoning districts.....	15
Figure 3. Map of zoning adjacent to waterfront and frontage by zoning category	16
Figure 4. Map of zoning and location of water-dependent uses within a 1000-foot buffer of water bodies and waterfront land area by zoning category	17
Figure 5. Classification of parcels within a 1000-foot buffer of water bodies by water dependency	18
Figure 6. Parcel frontage and area within 1000-foot buffer by water dependency classification	19
Figure 7. Water-dependent and enhanced uses, docks and waterfront parks along the waterfront and within 1000 feet of bodies of water	21
Table 2. Strengths, weaknesses, opportunities and threats related to maintaining Saugatuck's working waterfront	22



Saugatuck marina, water sports and waterfront dining from the Kalamazoo River. *Michigan Sea Grant*

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

Saugatuck was settled as a lumber and shipbuilding port community originally known as Singapore in the 1830s. It was later incorporated as Saugatuck in 1868. The city is located in western Michigan on Lake Michigan. Saugatuck has 5 miles of frontage along Lake Michigan, Kalamazoo Lake and the Kalamazoo River. The City of Saugatuck, Village of Douglas and Saugatuck Township comprise the Tri-Community area surrounding the Kalamazoo Harbor.

Saugatuck and neighboring Douglas were designated as one of the nation's Dozen Distinctive Destinations by the National Trust for Historical Preservation and are popular tourist destinations known for their culture and arts. Over two million people visit the area annually and the tourism industry is dependent upon maintaining visual and physical access to natural resources, including the waterfront.

Saugatuck Harbor and Kalamazoo River is a federally authorized shallow draft recreational harbor. The harbor is an important Harbor of Refuge that supports charter fishing, recreational navigation and, occasionally, cruise ships. The harbor has a number of marinas and yacht clubs.

The city has approximately 1 mile of sandy Lake Michigan Beach. Saugatuck recently acquired 171 acres of undeveloped, ecologically diverse dune land and Lake Michigan shoreline as part of a multi-phase plan to protect 1,700 acres of undisturbed dune and river mouth ecosystem. Land use along Lake Michigan, Kalamazoo Lake and the Kalamazoo River consists of approximately 46 percent residential, 20 percent commercial, 19 percent open space, 9 percent mixed use and 6 percent other uses. Land use within a 1000-foot buffer of the waterfront consist of approximately 61 percent residential, 33 percent open space, 8 percent commercial, 6 percent other and 2 percent mixed use districts. Saugatuck's neighborhood marine, Water Street north, and Water Street commercial districts support most of the water-dependent uses identified within the city.

Low water levels are a significant challenge in Kalamazoo Harbor. Dredged material is especially challenging to manage due to contaminated sediments from historical, upriver uses. Following harbor studies and the creation of the Kalamazoo Harbor Master Plan Committee, the Tri-Communities



Saugatuck boardwalk from the Kalamazoo River. *Michigan Sea Grant*

established the Kalamazoo Lake Harbor Authority (KLHA). The KLHA was set up a separate legal entity and public body corporate to administer economic development objectives related to the harbor. The KLHA continues to investigate protection and maintenance of harbor and waterfront properties through a Water Resource Improvement Tax Increment Finance Authority.

Challenges include maintaining visual and physical access, competing land uses, dredging, dependence on tourism, a lack of commercial capacity, disposal of contaminated dredge spoils and the topography of the harbor.

Best practices for maintaining access to the waterfront for the public and water-dependent uses include:

- Inter-local collaboration and establishment of a harbor authority to investigate creative solutions to deal with low water levels, sedimentation and lack of Federal dredging funds.
- Natural resources protection.
- Acquisition of open space.
- Development regulations that serve to maintain visual access to the waterfront.

SAUGATUCK, MI

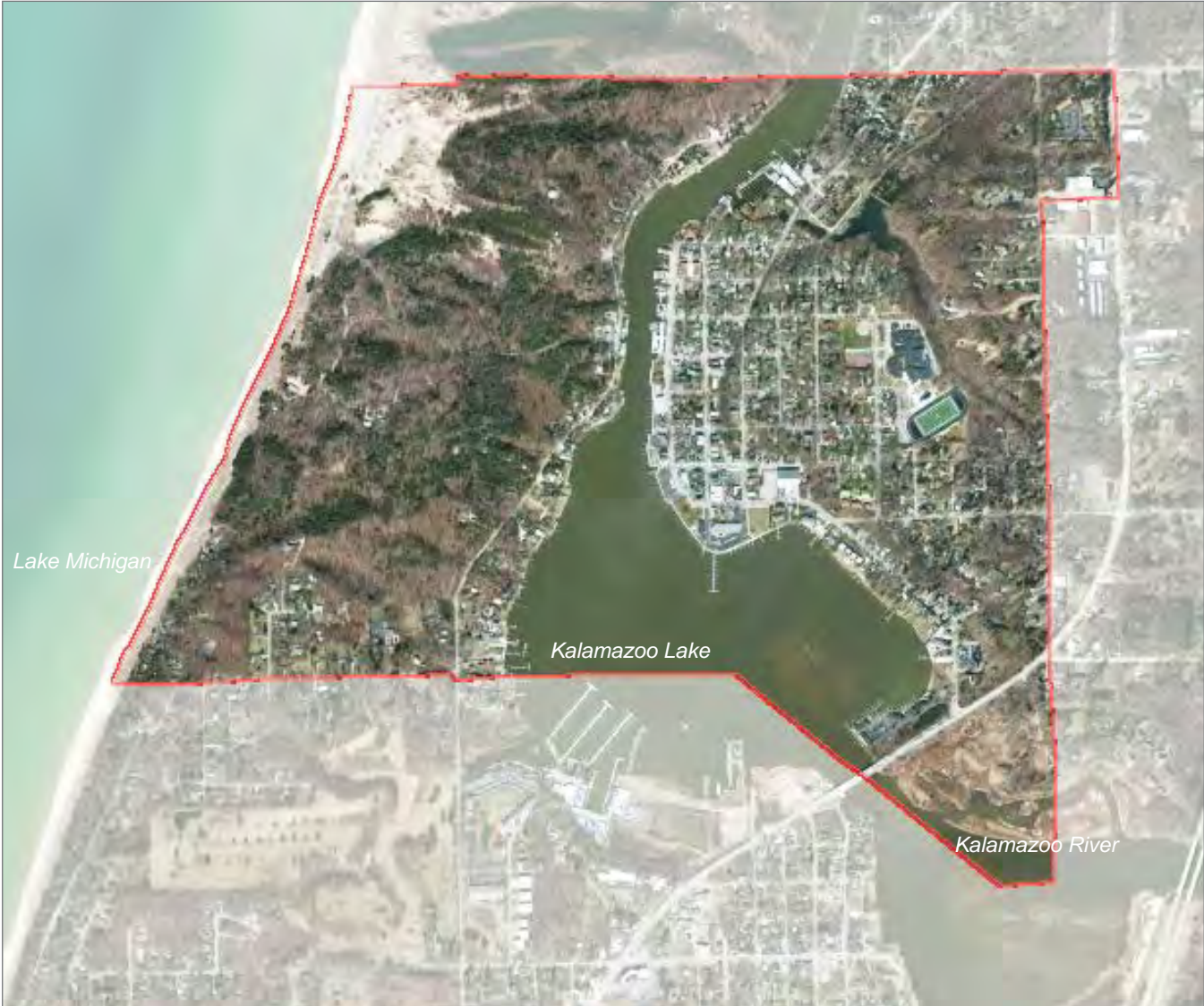
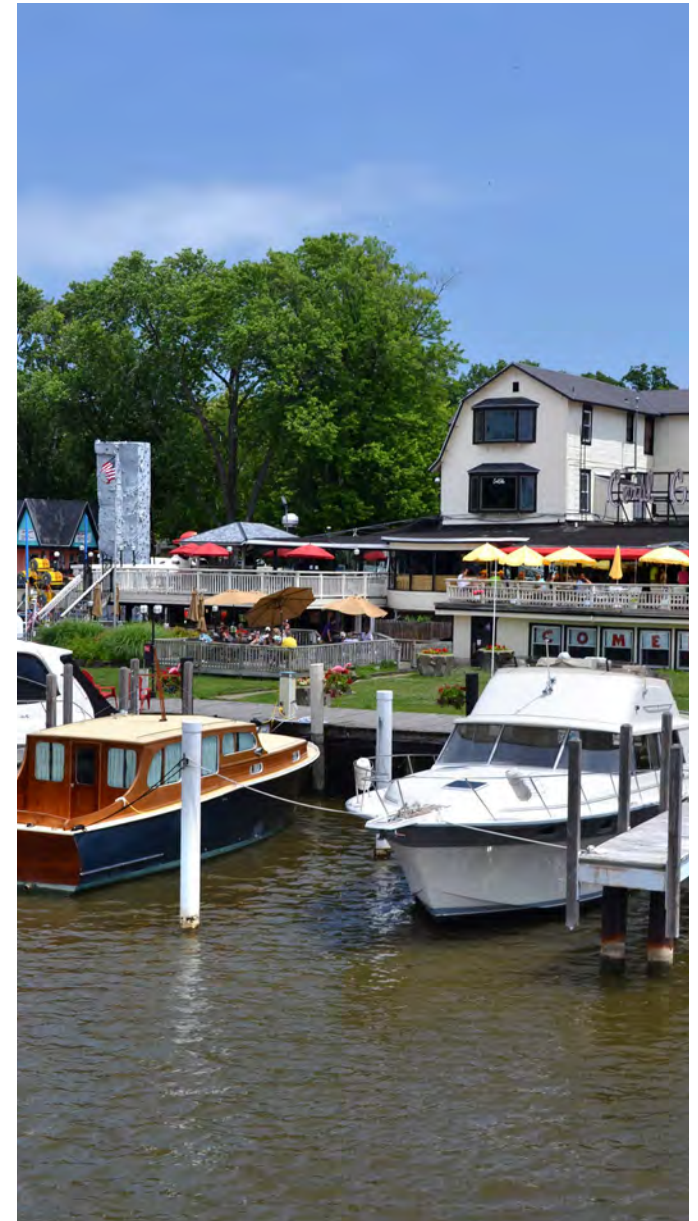


FIGURE 1. STATE OF MICHIGAN AND ALLEGAN COUNTY (LEFT) AND AERIAL IMAGE OF THE CITY OF SAUGATUCK WITH LAKE MICHIGAN, KALAMAZOO LAKE AND THE KALAMAZOO RIVER.

CONTEXT

Jurisdiction / Government	City
Region	Southwest
County	Allegan
Metropolitan Statistical Area	Grand Rapids, Muskegon, Holland
Land Area	960 acres / 1.5 square miles
Watershed/Subwatershed	Lake Michigan / Kalamazoo River
Dominant Land Use of Subwatershed	Agriculture
Adjacent Bodies of Water	Lake Michigan, Kalamazoo Lake, Kalamazoo River
Types of Water Body	Great Lake, Inland Lake, River
Percent of Land Area within the CZM	100%
Population (2010)	925
Percent of County's Population	<1%
Percent of County's Land Area	<1%
Urban / Suburban / Rural	Urban
Federally Authorized Harbors/Projects	Saugatuck Harbor
Type of Port	Recreational



Michigan Sea Grant

COMMUNITY PROFILE

POPULATION

- The population of Saugatuck declined 13 percent from 2000 to 2010. In 2010, the city's population density was 786 persons/square mile.
- The population of Allegan County increased by 5.4 percent from 2000 to 2010.
- The median age in Saugatuck increased from 44 in 2000 to 53 in 2010.

EDUCATION

- Of the city's population age 25 and older (74% of the city's total population), 96 percent have a high school degree or higher and 46 percent have a bachelor's degree or higher.
- Of the county's population age 25 and older (65% of the county's total population), 80 percent have a high school degree or higher and 19 percent have a bachelors degree or higher.

INCOME

- The median household income between 2006 and 2010 in the city of Saugatuck was \$50,862, compared to the median household income in Allegan County of \$50,240.

EMPLOYMENT

- Of the city's population over age 16:
- 52 percent are in the labor force and employed and 9 percent are unemployed.
 - 60 percent are employed in the top 4 (of 13 total) industries classified in the American Community Survey: arts, entertainment, recreation and accommodation and food services (20%), educational services and health care assistance (15%), manufacturing (13%), and retail trade (11%).
 - 44 percent are in management, business, science and arts occupations, 23 percent are in sales and office occupations, 22 percent are in service occupations, 8 percent are in production, transportation and material moving occupations and 3 percent are in natural resources, construction and maintenance occupations.

Allegan County Great Lakes Jobs Snapshot (NOAA)

- In 2009, Great Lakes-related jobs accounted for 4.3 percent of total jobs in Allegan County, representing a 9 percent increase since 2005.
- Great Lakes-related jobs provide employment for 1,360 people, provide \$21 million in wages and provide \$42 million in goods and services.



Saugatuck boardwalk from the Kalamazoo River. Michigan Sea Grant

HOUSING

- From 2000 to 2010, the total number of housing units in Saugatuck County increased by 2 percent and the percent occupancy of housing units decreased by 8 percent.
- There was little change in owner occupied housing rates and a 17 percent decrease in renter occupied housing units from 2000 to 2010.
- Residential construction in Allegan County increased from 122 buildings in 1990 to 1014 building in 2000 and then declined to 292 buildings in 2010.



Michigan Sea Grant

COMMUNITY OVERVIEW

The city of Saugatuck is located on the west side of Allegan County on Lake Michigan. The City of Saugatuck, along with the Village of Douglas and Saugatuck Township, are known as the Tri-Community area. Saugatuck is characterized by its compact urban downtown, open space and low density residential use.

The city borders Lake Michigan, Kalamazoo Lake and the Kalamazoo River. Saugatuck has over one mile of sandy Lake Michigan frontage. The city lies within the Kalamazoo River watershed, which covers 2,030 square miles and drains eight counties in Southwest Lower Michigan before discharging into Lake Michigan.

The area's unique historic character is a great asset to the Tri-Community area, region and state.

Saugatuck is a major tourist destination known for its arts, small town feel, recreation and Oval Beach. The seasonal, summer population of Saugatuck swells to three times its year round population and the area receives over 2 million visitors annually. Saugatuck's proximity to major cities including Chicago, Detroit and Grand Rapids makes it an apt destination for day trips and vacations. Saugatuck has become known as the "Bed and Breakfast" capital of the Midwest. The city is home to North America's only hand-cranked chain ferry and hosts an annual Waterfront Film Festival.

Natural resources have played a central role in the culture and livelihood of the community — from the original settlement as a lumber and shipbuilding town in the 1800s, to the artist and resort culture that

emerged in the early 1900s, to the tourist industry present today.

Balancing development and economic growth, while preserving access to the natural resources that are the foundation for the community's economy and quality of life — including beaches, dunes, forests, wetlands and water bodies — is a fundamental challenge and opportunity in the community.

Ongoing efforts to remove beneficial use impairments in the Environmental Protection Agency-designated Kalamazoo River Area of Concern (AOC) and Superfund Site continue to improve environmental quality.

CAPACITY

The City of Saugatuck operates under a Council/Manager form of government with seven City Council Members as well as a Mayor. City Council oversees park planning. The City has a planning commission with seven members.

The Saugatuck-Douglas Convention and Visitors Bureau actively promotes water-related tourism in the region. The Tri-Community area benefits from interlocal governmental cooperation. The harbor is managed by the Kalamazoo Lake Harbor Authority.



Saugatuck Harbor Natural Area. *Elizabeth Durfee*



Visitors and residents enjoy Kalamazoo Lake waterfront. *Michigan Sea Grant*



Oval Beach. *Saugatuck.com*

WATERFRONT HISTORY

Settlement in the Saugatuck region began with the arrival of lumber barons in the late 1830s. The shipbuilding and lumber port community originally known as Singapore thrived until forests were clear cut and blowing sand buried the town.

Some of Michigan's earliest schooners and one of the first steamships in the area were built in Singapore. The community turned to shipping and fruit growing in the later 1800s. Saugatuck was incorporated in 1868.

The area's lighthouse, the Saugatuck/Kalamazoo River Light, was first operated around 1839. After a new channel was created to improve transportation and reduce maintenance associated with shifting sands, a new lighthouse named the Saugatuck Harbor South Pier Headlight was built in 1859. In 1956 a tornado destroyed the lighthouse. Salvaged materials were used to construct a lighthouse style summer cottage that is visible in the dunes today.

Because the area did not burn in the mid-late 1800s, as many other Midwest communities did, it has retained much of its traditional character. Saugatuck's natural environment has always been a part of its history and popularity. Saugatuck's resort and tourist culture emerged in the early 1900s. For example, in 1910, Chicago artists established the Summer School of Painting on Ox-Bow Lagoon in Saugatuck. The connection to art and culture remain strong in Saugatuck still.



Saugatuck's Dance Pavilion, www.memoir.com



Artist at the Ox-Bow School of Art, www.timeoutchicago.com

WATERFRONT SUMMARY

Saugatuck's sandy Lake Michigan shoreline consists of beaches, preserved and public land and low density residential development. Oval Beach, the Saugatuck Harbor Natural Area and Mt. Baldhead provide public access for recreation and viewing Lake Michigan. The city has worked to protect its natural features including marshes, Kalamazoo Lake and River, Lake Michigan beaches, dunes and coastal forest.

In 2012 the city acquired the Saugatuck Harbor Natural Area, comprised of 171 acres of undeveloped dune land, 3,650 feet of Lake Michigan shoreline, rare plant and animal species, open dunes, interdunal wetlands, jack pine and hardwood-pine dune forest, Great Lakes marsh, an oxbow lake, 1650 feet of Kalamazoo River shoreline and a historic site. The acquisition of this property is part of a multiphase plan to protect 1,700 acres of undisturbed dune and river mouth ecosystem.

The Kalamazoo Lake waterfront is characterized by a mix of residential and commercial land uses. Commercial activity is centered on tourism and more than 2 million people visit Saugatuck-Douglas annually. Conservative estimates indicate that the area would experience a \$155 million loss without tourism. Saugatuck's tourism industry is dependent upon maintaining visual and physical access to the region's natural resources, including its waterfront. Water-enhanced uses include a high density of restaurants and hotels along and near the east side of Kalamazoo Lake.

Saugatuck Harbor and Kalamazoo River is a federally authorized shallow draft recreational harbor with a project depth of 14 feet. It consists of over 2 miles of maintained Federal channel and 4,000 feet of maintained piers and revetments between Lake Michigan and Kalamazoo Lake. Saugatuck Harbor and Kalamazoo require dredging on a three to four year cycle. The harbor is an important Harbor of Refuge that supports charter fishing, recreational navigation and serves cruise vessels.

The harbor plays a significant role in the local economy. Consequences of not maintaining the project include loss of jobs locally and loss of recreational and charter fishing in the area as well as negative impacts on the tourism industry.

Water-dependent uses in Saugatuck are primarily recreational and range from marinas and yacht clubs to charter fishing, watercraft rentals and tours, and the historic Chain Ferry. In 2012 a Great Lake Cruise Company ship, the Yorktown, stopped in Saugatuck.

The absence of industry coupled with the preservation of the community's traditional character contribute to the waterfront's Main Street feel. Marinas and yacht clubs in Saugatuck include Sergeant Marina, Tower Marine's Saugatuck Yacht Service, Shore Harbor Marina, Singapore Yacht Club and the Landings Marina. There are approximately 1,000 slips in the harbor with potential for around 500 more.



The historic Chain Ferry that crosses the Kalamazoo River. *Michigan Sea Grant*



Dining along the boardwalk. *Michigan Sea Grant*



Michigan Sea Grant

WATERFRONT SUMMARY

Kalamazoo Lake and River were declared a Superfund site in 1990 and are contaminated by PCBs from former paper mill waste. The Kalamazoo River is a designated Great Lakes Area of Concern with a number of identified beneficial use impairments. Restoration of beneficial uses is coordinated by the Environmental Protection Agency (EPA), Michigan Department of Environmental Quality (MDEQ), Kalamazoo River Watershed Council and other local groups.

WORKING WATERFRONT CHALLENGES AND ACTIONS

HARBOR MANAGEMENT

The City of Saugatuck, City of Village of Douglas and Saugatuck Township have a history of collaborating on many issues and recognized the need to establish a formal structure to manage the harbor. In 2002, the communities established and incorporated a joint Harbor Commission to represent the three governments. The Harbor Commission identified the scope and content of a management plan for the Kalamazoo Harbor that outlined the current and future needs of the harbor and its management. Implementation of the harbor management plan, which was adopted in 2003, is ongoing.

The Harbor Commission also prepared a waterfront revitalization plan that identified current and future initiatives for water-dependent land uses, public waterfront property and access, undeveloped or dilapidated waterfront property, environmental features and sensitive habitat. The plan includes measures to preserve and enhance the functionality of water-dependent uses and their compatibility with other land uses. This plan was completed in 2003 and incorporated into Saugatuck (city) and Douglas and Saugatuck Township Master Plans in 2004.

ACCESS

Maintaining physical and visual access to the waterfront is challenging in a community where pressure to build up the waterfront has been great, downtown waterfront property values are high and public boat ramps are sparse. Access to Lake Michigan is provided by the city's public beach, Oval Beach. The city owns adjacent, upland property including the recently acquired 171-acre Saugatuck Harbor Natural Area as well as Mount Baldhead — which provide additional opportunities for recreation and taking in scenic vistas. Public access to Kalamazoo Lake is provided primarily through right-of-ways, two public

boat launches, private marinas and waterfront parks. The ability to view Lake Kalamazoo from the city's downtown waterfront and from the Blue Star Highway is important to the quality of life for residents and crucial to its tourism industry.

The primary challenge with respect to future waterfront land use is competition between economic development and environmental protection or taxable and non-taxable land uses.

While waterfront lands have a high revenue generating potential, the scenic, natural shorelines, forests, sand dunes and wetlands are a major attraction and draw to the Lake Michigan and Kalamazoo waterfronts. Development that is detrimental to the quality of the Tri-Community's natural resources would reduce the value of the waterfront property. The Tri-Community Plan emphasizes that future land use and new development preserve waterfront views from the public right of way and that waterfront redevelopment consist of a mix of single- and multiple-family residential uses and waterfront-related commercial developments such as marinas and other ship/shore activities.

DREDGING

Dredging is currently a significant issue for Saugatuck and many other Great Lakes communities. The lack of federal funding for recreational harbors, reduction in the area of federally maintained harbor and the added costs and hurdles of dredging a contaminated site coupled with natural siltation and low water levels have resulted in very shallow water in the harbor. A decrease in surface water acreage and capacity of and access to docks and marinas limits navigation and threatens the viability of the harbor.

In 2007 the Tri-Communities commissioned a harbor study to assess the capacity and dredging needs of the harbor. The Kalamazoo Harbor Master plan Technical Report prepared by JJR provides a review of options and associated costs for maintaining viable harbor depth. Following the study, the Tri-Communities authorized the establishment of a Harbor Committee and appointed representatives from each local unit of government to address dredging and maintenance. The Harbor Committee reviewed recommendations for dredging plans from the 2007 Kalamazoo Harbor Master Plan Technical Report.



Michigan Sea Grant

Potential funding sources for dredging identified by consulting group Edgewater Resources include boat slip allocation, shoreline property owner assessment, community tax base and county tax base.

The absence of federal dredging dollars and the harbor's ineligibility to apply for certain grants due to its designation as a Superfund site resulted in the need to identify alternative funds for dredging. In 2008 the Kalamazoo Harbor Master Plan Committee (KHMPC) formed to identify funding sources for dredging. After two years of collaboration with state, federal and local agencies,

meetings with key individuals and organizations including the Corps of Engineers, Great Lakes Commission, JJR & Associates, Kalamazoo River Watershed Commission, Detroit Port Authority, Michigan Port Collaborative, Great Lakes Small Harbors Commission and political representatives, the KHMPC determined the need to broaden its mission and investigate establishing a harbor authority. Under approval of the cities of Saugatuck and Douglas, an intergovernmental agreement to expand the KHMPC's scope was signed in 2010 and by Saugatuck Township in 2011.

In 2011, the Committee established a Phase I dredging plan to dredge channels of different depths. Dredging plans included two small channels that hug the shoreline and require individual owners to connect to the channels. This enables use of the harbor and docks at significantly less cost than that of dredging the whole harbor. Dredging goals include a sedimentation analysis in 2012, near term sedimentation removal and disposal in 2013 and 2014, and sustainable sediment management beyond 2014.

The Kalamazoo Lake Harbor Authority, Inc. (KLHA) was created as a separate legal entity and public body corporate to administer economic development objectives related to the harbor. The Authority has the power to create a Kalamazoo Lake Master Development Plan, a Water Resource Development Plan, Tax Increment Financing and Development Plan or similar plan. KLHA is charged with the protection and maintenance of harbor and waterfront properties through the establishment of a Water Resource Improvement Tax Increment Financing Authority.

ZONING ORDINANCE

ZONING DISTRICT	INTENT OF DISTRICT	PERMITTED USES	SPECIAL USES
Blue Star Industrial District	Serves as a traditional zone between the adjacent residential districts and the commercial district in the abutting township	Marine contractors	Recreational transportation rental facilities
City Center Commercial District	Designed to promote the central business character	Agriculture, including forestry, land, water and wildlife conservation and/or education activities	Recreational transportation rental facilities
Neighborhood Marine District	Promotes utilization of waterfront property with mixed land uses that emphasize water access and usage and encourages larger lot development in order to preserve and protect visual access to the waterfront	Agriculture, including forestry, land, water and wildlife conservation and/or education activities	Marinas/commercial boats
Resort District	Designed to complement the waterfront property and permit lodging facilities that are associated and coordinate with the waterfront		Marinas/commercial boats
Water Street Commercial District	Provides an area for waterfront retail and commercial land use that promotes visual access to the Kalamazoo River and coordinates the central business district with waterfront property, blending commercial uses that complement and enhance the waterfront		Marina/commercial boats, recreational transportation rental facilities
Water Street East District	Designed to preserve residential character while promoting commercial use, development and visual access to the Kalamazoo River		Amusement and recreation services, recreation transportation rental facilities
Water Street North District	Promotes high intensity commercial uses that complement its waterfront setting and promotes visual access to the Kalamazoo River and Lake	Marinas/commercial boats, charter fishing tour	Recreational transportation rental facilities
Water Street South District	Provides an area for waterfront retail and commercial land use that promotes visual access to the Kalamazoo River and coordinates central business district and waterfront property and blends commercial uses that complement and enhance the waterfront		Marina commercial/private, amusement and recreational services, recreational transportation rental facilities

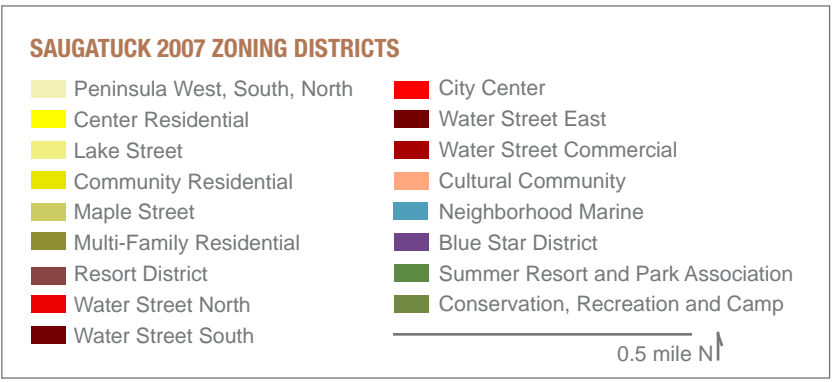
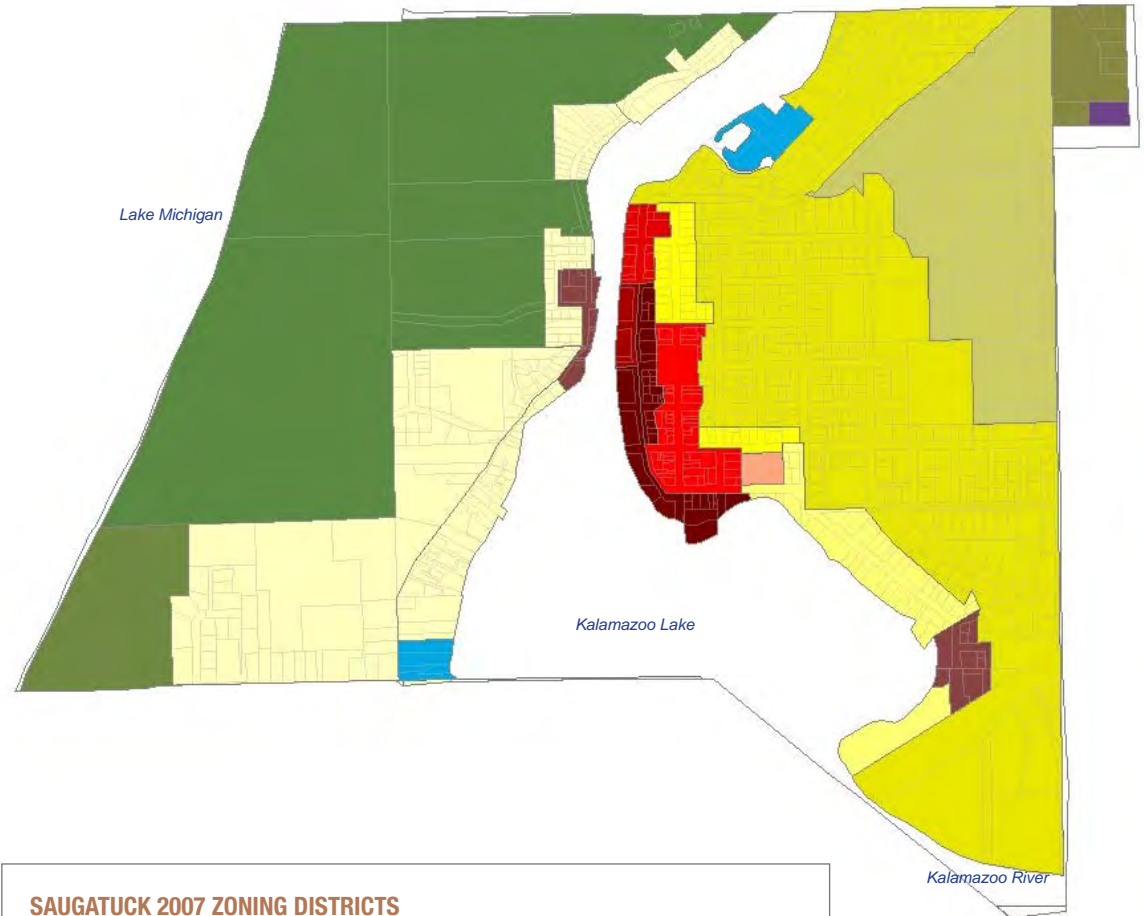
TABLE 1. INTENT, PERMITTED USES AND SPECIAL USES OF ZONING DISTRICTS THAT ACCOMMODATE WATER-DEPENDENT USES AND/OR PUBLIC ACCESS.

ZONING

The City of Saugatuck has 20 zoning districts. Eighteen of these districts fall within a 1000-foot buffer of Lake Michigan, Kalamazoo Lake or the Kalamazoo River. Land use within this buffer is dominated by open space along Lake Michigan and commercial and residential uses along Kalamazoo Lake and River. Figure 4 displays zoning within the buffer. Twelve zoning districts abut Lake Michigan, Kalamazoo Lake or the Kalamazoo River.

The city accommodates water-related uses, including recreational and transportation facilities, marinas and commercial boats, charter fishing and marine contractors, through permitted and special uses in a number of commercial and mixed use zoning districts (Table 1).

A majority of identified water-dependent uses are located in the neighborhood marine, Water Street north and Water Street commercial districts (Figure 4.)



ZONING ADJACENT TO WATERFRONT

Residential uses account for approximately 46 percent of the frontage along Lake Michigan, Kalamazoo Lake and the Kalamazoo River. Remaining land use along the waterfront consists of approximately 20 percent commercial, 19 percent open space, 9 percent mixed and 6 percent other uses including the summer resort and park association.

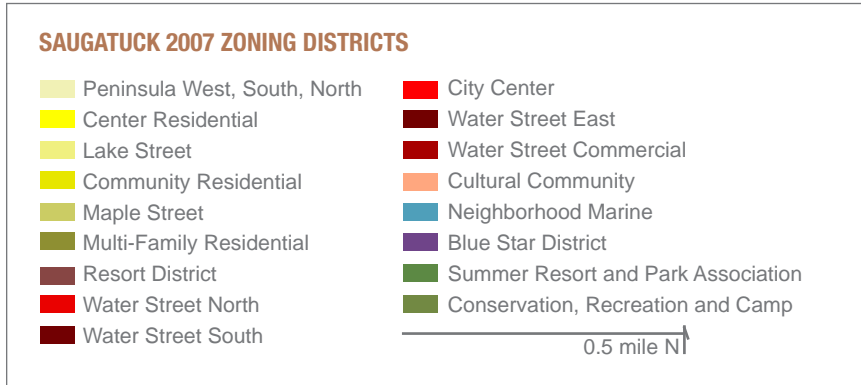
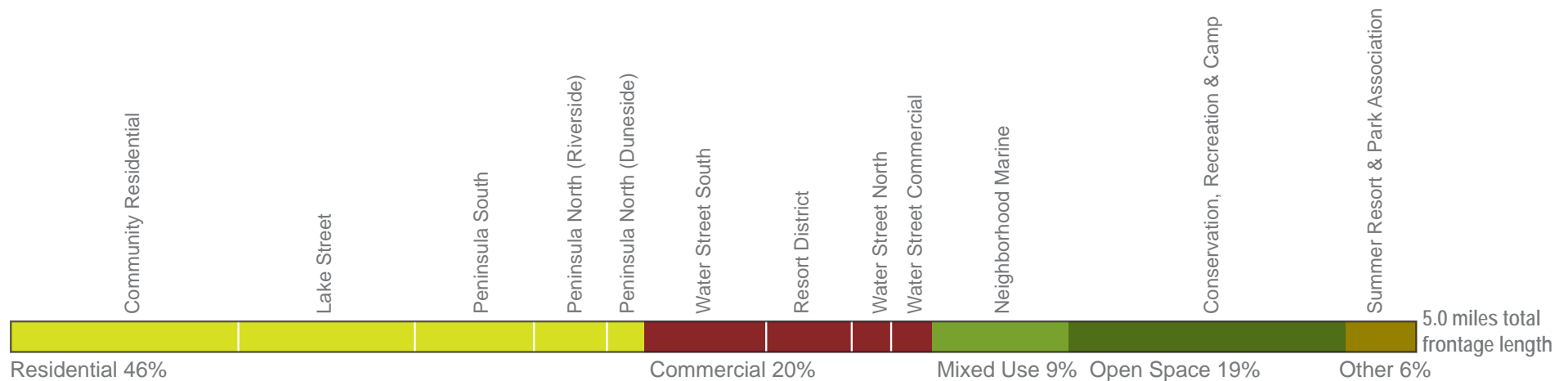


FIGURE 3. MAP OF ZONING ADJACENT TO WATERFRONT (RIGHT) AND FRONTAGE BY ZONING CATEGORY (BELOW).



ZONING WITHIN 1000 FEET OF WATERFRONT

Land use within a 1000-foot buffer of Lake Michigan, Kalamazoo Lake and the Kalamazoo River consists of 61 percent residential, 33 percent open space, 8 percent commercial, 6 percent other and 2 percent mixed uses.

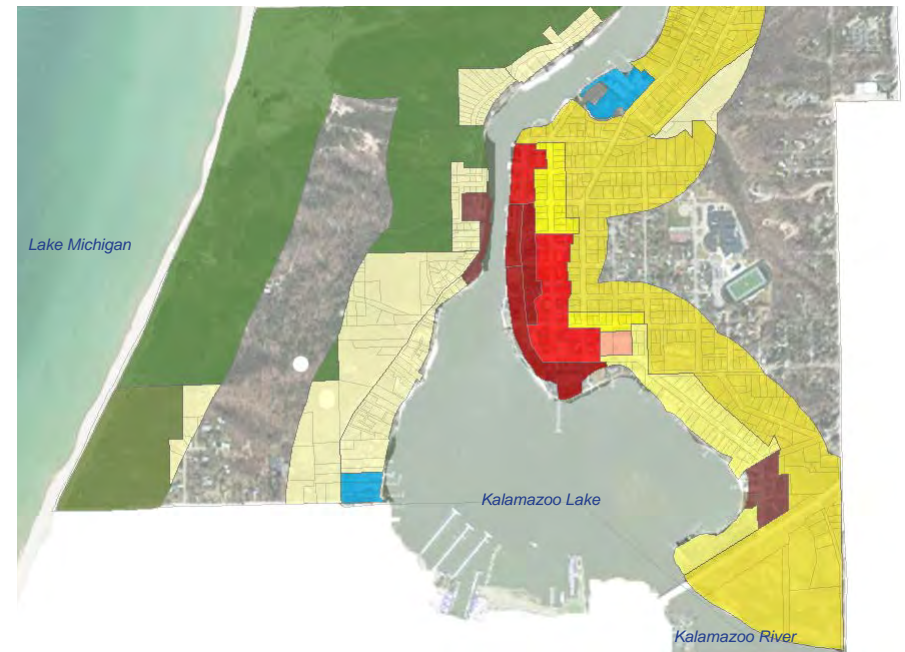
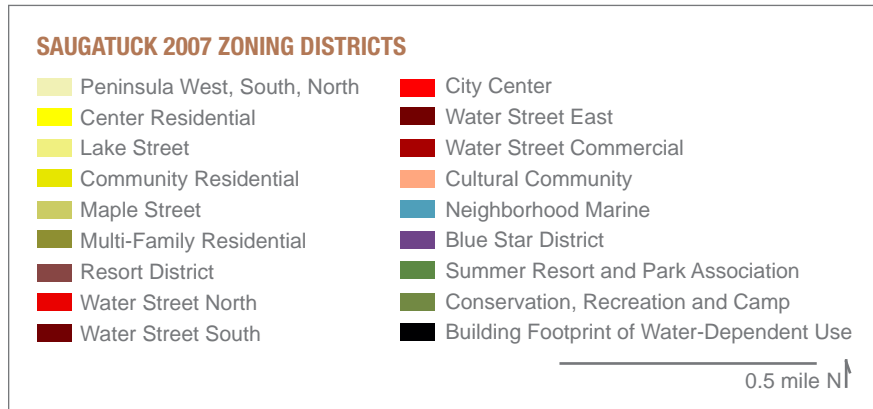
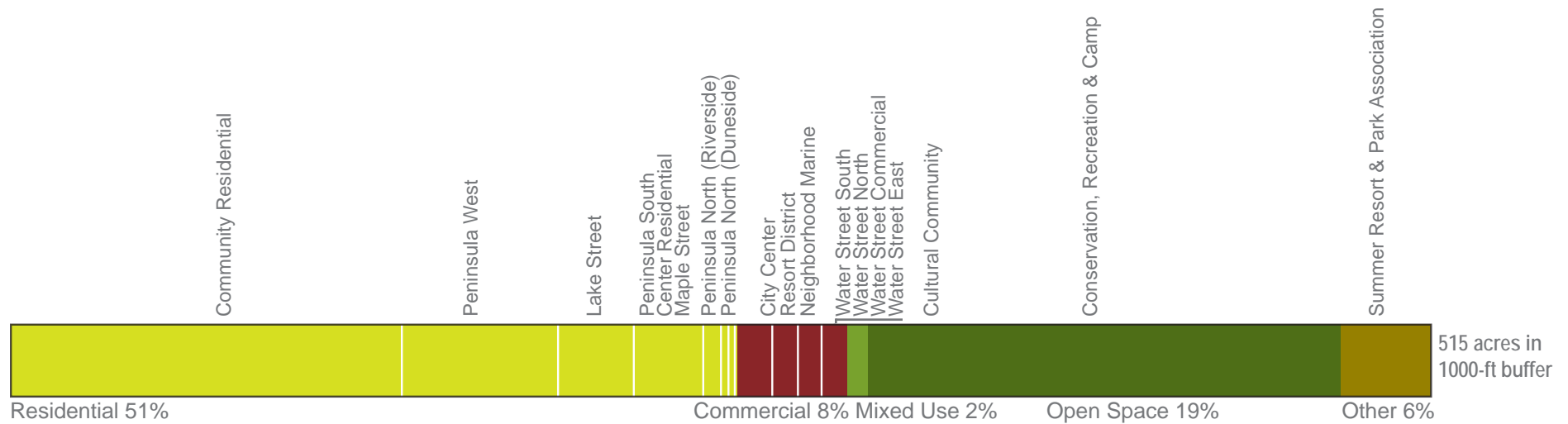


FIGURE 4. MAP OF ZONING AND LOCATION OF WATER-DEPENDENT USES WITHIN A 1000-FOOT BUFFER OF WATER BODIES (RIGHT) AND WATERFRONT LAND AREA BY ZONING CATEGORY (BELOW).



PARCEL CLASSIFICATION AND INVENTORY



FIGURE 5. CLASSIFICATION OF PARCELS WITHIN A 1000-FOOT BUFFER OF WATER BODIES BY WATER DEPENDENCY.

PARCEL CLASSIFICATION

Parcels that provide public access to the waterfront account for approximately 8 percent of the total frontage (approximately 5 miles) along Lake Michigan, Kalamazoo Lake and the Kalamazoo River and approximately 8 percent of the area (approximately 515 acres) within a 1000-foot buffer of these bodies of water. Parcels that have identified water-dependent uses account for 12 percent of frontage and 2 percent of the area within a 1000-foot buffer of Lake Michigan, Kalamazoo Lake and the Kalamazoo River.

Figure 5 displays an inventory of identified water-related uses and classification of parcels with water-dependent and water-enhanced uses and parcels that provide public access.

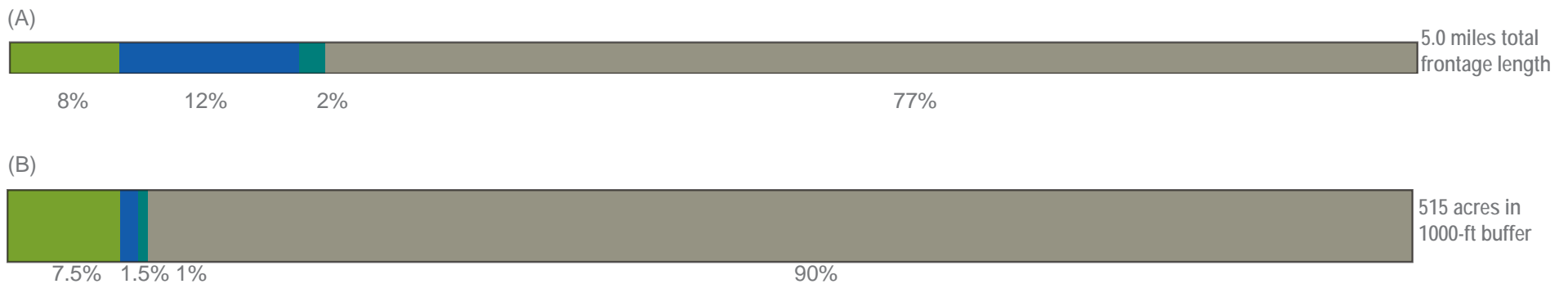


FIGURE 6. PARCEL FRONTAGE (A) AND AREA WITHIN 1000-FOOT BUFFER BY WATER DEPENDENCY CLASSIFICATION (B).

INFRASTRUCTURE AND ACCESS

Figure 7 displays aerial imagery with waterfront infrastructure within a 1000-foot boundary of Lake Michigan, Kalamazoo Lake and the Kalamazoo River that have identified water-related uses and highlights parks and beaches that provide public access.

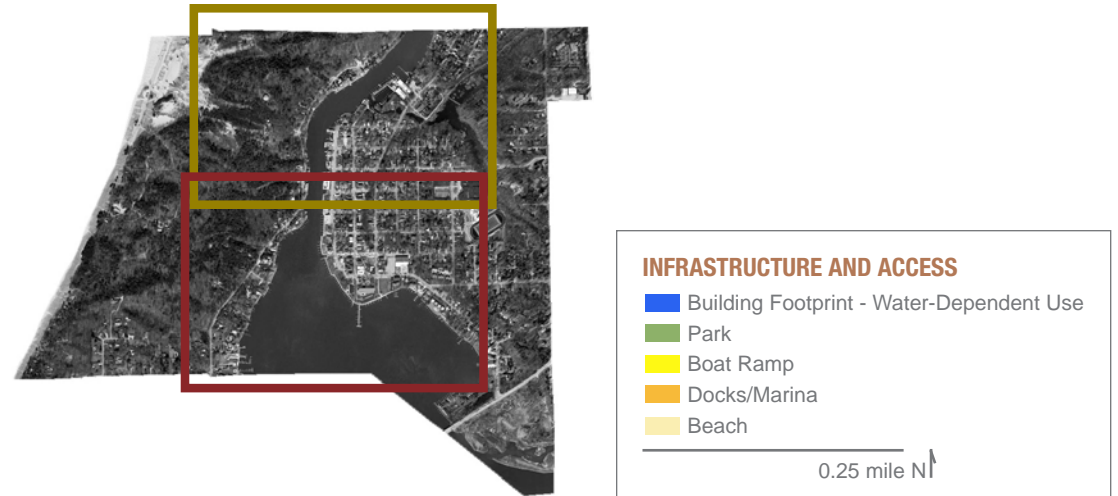


FIGURE 7. WATER-DEPENDENT AND ENHANCED USES, DOCKS AND WATERFRONT PARKS ALONG THE WATERFRONT AND WITHIN 1000 FEET OF WATER BODIES.

WORKING WATERFRONT SWOT ANALYSIS

A Strengths, Weaknesses, Opportunities and Threats (SWOT) 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. There are a number of factors that influence a community's ability to maintain a robust working waterfront; the SWOT analysis below provides examples of the challenges and opportunities associated with maintaining Saugatuck's waterfront as a place that provides public access and is well integrated within the community from a planning and physical perspective.

<p>STRENGTHS</p> <ul style="list-style-type: none"> ■ Downtown waterfront ■ Natural features and resources (harbor, dunes, wetlands, Oval Beach, Mount Baldhead) ■ Interlocal cooperation – Tri-Community Plan ■ Kalamazoo Lake Harbor Association ■ Saugatuck Harbor Natural Area ■ Effort to maintain visual access to Kalamazoo Lake ■ Active Convention and Visitors Bureau ■ Collaboration with state and federal partners ■ Tourist destination, tourism a buffer to economy ■ Harbor Master Plan ■ Numerous recreation and cultural opportunities ■ Traditional small town character ■ Annual waterfront festival 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> ■ Lack of public access to water ■ Lack of dinghy docks and shopping docks ■ Harbor circulation, boater/visitor circulation in town ■ Conflicts over surface water use ■ Condos block scenic view of along Lake Street ■ Dependence on tourism, lack of well-rounded tourist activities ■ Congestion, lack of adequate parking ■ Lack of off season business ■ Harbor Authority has no authority to tax ■ Lack of cooperation over future development ■ Harbor of Refuge too shallow ■ No commercial capacity
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> ■ Potential to use TIFA funding for water quality and economic development associated with the harbor ■ Collaboration with partners to address dredging need ■ Zoning to ensure public access and viewshed ■ Alleviate dredging problem internally, build capacity ■ Identify cost effective dredging options ■ Harbor - potential for more slips, 250 job employment potential ■ Investigating alternatives to dredging the entire harbor ■ Ongoing environmental cleanup, removal of Beneficial Use Impairments 	<p>THREATS</p> <ul style="list-style-type: none"> ■ Low water level ■ Natural siltation ■ Lack of federal funding for dredging ■ Lack of draft results in a non-functional harbor ■ Legacy contamination ■ Development pressure to build condos on waterfront ■ Loss of boaters and visitors due to water level ■ Shallow water and topography limit addition of boat ramps ■ Disposal for PCB contaminated dredge spoils ■ Replacement of smaller, older homes along the waterfront with future, larger developments ■ Superfund designation disqualifies harbor for some grants

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

TOOLS, STRATEGIES AND BEST PRACTICE FOR MAINTAINING WORKING WATERFRONTS

COLLABORATION

Interlocal cooperation can help communities identify common harbor and waterfront goals, investigate the opportunity to utilize a joint site plan review process and consistent zoning, and establish a single entity to manage a harbor whose waterfront is shared by multiple jurisdictions. Adopting a shared waterfront goal encourages planning for future waterfront land uses and sustainable harbor and waterfront management. One example of a waterfront goal is: “to protect and enhance the natural aesthetic values and recreation potential of all waterfront areas for the enjoyment of area citizens while recognizing private property rights of waterfront property owners.”

NATURAL RESOURCES PROTECTION

Clean up impaired ecosystems to improve the quality of natural resources as well as the opportunities for visitors and residents to enjoy these resources. Ensure the protection of undeveloped dunes, a valuable asset that can provide the public with access to the waterfront, through the acquisition of undeveloped dunes. Establish regulations for priority locations with sensitive lands such as dunes and wetlands.

MAINTAIN PUBLIC ACCESS THROUGH REGULATIONS

Adopt regulations that require that new development and redevelopment provide space on waterfront sites to help maintain the water as a significant natural feature. Protect priority locations including sensitive lands and the most visible open spaces through scenic easements, transfer or donation programs and design guidelines, along with regulations and zoning ordinances. Enhance access sites by installing platforms for wildlife viewing.

DREDGING AND HARBOR MAINTENANCE

Identify alternative sources for dredging funds. A Water Resources Tax Improvement Finance Authority is one potential means for generating maintenance funds for Kalamazoo Harbor. Reevaluate options for dredging, such as dredging channels in priority areas, to identify more cost effective strategies to ensure the viability of the harbor.

Kalamazoo Lake Harbor Authority, Inc. (KLHA) was created through Act & Interlocal Cooperation Agreement pursuant to Act No. 7 PA 1967 the Urban Cooperation Act), Act No. 451 of PA 1944 the Natural Resources and Environmental Protection

act, and Act 94 of PA 2008 the Water Resource Improvement Tax Increment Finance Authority Act. KLHA was created as a separate legal entity and public body corporate to administer economic development objectives related to the harbor. The Authority has the power to create a Kalamazoo Lake Master Development Plan, a Water Resource Development Plan, Tax Increment Financing and Development Plan or similar plan. KLHA is charged with the protection and maintenance of harbor and waterfront properties through the establishment of a Water Resource Improvement TIFA.

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 the 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.

CITY OF SAUGATUCK

- ✓+ Integrate waterfront planning with local, regional and comprehensive planning.
- ✓+ Balance waterfront land uses to meet the needs of residents, visitors, water-dependent uses and ecological communities.
- ✓+ Preserve visual and physical access to water resources.

How does your community stand up?

REFERENCES AND RESOURCES

- City of Saugatuck (2007) Zoning Code, Saugatuck, Michigan Code of Ordinances. Retrieved from [www.amlegal.com/nxt/gateway.dll/Michigan/saugatuck_mi/cityofsaugatuck-michigancodeofordinances?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:saugatuck_mi](http://www.amlegal.com/nxt/gateway.dll/Michigan/saugatuck_mi/cityofsaugatuck-michigancodeofordinances?f=templates$fn=default.htm$3.0$vid=amlegal:saugatuck_mi)
- City of the Village of Douglas, City of Saugatuck, and Allegan County (2011) Act 7 Interlocal Cooperation Agreement creating the Kalamazoo Lake Harbor Authority, Inc. Retrieved from <http://www.saugatuckcity.com/images/adobe-files/general-resources/harbor/Act-7-final-agreement-signed.pdf>
- City of the Village of Douglas, Saugatuck Township, City of Saugatuck, Saugatuck Public Schools (2008) Saugatuck Douglas Area 5-Year Park and Recreation Plan. Retrieved from <http://www.saugatuckcity.com/images/adobe-files/general-resources/2008-5-year-rec-plan.pdf>
- Digital Coast NOAA Coastal Services Center (2010) Allegan County, Michigan Snapshot. Retrieved from <http://www.csc.noaa.gov/snapshots/#ocean%2626005>
- ECT and Edgewater Resources, LLC. (2011) Saugatuck-Douglas Harbor Plan. Retrieved from <http://www.sdharborplan.com/#!about-project>
- Edgewater Resources, LLC. (2011) Dredging Report Update. Retrieved from <http://www.sdharborplan.com/#!>
- Edgewater Resources. (2011) Dredging Analysis. Retrieved from <http://www.sdharborplan.com/#!about-project>
- Fairchild, Felicia, Saugatuck Douglas Convention of Visitors Bureau. Kalamazoo Lake Harbor Authority Workshop, June, 28 2012.
- Fairchild, Felicia, Saugatuck Douglas Convention of Visitors Bureau. Office of the Great Lakes In-Service Training, Saugatuck, MI. May, 8, 2012.
- JJR, LLC and RMT, Inc. (2007) Kalamazoo Harbor Master Plan Technical Report. Retrieved from <http://www.saugatuckcity.com/harbor/08-14-2007-final-report.pdf>
- Kalamazoo Harbor Master Plan Technical Report, Phase One: Harbor Analysis (2007). Retrieved from <http://www.ci.douglas.mi.us/Community/HarborMasterPlan/PhaseOne-HarborAnalysis.pdf>
- McKenna Associates, Incorporated (2002) Saugatuck 10-Year Strategic Development Program. Retrieved from <http://www.saugatuckcity.com/images/adobe-files/city-council/10-year-strategic-development-program.pdf>
- Michigan Municipal League (YEAR) Economic Development Tools-Waterfront TIF. Retrieved from http://www.mml.org/resources/publications/one_pagers/opp_ed_water.pdf
- Pepper, Terry (2007) Kalamazoo River Light. Retrieved from <http://terrypepper.com/lights/michigan/kalamazoo/index.htm>
- Saugatuck Harbor Plan. Saugatuck-Douglas Harbor Planning FAQs. Retrieved from <http://www.sdharborplan.com/#!faq>
- The Art Coast of Michigan (2012) Saugatuck/Douglas Visitors Guide and Business Directory. Retrieved from <http://www.saugatuck.com/book/guide.asp>
- Tri-Community Planning Committee et al. (2005) Tri-Community Joint Comprehensive Plan. Retrieved from <http://www.saugatuckcity.com/images/adobe-files/general-resources/tri-community-comprehensive-plan-2005.pdf>
- U.S. Census Bureau (2000). Profile of General Population and Housing Characteristics, City of Saugatuck Retrieved July 2012 from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Educational Attainment 2006-2010 American Community Survey 5-year Estimates, City of Saugatuck. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Educational Attainment 2006-2010 American Community Survey 5-year Estimates, Allegan County. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Profile of General Population and Housing Characteristics, City of Saugatuck. Retrieved July 2012 from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Profile of General Population and Housing Characteristics, Allegan County. Retrieved July 2012 from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Profile of General Population and Housing Characteristics, Allegan County. Retrieved July 2012 from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Selected Economic Characteristics 2006-2010 American Community Survey 5-year Estimates, Allegan County. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- U.S. Census Bureau (2010). Selected Economic Characteristics 2006-2010 American Community Survey 5-year Estimates, City of Saugatuck. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- US Army Corps of Engineers (2012). Saugatuck Harbor and Kalamazoo River, MI Fact Sheet. Retrieved from http://www.lre.usace.army.mil/_kd/go.cfm?destination=Page&pge_id=2210&dialog=0
- Water Resource Improvement Tax Increment Finance Authority Act 94 of 2008 MCL 125.1771-125.1794. Retrieved from <http://www.legislature.mi.gov/%28S%28cbkxdt55imcyzd-453paffafi%29%29/mileg.aspx?page=MCLIndex&object-name=mcl-Act-94-of-2008>
- Weykamp, Greg Edgewater Resources. Kalamazoo Lake Harbor Authority Workshop, June, 28 2012.