

# Alpena Port & Community Asset Inventory



**Practicum Project: 2012**

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**Assisted By:** City of Alpena, Michigan State University and Northeast Michigan Council of Governments



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**0.) TABLE OF CONTENTS**

0.) Table of Contents..... 2

1.) OVERVIEW AND OBJECTIVES ..... 13

    Introduction ..... 13

    Client: Northeast Michigan Council of Governments (NEMCOG)..... 13

    Project Overview..... 15

    NEMCOG Goal ..... 15

    Project Statement ..... 16

    MSU Practicum Team..... 17

    Methodology..... 17

2.) BACKGROUND – THE COMMUNITY OF ALPENA, MI..... 18

    Location..... 18

    Port Properties ..... 21

        LaFarge ..... 22

        Decorative Panels International (DPI)..... 23

        Alpena Marina and Waterfront Property ..... 25

        Old Fletcher Paper Company ..... 26

        National Oceanic and Atmospheric Administration (NOAA) – Great Lakes Maritime Center ..... 28

        Alpena Fish and Wildlife Conservation Office (Alpena FWCO) ..... 28

        Alpena Oil Company..... 30

        Alpena Marc, LLC ..... 31

        West Dock ..... 32

    Overview of City..... 33

    History ..... 33

    Climate ..... 34

    Topography ..... 34

3.) DEMOGRAPHICS ..... 35

    Population..... 35

    Median Age/Age Groups..... 36

    Economic Status..... 37

    Employment by Industry..... 37

    Unemployment ..... 39

Income and Poverty .....	39
Household/Housing Characteristics.....	39
Summary .....	41
4.) UTILITIES .....	42
Water and Sewer .....	42
City of Alpena Utility Boundaries.....	43
Gas .....	47
Electric.....	49
Summary .....	51
5.) COMMUNITY PLANNING AND ZONING .....	52
Zoning .....	52
Brownfields .....	53
Brownfield Sites that have been Assessed with EPA Grant Money.....	56
Fletcher Motel (No.3).....	56
Freese Hydraulics and Equipment Repair (No.4).....	56
River’s Edge Property (No.5).....	57
Harkins & Karsten: Karsten Mark OD (No.6).....	57
Formerly Summit Sports now Alpena Florists (No.7).....	58
Alro Steel (No.8).....	58
Former Alpena Community College (ACC) East Building (No. 9) .....	59
Current Brownfield Projects .....	60
NOAA Maritime Heritage Center and the Fletcher Brewing Company (Alpena Marc LLC) .....	60
LaFarge.....	61
Dean Arbour Ford Car Dealership.....	61
TIF’s and the Downtown Development Authority (DDA) .....	62
Existing Land Use .....	64
Master Plan/Future Land Use .....	67
Summary .....	70
6.) TRANSPORTATION .....	71
Road .....	71
Public (County, Regional, State).....	74
Railway.....	75

Passenger rail service.....	75
Freight rail service.....	75
Intermodal Connectivity .....	79
Airport.....	83
Port – Tall Ships/Ferry/Cruise Line.....	85
Cruise .....	85
Non-Motorized.....	86
7.) NAVIGATION CAPACITY & WATER DEPTH .....	87
Harbor Maintenance/Dredging.....	88
Port of Alpena Nautical Charts.....	90
Alpena Harbor Thunder Bay River and West Dock Channels: .....	91
Minimum Depth of other Great Lakes Ports for Comparison (NOAA, 2011): .....	92
Ships of the Great Lakes.....	92
Great Lakes Shipping.....	93
Summary .....	94
8.) ECONOMIC ACTIVITY ANALYSIS .....	95
Public.....	95
City of Alpena Marina .....	95
National Oceanic and Atmospheric Administration (NOAA) – Great Lakes Maritime Center.....	97
Private .....	99
Lafarge .....	99
Decorative Panels International (DPI).....	103
Port of Alpena Shipping Volumes and Values.....	104
Foreign Trade .....	107
Offsite – Surrounding Community .....	108
Cultural.....	108
Downtown.....	111
Tourism/Recreation .....	111
Glass Bottom Boat .....	113
Great Lakes Cruise Lines .....	113
9.) MICHIGAN PORTS- A POLICY FRAMEWORK.....	114
Historic Policy Overview .....	114



Port Districts - Act 234 of 1925 .....	114
Hertel-Law-T. Stopczynski Port Authority Act - Act 639 Of 1978 .....	115
Summary .....	118
10.) PORT CASE STUDIES .....	119
Port of Detroit, Michigan .....	119
Port of Green Bay, Wisconsin .....	121
Port of Muskegon, Michigan.....	123
Port of Toledo, Ohio.....	124
Port of Hamilton, Ontario, Canada .....	126
Port of Monroe, Michigan.....	127
Summary .....	130
11.) SWOT ANALYSIS .....	131
Strengths: .....	132
Weaknesses: .....	132
Opportunities: .....	133
Threats: .....	133
12.) RECOMMENDATIONS AND STRATEGIES.....	134
LaFarge .....	134
Short Term .....	134
Long Term .....	134
West Dock .....	135
Short Term .....	135
Long Term .....	135
Foster Maritime Archeological Education .....	135
Short and Long Term Goal .....	136
Tourism and Marketing.....	136
Short Term .....	136
Long Term .....	136
Port Authority and Regional Collaborative .....	137
Short Term .....	137
Long Term .....	137

## LIST OF FIGURES

Figure 1-1 NEMCOG Region .....	14
Figure 2-1 Downtown Alpena .....	18
Figure 2-2 Alpena, MI.....	19
Figure 2-3 City of Alpena.....	19
Figure 2-4 City Properties .....	20
Figure 2-5 Riverside Projects.....	20
Figure 2-6 Map of Alpena Port Property Owners .....	21
Figure 2-7 LaFarge Alpena Plant .....	22
Figure 2-8 LaFarge Plant from Thunder Bay .....	22
Figure 2-9 LaFarge Dock and Property.....	23
Figure 2-10 DPI Plant.....	24
Figure 2-11 DPI Plant from Thunder Bay .....	24
Figure 2-12 DPI Dock and Property.....	24
Figure 2-13 Alpena Marina .....	25
Figure 2-14 Alpena Waterfront Park.....	25
Figure 2-15 Alpena Small Boat Harbor.....	25
Figure 2-16 City of Alpena Marina and Water Front Property .....	26
Figure 2-17 Old Fletcher Paper Company .....	27
Figure 2-18 Fletcher Riverfront Corridor .....	27
Figure 2-19 Old Fletcher Paper Company, NOAA and FWCO .....	27
Figure 2-20 NOAA front of building .....	28
Figure 2-21 NOAA from the riverfront.....	28
Figure 2-22 Alpena FWCO .....	29
Figure 2-23 U.S. Fish & Wildlife Service Logo .....	29
Figure 2-24 Alpena Oil Company .....	30
Figure 2-25 Alpena Marc, LLC .....	31
Figure 2-26 West Dock.....	32
Figure 3-1 Age Distribution - 2010 .....	36
Figure 3-2 Population Distribution – Alpena County .....	37
Figure 3-3 Alpena County Employment Industries .....	38
Figure 4-1 Alpena Utility Companies .....	42
Figure 4-2 Alpena Water and Sewer Zone Map.....	43
Figure 4-3 Port of Alpena Water and Sewer Lines .....	44
Figure 4-4 Fletcher Utilities.....	45
Figure 4-5 DPI Utilities .....	45
Figure 4-6 LaFarge and West Dock Utilities .....	46
Figure 4-7 Michigan Gas Utility Service Areas .....	47
Figure 4-8 Intrastate Gas Pipelines for Northern Michigan .....	48
Figure 4-9 Alpena Electric Lines .....	49
Figure 4-10 Electric Utility Service Area.....	50

Figure 5-1 Current Zoning of Waterfront Properties .....	52
Figure 5-2 Fletcher Redevelopment Sub-Area.....	53
Figure 5-3 Current Brownfield Sites in Alpena, MI .....	55
Figure 5-4 Fletcher Motel .....	56
Figure 5-5 Freese Logo .....	56
Figure 5-6 River's Edge Property.....	57
Figure 5-7 Karsten Mark OD.....	57
Figure 5-8 Alpena Florists .....	58
Figure 5-9 Alro Steel.....	58
Figure 5-10 Location of ACC East Building .....	59
Figure 5-11 New Hope House .....	59
Figure 5-12 Alpena Marc, LLC Property .....	60
Figure 5-13 Fletcher Street Brewing Company.....	60
Figure 5-14 NOAA Thunder Bay .....	60
Figure 5-15 LaFarge Cement Plant & Arial View of Property.....	61
Figure 5-16 Dean Arbour Dealership .....	61
Figure 5-17 Alpena Downtown District.....	62
Figure 5-18 Mixed Use Development along Second Avenue in Downtown Alpena.....	64
Figure 5-19 Existing Land Use .....	66
Figure 5-20 Existing Land Use .....	67
Figure 5-21 Future Land Use.....	68
Figure 5-22 Downtown Alpena Current and Future Land Use.....	69
Figure 5-23 Alpena Downtown Waterfront Parcels.....	70
Figure 6-1 Street Map of Alpena.....	72
Figure 6-2 City of Alpena Truck Route .....	73
Figure 6-3 Michigan's Intercity Bus System .....	74
Figure 6-4 Key Regional Links for Michigan Commodities Moving by Railroad.....	77
Figure 6-5 Michigan's Railroad System .....	78
Figure 6-6 Example of a Port Intermodal Facility with Rail-to-Water.....	80
Figure 6-7 Current Alpena Railroad System.....	82
Figure 6-8 The Alpena Bi-Path Map .....	86
Figure 7-1 Shipping Channels of Alpena Harbor .....	87
Figure 7-2 US Army Corps of Engineers Logo.....	88
Figure 7-3 Shipping Channels and Depths of Thunder Bay, Lake Huron .....	90
Figure 7-4 Shipping Channels and Depths of Alpena Harbor and Thunder Bay River .....	91
Figure 7-5 Shipping Channels and Depths of Alpena Harbor in Relation to LaFarge Docks .....	91
Figure 7-6 LaFarge Cargo Ship Alpena in Detroit .....	92
Figure 7-7 Major Shipping Routes of the Great Lakes .....	93
Figure 8-1 City of Alpena Marina .....	95
Figure 8-2 City of Alpena Marina .....	96
Figure 8-3 NOAA Research Vessel.....	98
Figure 8-4 Thunder Bay Expedition Festival.....	98

Figure 8-5 Tall Ships during the Maritime Festival .....	98
Figure 8-6 NOAA Glass Bottom Boat.....	98
Figure 8-7 The Alpena at the Port of Alpena LaFarge Dock .....	99
Figure 8-8 LaFarge Plant, Dock and Quarry .....	100
Figure 8-9 LaFarge Plant and the City of Alpena.....	101
Figure 8-10 DPI Plant and Thunder Bay .....	103
Figure 8-11 Lake Freighter in Port of Alpena .....	104
Figure 8-12 Alpena Foreign Trade by Value.....	107
Figure 8-13 Alpena Foreign Trade by Weight .....	107
Figure 8-14 Alpena Community Facilities .....	109
Figure 8-15 Alpena Cultural and Historic Facilities .....	110
Figure 8-16 Downtown Alpena .....	111
Figure 10-1 Detroit River.....	119
Figure 10-1 Aerial of the one of the Detroit Wayne County Port Authority Docks .....	120
Figure 10-3 Aerial of the Port of Green Bay.....	121
Figure 10-4 Birds eye view of the ports channel leading to Lake Michigan .....	122
Figure 10-5 Aerial of the Port of Muskegon .....	123
Figure 10-6 Birds eye view of the ports major loading dock and Terrace Point Marina .....	124
Figure 10-7 Aerial of the Port of Toledo .....	125
Figure 10-8 Birds eye view cargo ships docked and connected rail spurs - Toledo.....	125
Figure 10-9 Aerial of the largest dock at the Port of Hamilton.....	126
Figure 10-10 Birds eye view of a cargo ship near storage tanks - Hamilton.....	127
Figure 10-11 Aerial view of the Port of Monroe .....	128
Figure 10-12 Birds eye view of the Port of Monroe and its channel connecting it to Lake Erie .....	128
Figure 11-1 SWOT Breakdown .....	131

## LIST OF TABLES

Table 1-1 Project Asset Inventory .....	16
Table 3-1 Population Comparison: 1950-2010 .....	35
Table 3-2 Unemployment Rates .....	39
Table 3-3 Household/Housing Characteristics.....	40
Table 5-1 Alpena Brownfields (Shown in following Map).....	54
Table 5-2 Existing Land Cover/Use Statistics .....	65
Table 6-1 Arterials Roads: name, directions, Average daily traffic (ADT) 2010.....	71
Table 6-2 Distance of major cities to Alpena by the automobile .....	71
Table 6-3 Intercity bus FY 2010 statistics for CTF subsidized routes .....	75
Table 6-4 Major Intermodal Terminals in Michigan .....	81
Table 6-5 Major Depots in Michigan.....	81
Table 6-6 Operation of Vehicles Subject to the ISTE A Freeze Max Size and Weight Limits .....	83
Table 6-7 Airport Runways.....	84
Table 6-8 The Amount of Freight and Passenger in Alpena and Pellston.....	84
Table 6-9 Comparisons of airports on usage 2011 .....	85
Table 6-10 Carriers serving in Lake Huron .....	85
Table 7-1 Army Corps of Engineers Dredging Projects in 2011 .....	89
Table 8-1 Marina Rates and Fees.....	96
Table 8-2 Seasonal Boatside Dockage Rates.....	97
Table 8-3 Lafarge Port of Call Characteristics .....	102
Table 8-4 Alpena Imports and Exports by Weight .....	104
Table 8-5 Alpena Imports and Exports by Value.....	104
Table 8-6 Alpena Annual Port Imports.....	105
Table 8-7 Alpena Annual Port Exports .....	106
Table 8-8 Thunder Bay Shipwrecks.....	112
Table 9-1 Port Districts.....	116
Table 9-2 Hertel Law - Port Authorities .....	117
Table 10-1 Comparison between the Port Case Studies.....	129

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The statements, findings, conclusions and recommendations are solely those of the authors and publishers and do not necessarily reflect the views of any federal agency or Michigan State University.

## EXECUTIVE SUMMARY

Alpena is located in Northeastern Michigan along the coast of Lake Huron. The City of Alpena lies directly at the intersection of highways US-23 (north/south) and M-32 (east/west) in Alpena County. The port of Alpena is connected through Lake Huron, to the entire Great Lakes freshwater system (the largest in the world) and is linked internationally through the St. Lawrence Seaway to the Atlantic Ocean. Currently NEMCOG (North East Michigan Council of Governments) is working on a four-stage regional port initiative. Based on its prime location and current port activities, Alpena is one of three ports being assessed and analyzed. In order to complete the second and third stage of NEMCOG's port study, the MSU Practicum Team Alpena compiled an inventory of port and community assets and community and port background information.

The assessment is an on-site and off-site analysis where a range of information was compiled. Basic demographic and socioeconomic data was collected on the City of Alpena through the U.S Census. Each of the major property owners, LaFarge, Decorative Panels International (DPI), Alpena Marc LLC, and the City of Alpena on the port were also identified and described. Community planning also highlighted key visions of the Alpena Comprehensive Plan including existing and future land-use for the properties along the Thunder Bay River, zoning, plans for the downtown development towards the waterfront, as well as completed and current brownfield projects. Other characteristics identified including the status of the city's utilities systems, which indicate capacity for growth, an in-depth-look was given the transportation systems of Alpena as well as port navigability.

The intermodal capacity and capability of Alpena, specifically, was assessed. Although Alpena has rail, roadways, and a port, the connectivity between the commercial transportation systems is non-existent. Alpena currently has two docks, one owned and utilized by LaFarge and another, the West Dock, which is jointly owned by LaFarge and DPI. LaFarge is an active dock with a depth of 24 ft and is adequate for serving cargo freighters. However the West Dock is not active and would need to be dredged to accommodate cargo freighters as it is approximately 16 ft and would need to be at least 20-21 ft. In addition to the docks, the City of Alpena also owns a marina which has 143 boat slips and reaches approximately 60% capacity during peak seasons.

Another section of Alpena's port assessment was dedicated to identifying the economic activity of the port and details the activities of the port owners LaFarge, Decorative Panels International, Alpena Marc LLC, and the city. A detailed analysis was also conducted on the tourism and recreational economic activity of the downtown. Alpena is active in outdoor recreation including snowmobiling, fishing, and scuba diving. The policy framework of Michigan ports and several port case studies are noted and described to create an accurate paradigm from which to draw basic conclusions and recommendations. Furthermore a SWOT (Strength/Weakness, Opportunities/Threats) was conducted to outline the city's positive and negative characteristics.

After the compilation of data and analysis was completed, realistic recommendations were drawn and categorized as follows:

## **Tourism and Marketing**

With the NOAA Maritime facility as well as the Fisheries and Wildlife office, Alpena has an intellectual focus on the rich shipwreck and maritime history of the city. The Thunder Bay has over 70 shipwrecks in the span of 65 miles, which makes it home to one of the largest concentration of wrecks in the world. Fostering awareness and continued education can make Alpena, MI a destination for tourists as well as academia, which would increase economic growth.

## **LaFarge Future Strategy**

LaFarge is the largest private entity in the port of Alpena whose business relies on the life of the quarry. When the quarry's life expires in an estimated 75 years it is predicted LaFarge will shutdown their operations in Alpena. Therefore, it is in the city's interest to begin developing a relationship with LaFarge to determine and plan for the future land use plan of port. Encouraging cooperation would aid in sustaining the tax base of the property through the eventual transition.

## **Facilitate West Dock Dredging**

Currently the West Dock is not active and has a 16 ft. depth. Although it could harbor most cruise ships and ferries it cannot harbor freighter cargo ships which usually require at least 20-21 ft.

## **Local and Regional Port Collaborative**

While regional collaborative initiatives will be long term and highly adaptable, there is an immediate need to create a recognizable identity for the Port of Alpena and start opening up a dialogue about the future. As the first step, we would suggest the creation of a 501(c)(3) nonprofit organization to begin steering port activity in Alpena. The organization would be mainly tasked with setting up a structure for communication among the different stakeholders of the Port of Alpena, as well as community members, to discuss needs of the port and growth opportunities as they come. All stakeholders and community members must have an awareness of the port's opportunities and assets in order for regional cooperation to move forward.



## 1.) OVERVIEW AND OBJECTIVES

Michigan State University's (MSU) Urban Planning practicum course for undergraduate and graduate students in their final semester is a tremendous teaching vehicle, helping students to increase their knowledge and confidence through the provision of a needed service to deserving communities. Through this course, Michigan State University faculty, students and clients will work together to provide an end product in which the client can utilize to determine the feasibility of their proposed initiative(s).

### Introduction

The practicum team that has been designated the Alpena Inventory Analysis project consists of three undergraduates and three graduates that are enrolled in MSU's Urban Planning program.

- Marc Coburn, Master in Urban and Regional Planning
- Tatsuya Fukushige, Master in Urban and Regional Planning
- Evan Gross, Urban and Regional Planning
- Corey Jackson, Urban and Regional Planning
- Mark Jones, Master in Urban and Regional Planning
- Elizabeth Masserang, Urban and Regional Planning

The practicum team was guided by Prof. Rex LaMore and Prof. John Melcher. Both Prof. LaMore and Prof. Melcher provided feedback and direction of work throughout the practicum project. The end product is an original piece of work that the students are responsible for presenting to the Northeast Council of Governments.

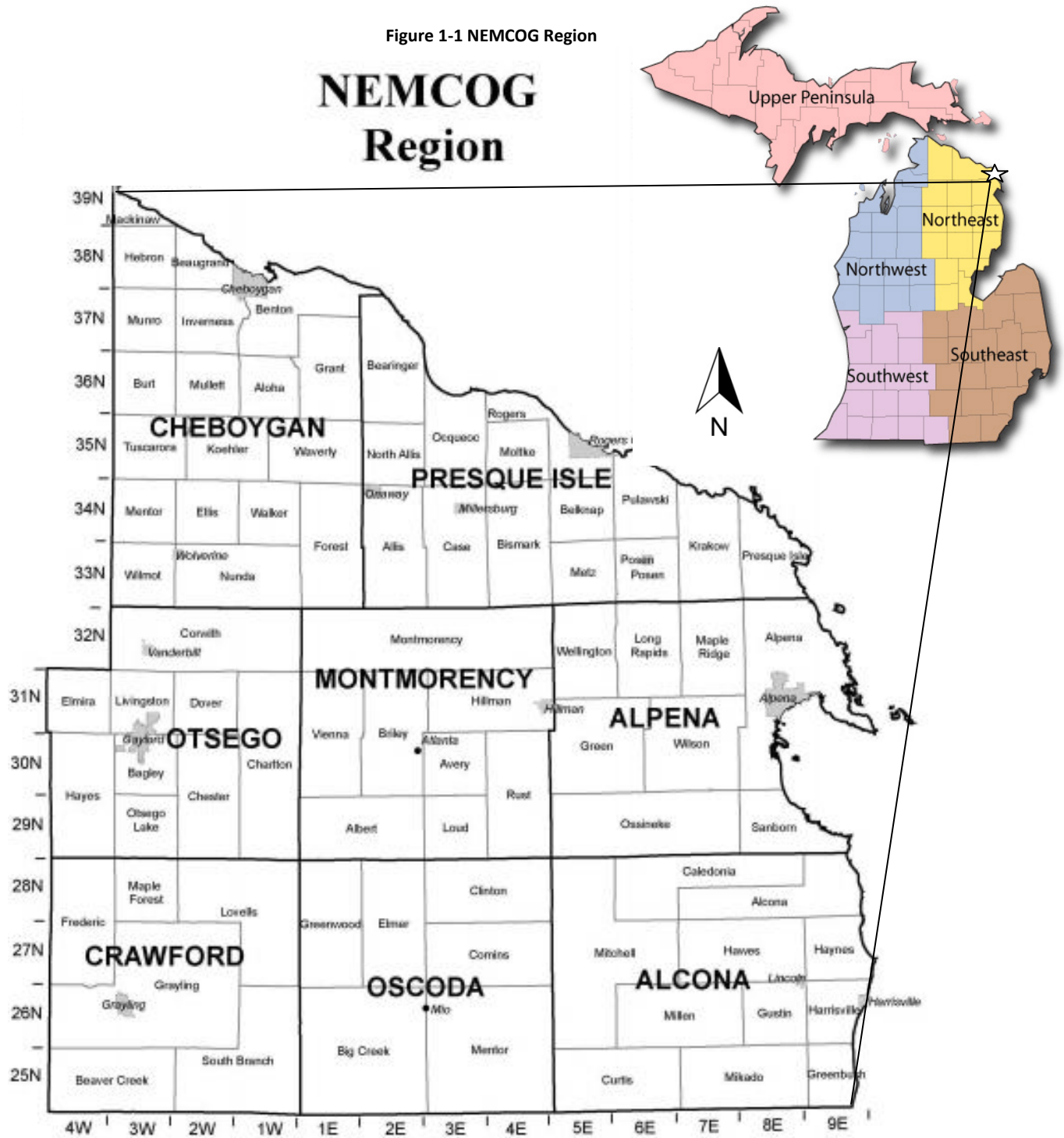
### Client: Northeast Michigan Council of Governments (NEMCOG)

Cities, townships and counties in rural areas often cannot afford the staff to do grant writing, comprehensive land use, zoning, transportation planning, digital mapping, economic & community development, integrated environmental planning, & the coordination of other services. The Northeast Michigan Council of Governments (NEMCOG) was established in 1968 as a multi-county organization to pool resources for the assistance of local governments in the region. NEMCOG is governed by a policy board that includes elected officials, business leaders and citizen representatives from throughout the eight-county region. Services are supported by local government appropriations, special services contracts and state and federal grants.

**NEMCOG MISSION:** NEMCOG is a team of highly motivated individuals who are dedicated to the betterment of the Northeast Michigan Region. The team is committed to facilitating the development of intergovernmental cooperation and coordination within the eight counties of the northeast region. The agency provides for controlled growth policy, to preserve, and improve the environment, to pursue greater efficiency and responsibilities of local units of government, and to improve their ecological, social and economic well-being.

NEMCOG encompasses 4,994.5 miles with eighty-one townships, fourteen cities and villages, 103 local governments and eight counties: Alcona, Alpena, Cheboygan, Crawford, Montmorency, Oscoda, Otsego and Presque Isle represented in Figure 1-1:

Figure 1-1 NEMCOG Region



Source: Adapted from NEMCOG and StateParks.com

NEMCOG is a catalyst for strategic planning, and in this role has assisted local governments in obtaining millions of dollars in federal and state grants for vital local projects and services. In addition to planning, NEMCOG also sponsors many other programs, including Community Corrections and Watershed Projects.

The Northeast Michigan Council of Governments staff possess expertise in many areas, This expertise is used in assisting local governments prepare and write grant applications to receive state and federal funding for important local projects and services. Data Services, including research & analysis of census & other data, are offered on a wide range of topics: population, income, economic indicators, education, tourism, housing among others.

NEMCOG has been a leader in utilizing digital technology for the creation of accurate maps for counties, cities and townships for purposes of landuse information, parcel ownership identification, equalization, assessments, tax parcel identification and oil/gas pipeline location. The NEMCOG Geographic information Systems department provides direct mapping services in each of these areas. Computer services, including technical assistance for local governments to establish their own computer mapping systems are also offered.

The Northeast Michigan Council of Governments staff assists counties and local governments in the region develop comprehensive land use, zoning and transportation plans. Economic & Community Development are vitally important for the region's economic well being. The NEMCOG staff provides technical assistance and planning expertise to promote economic & community development in the region. NEMCOG has built strong relationships with environmentally concerned organizations in the region working with the public and local officials to improve public policy on such issues as water quality protection, soil erosion and recycling ([www.nemcog.org](http://www.nemcog.org)).

## **Project Overview**

NEMCOG received a grant from the Michigan Coastal Management Program in 2011 to study the economic potential of their regional ports (Alpena, Cheboygan, Rogers City). The goal is to provide the foundation for further development of existing ports by completing an inventory of port and community assets; and identify opportunities and constraints, strategies for future activities and opportunities for regional collaboration. (NEMCOG)

## **NEMCOG Goal**

From this project NEMCOG's short term goal is to provide the foundation for further development of existing ports of Alpena and the surrounding regional ports by completing an inventory of port and community assets; and identifying opportunities and constraints, strategies for future activities, and opportunities for regional collaboration. The long term goal is to utilize this information to expand opportunities for commerce and recreation at the ports of Cheboygan, Rogers City, Presque Isle and Alpena.

## Project Statement

NEMCOG has a four stage regional plan in a place to accomplish port initiatives. For the purposes of this study the Alpena Port Inventory will focus on stages two and three of the four stages listed below.

### Stage One – Regional Ports Committee:

Establish a regional port’s planning committee comprised of key stakeholders including communities, organizations, individuals, businesses and users to participate in development of the study. The regional committee will meet three times over the project timeframe. Kick off meeting to discuss project and request information needed for inventory of assets. Meeting to discuss the inventory of assets section. Meeting to discuss opportunities, constraints and regional collaboration.

In addition, NEMCOG staff will meet with each community to identify opportunities, constraints, goals and strategies.

### Stage Two - Inventory of Port Assets and Community Assets:

The inventory will include both on-site and off-site assets. Table 1-1 shows a listing of anticipated assets that may be surveyed. Where relevant, information will be incorporated into GIS data sets for use in the study and in a format that can be shared with port communities. Transportation between ports and transportation within the port community will be considered. The Port City Collaborative Inventory of Assets process will be utilized.

**Table 1-1 Project Asset Inventory**

On-site Inventory	Off-Site Inventory
Land use	Importers/Exporters
Zoning	Inland Transportation and Utilities
Property Ownership	Rail Transportation
Existing facilities, uses and ownership	Trunk Lines
Ferry service	Rail Car Switching
Environmental issues e.g. Brownfields	Highways and Arterials
Cultural	Projected Traffic Volumes
Recreational	Port Economic Improvements
Commercial businesses	Utilities
Industrial businesses	Water Service
Intermodal connectivity	Sanitary Sewers
Marine terminals for cargo and passengers	Drainage
Support facilities, dockage, wharfs, fuel	Natural Gas
Navigation systems	Electricity
Port communication system	Community Recreational
Navigation capacity and water depths	Community Cultural
Port Terminal Operators	Broadband Capacity
Broadband Capacity	
Environmental response capability	
Governmental Agencies and Organizations	
Financial assets and funding sources	

Source: NEMCOG

#### Stage Three – Community and Port Background Information:

Other information to be gathered as part of the study process will include community demographics and economic activity. Port information concerning legal authority, current organizational and management structure, marketing and port history and development will be collected. This information will be used to help in the identification of opportunities and constraints.

#### Stage Four – Regional Roles of Ports:

NEMCOG staff will meet with each individual community to assess the findings of the asset inventory. Each port community will identify opportunities and constraints, and establish goals and strategies. Industrial, commerce, recreational and cruise ships usage will be considered. The results will be incorporated in the study process. The regional committee will meet for the final time within the study timeframe to share information from each of their ports and identify strategies for regional collaboration.

### **MSU Practicum Team**

The MSU practicum team will provide a framework for how to redevelop and maximize local economic potential to create viable, efficient and sustainable regional ports. This will be accomplished by conducting an asset inventory, SWOT analysis, and acquire demographic and economic information for the City of Alpena so that the Northeast Michigan Council of Governments can better achieve short term and long term goals of providing a foundation for further development of existing assets and potential strategies for developing future economic and recreational growth at the port of Alpena and the surrounding region.

### **Methodology**

This goal is accomplished through an initial site visit and further evaluation of community assets, inventory, needs and wants. The team researched on-site (port land area) and off-site (surrounding community) land-use, demographics, technology, tourism and economic viability through local experts and state and national data-bases. Furthermore, collaboration with Team Cheboygan (another MSU practicum team conducting an asset inventory of the port in Cheboygan Michigan) helped create a sister study providing the region with multi-port analysis. Concluding in a final project document and presentation outlining findings and future recommendations for the Northeast Michigan Council of Governments local port communities.

## 2.) BACKGROUND – THE COMMUNITY OF ALPENA, MI

### Location

Situated on the coast of Lake Huron, the city of Alpena (founded in 1871) acts as the major anchor for Northeastern Michigan. Lake Huron, along with the other four Great Lakes (Superior, Michigan, Erie, and Ontario), is part of a vast network of ports and markets that span across the largest freshwater system in the world. This system is linked internationally through Lake Ontario and the St. Lawrence Seaway to the Atlantic Ocean.

Figure 2-1 Downtown Alpena

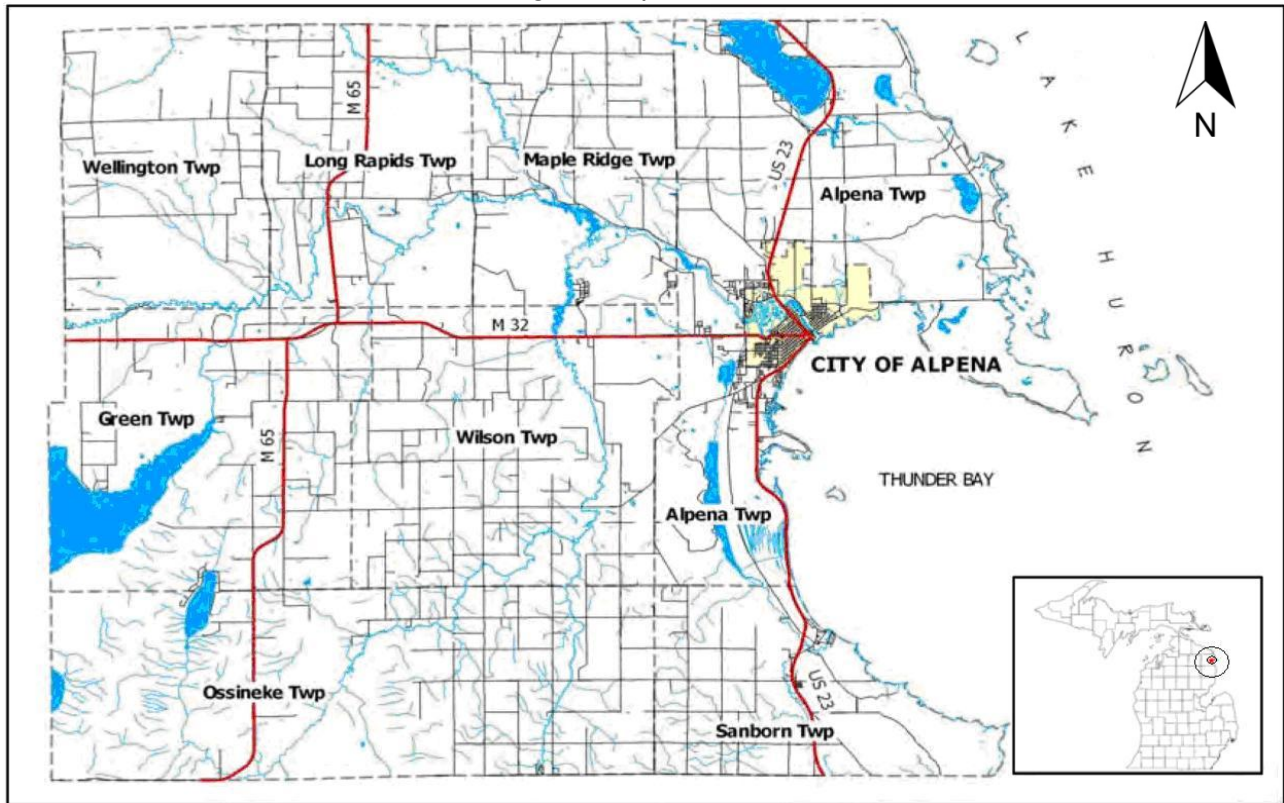


Source: Team Alpena, MSU Practicum

With a population of 10,483 (U.S. Census 2010), Alpena is one of these ports. The City of Alpena thrives on outdoor recreation, tourism, and industrial manufacturing and is an urban core of Northeastern Michigan, surrounded by land that is mostly rural and sparsely populated. As shown in Figure 2-2, US-23 (which runs north and south) and M-32 (which runs east to west) serve as the main roadway arteries in and out of the city.



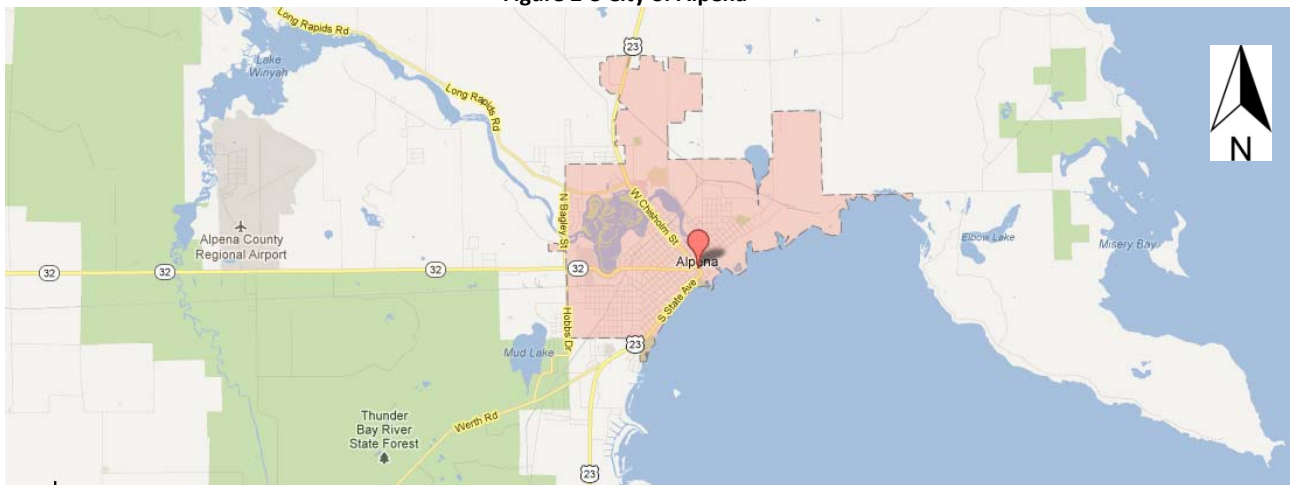
Figure 2-2 Alpena, MI



Source: Alpena Comprehensive Plan 3

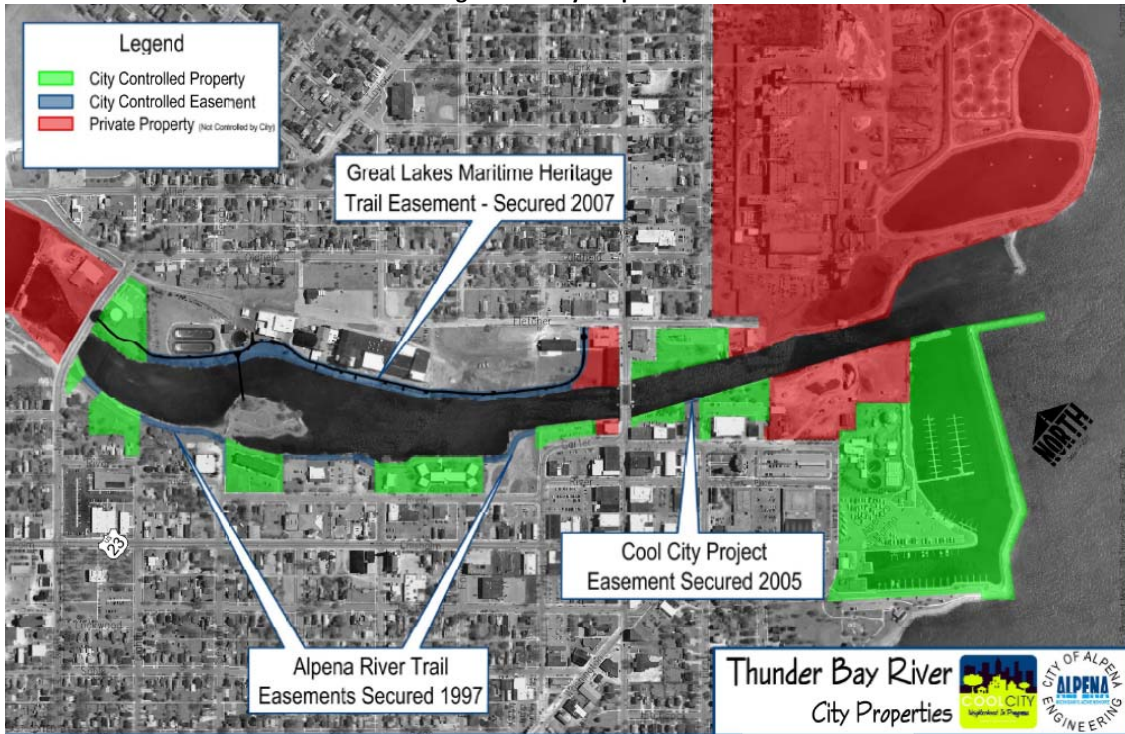
In the hopes of achieving its full potential, Alpena is aggressively seeking ways to strengthen its role as the anchor of Northeastern Michigan. This study seeks to assist Alpena in that task by specifically examining port economic activity.

Figure 2-3 City of Alpena



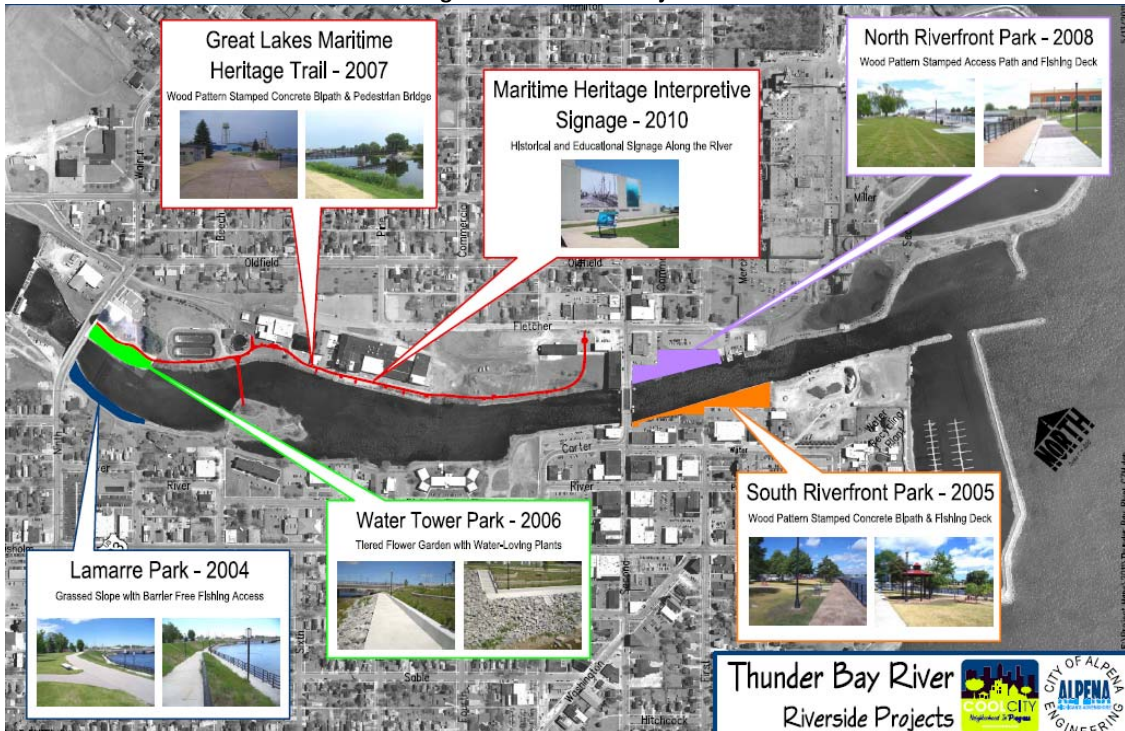
Source: Adapted from Google Maps

Figure 2-4 City Properties



Source: Alpena Riverscape CZM Grant Application

Figure 2-5 Riverside Projects

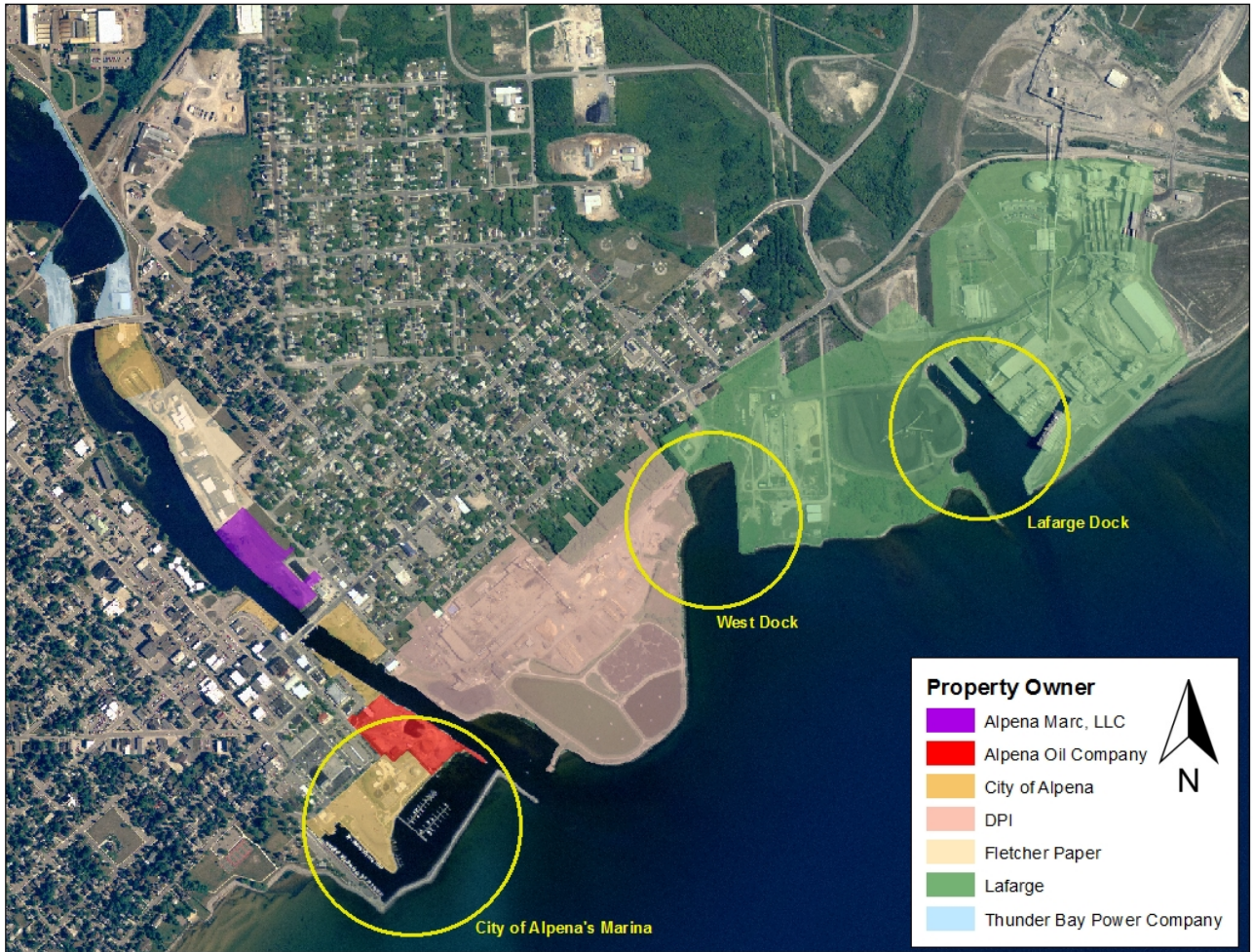


Source: Alpena Riverscape CZM Grant Application



As depicted in Figure 2-6, the properties along the ports are a mix of privately owned industrial sites and river front property owned by the city.

Figure 2-6 Map of Alpena Port Property Owners



Source: Adapted from NEMCOG

## Port Properties

The following are parcel specific descriptions of key port properties in Alpena, MI and adjacent to the City of Alpena Marina, West Dock and LaFarge Dock. These parcels are crucial assets to Alpena’s current and future economic infrastructure and are focal points to the overall analysis of this document. More information regarding these properties is provided throughout the document and can be found under the “Community and Planning and Zoning” and “Economic Activity Analysis” sections.

## LaFarge

LaFarge is a French owned industrial company specializing in: cement, construction aggregates, concrete and gypsum wallboard. In 2010 the company was the world's second-largest cement manufacturer by mass shipped. The LaFarge Alpena Plant produces cement and concrete, and is the largest dock in Alpena.

LaFarge North America is the largest diversified supplier of construction materials in the U.S. and Canada. It produces and sells cement, ready-mixed concrete, gypsum wallboard, aggregates, asphalt, paving and construction, precast solutions and pipe products (LaFarge North America).

The Lafarge Alpena limestone plant operates out of the Lafarge Dock at the Port of Alpena, which is privately owned and operated by Lafarge North America. The Lafarge dock is located north of the Port of Alpena channel and downtown Alpena (See Figures 2-6 and 2-9).

**Figure 2-7 LaFarge Alpena Plant**



Source: Team Alpena, MSU Practicum

**Figure 2-8 LaFarge Plant from Thunder Bay**



Source: Team Alpena, MSU Practicum

LaFarge manages the most private sq footage of lake front property on Thunder Bay. The property is private access only and is adjacent to both residential and commercial property on its west side. Approximately 230 employees work at the LaFarge Alpena Plant and the Alpena quarry has approximately 75 years of viability.

The port receives coal shipments by lake freighter 2-3 times per year for its generators and cement is transported from the plant continuously during the shipping season, which is when the waterways are not frozen over. More is discussed regarding the LaFarge Dock economic activity in the Economic Activity Analysis section of this document.



Figure 2-9 LaFarge Dock and Property



Source: Adapted from NEMCOG

### Decorative Panels International (DPI)

DPI-Alpena Hardboard is located in downtown Alpena, Michigan, on the banks of Lake Huron's Thunder Bay and the Thunder Bay River. The doors first opened as Abitibi in 1957. The plant currently has approximately 185 employees and has been an important part of the local community and economy. Since the opening of the facility in 1957 it has gone through a few changes. In 1967 the mill became an Abitibi-Price Corporation facility. Then in 1993 ABT Comp. purchased the facility and sold it to Louisiana-Pacific Corporation in 1999. The most recent change was in 2004 when the facility was purchased by Decorative Panels International and is now known as Alpena Hardboard (Decorative Panels International). More information regarding the economic activity of DPI is in the Economic Activity Analysis section of this document.

Coal is unloaded by cargo lake freighter for its generators 2-3 times per year. Shipments of finished wood paneling products are handled by truck utilizing highway US 23. DPI does not export any shipments by cargo lake freighter.

**Figure 2-10 DPI Plant**



**Source: Team Alpena, MSU Practicum**

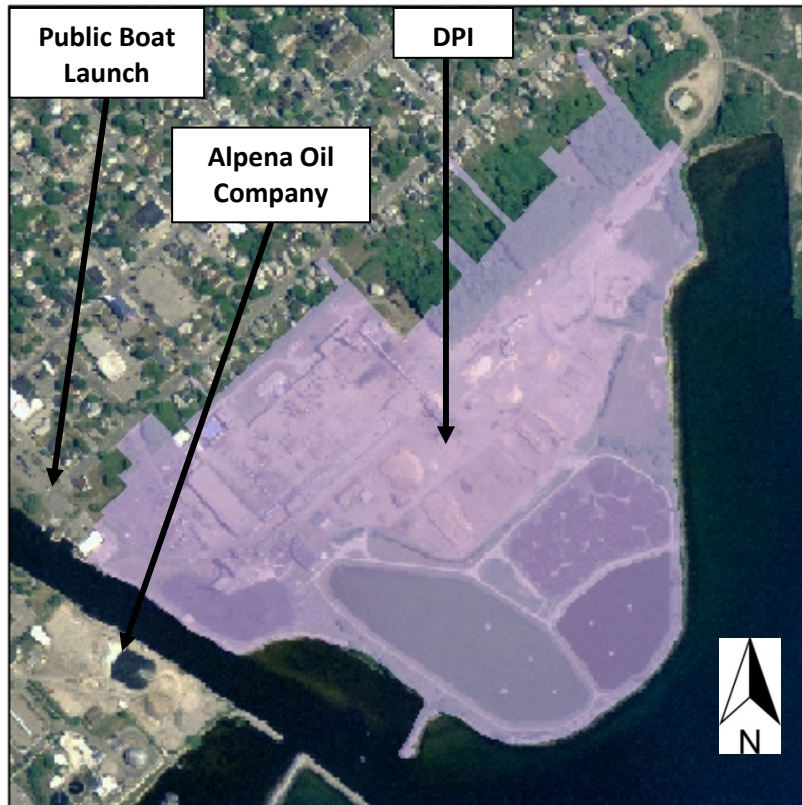
**Figure 2-11 DPI Plant from Thunder Bay**



**Source: City of Alpena**

The property is private access only and is adjacent to mostly residential as well as some commercial to the west.

**Figure 2-12 DPI Dock and Property**



**Source: Adapted from NEMCOG**



## Alpena Marina and Waterfront Property

The City of Alpena's Waterfront property encompasses the City of Alpena Marina, two water front parks, as well as a public boat slip. All of these properties are open to the general public year round. Throughout the year the Marina employs three full-time and three part-time employees.

**Figure 2-13 Alpena Marina**



Source: City of Alpena

**Figure 2-14 Alpena Waterfront Park**



Source: City of Alpena

**Figure 2-15 Alpena Small Boat Harbor**



Source: Team Alpena, MSU Practicum

The Marina is adjacent to commercial property to the west and industrial property to the north. Both parks are bounded by commercial property. The public boat slip is adjacent to commercial, residential and industrial use. More information regarding the economic activity of the Marina is in the Economic Activity Analysis section of this document.

Figure 2-16 City of Alpena Marina and Water Front Property



Source: Adapted from NEMCOG

### Old Fletcher Paper Company

The Fletcher Paper Company building dates back to 1856 when a lumber mill was established by George Fletcher in Alpena to harvest the lumber in the surrounding area of the Thunder Bay River. The property is upstream from Lake Huron on Thunder Bay. The business turned to paper in the late 1890s as part of several businesses in Alpena that were established by the Fletcher Family. The Fletcher Paper Company and its factory in downtown Alpena ceased operation in 2000.



Figure 2-17 Old Fletcher Paper Company



Source: Team Alpena, MSU Practicum

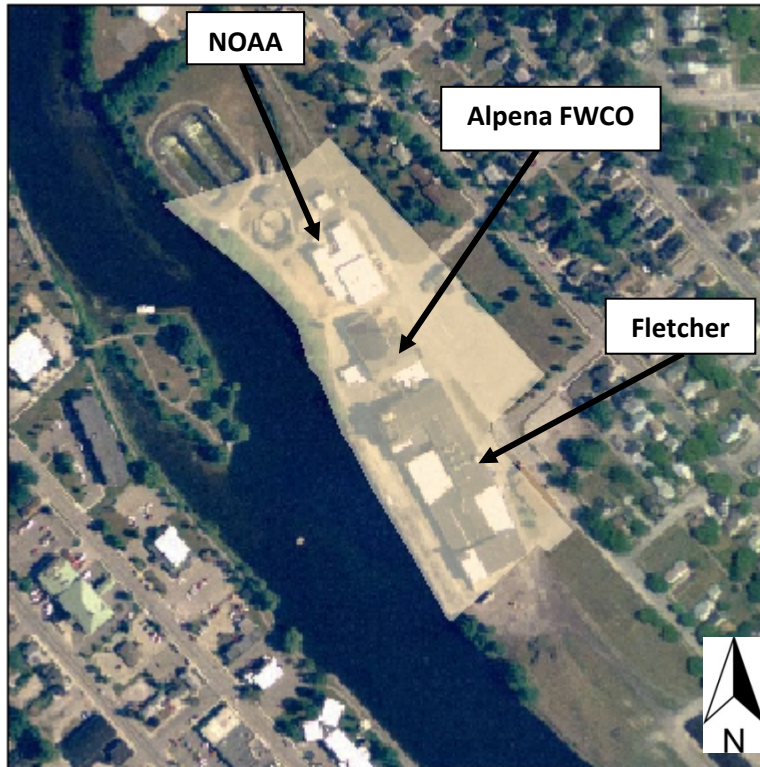
Figure 2-18 Fletcher Riverfront Corridor



Source: City of Alpena

The now vacant factory is currently a focus of the City's economic development plans and provides an attractive location for a future manufacture that can utilize the properties dock and port access. The property is currently owned by Alpena Marc, LLC. More information regarding this property is in the Community Planning and Zoning section of this document.

Figure 2-19 Old Fletcher Paper Company, NOAA and FWCO



Source: Adapted from NEMCOG

## National Oceanic and Atmospheric Administration (NOAA) – Great Lakes Maritime Center

The National Oceanic and Atmospheric Administration – Great Lakes Maritime Facility is situated at the Port of Alpena on Thunder Bay just north of the Alpena Fish and Wildlife Conservation Office and the Old Fletcher Paper Company building (Figure 2-19). This property was redeveloped by Alpena Marc, LLC for NOAA. The facility's dock is located west of the channel drawbridge and east of the Lake Besser damn. The channel's water depth becomes very shallow just past the NOAA dock to the Lake Besser damn side, making large ship access this far up river difficult.

**Figure 2-20 NOAA front of building**



Source: NOAA

**Figure 2-21 NOAA from the riverfront**



Source: NOAA

The NOAA Great Lakes Maritime Heritage Center is a visitor center for the Thunder Bay National Marine Sanctuary and Underwater Preserve. The Center's 20,000 square foot river front facility is Gold LEED certified, and is managed jointly by NOAA and the state of Michigan. The building houses twelve full-time employees and several part-time and volunteer personnel throughout the year. The Michigan Historical Center represents the state in managing the sanctuary (NOAA). More information regarding the economic activity of the NOAA Great Lakes Maritime Center is in the "Economic Activity Analysis" section of this document.

## Alpena Fish and Wildlife Conservation Office (Alpena FWCO)

The Alpena Fish and Wildlife Conservation Office (Alpena FWCO) is located in Alpena, on the channel of Thunder Bay between NOAA and the Old Fletcher Building (Figure 2-19). This property was redeveloped by Alpena Marc, LLC for FWCO. FWCO houses thirteen full-time employees and is part of the U. S. Fish and Wildlife Service's Midwest Region (Region 3).



Figure 2-22 Alpena FWCO



Source: FWCO

Figure 2-23 U.S. Fish & Wildlife Service Logo



Source: FWCO

The Alpena FWCO opened in June 1992 and was authorized through the "Great Lakes Fish and Wildlife Restoration Act of 1990" which called for the establishment of Service operated Upper Great Lakes Fishery Resources Offices to provide "operational activities related to fishery resource protection, restoration, maintenance, and enhancement in the Upper Great Lakes." The office operates out of the Midwest Region's Division of Fisheries located in Fort Snelling, Minnesota (FWCO).

Alpena FWCO provides a regional focus for the U.S. Fish and Wildlife Service's mission by providing assistance to the Great Lakes Fishery Commission, States, Native American Tribes and other interested entities -- encouraging cooperative conservation, restoration and management of the fishery resources of the Great Lakes Basin (FWCO).

In addition to fisheries, the office houses an Aquatic Habitat Unit that addresses fish passage concerns and the Partners for Fish and Wildlife Program. The Alpena FWCO conducts a number of fishery and habitat restoration activities. The station's area of coverage includes US waters of Lake Huron and western Lake Erie including connecting waterways - the St. Marys River, Detroit River, St. Clair River, and Lake St. Clair (FWCO).

#### Programs:

- Native Species Restoration
  - Lake Trout Restoration and Lake Sturgeon Investigations
- Treaty Fishery Assistance
- Refuge Fishery Assistance
- Aquatic Invasive Species Issues
- Aquatic Habitat Restoration
  - Fish Passage, Great Lakes Basin Fish Habitat Partnership New and Partners for Fish & Wildlife Program

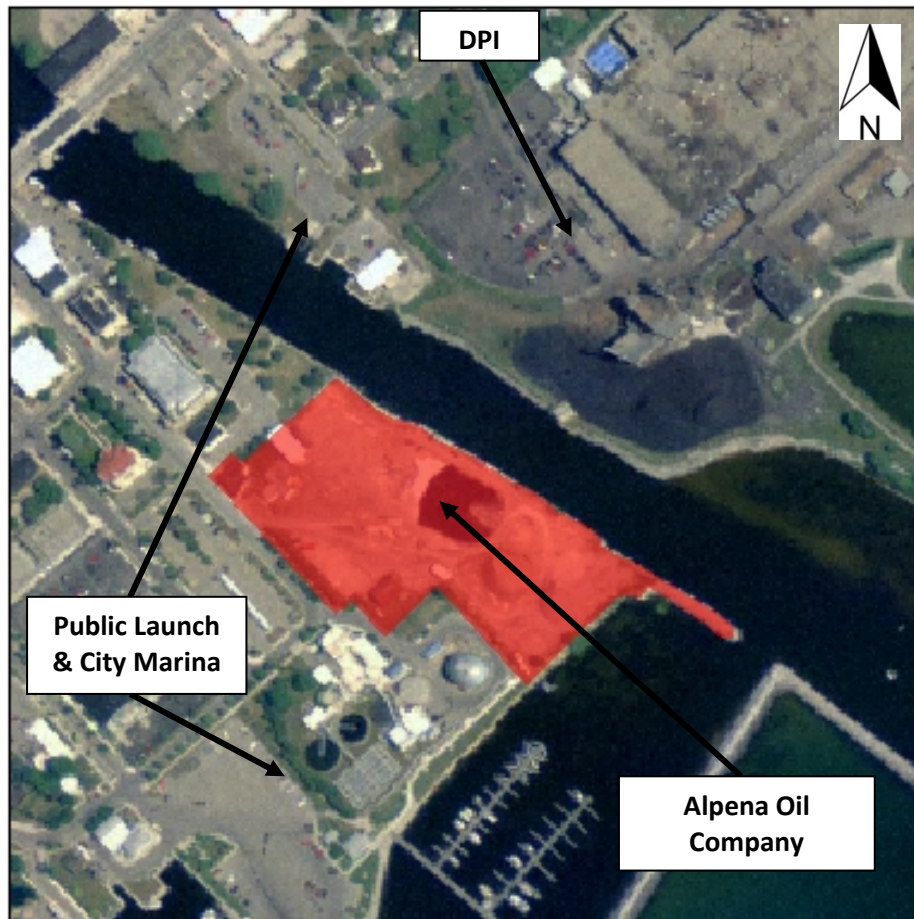
## Alpena Oil Company

The Alpena Oil Company office is located on the Alpena channel adjacent to City Hall and the City of Alpena's Marina to the east and south, as well as commercial property to the west and south (Figure 2-24). This is private water front property. Alpena Oil has served Northern Lower Michigan as a Shell distributor for over 60 years and more recently also as a Marathon and Pacific Pride distributor. Alpena Oil Company provides the following services across Lower Michigan:

- Owns and operates retail gas/convenience stores
- Operates commercial fueling sites
- Sells and distributes gas, diesel fuel, fuel oil and lubricants

Gravel and road salt are unloaded from lake freighter and stored on site for distribution by truck to customers throughout Northern Michigan. However, only office functions for oil and fuel are performed at this site and these commodities are not shipped by lake freighter or truck. Two commercial fishing operations do however operate onsite, independently from the Alpena Oil docks. Approximately fifteen employees work at this location, including those that work on the fishing operations.

Figure 2-24 Alpena Oil Company



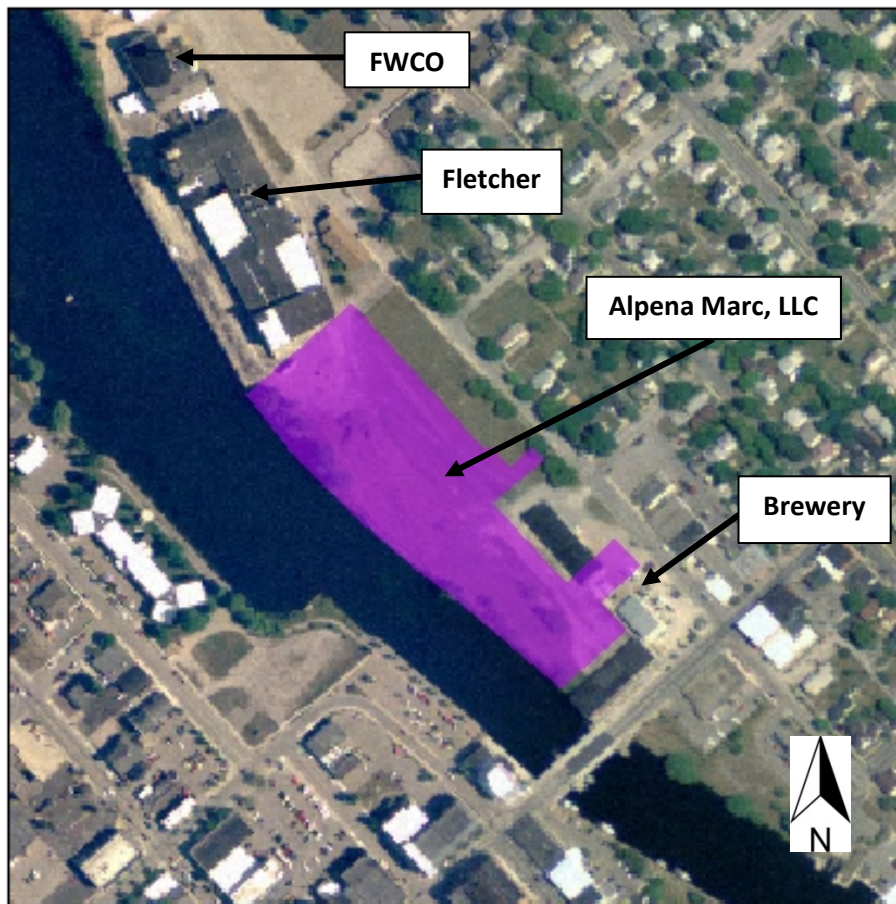
Source: Adapted from NEMCOG

## Alpena Marc, LLC

Alpena Marc, LLC was founded in 2002 and is in the Real Estate Agents and Managers industry in Alpena, MI. This company currently has approximately 5 to 10 employees and annual sales of \$500,000 to \$999,999 (Cortera.com). The intention of Alpena Marc, LLC is to redevelop the current site although concrete plans are not currently in place. However, The Brewery which is situated to the south east side of the property has been developed by Alpena Marc, LLC. As of 2010, the Alpena Marc LLC site along Thunder Bay (Figure 2-25) is registered as a Community Development Block Grant (CDBG) Infrastructure Project. The property is surrounded by the vacant Old Fletcher Paper Building to the west and both commercial and residential properties to the north and east. More information regarding this property is located in the “Community Planning and Zoning” section of this document under “Brownfields”.

The Alpena Marc property has approximately 2,800 feet of river frontage. The old coal boat dock is approximately 600 feet in length and has been restored and is used by NOAA. For over 100 years the Alpena Marc property was part of the Fletcher Paper Mill. A former railroad depot is located at the east end of the site and it has recently been renovated into the current Fletcher Brewing Co. building.

Figure 2-25 Alpena Marc, LLC



Source: Adapted from NEMCOG

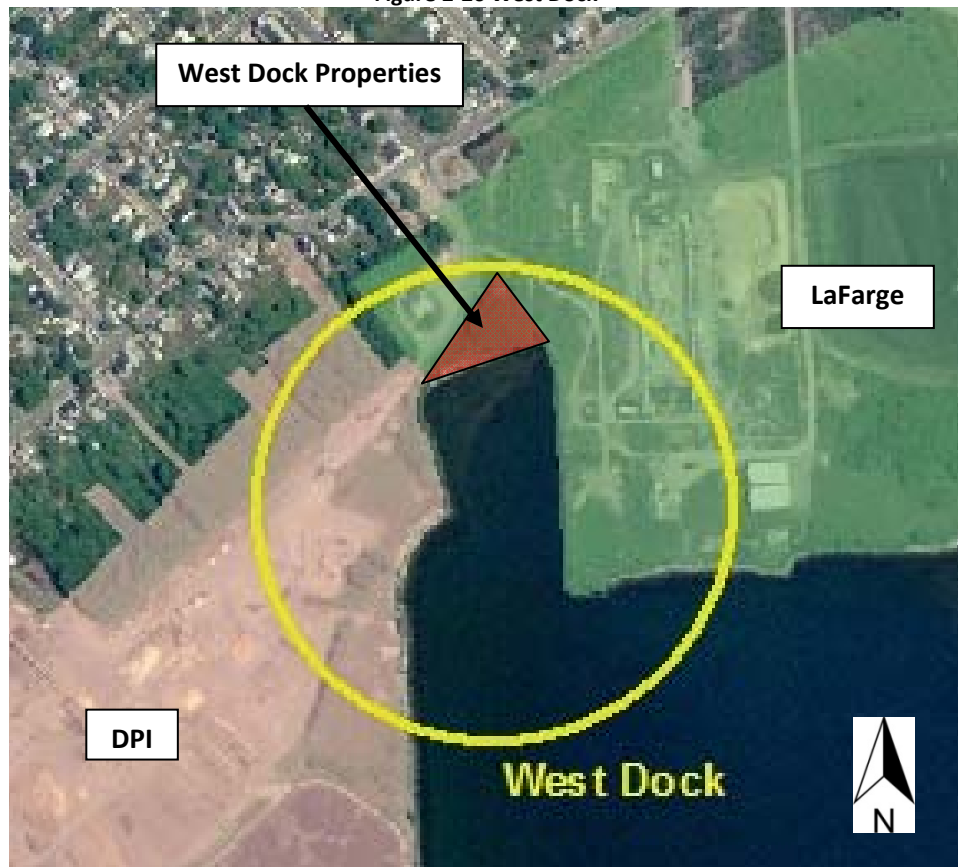
## West Dock

The West Dock once was an active dock for the Fletcher Paper Company and logging operations. Currently the dock is not being utilized. The land abutting the dock is owned by LaFarge and DPI. West Dock Properties, which is owned by Steve Fletcher, currently owns a small piece of land near the LaFarge side of the dock with a land access to Ford Avenue which is the primary access road. All three companies have a say in the docks development and use.

Currently there are no plans for use or development for the dock and adjacent property. Target Alpena did apply for Federal Stimulus funds in 2010 to upgrade the dock with the support of LaFarge, DPI and West Dock Properties; however, funding was not approved and no specific activity relative to the future utilization of the dock has transpired since.

Although the City of Alpena does not own property at the West Dock, the dock has been a focus of future land development and economic activity for the City (City of Alpena). The dock, while not currently connected to Alpena's rail system, has feasibility for the northern section of rail that supplies LaFarge to expand to the West Dock property.

Figure 2-26 West Dock



Source: Adapted from NEMCOG

## Overview of City

Alpena is most recognized as an industrial center for exporting cement and limestone. Its limestone quarry is one of the world's largest and is owned by Lafarge Corporation. Lafarge is an industrial company that extracts and exports limestone and other construction aggregates such as cement.

As the city's motto goes, "Alpena: A warm and friendly port," the city offers numerous historic, and recreational activities that draw a steady summer crowd every year. Alpena is home to the Thunder Bay National Marine Sanctuary, an exhibit sponsored by the National Oceanic and Atmospheric Administration (NOAA), which works to preserve local shipwrecks as well as educate the general public on this significant and nationally recognized collection of shipwrecks. Other forms of recreational draws of the city include fishing, hunting, camping, scuba diving, and snowmobiling.

Some other notable facilities that have taken up residence in Alpena is the Michigan Air National Guard Combat Readiness Training Center as well as the Alpena Regional Medical Center, which is the largest employer of the city (Target Alpena).

## History

In the spring of 1840 the Surveyor General gave contracts to survey the area originally names "Anamakee" after a Chippewa Chief who signed the Treaty of 1826 which was negotiated by Henry R. Schoolcraft. The word "Anamakee" means "Thunder" and corresponds to the French "Anse du Tonners" ("Bay of Thunder") which appears on a French map date 1688. In September 1844 the government lands in Alpena were offered for sale by the United States. Commercial fishing attracted the first European/American settlers to the area in the mid-1830. Lumbering was responsible for the early growth and development of the city. The Thunder Bay River was the basic transportation from logging sites to sawmills located in the city and its port on Lake Huron. Because the harbor is protected by Thunder Bay it became a commercial fishing center.

In October of 1856 after selecting the mouth of the Thunder Bay River, the City founders named their community Fremont as it was the year of the Fremont presidential campaign. They brought with them a Fremont flag to honor the occasion. Late in 1857, a petition was sent to Washington asking for a Post-Office at Fremont. On the 15th of January the papers arrived establishing a Post- Office. Soon after the operation of the Post- Office had commenced, it was found there was another Fremont in the state and that letters went astray. By act of Legislature, February 1859 Fremont was changed to Alpena. Alpena was incorporated as a city in 1871. The population at the time was approximately 3,500.

With the Thunder Bay River, Lake Huron, and the coming of the Detroit and Mackinac Railroad in 1887, Alpena became a hub of transportation. Logging and milling activities flourished. In the early 1900's, companies related to paper production and limestone were formed. The city was laying the foundation of the diversified industries it has today. In 1899, a process for turning limestone into cement was introduced. This innovation led to the formation of the Huron Portland Cement Company and the Besser Manufacturing Company – the largest companies in their field. The addition of the Fletcher Paper Company in 1886 and Abitibi Ltd. in 1955 solidified Alpena as an industrial town. As homes, businesses,



schools, and recreation began to develop and thrive, Alpena became established as the “hub” of northeast Michigan.<sup>1</sup>

## Climate

The climate in Alpena is greatly influenced by its topography and its proximity to Lake Huron. Temperature data from the Midwest Regional Climate Center indicates that the climate along the immediate Lake Huron shore is semi-marine in nature and lacks many of the temperature extremes found only a few miles inland. Summer months are pleasant with considerable sunshine and a daily average of more than 15 hours of daylight for outdoor activities. Summer temperatures as high as 104 degrees have been recorded, but are unusual. According to the Michigan State Climatologist’s Office the 30 year average July temperature is 67.9 degrees Fahrenheit. Winters have comparatively uniform day-to-day temperatures. Sub-zero temperatures have been recorded as early as November 22 and as late as April 2 but have their highest frequency during February. Thunder Bay and Thunder Bay River are usually free of ice by the first week in April, but water temperatures remain low enough to produce diurnal sea breezes during the middle of the day with subsequent reduction in maximum temperatures on many days during the spring and summer. The 30 year average January temperature is 19.9 degrees Fahrenheit. The average date of the first killing frost in autumn is October 4. The average date of the last killing frost is May 12, but frost has occurred as late as June 9.

Precipitation is fairly well distributed throughout the year. Nearly all of the winter precipitation is in the form of snow. Most of the summer precipitation is the result of showers or thundershowers, which occur most often during the months of June, July, and August. Hailstorms average less than one per summer. The 30 year annual average precipitation is 28.59 inches. The precipitation includes the snowfall liquid equivalent. The 30 year average annual snowfall is 67.2 inches. Prevailing winds are from the northwest with the exception of May and June when southeasterly winds predominate.<sup>2</sup>

## Topography

The City of Alpena is located on an old post glacial lake plain. The terrain is relatively flat. At the water’s edge of Lake Huron and Thunder Bay the elevation is 580 feet above sea level with the land gently sloping up westward from the lake shore to 689 feet above sea level at the airport. The highest elevation noted on a USGS topographic map is 675 feet near the intersection of Hamilton Road and US-23. The elevation is approximately 620 feet above sea level along the western border of the City. One exception to the gently sloping landscape is La Farge quarry. The sharply sloping quarry walls define a hole that is approximately 80 feet below the surface level of Lake Huron.<sup>3</sup>

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<sup>1</sup> This section taken from: The City of Alpena, Michigan. “Section 1: Introduction.” In *City of Alpena Comprehensive Plan Charting a Course for Alpena*. Alpena, Michigan, 2010.

<sup>2</sup> This section taken from: The City of Alpena, Michigan. “Section 5: Cultural and Natural Resources.” In *City of Alpena Comprehensive Plan Charting a Course for Alpena*. Alpena, Michigan, 2010.

<sup>3</sup> This section taken from: The City of Alpena, Michigan. “Section 5: Cultural and Natural Resources.” In *City of Alpena Comprehensive Plan Charting a Course for Alpena*. Alpena, Michigan, 2010.

### 3.) DEMOGRAPHICS

The following section will examine the demographics of the City of Alpena and Alpena County compared to the greater NEMCOG region, the State of Michigan, and the United States of America. There are three trends that are occurring in the Alpena area:

- The population is decreasing proportionally faster in the City than in the County;
- There is population decline in both the City and County; and
- The age of the population is on average older in all parts of northeast Michigan than State and Nation.

#### Population

According to Table 3-1, in 1960 the City of Alpena accounted for approximately 51% of the total population of Alpena County. However, in 2010 the City accounted for only 37% of the population. This trend is not isolated to Alpena, but what makes this transition more alarming is that the population of Alpena County is decreasing at a faster rate than the other counties in the NEMCOG service area. From 1990 to 2010 the population of Alpena County decreased by 3% while the population of the rest of NEMCOG counties increased by 19.1%.

Table 3-1 Population Comparison: 1950-2010

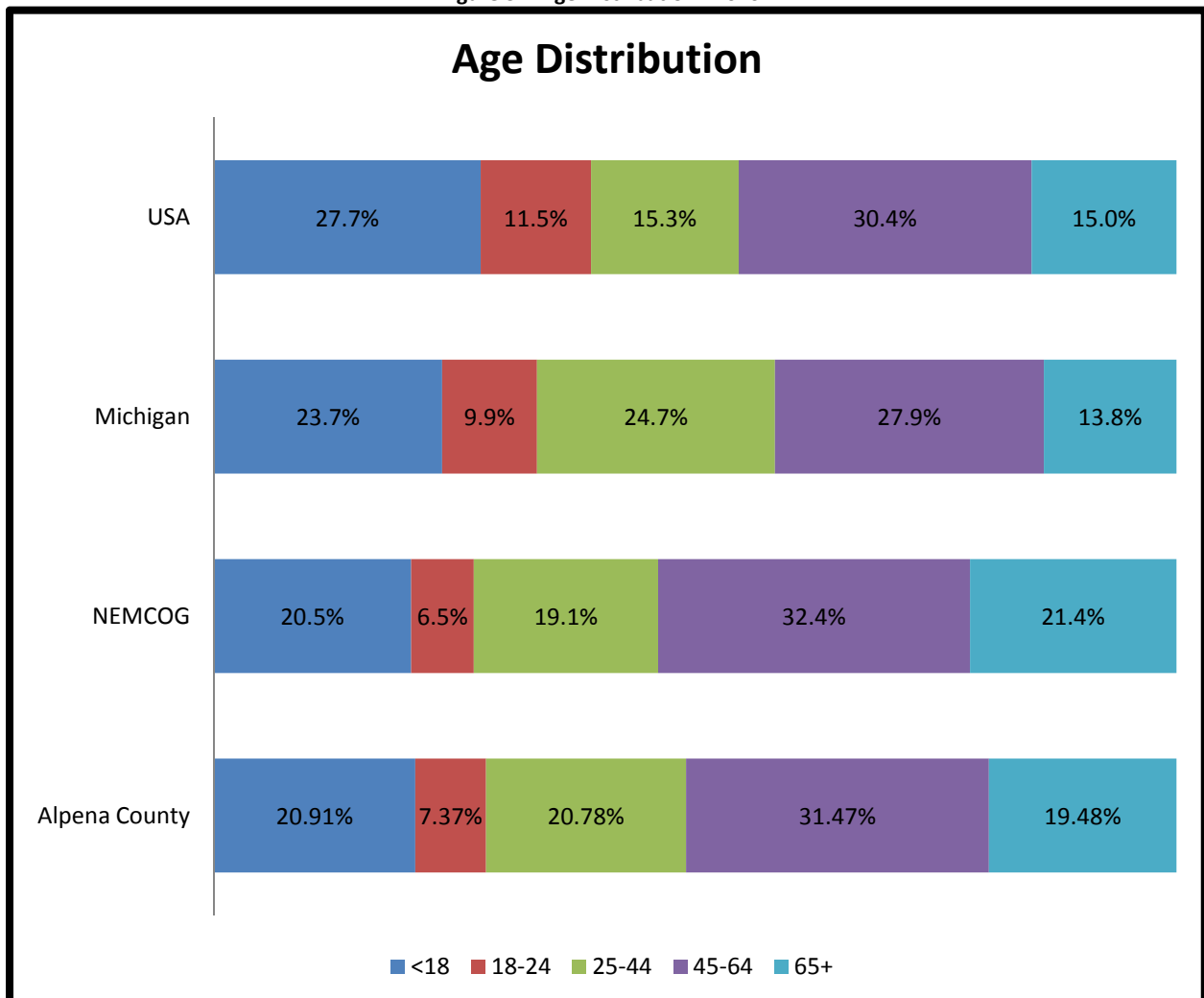
City of Alpena		Alpena County		NEMCOG Service Area		Michigan		
Year	Pop.	Pop. Change	Pop.	Pop. Change	Pop.	Pop. Change	Pop.	Pop. Change
1950			22,189	-	65,962	-	6,371,766	-
1960	14,682	-	28,556	<b>28.69%</b>	70,310	<b>6.59%</b>	7,823,194	<b>22.78%</b>
1970	13,805	<b>-5.97%</b>	30,708	<b>7.54%</b>	81,730	<b>16.24%</b>	8,875,083	<b>13.45%</b>
1980	12,214	<b>-11.52%</b>	32,315	<b>5.23%</b>	106,454	<b>30.25%</b>	9,262,078	<b>4.36%</b>
1990	11,354	<b>-7.04%</b>	30,605	<b>-5.29%</b>	117,321	<b>10.21%</b>	9,295,297	<b>0.36%</b>
2000	11,304	<b>-0.44%</b>	31,314	<b>2.32%</b>	141,322	<b>20.46%</b>	9,938,444	<b>6.92%</b>
2010	10,843	<b>-4.08%</b>	29,598	<b>-5.48%</b>	139,807	<b>-1.07%</b>	9,883,640	<b>-0.55%</b>

Source: United States Census Bureau

## Median Age/Age Groups

The median age for Alpena County is 45.6 and 47.1 for the remainder of the NEMCOG counties. These counties are nearly 10 years older than Michigan (38.9) and the USA (37.2). According to the age distribution (Figure 3-1), only about 28.28% of the 2010 population of Alpena County is under the age of 24, while the national average is 39.2%.

Figure 3-1 Age Distribution - 2010

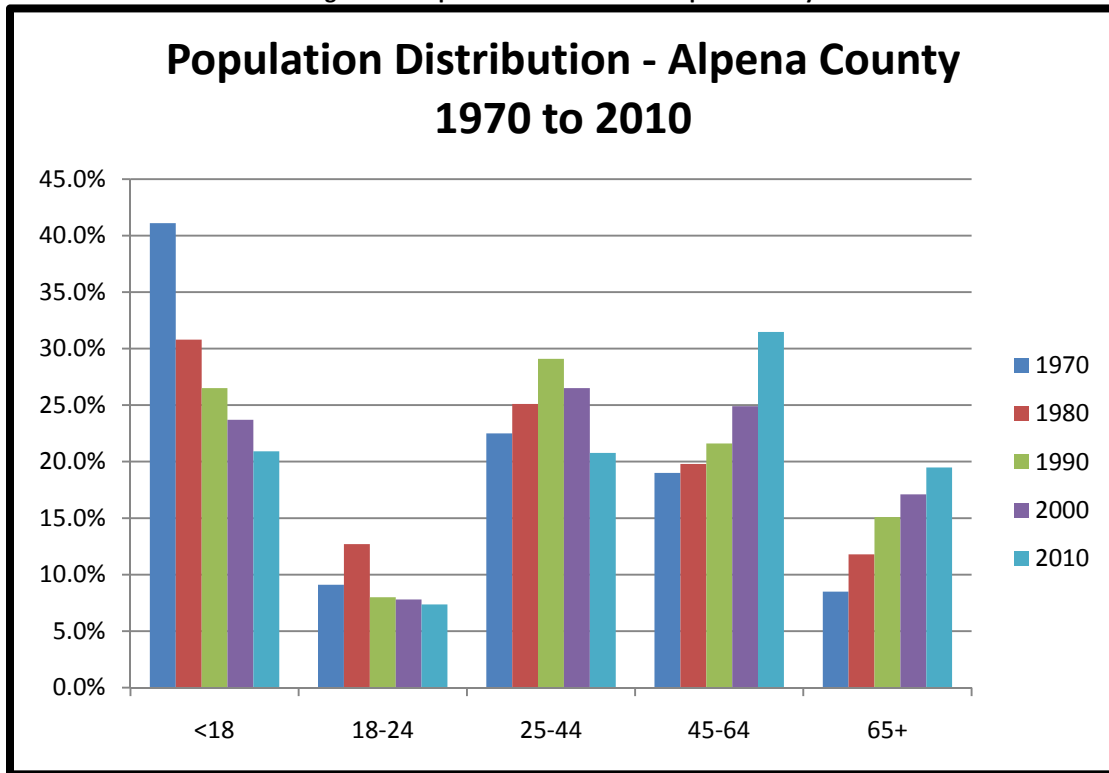


Source: United States Census Bureau

The population aging has been a trend since the 1970's. According to the Census, in 1970 50% of Alpena County's population was under 25 years old. However, in 2010 that number has fallen to approximately 28%. Figure 3-2 depicts the shift from a younger population to predominately older population.



Figure 3-2 Population Distribution – Alpena County



Source: United States Census Bureau

### Economic Status

This next section will look at socio-economic status of Alpena County. In January 2011, the unemployment rate reached 12.6% for Alpena County. However, that same month the unemployment rate was 17.3% for the rest of the NEMCOG counties. The national recession of 2009 has hit Michigan hard, especially northeastern Michigan.

### Employment by Industry

A shift-share index is the change in local employment compared to that of the larger region. The shift-share index in Figure 3-3 was calculated by comparing changes in total employees per industry from the 2000 Census to the 2005-2009 American Community Survey for Alpena County and the State of Michigan.

A shift-share analysis is a useful way to compare job growth in a local sector relative to job growth in the same sector in a larger region, over a period of time. A negative comparative share occurs when the local economy had a decline or a smaller increase in employment within the same sector. Conversely, when the local region had larger growth in a sector compared to the region, it is called a positive competitive share.

Alpena County had a positive competitive share compared to the State of Michigan in the following sectors:

- Transportation and warehousing, and utilities
- Wholesale trade

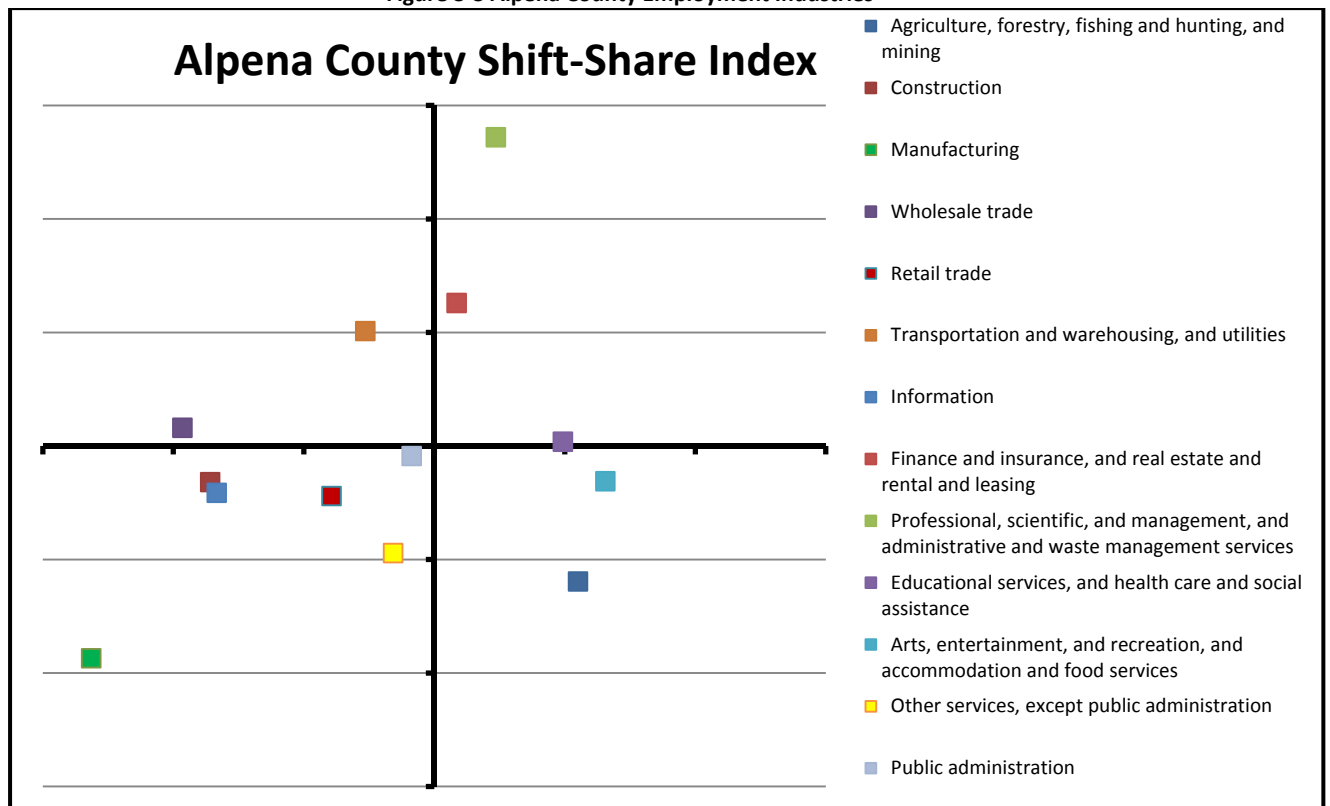
The sectors that are above the x axis have had positive growth in Alpena County between 2000 and 2009. The sectors to the right of the y axis had positive growth in the State of Michigan during the same time frame. Therefore, sectors in the bottom left quartile lost employment locally and regionally, while sectors in the top right quartile gained employment locally and regionally.

The following sectors had positive gains locally and regionally:

- Professional, scientific, and management, and administrative and waste management services
- Finance and insurance, and real estate and rental and leasing
- Educational services, and health care and social assistance

Alpena County has a number of declining industries within its economy, most notably, Manufacturing. The manufacturing sector had huge decreases in the State of Michigan and Alpena County in the past decade. In Alpena County, approximately 881, or 37.4%, of jobs within the manufacturing sector were lost between 2000 and 2009.

Figure 3-3 Alpena County Employment Industries



Source: United States Census Bureau

## Unemployment

The increase in the yearly unemployment rate from 2007 to 2010 in Alpena County was consistent with the other regions. Alpena County jumped by 4.8%, similarly to the rest of NEMCOG (4.5%), the State of Michigan (5.4%), and the USA (5.0%). Although, as the State of Michigan and the rest of the nation seemingly hit their unemployment high marks in 2009, northeastern Michigan has not returned to prerecession unemployment levels, yet.

Table 3-2 Unemployment Rates

Year	Alpena Co.	NEMCOG Service Area	State of Michigan	USA
2000	5.5	6.2	3.7	4
2001	7.7	7.5	5.2	4.7
2002	8.5	8.7	6.2	5.8
2003	9.1	9.3	7.1	6
2004	8.4	9.1	7.1	5.5
2005	7.4	8.3	6.8	5.1
2006	7.5	9.25	6.9	4.6
2007	8.2	9.7	7.1	4.6
2008	8.9	10.9	8.3	5.8
2009	13.4	15.2	13.3	9.3
2010	13	15.2	12.5	9.6

Source: Bureau of Labor and Statistics

## Income and Poverty

According to the 2008-2010 American Community Survey, Alpena County has a median household income of \$36,242. The State of Michigan has a median income of \$46,861 and the national average is \$51,222.

The median income is a reflection of educational attainment. In 2010, 15.5% of the population in Alpena County had at least a bachelor's degree, while in Michigan 25% and nationally 28% possess one. However, this is an increase from 13.2% of the population in Alpena County that had at least a bachelor's degree in 2000.

## Household/Housing Characteristics

It is important to account for the housing stock of the city to determine the urgency of developing goals and objectives focused on retaining residents and renters alike. Table 3-3 below indicates that one tenth or the housing stock in Alpena is vacant (10.3%). The Alpena Comprehensive Plan stresses a more general goal of city vitality and efforts to retain the young population (18-35) after graduation (Comprehensive 8-5).

Table 3-3 Household/Housing Characteristics

Characteristic	Alpena's Number of Units	Percentages (Alpena)	Michigan Number of Units	Percentages (Michigan)
Average Household Size	2.13	N/A	2.53	N/A

**HOUSING OCCUPANCY**

Total Housing Units	5,278	100	4,529,680	100
Occupied Housing Units	4,734	89.7	3,843,997	84.9
Vacant Housing Units	544	10.3	685,683	15.1
For Rent	155	2.9	-	-
Rented, Not Occupied	9	0.2	-	-
For Sale Only	106	2	-	-
Sold, Not Occupied	30	0.6	-	-
For Seasonal, Recreational, or Occasional Use	70	1.3	-	-
All Other Vacants	174	3.3	-	-
Homeowner Vacancy Rate (percent)	3.20%	-	-	-
Rental Vacancy Rate (percent)	8.80%	-	-	-

**HOUSING TENURE**

Occupied Housing Units	4,734	100	3,843,997	100
Owner-Occupied Housing Units	3,145	66.4	2,853,374	74.2
Population in Owner-Occupied Housing Units	7,080	-	-	-
Average Household Size of Owner Occupied Units	2.25	-	-	-
Renter-Occupied Housing Units	1,589	33.6	991,623	25.8
Population in Renter-Occupied Housing Units	3,017	-	-	-
Average Household Size of Renter-Occupied Units	1.9	-	-	-

Source: U.S. Census 2010 American Community Survey

Another characteristic to note is the large portion of the occupied houses in Alpena are rented (33.6%). The amount of rental housing is an important percentage to track as it corresponds with many persons who visit Alpena seasonally in both the summers and winters. Furthermore there have been ongoing projects that are creating more rental housing above commercial development in the downtown to

encourage residents to live there. This is in the hopes of increasing business as well as growth while making the housing market competitive. In light of this the Michigan State Housing Development Authority (MSHDA) has given Alpena a \$300,000 grant through the Community Development Block Grants (CDBG) to continue efforts (Comprehensive Plan 2-12).

## **Summary**

The demographics and economic trends of Alpena County do not paint a bright picture. Alpena County has a predominately older population, compared to the State of Michigan and National demographics, and the total population is at a 50 year low. The educational attainment has increased since 2000, however, not at the same rate as the State of Michigan. Economically, Alpena County, along with the rest of the NEMCOG service area, have not recovered from the 2001 recession. Most notably, job losses in the manufacturing and agricultural sectors have increased considerably in the County since 2000.

## 4.) UTILITIES

Utilities are important to many industries and businesses that operate out of a port. Facilities are likely to need water, sewer, electric, and gas availability for all port activities, manufacturing processes, offices, or commercial activities. The capabilities of a port and the success of its industries are dependent on the availability and capacity of the utility system that serves the port. Overall, the Port of Alpena has comprehensive utility connectivity, with capacity for water, sewer, electric, and gas connections. Figure 4-1 below represents the utility providers for the City of Alpena.



### Water and Sewer

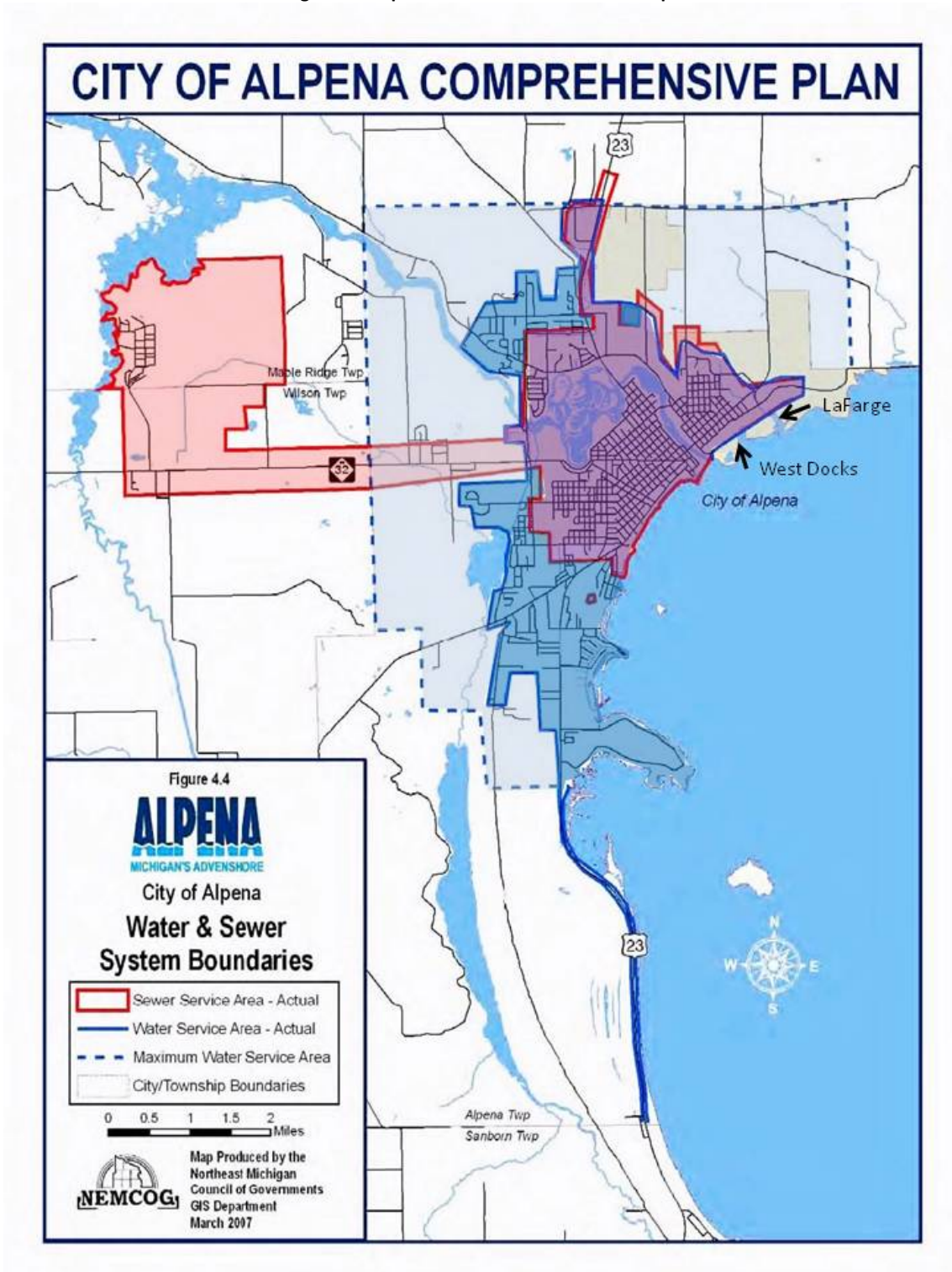
The Alpena public water system serves the City of Alpena and the Township of Alpena. Thunder Bay is the water source, with a water treatment plant located on the lakeshore south of downtown. Operation of the facilities is contracted out to Earth Tech Operation Services, Inc. As of the last Comprehensive Plan for Alpena, there is a capacity of 6 million gallons per day and an average use of 2.1 million gallons per day.

**Sanitary Sewer System:** The City's wastewater treatment plant serves both the city and township and includes an industrial pretreatment program. Methane gas from the treatment process is used to power the plant. The plant has a capacity of 5.5 million gallons per day and an average use of 2.3 million gallons per day.

Both the City Water and Sewer system provide service throughout the port area as shown in the map below. Red areas are only sewer service, blue areas are only water service; but the overlapping area covers the port area and most of the population center. (City of Alpena Comprehensive Plan, 2007)

City of Alpena Utility Boundaries

Figure 4-2 Alpena Water and Sewer Zone Map

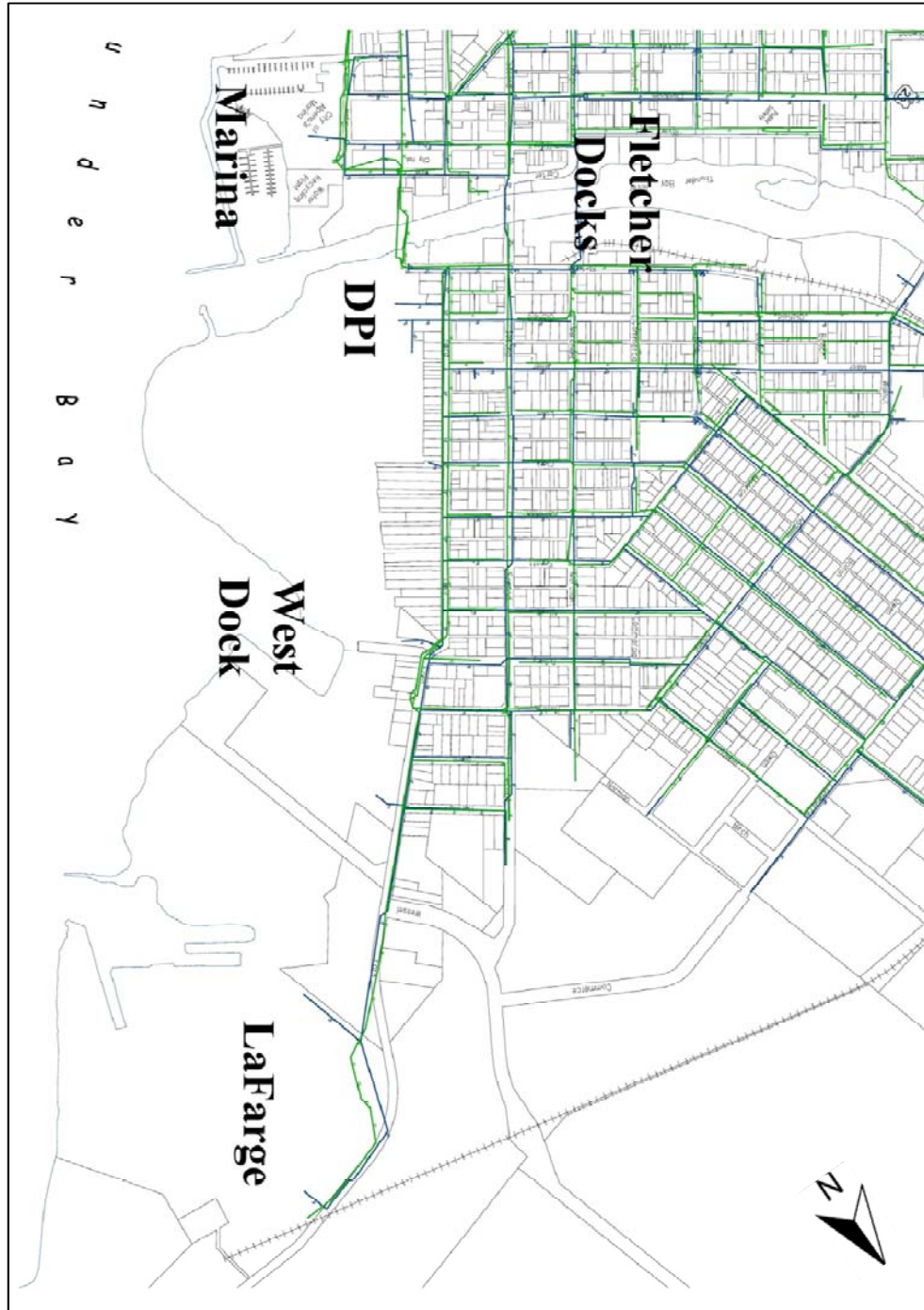


Source: Alpena Comprehensive Plan



The following maps show water and sanitary sewer maps for the Port of Alpena and surrounding area. The Blue lines represent the water pipelines, and the green lines represent sanitary sewer lines. Black lines are property lines. As shown, all port areas are easily connected to comprehensive public service utilities.

Figure 4-3 Port of Alpena Water and Sewer Lines



Source: City of Alpena



Figure 4-4 Fletcher Utilities



Source: City of Alpena

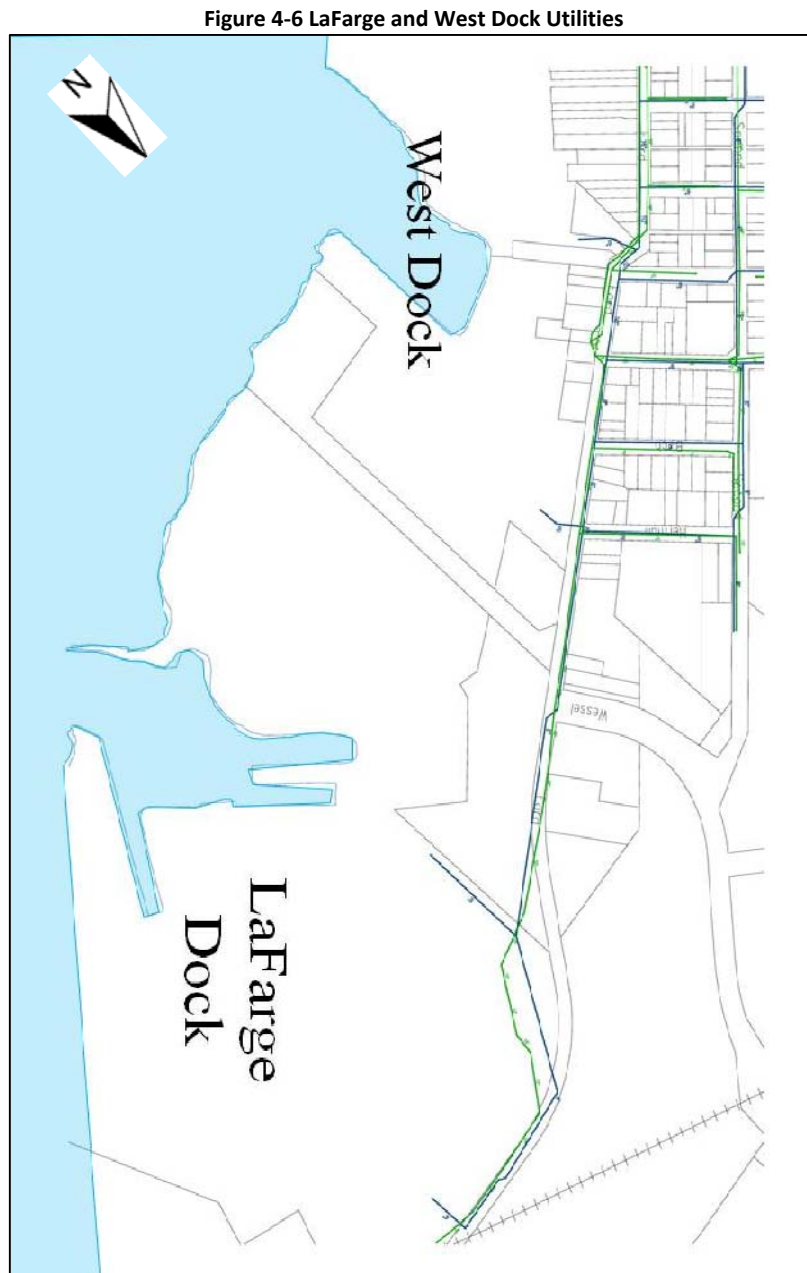
Figure 4-5 shows a localized area around the Thunder Bay River docks near the Fletcher Plant as well as parts of downtown Alpena. Green lines are sewer lines and blue lines are water mains.

Figure 4-5 DPI Utilities



Source: City of Alpena

Figure 4-6 shows a localized area around the lower Thunder Bay River docks including the Decorative Panels International (DPI) facility and parts of downtown Alpena. Green lines are sewer lines and blue lines are water mains.



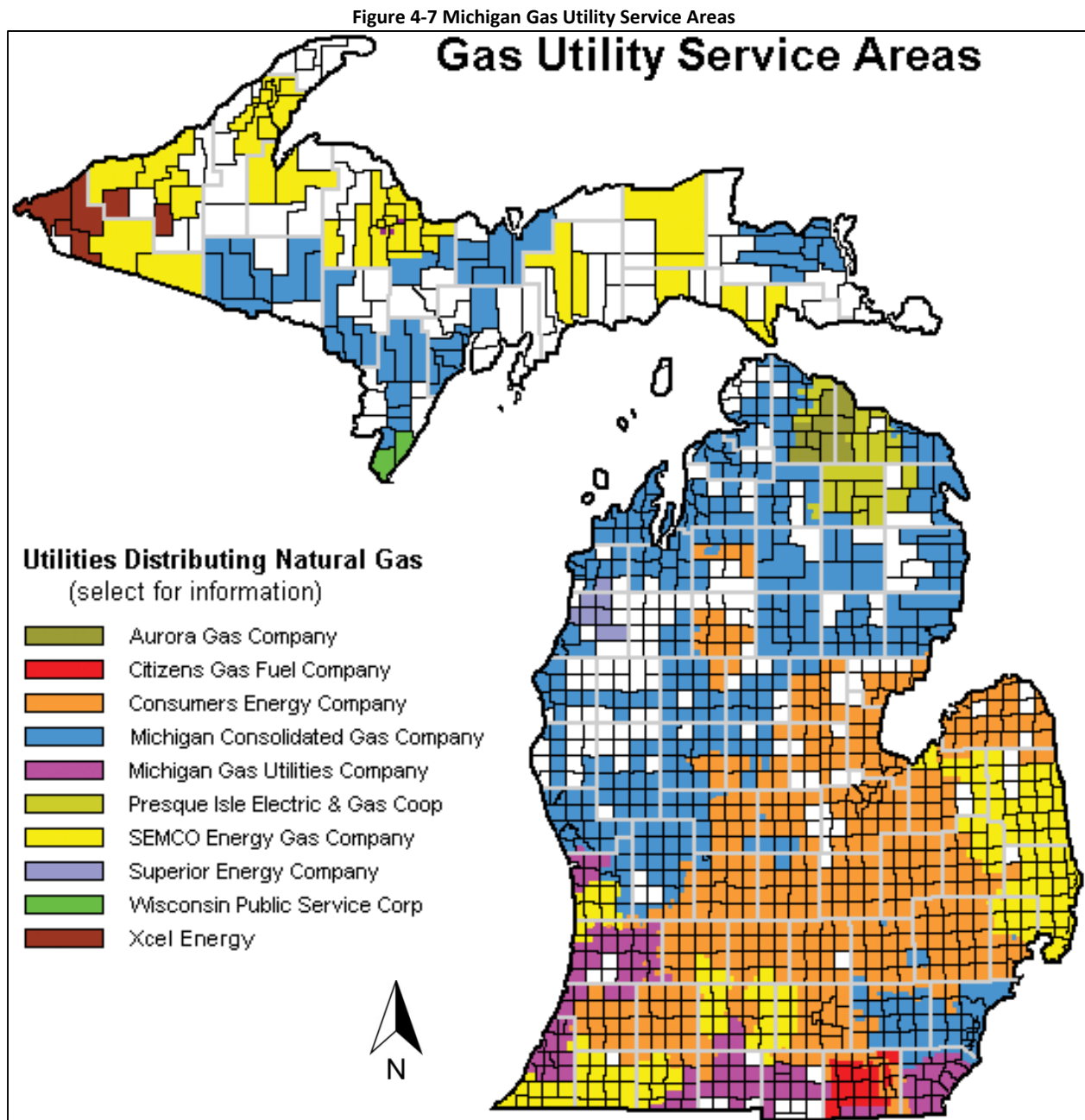
**Source: City of Alpena**

Figure 4-5 shows a localized port area around the LaFarge and West Docks on Thunder Bay which is about 1 mile northeast of downtown Alpena. Green lines are sewer lines and blue lines are water mains.

## Gas

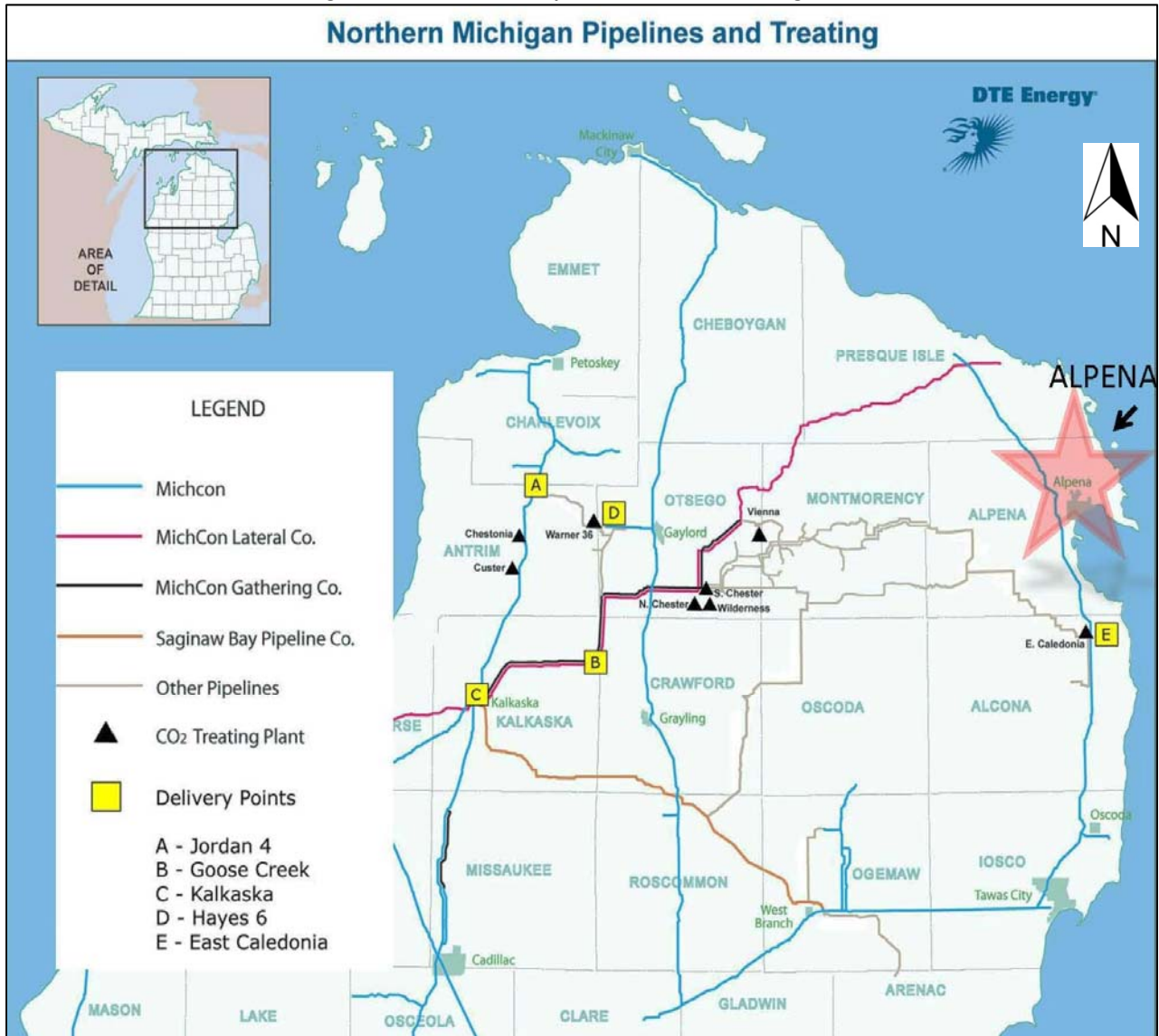
DTE Energy provides natural gas services for Alpena and Port area through the Michigan Consolidated Gas Company as shown in the maps below. DTE is a private entity.

Figure 4-7 shows gas company service areas in Michigan. Alpena is covered by Michcon.



Source: Michigan Public Service Commission, 2009

Figure 4-8 Intrastate Gas Pipelines for Northern Michigan



Source: DTE Energy, 2009

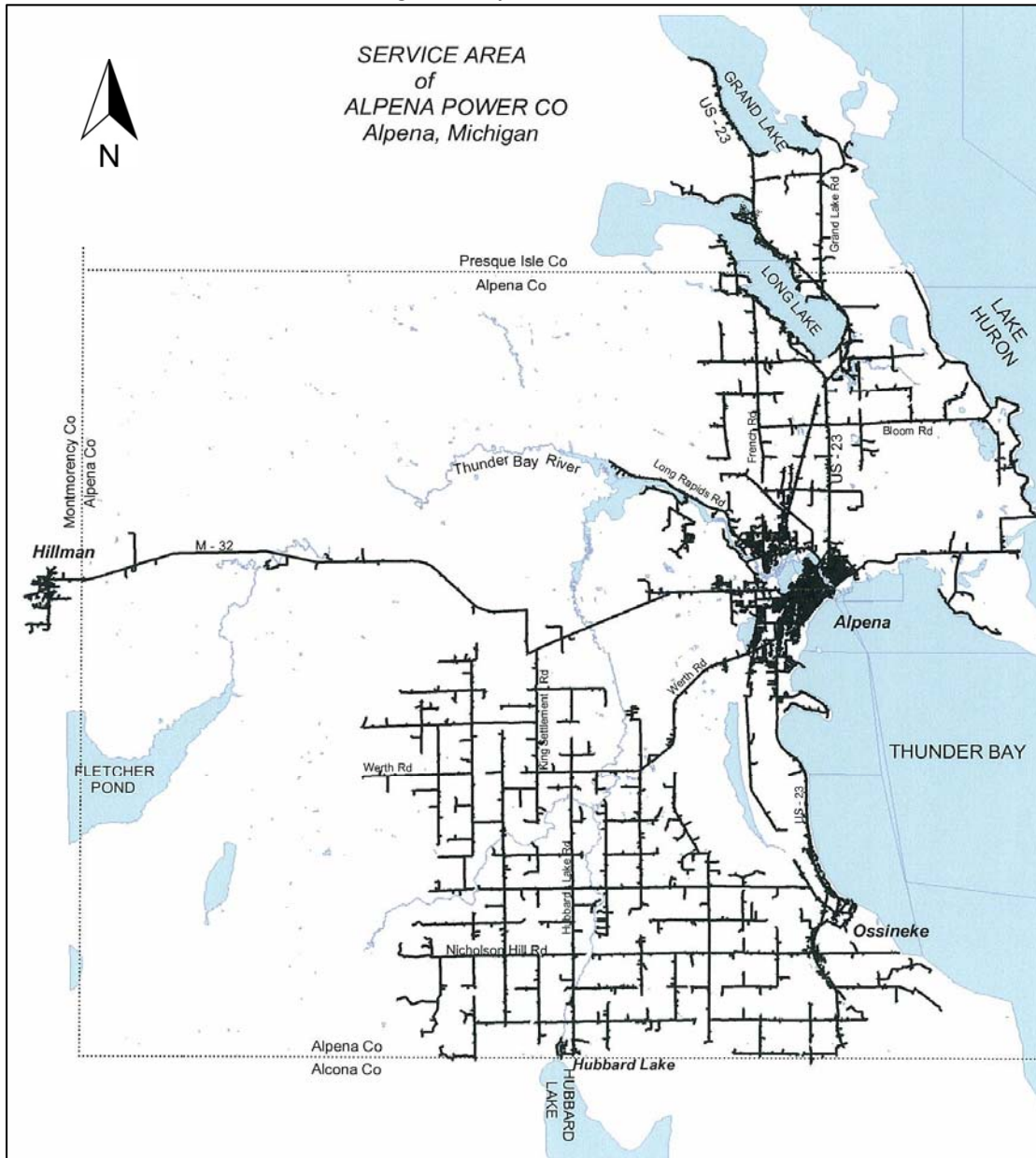
This Map shows natural gas pipelines in Northern Michigan operated by the Michigan Consolidated Gas Company (Michcon) which is owned by DTE and provides gas utility service to Alpena. These regional lines provide services to local communities through delivery points which transfer the natural gas to local services. The Light Blue line along the lakeshore of the Northeast Lower Peninsula represents Michcon service to northeastern communities in Iosco, Alcona, Alpena, and Presque Isle counties.



## Electric

Electric Service: The Alpena Power Company provides the electric service for the City and port. Alpena Power Company is a private entity with service agreements with other utility providers in Michigan. Electricity generation is 62.1% coal, 20.9% nuclear, 11.4% gas, and 5.4% renewable (including hydro). Alpena Power Company provides service to 16,500 residential, commercial, and industrial customers. (Alpena Power Co.)

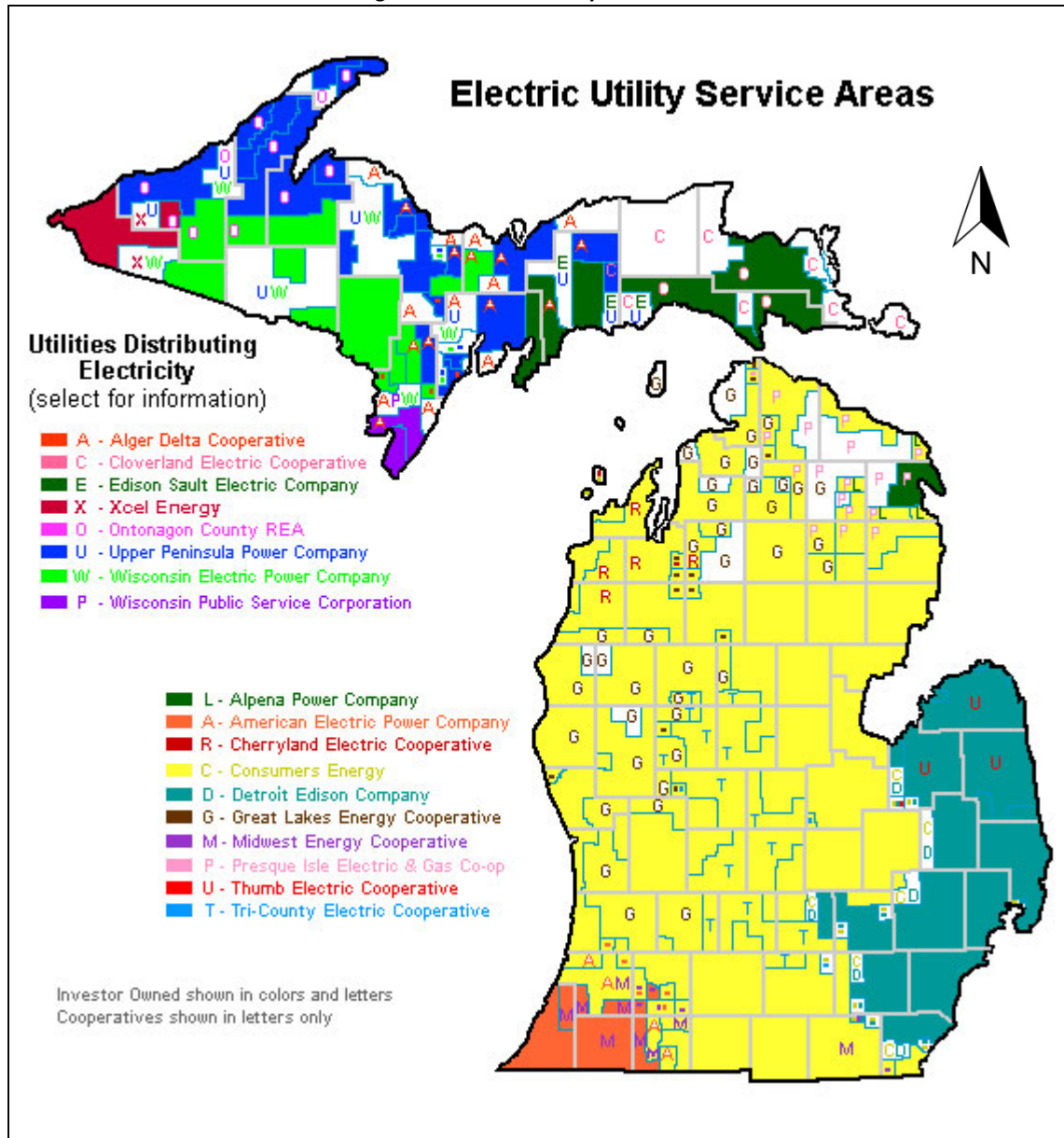
Figure 4-9 Alpena Electric Lines



Source: Alpena Power Company

The lines in Figure 4-10 represent Alpena Power Company electric lines.

Figure 4-10 Electric Utility Service Area



Source: Michigan Public Service Commission, 2011

In terms of area, most of the Lower Peninsula is covered by Consumers Energy, but Alpena in the Northeast Corner is covered by the Alpena Power Company as seen above.

## **Summary**

At this time the Port of Alpena has adequate utility service to support existing port operations and new developments. Electric and natural gas systems are interconnected to larger networks. Water and sewer systems are overseen by the city and provide some service to surrounding townships. Most of the port area already is connected to the city's utility system. Any expansion of port activities into the West Dock would require new utilities connections. Most of the shoreline North of LaFarge would not have easy access to water and sewer systems, but this area is not developed and not generally considered part of the Port of Alpena.

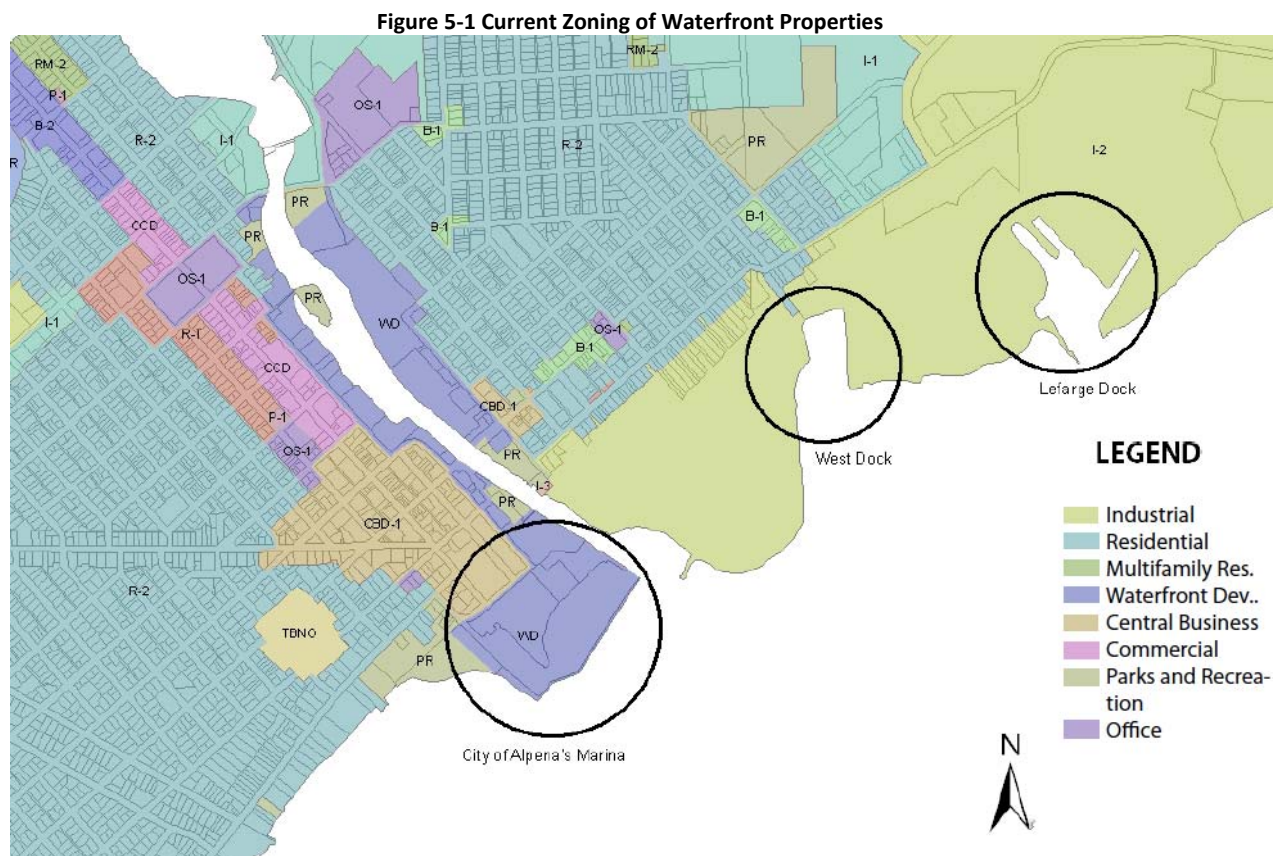


## 5.) COMMUNITY PLANNING AND ZONING

Community planning and zoning provides an in-depth look at the zoning, current land use, and future land use of the city and particularly the waterfront. Examining the land use and zoning regulations as well as the desired future land use is crucial in understanding the larger picture for the port of Alpena. Having this information is important when planning further actions.

### Zoning

Zoning is a tool utilized by local governments to regulate and map out the permitted uses of land. According to the current Comprehensive Plan, there are twenty zoning districts throughout the City of Alpena (Comprehensive Plan 10-3). The areas that encompass the ports are comprised of I-2 (general industry), WD (waterfront development), PR (parks and recreation), and some R-2 (one family residential).



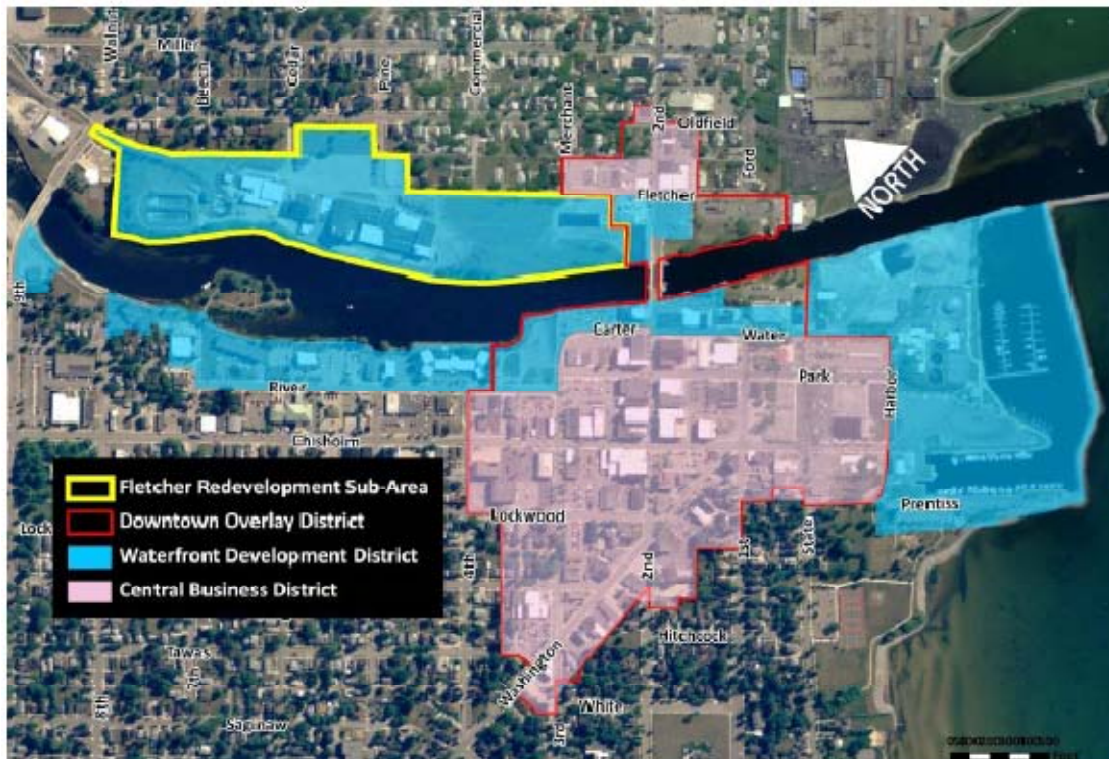
Source: Adapted from NEMCOG

As seen in the zoning map (Figure 5-1), Lefarge, the West Dock, and DPI (Decorative Panels International) are zoned as I-2. According to the Comprehensive Plan, this means the land can be utilized

as light industrial processes, warehousing, etc. so long as the physical effects do not interfere with the surrounding areas (10-3).

The Alpena Marina, across the river from DPI, is zoned as waterfront development (WD). Following the Thunder Bay River inland the waterfront land is also zoned as WD, including the NOAA (National Oceanic Atmospheric Administration) facility. The Waterfront Development Districts are meant to foster mixed-use development and institutional development. A more general goal for the encompassed area is to create a seamless entry into the downtown urban core from Lake Huron (Zoning Ordinance 154) and to encourage the engagement of the public.

**Figure 5-2 Fletcher Redevelopment Sub-Area**



**Source: Alpena Zoning Ordinance 169**

In order to further promote major development in the downtown, there is a Fletcher Redevelopment Sub-Area established within the WD District. The area's building standards is in accordance with the Planned Unit Development with one exception of a maximum of 4-story building limitation (as oppose to 3-story limitations).

The remaining coastline is zoned as a combination of PR (Parks and Recreation) and R-2 that as it suggest, encourages public spaces and residential development.

### **Brownfields**

The Environmental Protection Agency (EPA) defines "with certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be

complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant (EPA).”

Under Public Act 381 Alpena created a Brownfield Redevelopment Authority (BRA) in 1997. In overview, the authority works to identify, assess, and approve of projects on Alpena's brownfields. The BRA must approve of brownfield projects before they occur. The state must furthermore approve of any Michigan Business Tax Credits offered to facilitate redevelopment. In accordance with P.A 381 there is also eligibility for a tax increment financing (TIFs) on certain environmental activities.

Because Alpena has experienced a decline in industry, abandoned sites have the potential to be contaminated and are suspected so. In light of the need for redevelopment of this land, the city has received two grants from the EPA for Hazardous Waste cleanup as well as another for sites affected by petroleum products. Each assessment grant was for \$200,000 each (Alpena Brownfields).

It is important to note the location of current brownfields as well as sites that can or will eventually be brownfields. Awareness of such future land changes allows for adequate time to plan for the funding and redevelopment of such sites. In particular, it is important for the City of Alpena to keep in mind that the existing industrial land uses along the port have a strong potential for becoming brownfields should the land require clean up or be zoned differently in the future.

The city developed a Brownfield Redevelopment Plan in 2001 which identified brownfield project sites throughout the city. Table 5-1 below details the locations and types of brownfield clean-up. Of the current ten project sites, seven are located on or near the waterfront. They are the Fletcher Motel, Freese Hydraulics, River’s Edge, Harkins Property, Summit Sports, Alro Steel, and Alpena Community College East Building. Baseline Assessments and Phase I and Phase II Environmental Assessments were performed on each site with the grant money Alpena received from the EPA.

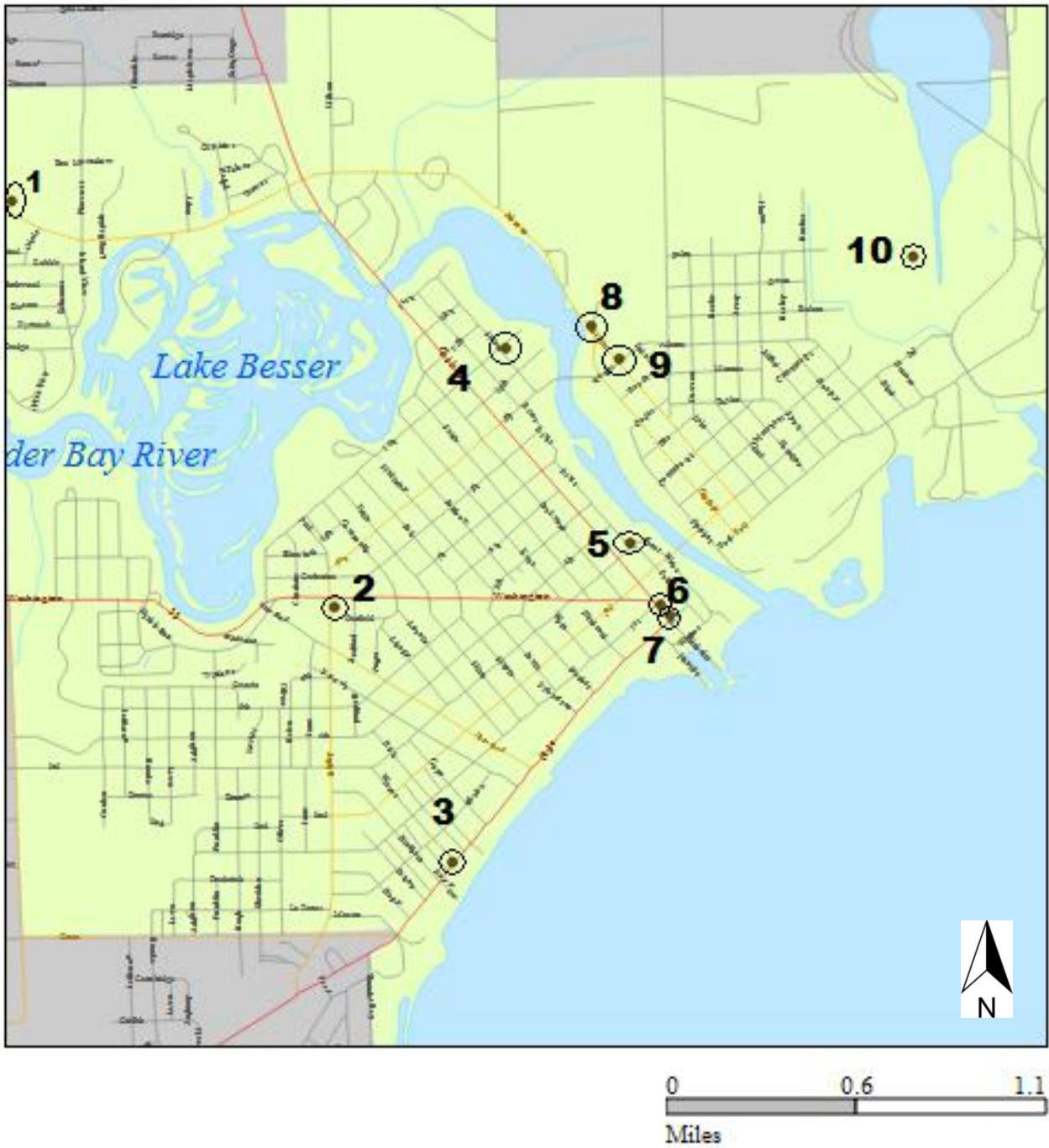
**Table 5-1 Alpena Brownfields (Shown in following Map)**

No. on Map	Project Site Number	Brownfield Site	Parcel_ID	Site Address	Contamination	Site Owner
1	3	Oxbow Village	04-091-016-000-536-00	Pinecrest	Hazardous	Walden Properties, LLC
2	5	Gorski Property	093-417-000-842-00, 09	117 & 123 South Ripley	Hazardous Substance	William Gorski, ET UX
3	9	Fletcher Motel		1001 US-23 North		
4	4	Freese Hydraulics	093-637-000-983-00	324 N 11TH	Petroleum	James Campau, ET UX
5	1	RiversEdge	04-093-637-000-240-00	201 North Third	Hazardous	RiversEdge - Alpena, L.L.C.
6	10	Harkins Property		200 East Chisholm		
7	8	Summit Sports		224 East Chisholm		
8	7	Alro Steel	094-999-000-355-00	817-819 W Miller	Hazardous Substance	
9	6	ACC East Bldg	091-022-000-018-00	600 Walnut St (& Mille	Hazardous Substance	Alpena Community College
10	2	Lafarge	04-091-024-000-256-00	Commerce Street	Hazardous	Lafarge Corporation

**Source: Alpena Brownfield Redevelopment Authority**



Figure 5-3 Current Brownfield Sites in Alpena, MI



Source: Alpena Brownfield Redevelopment Authority

## Brownfield Sites that have been Assessed with EPA Grant Money

### Fletcher Motel (No.3)

Figure 5-4 Fletcher Motel



Source: modernmichigan.org

### Freese Hydraulics and Equipment Repair (No.4)

Industrial machinery repair shop.

Figure 5-5 Freese Logo



Source: Freese Hydraulics and Equipment Repair, Inc

### River's Edge Property (No.5)

This property is now utilized as a parking lot for visitors of downtown.

**Figure 5-6 River's Edge Property**



Source: Google Maps

### Harkins & Karsten: Karsten Mark OD (No.6)

Optometrist Office, 3 blocks away from port

**Figure 5-7 Karsten Mark OD**



Source: Google Maps

Formerly Summit Sports now Alpena Florists (No.7)

Picture was taken in 2008 during an interim between Summit Sports and Alpena Florists. During this period, the building was used as an election candidate’s headquarters.

**Figure 5-8 Alpena Florists**



**Source: Google Maps**

Alro Steel (No.8)

Alro Steel is a supplier of metals, plastics, and industrial supplies and services.

**Figure 5-9 Alro Steel**



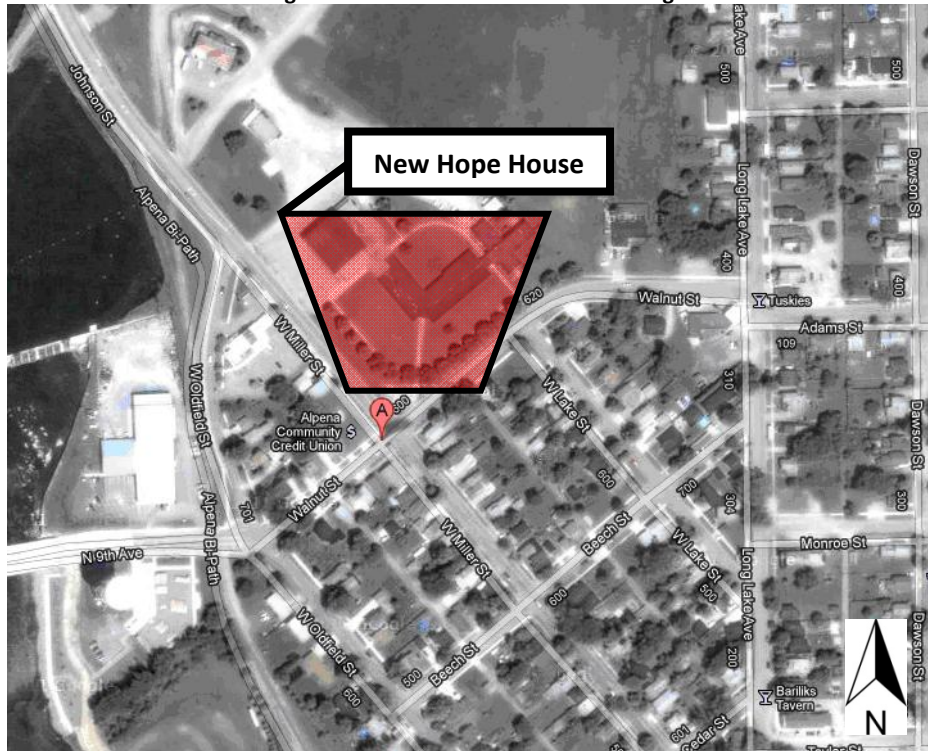
**Source: Alro Steel**



Former Alpena Community College (ACC) East Building (No. 9)

This building was renovated by Child and Family Services of North East Michigan Inc. after ACC donated it to them to become a new Hope House. The photos below depict the location of the building.

Figure 5-10 Location of ACC East Building



Source: Google Maps

Figure 5-11 New Hope House



Source: Child and Family Services

## Current Brownfield Projects

Currently there are four ongoing active brownfield projects underway they are the NOAA Maritime Heritage Center and the Fletcher Brewing Company both owned by Alpena Marc LLC along the riverfront as well as LaFarge and the Dean Arbour Ford Car Dealership.

### NOAA Maritime Heritage Center and the Fletcher Brewing Company (Alpena Marc LLC)

These sites are situated on what once was the Fletcher Paper Mill on the northern riverfront across from downtown Alpena. The site has been converted from industrial to mixed-use, which cost approximately \$12 million, and will most likely continue gaining investment for the next several years. NOAA received a Brownfield TIF which aided in supplying public infrastructure upgrades. NOAA as well the Fletcher Brewing Company, which is located within an old factory building and retains its original style, both received tax credits for their development.

Figure 5-12 Alpena Marc, LLC Property



Source: Google Maps

Figure 5-13 Fletcher Street Brewing Company



Source: BeerAdvocate.com

Figure 5-14 NOAA Thunder Bay



Source: Team Alpena, MSU Practicum



## LaFarge

LaFarge is in the process of receiving a brownfield TIF as a \$1.5 million reimbursement for the demolition of an old concrete storage building on their property adjacent to their boat dock. This is part of a \$45 million upgrade to the cement plant.

**Figure 5-15 LaFarge Cement Plant & Arial View of Property**



Source: Team Alpena, MSU Practicum & Adapted from NEMCOG

## Dean Arbour Ford Car Dealership

Dean Arbour Ford Dealership is located 2 miles south of the downtown area along US-23. Dean Arbour's brownfield TIF will reimburse the dealership for the demolition of an existing building on the site. This TIF which is for roughly \$150,000, will start being reimbursed in 2012.

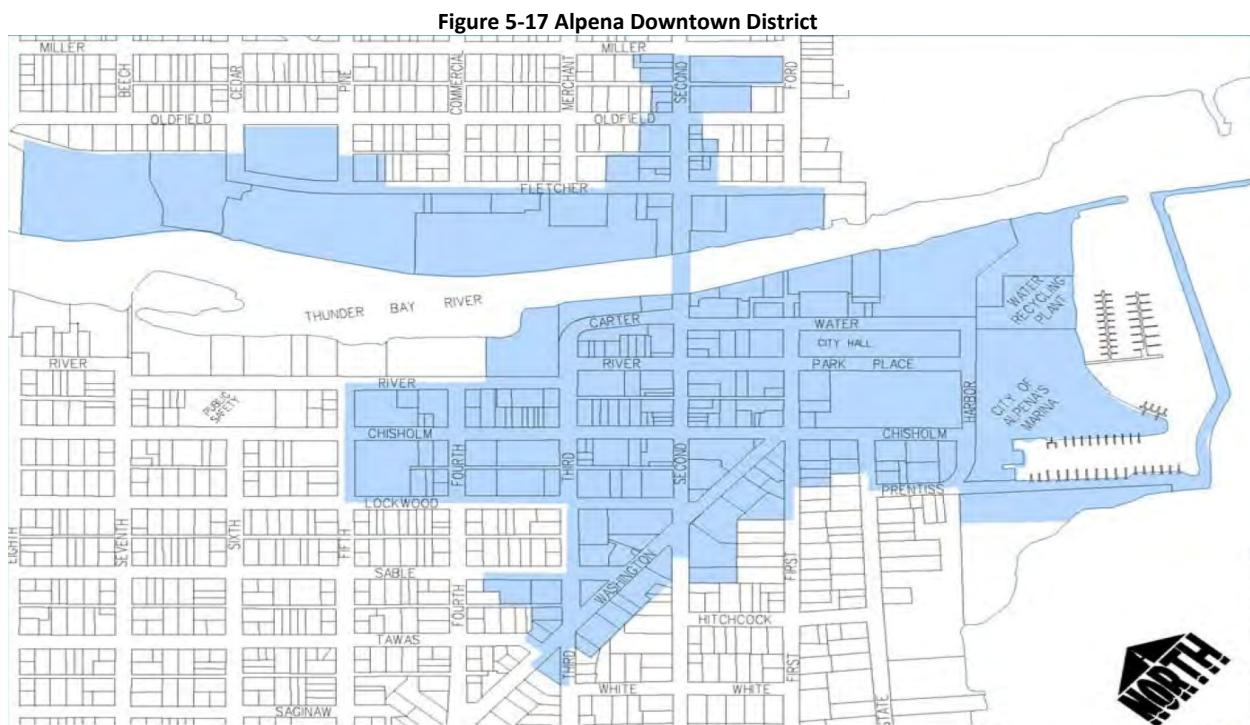
**Figure 5-16 Dean Arbour Dealership**



Source: Dean Arbour Ford

## TIF's and the Downtown Development Authority (DDA)

The Alpena City Council adopted Ordinance No. 110 on April 21, 1980, creating a Downtown Development Authority (DDA) under Public Act 179 of 1975. The intentions were to strengthen the downtown business district, promote economic growth and revitalization, encourage commercial revitalization, and historic preservation. The DDA provides the community with the necessary legal, monetary, and organizational tools to revitalize economically distressed areas either through public-initiated projects or with private development projects. The initial DDA district covered the core downtown area. Since that time the boundaries have been expanded to include properties along Washington Street, Fifth Street and the old Fletcher Paper Mill site on the Thunder Bay River.



Source: Alpena Comprehensive Plan 2010

In July of 1981, the first Development Plan and Tax Increment Financing Plan were adopted for the DDA. These plans were amended in January of 2005. Traditional brick and mortar projects as well as historic preservation activities have remained key elements of the DDA's initiatives. Additionally, the DDA is organized under the National Trust for Historic Preservation's "Main Street" 4-points approach. According to the organization, The National Trust Main Street Center offers a comprehensive commercial district revitalization strategy that has been widely successful in towns and cities nationwide. Described below are the four points of the Main Street approach which work together to build a sustainable and complete community revitalization effort.

**Organization** involves getting everyone working toward the same goal and assembling the appropriate human and financial resources to implement a Main Street revitalization program.

**Promotion** sells a positive image of the commercial district and encourages consumers and investors to live, work, shop, play and invest in the Main Street district.

**Design** means getting Main Street into top physical shape. Capitalizing on its best assets — such as historic buildings and pedestrian-oriented streets — is just part of the story. An inviting atmosphere, created through attractive window displays, parking areas, building improvements, street furniture, signs, sidewalks, street lights, and landscaping, conveys a positive visual message about the commercial district and what it has to offer.

**Economic Restructuring** strengthens a community's existing economic assets while expanding and diversifying its economic base. Coincidentally, the four points of the Main Street approach correspond with the four forces of real estate value, which are social, political, physical, and economic.

The DDA works closely with the Downtown Alpena Business Association (DABA) to promote activities in the business district. Promotional activities to strengthen the downtown include: sidewalk sales, a sand castle building competition, Friday Nights Downtown, Picnic in the Park, Movies in the Park, and Riverfest. The DDA has a strong working relationship with the City, Alpena Area Convention and Visitors Bureau, Alpena Area Chamber of Commerce and Target Alpena. In the fall of 2004, the DDA initiated a Façade Grant Program that provides a 50% match up to \$5,000 for exterior renovations of store fronts and backs. Renovations must be made in the historical context of the building. A design committee meets with the landowner to review and approve proposed renovations. To date, nine projects have been completed with \$31,705.43 paid out in grants. These property owners have invested \$256,421 in rehab of downtown buildings. Proposed projects are too numerous to list here, but can be found in the amended and restated Development Plan No. 1 and Tax Increment Financing Plan No. 1. Four short term priority projects are developing a Way finding Plan (directional signage project), completing parking lot improvements, establishing a low interest loan pool, and developing a DDA web site. The overall vision of the DDA is to have a 24 hour downtown, a variety of housing options, first floor retail establishments, a mix of retail, residential and professional uses, more use of waterfronts, hotel and convention center, and sidewalks filled with people.<sup>4</sup>

In relation to the waterfront and port of Alpena, the Comprehensive Plan expresses interest in strengthening the relationship between the core of downtown Alpena with the waterfront property it includes. One recent expansion includes the old Fletcher Paper Mill site which is located on the Thunder Bay River. Successful economic development in Downtown Alpena can simultaneously encourage coattail development along the waterfront. Therefore when further developing the downtown, this connection should be considered.

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<sup>4</sup> This section taken from: The City of Alpena, Michigan. "Section 3: Economic Profile." In *City of Alpena Comprehensive Plan Charting a Course for Alpena*. Alpena, Michigan, 2010.



Figure 5-18 Mixed Use Development along Second Avenue in Downtown Alpena



Source: Team Alpena, MSU Practicum

## Existing Land Use

It is important to understand the current land uses and their locations prior to any future planning in the city. Table 5-2 below details the percentages of land uses in the city. The City of Alpena Comprehensive Plan notes “given Alpena is bounded by Lake Huron on the east, and the Thunder Bay River and impoundment, water resources are key to the community character and environment” (Comprehensive Plan 6-4).

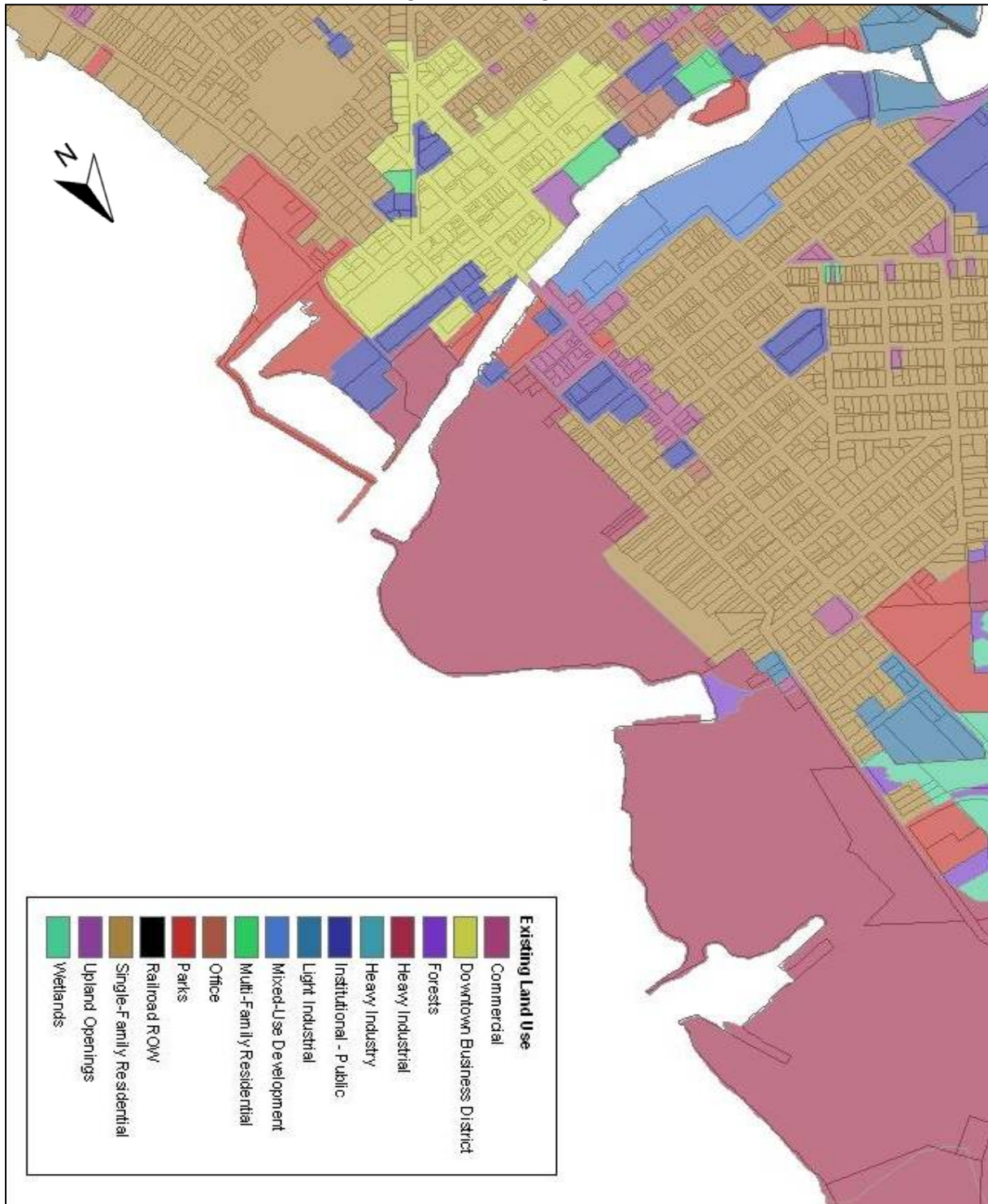
Table 5-2 Existing Land Cover/Use Statistics

Land-Use Category	Number of Acres	Percent of City
One and Two Family Residential	1,374	23.6
Multi-Family Residential	70	1.2
Office	45	0.8
Commercial	138	2.4
Downtown Business District	62	1.1
Mixed Use	67	1.1
Light Industrial	225	3.9
Heavy Industrial	1,038	17.8
Parks	182	3.1
Institutional/Public	515	8.9
Non-Forested Uplands	321	5.5
Forests	768	13.2
Non-Forested Wetlands	457	7.9
Water	557	9.6
<b>TOTAL</b>	<b>5,818</b>	<b>100.0</b>

Source: U.S. Census Bureau, 2010

It is apparent that at 21.7% of the existing land use, industry (both light and heavy) is a major component of the city. It is only second to the 24.8% that details the residential land uses. The existing land-use around the ports is mostly industrial along with institutional-public, parks, mixed-use, and a little amount of residential parcels. The largest current use located on the port is industrial which includes Lafarge, DPI (Decorative Panels International), the Alpena Power Company and other smaller industrial companies. The institutional-public along the port includes the NOAA Thunder Bay National Marine Sanctuary as well as some waterfront parks.

Figure 5-19 Existing Land Use

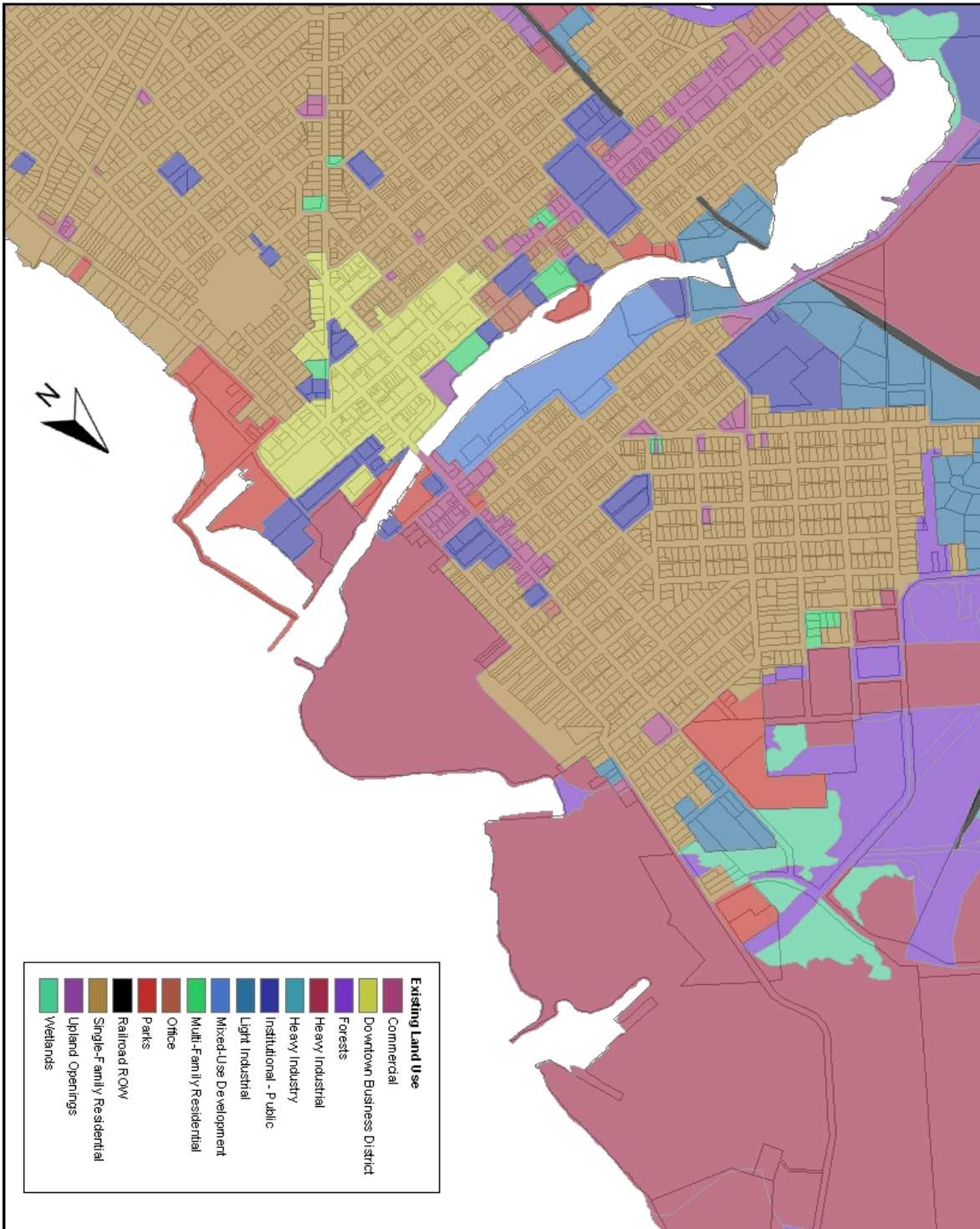


Source: Adapted from NEMCOG



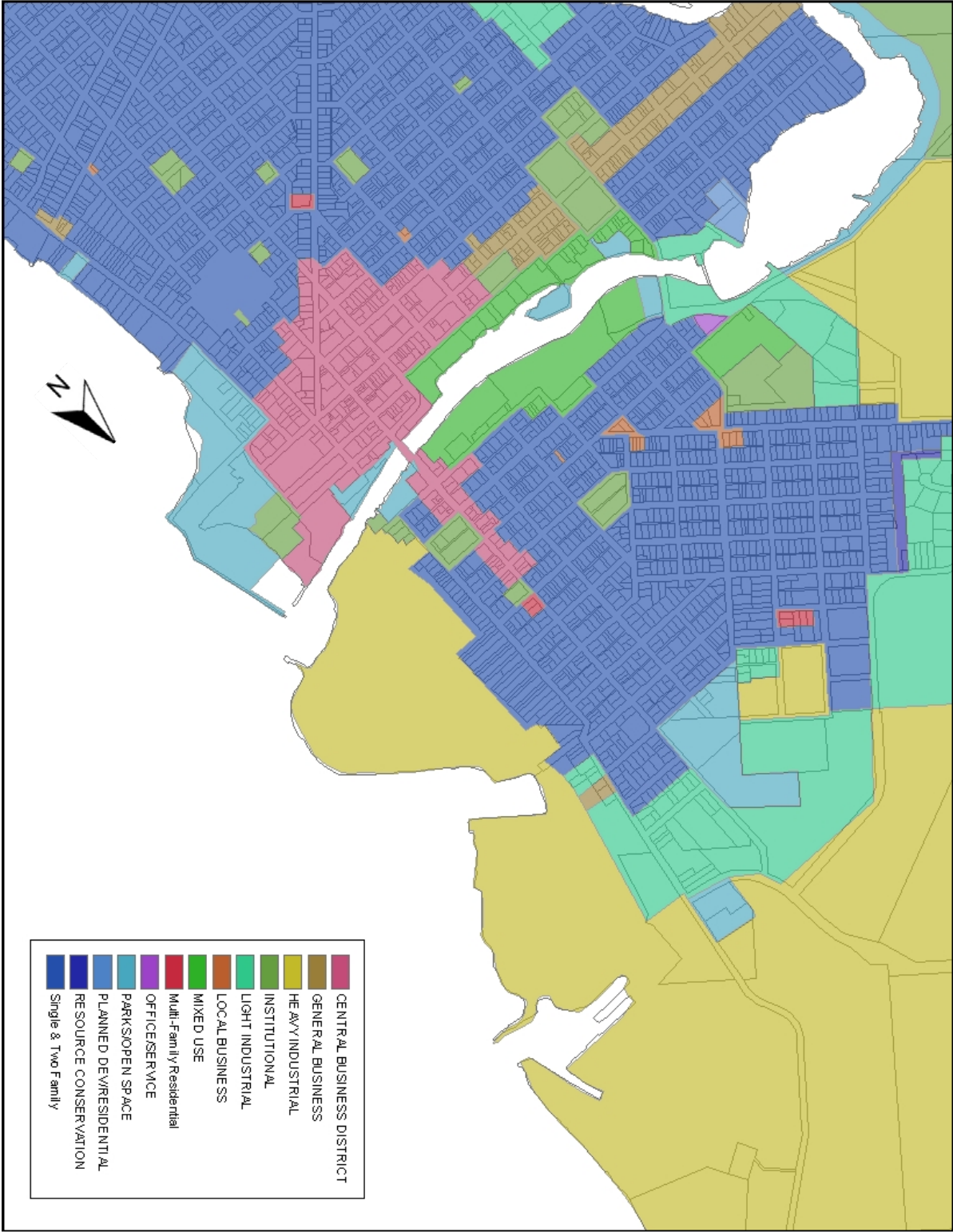
# Master Plan/Future Land Use

Figure 5-20 Existing Land Use



Source: Adapted from NEMCOG

Figure 5-21 Future Land Use



Source: Adapted from NEMCOG



The ultimate goal for the future land use plan is to "provide for land uses within the City that provide necessary services, shopping, tax base, and employment, while complementing and enhancing residential areas" (Plan 8-1). In general, the future land use expresses an interest in more uniformity of uses. In direct relation to the future land use for the ports and the area surrounding them on the waterfront, when compared to the existing land use map, there exists a vision of transforming the private residential that borders the downtown into a mixed use. This is consistent with the DDA's (Downtown Development Authority) expressed interest in linking the downtown to the waterfront. In particular the various parcels of office space, single and multi-family residential and institutional along the south coastline would become a uniform strip of mixed use development that is connected to the downtown.

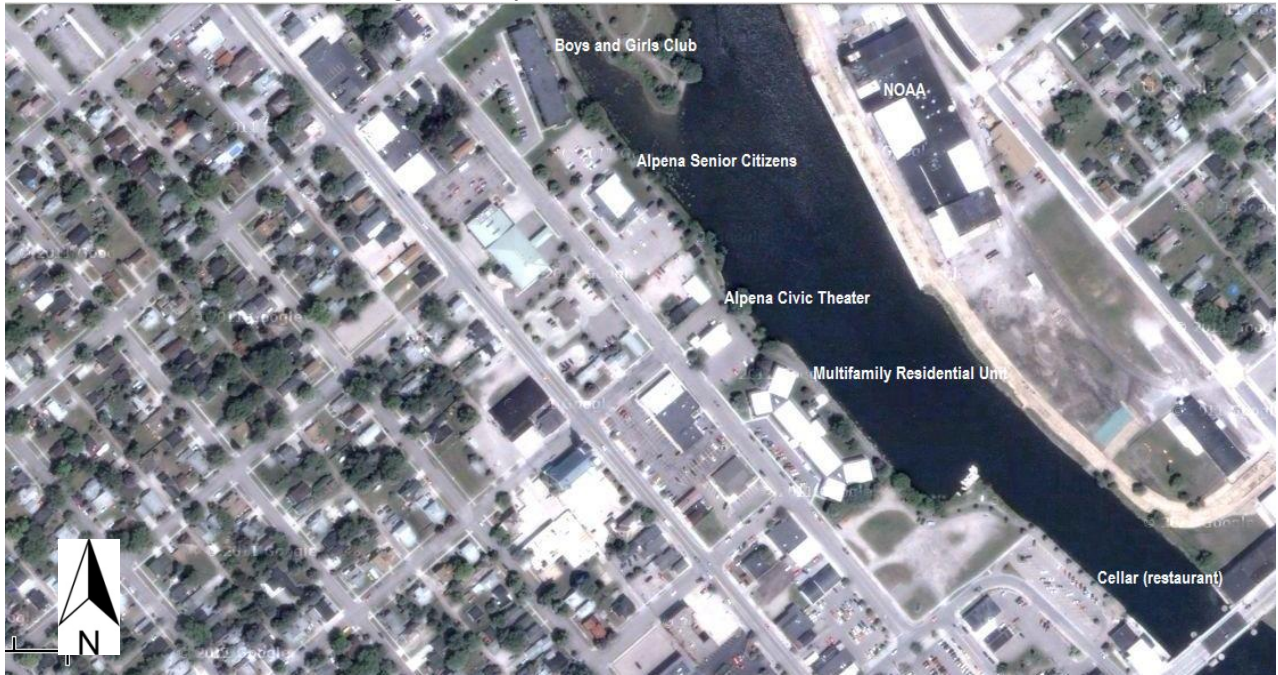
Figure 5-22 Downtown Alpena Current and Future Land Use



Source: Adapted from the Alpena Comprehensive Plan

Figure 5-22 depicts the current land use of Alpena and the future land use the city hopes to eventually see. The north strip of development along the river mostly reflects what is desired in the future. However, the southern strip consists of the Alpena Civic Theater, Alpena Senior Citizens Center, Boys and Girls Club of Alpena, and the parking lots that are utilized to service them. The goal is to eventually transform this into a solid strip of mixed-use. The photograph below depicts the physical layout of some of the parcels that the waterfront consists of.

**Figure 5-23 Alpena Downtown Waterfront Parcels**



**Source: Alpena Master Plan**

## **Summary**

Zoning, Land-Use, Brownfields, and the Downtown Districts all play integral roles in shaping the City of Alpena. In considering them all together, the city is in the ongoing process of aiming to meet their “future land use plans” around the port area. As noted in the Future Land Use section, it is the city’s goal to continue facilitating industrial land use on the port and mixed use development and recreation along the river front. Thus far the city has successfully converted parts of the Fletcher Paper Mill site to mixed-use partially through brownfield redevelopment funding. In connection with the downtown, the city is working towards connecting it to the riverfront economically.

## 6.) TRANSPORTATION

The City of Alpena has access to four major forms of transportation: highways, railroads, air and water. The following section takes a broader look at the City's current transportation assets and how they compare to other areas around the state and Midwest.

### Road

Alpena County does not have an interstate highway, but the city is served by US-23 (S State Ave. and W Chisholm, St.), which follows the shoreline of Lake Huron from Mackinaw City (the north) to Standish (the south), and by M-32 (W Washington Ave.) which runs east-west, connecting Alpena with I-75 and the City of Gaylord. W Washington Ave. is the busiest road in Alpena, which exceeds 20,000 vehicles per day. Table 6-1 shows the distance of major cities and time by the automobile.

**Table 6-1 Arterials Roads: name, directions, Average daily traffic (ADT) 2010**

<b>Name</b>	<b>Periphery</b>	<b>Average Daily Traffic(ADT)</b>
W Washington Ave. 32	West	20200
S State Ave. 23	South	10400
W Chisholm St. 23	North	15200

Source: MDOT

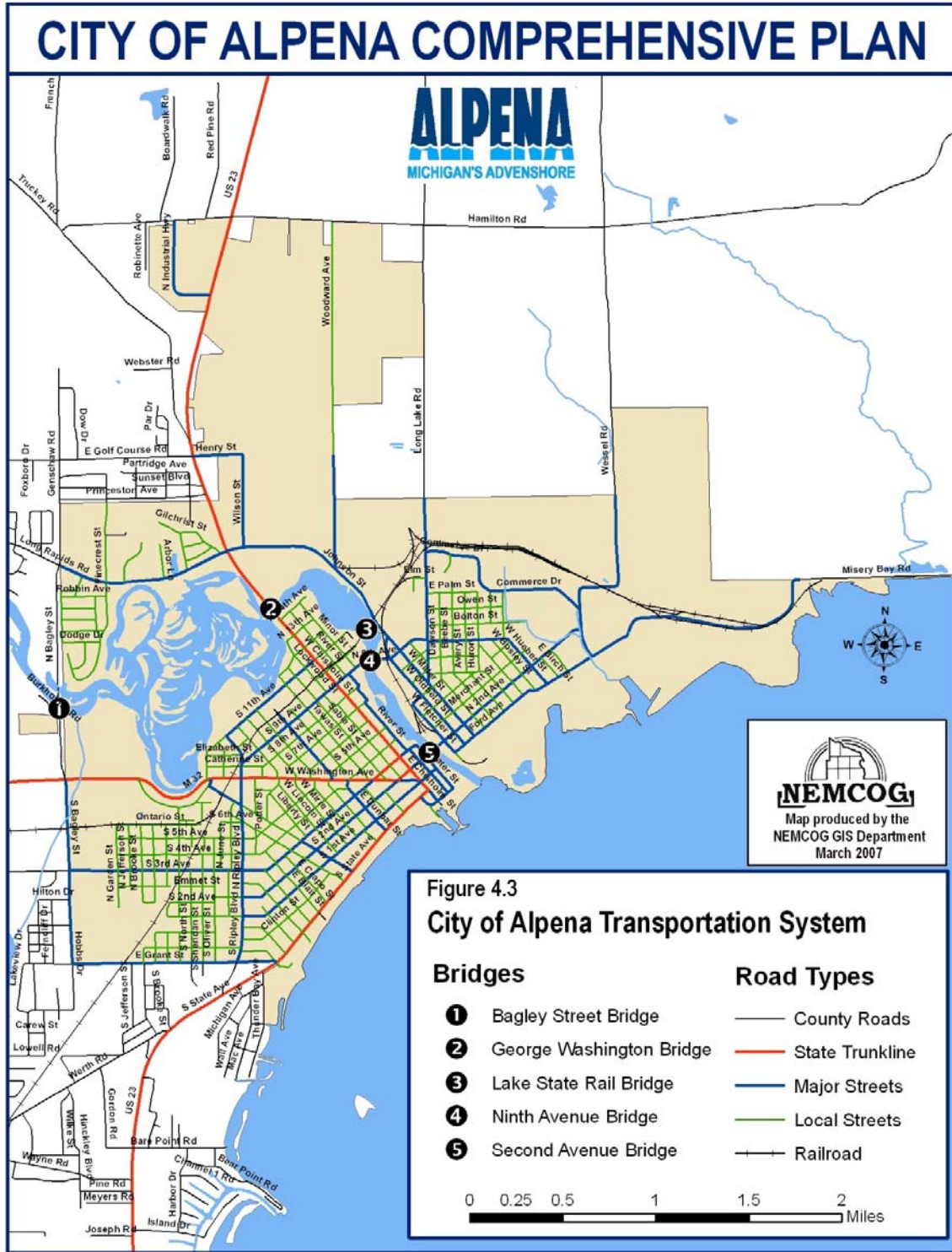
**Table 6-2 Distance of major cities to Alpena by the automobile**

<b>Name</b>	<b>Distance(Mile)</b>	<b>Time</b>
Detroit	247	4:17
Lansing	238	4:07
Mackinaw City	109	2:24
Traverse City	143	2:47
Grand Rapids	259	4:44
Flint	185	3:21
Iron Mountain	294	6:10
Escanaba	242	5:04

Source: MDOT



Figure 6-1 Street Map of Alpena



Source: NEMCOG GIS Department

The established truck route shall be used for all haul routing. In the event a project or destination is not adjacent to the route, drivers shall use the shortest access to the truck route. Second Avenue Bridge shall only be utilized for local deliveries and is subject to the weight limits shown in Figure 6-2. Signage is posted at the bridge and violators will be stopped and ticketed. Ninth Avenue Bridge has no weight restrictions and should be utilized in conjunction with Oldfield Street for local deliveries exceeding the weight limits posted.

The designated truck route is not connected to the port. Both the LaFarge and DPI docks are privately owned and trucks through their properties from the docks are encouraged to take Ford Avenue.

Figure 6-2 City of Alpena Truck Route



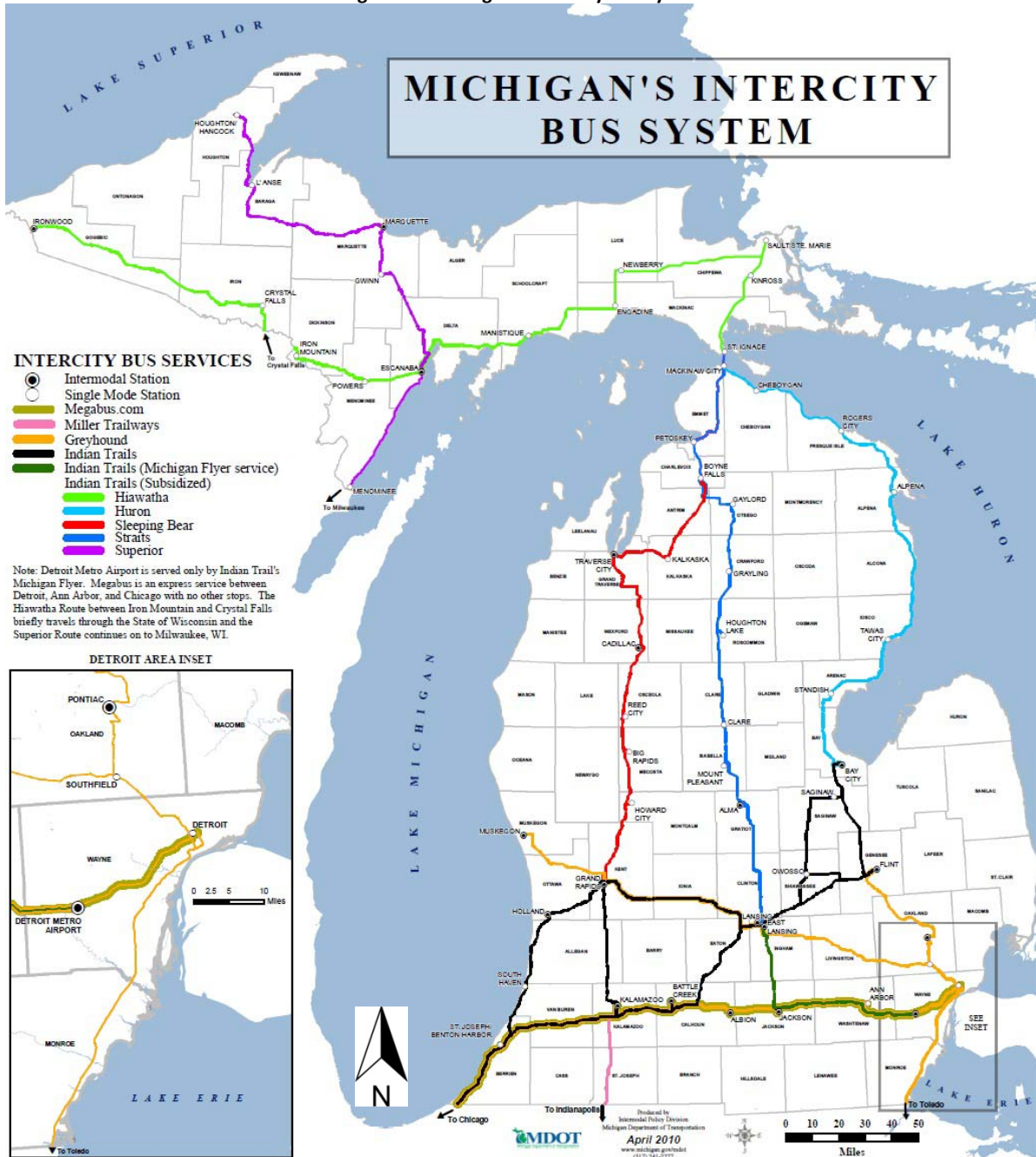
Source: The City of Alpena



## Public (County, Regional, State)

Dial-A-Ride has a fleet of small buses that will pick passengers up at their front door and take them any place they want to go in Alpena and the commercial and residential sections adjacent to Alpena. This service is operated by the Thunder Bay Transportation Authority.

Figure 6-3 Michigan's Intercity Bus System



The Thunder Bay transportation authority, a public authority formed under PA 196, provides transportation services for area elderly, handicapped, and special needs passengers. The authority services Alpena, Alcona and Montmorency Counties as well as Presque Isle County south of M068, including Rogers City, Onaway and Posen. It operates five days a week and by special contract other times and days and has a fleet of 16 small busses and six vans, of which 20 of the vehicles are equipped with lifts.

Indian Trails provides statewide public transportation services on a daily basis. Buses are wheelchair lift equipped and have space set aside to accommodate wheelchairs. As shown in the Figure below, Alpena is covered with the route Huron, between Bay City and St. Ignace. Some bus routes are subsidized by MDOT. Among the routes, the route Huron had the lowest ridership and lower ridership per mile than the average in 2010 according to Table 6-3.

**Table 6-3 Intercity bus FY 2010 statistics for CTF subsidized routes**

<b>Route</b>	<b>Revenue</b>	<b>Miles Operated</b>	<b>Ridership</b>
Huron: (Bay City - St. Ignace)	165151	174293	6567
Sleeping bear: (Grand Rapids - St. Ignace)	343476	168350	19084
Hiawatha: (St. Ignace - Ironwood)	190500	269798	9157
Superior: (Calumet - Milwaukee)	516043	296732	16811
Straits: (Lansing - St. Ignace)	306017	171271	13517
<b>TOTAL</b>	<b>1521187</b>	<b>1080444</b>	<b>65136</b>

Source: MDOT

## **Railway**

### Passenger rail service

No passenger rail service is offered in the City of Alpena. There is no passenger rail service in north east Michigan like which is provided through the south portion of the state by Amtrak. MDOT considers railways as important modes, especially in terms of economic development and environmental sustainability. They state specifies five goals in the Michigan State Rail Plan.

1. Promote the efficient movement of passengers
2. Promote the efficient movement of freight
3. Encourage intermodal connectivity
4. Enhance state and local economic development
5. Promote environmental sustainability

### Freight rail service

Freight rail service is provided from Alpena to Bay City by Lake State Railway Company. The rail line is classified as Class III Local/Short-Line Rail. Railroads in the United States are grouped into classifications based on operating revenue. The classifications are defined by the Surface Transportation Board as follows (Michigan State Rail Plan, 2010):

- A Class I railroad is a major rail company that has annual revenues in excess of \$401.4 million per year.
- A Class II railroad is a line-haul rail company with revenues of less than \$401.4 million but in excess of \$40 million.
- Class III railroads are defined as having annual operating revenues of less than \$40 million.
- Class III railroads include short-line railroads and switching and terminal railroads.

### *Class I Railroads*

The Class I railroads are national companies that primarily offer services for national and intermodal shippers and markets. Four of the seven Class 1 railroads in the United States own track in Michigan. The Class I railroads that operate in Michigan are: Canadian National (CN), Norfolk Southern (NS), CSX Transportation (CSX), and Canadian Pacific/Soo Line (CP/SOO). These four Class 1 railroads own 2,137 miles of track in Michigan (Michigan State Rail Plan, 2010).

### *Class II Regional Railroads*

Michigan's Class II railroads are mid-sized freight-hauling railroads. The State of Michigan has two Class II railroads: Great Lakes Central Railroad and Indiana and Ohio Railway. The Great Lakes Central Railroad (GLC) is headquartered in Owosso and operates on tracks extending through the central and northern portions of Lower Michigan. The GLC operates on 350 miles of state-owned tracks under a lease agreement, and another 50 miles of track which it owns. Major commodities hauled by GLC include sand, grain, plastics, coke, fertilizers, sand, lumber and other chemicals. The other Class II railroad is the Indiana and Ohio Railway (IORY), headquartered in Cincinnati, and owned and operated by Rail America. The IORY owns and operates 570 miles of track, of which 44 miles are in southeastern Michigan. The main commodities hauled by IORY include automobiles, pig iron and other metal products, chemicals, plastics, lumber, paper, and grain products (Michigan State Rail Plan, 2010).

### *Class III Local / Short-Line Railroads*

The Class III short-line railroads in the United States are primarily former branch lines of larger railroads that now serve a limited area on their own. These railroads operate on over 1,500 miles of track in Michigan and are engaged primarily in providing connections between local industries and the national rail network operated by the Class I railroads. Michigan has 15 Class III short-line railroads (including that which supplies Alpena), each operating over distances ranging from two miles to 365 miles. The percentage of the total rail mileage operated by short-line railroads has been increasing steadily in recent years as the Class I railroads have sold or leased the least productive segments of their rail networks. Short-line railroads generally can operate rail lines at a significantly lower cost than the large railroad companies, but often do not have the capital resources to maintain the physical plant to higher FRA track classifications (Michigan State Rail Plan, 2010).

### *Class III Switching and Terminal Railroads*

A switching and terminal railroad is a Class III freight railroad company whose primary purpose is to perform local switching services or to own and operate a terminal facility. Michigan has eight switching and terminal railroads, ranging in length from two miles to 98 miles. These switching and terminal railroads operate just over 220 miles of track and play a key role in getting materials to and from their final destinations (Michigan State Rail Plan, 2010).

Alpena's rail service is used to deliver raw materials and products to and from the heavy industrial users in the area. Alpena is at the end of the rail line, and Lake State Railroad has only one in-bound and one outbound train per day, Monday through Saturday. Figure 6-4 shows regional links for Michigan commodities moving by railroad in 2003. Most freight is carried through Canadian National Railway.

The Michigan State Rail Plan of 2010 established several goals to promote the efficient movement of freight (Michigan State Rail Plan, 2010).

- Encourage frequent, reliable and efficient freight rail service to un-served or under-served communities, businesses and shippers.
- Provide public investments for railroad projects where public benefits exceed public costs.
- Pursue public-private partnerships to improve service and reduce freight rail congestion.
- Identify corridors where 286,000-pound rail car load capacity is needed based on market demand.
- Identify corridors where 315,000-pound rail car load capacity is needed based on market demand.

Figure 6-4 Key Regional Links for Michigan Commodities Moving by Railroad



Source: MDOT

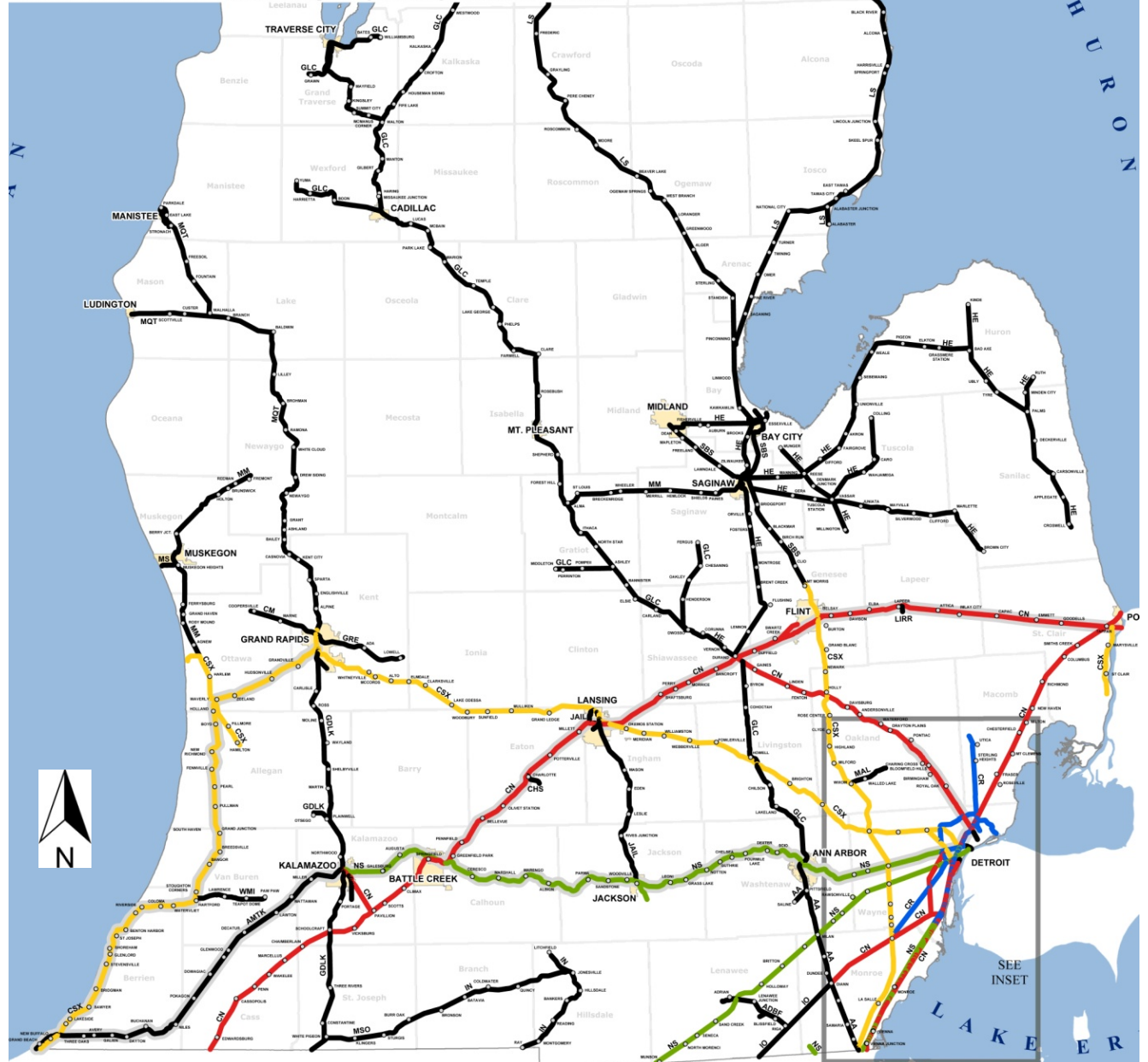
Figure 6-5 Michigan's Railroad System

# RAILROADS OPERATING IN MICHIGAN

## CLASS I RAILROADS

- CN Canadian National Railway
- CSX CSX Transportation
- NS Norfolk Southern Railway
- CR Consolidated Rail Corporation (Owned by CSX and NS)

Note: A Class I railroad is one with annual operating revenue greater than \$256 million.



Source: MDOT



## Intermodal Connectivity

The intermodal concept draws from each mode of transportation, providing flexibility and nearly unlimited access to industrial and commercial locations. Rail intermodal shipments are most often used for consumer goods and subassembly components. In the early 2000s, railroad intermodal volume grew at approximately 32 percent (Michigan State Rail Plan, 2011). At that time, intermodal was the number one source of railroad freight revenue. Michigan does not have any intermodal rail movements that are completely internal within the state, but there are significant interstate and international intermodal movements. Michigan's intermodal terminals handle traffic that primarily originates/terminates in Ontario, Quebec, Nova Scotia, Maryland, Virginia, Mexico, California and British Columbia. The world's largest bilateral trade relationship exists between the United States and Canada, with Michigan positioned as a leader in international trade. Michigan is at the head of continuing strong trade growth between the United States and Canada.

Intermodal freight transport involves the transportation of freight in an intermodal container or vehicle, using multiple modes of transportation (rail, ship, and truck), without any handling of the freight itself when changing modes. The method reduces cargo handling, and so improves security, reduces damages and losses, and allows freight to be transported faster. Reduced costs over road trucking are the key benefits for intercontinental use. This may be offset by reduced timings for road transport over shorter distances.

The Michigan State Rail Plan has established several objectives to encourage and promote intermodal connectivity throughout the state of Michigan. The objectives are as follows:

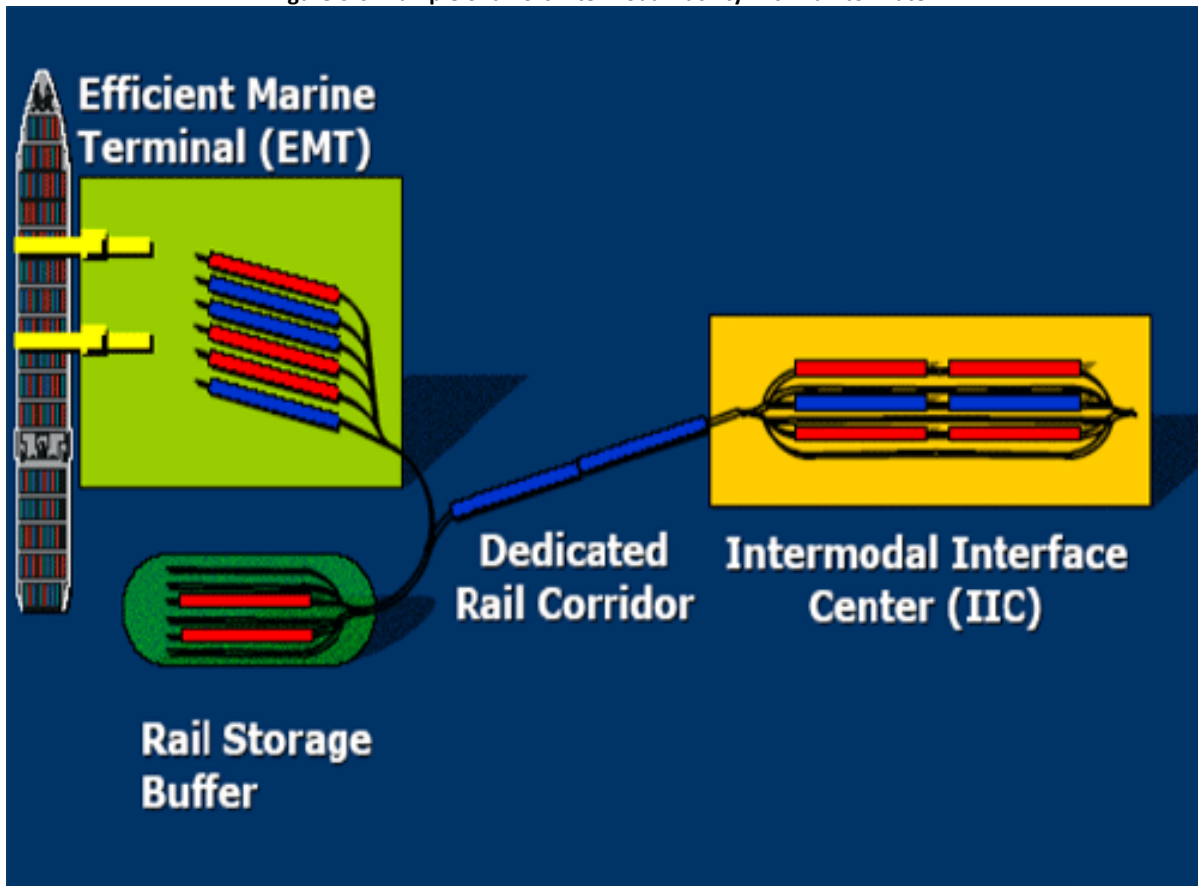
- Support the development of intermodal freight facilities which will provide seamless connectivity between rail and truck and water modes. Focus on facilities which have the greatest potential to increase the efficiency and accessibility of the rail mode and provide lower transportation costs for shippers.
- Support the connectivity of Michigan passenger rail service to other corridors regionally, nationally, and internationally to maximize network benefits in terms of increased ridership, revenues and passenger mobility.
- Support intermodal connectivity between intercity passenger rail and other passenger modes including air, local transit, auto, intercity bus, and nonmotorized transportation. Focus on intermodal investments which have the most potential to increase the efficiency of the rail mode and provide greater accessibility to travelers including those with special needs and limited access to automobile transportation.
  - Support enhanced freight and passenger rail service as a part of an overall state energy conservation policy and to protect Michigan travelers and shippers from the adverse mobility and economic impacts of expected increases in future transportation energy costs
  - Promote state policies and programs to provide increased freight rail service to Michigan communities and businesses as a means of increasing their attractiveness for the expansion of existing businesses and the recruitment of new businesses.
  - Promote freight rail service, infrastructure improvements, and intermodal connectivity to increase the efficiency of freight rail service and to lower transportation costs for businesses.

*Existing Michigan Rail Intermodal Conditions*

Michigan has 36 active ports which accommodate bulk cargoes moving in the Great Lakes and the St. Lawrence Seaway. Nineteen of these active ports support outbound commodity movements. As of 2008, the ports that produce the most outbound tonnage are Stoneport, Marquette, Calcite, Port Inland, Escanaba, Alpena, Port Dolomite, Charlevoix, Port Drummond and Detroit (Michigan State Rail Plan, 2010).

With the exception of the iron ore ports at Escanaba and Marquette in the Upper Peninsula, no significant rail-to-water or water-to-rail intermodal cargo transfers exist at Michigan ports. The principal reason is that Michigan’s marine cargo facilities are designed for local or regional distribution and do not lend themselves to rail transport. Michigan’s businesses and industries generate a large volume of overseas trade, but the vast majority of these shipments are transported by truck or rail to Pacific, Atlantic, or Gulf coast ports for ocean shipping.

Figure 6-6 Example of a Port Intermodal Facility with Rail-to-Water



Source: The Center for the Commercial Deployment of Transportation Technologies

The Army Corps of Engineers oversees inland waterways, inland ports and many deep-water ports. This is the same with Alpena. Water freight is primarily a private sector service regulated by federal and state laws. Harbor depth, lock length and federal laws define the utilization of the waterway system.

Intermodal connectivity has become a crucial linkage to port freight shipping across the country. As defined by MDOT’s Economic Regions Corridor Summary, there are six major rail intermodal terminals located in the Southeast Michigan region. The purpose of the terminals is to connect larger carriers to other modes of transportation or other rail carriers. The major railroad intermodal terminals in Michigan are identified below:

**Table 6-4 Major Intermodal Terminals in Michigan**

<b>Highest Volume Railroad Intermodal Terminals in Michigan</b>		
<b>Terminal Name</b>	<b>Terminal Address</b>	<b>Terminal Owner</b>
CN /Moterm	600 Fern Street, Ferndale, MI	Canadian National
CP Expressway	12594 Westwood, Detroit, MI	Canadian Pacific
CSX Livernois Yard	2725 Livernois Avenue, Detroit, MI	CSX Corporation
NS Triple Crown	2500 Wabash Street, Melvindale, MI	Norfolk Southern
NS Delray	8501 West Fort Street, Detroit, MI	Norfolk Southern
NS Livernois Yard	2725 Livernois Avenue, Detroit, MI	Norfolk Southern

**Source: Michigan State Rail Plan**

Seven major equipment depots are located in Michigan. These depots provide inland terminal and cargo transportation services to shipping lines, railroads, and shippers/receivers of containerized cargoes. The depots are strategically located to cover all major port locations and major rail sites. The primary services that are provided to Michigan include intermodal container drayage, terminal and rail operations, warehousing logistics, container/trailer maintenance and repair. The depot names and respective locations are listed in Table 6-5.

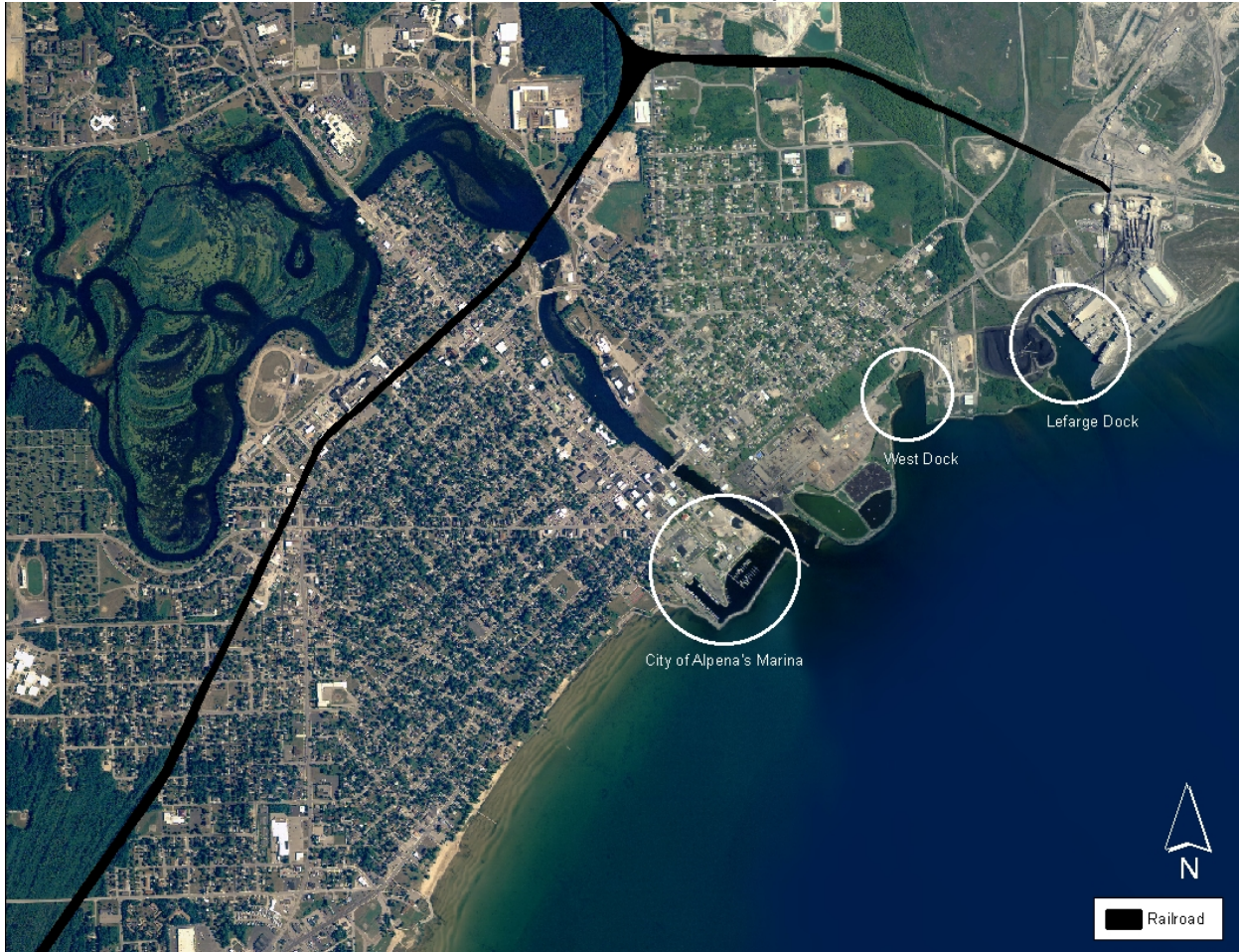
**Table 6-5 Major Depots in Michigan**

<b>Major Equipment Depots in Michigan</b>	
<b>Depot Name Depot</b>	<b>Address</b>
Bridge Terminal Transport	27849 Wick Road, Romulus, MI
C&D	700 Leigh Street, Detroit, MI
Classic Transportation	4729 Division, Wayland, MI
ContainerPort Group Inc	312 South Westend St, Detroit, MI
Mason Dixon Intermodal	4440 Wyoming Ave, Dearborn, MI
Masserlink Brothers Inc.	901 Freeman Ave SW, Grand Rapids, MI
Reliable Transportation Specialists	7100 Dix Avenue, Detroit, MI

**Source: Michigan State Rail Plan**

While Alpena has rail connectivity, its distance to these depots is substantial. Alpena’s cargo is mostly limited to coal and it is not connected directly to the Alpena port. Furthermore, even with expansion of the current rail to the Alpena port making intermodal transport feasible, major upgrades to the rail line from Bay City to Alpena would need to take place. Intermodal freight transport requires Class I rail for shipping, and the stretch from Bay City to Alpena is currently listed as Class III – Local/Short-Line Rail. Below is Alpena’s current rail infrastructure depicted in Figure 6-7.

Figure 6-7 Current Alpena Railroad System



Source: Adapted from NEMCOG

Furthermore, intermodal and highway restrictions and limitations create unequal competition between Michigan, Ohio, Indiana and Illinois ports and intermodal facilities. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) enforced a freeze limiting the use of longer, heavier double and triple trailer combinations to those states in which they were already operating in 1991. (fhwa.dot.gov) ISTEA is still enforced today. The size and weight limits included in the 1991 grandfather provisions are summarized in the table below, for the corridor States. Table 6-6 below shows the truck size and weight rules on the corridor's turnpikes and toll roads. This shows the disadvantage Michigan has in coaxing freight liners to dock at state ports, due to increased cost of transportation with more trucks needed to transport goods from port to destination.

**Table 6-6 Operation of Vehicles Subject to the ISTEA Freeze Max Size and Weight Limits**

State	Truck Tractor and Two Trailing Units	Truck Tractor and Three Trailing Units	Other
<b>Length in Feet ('), Weight in 1,000 pounds (K)</b>			
Indiana	106', 127.4K	104.5', 127.4K	58'
Michigan	58', 164K	No	No
New York	102', 143K	No	No
Ohio	102', 127.4K	95', 115K	No

Source: USDOT

Lastly, public roads leading to major intermodal terminals are designated NHS connectors by the USDOT, in cooperation with State departments of transportation and metropolitan planning organizations. Several criteria are considered, including the level of activity of an intermodal terminal and its importance to a State's economy. For Alpena, the lack of a connection to a major limited access highway to transport goods to and from an intermodal facility is a critical element that would be evaluated by intermodal stakeholders.

## Airport

Alpena County Regional Airport is located on M-32, about seven miles west of the city of Alpena in Northeast Michigan. The airport has four runways. These lengths of and obstructions for runways are shown in the table below. Currently, the airport serves four purposes: 1. Passenger service, 2. Designated as an emergency landing site for inflight emergencies by the FAA, 3. Home to the Combat Readiness Training Center (CRTC) of the Michigan National Guard, 4. Other aviation related services (charter services, air freight, aircraft rental and flight training as well as emergency medevac services). As for passenger use, the airport currently serves passengers flights from and to Detroit twice a day, operated by Mesaba Airline/ Delta air. The number of passengers has been decreasing since 2005 and the airport has been in jeopardy of losing its passenger service to lack of demand. However, the number of passengers in 2011 did increase and passenger service was retained as of now. As for freight use, the amount of freight has dramatically been decreased since 2005. In terms of freight movement by air, the inbound freight movement exceeds the out bound freight movement at all airports except for Traverse City.

Pellston Regional Airport is another regional airport served in the northern Michigan. The airport serves more passengers than the airport in Alpena. However, the number of passengers in Pellston has dramatically decreased since 2000. The trend of the amount of inbound freight in both airports is decreasing. Even though the trend of out bound freight in both airports has some fluctuation, Alpena still has sent out twice as much as Pellston.

There is not any public transportation service to the airport. However, there is short and long term vehicle parking provided for passengers for free.



**Table 6-7 Airport Runways**

	Runway01	Runway19	Runway07	Runway25
<b>Declared Distances</b>	Take off run available 9001.00 ft Take off distance available 9001.00 ft Actual stop distance available 9001.00 ft Landing distance available 9001.00 ft		Take off run available 5028.00 ft Take off distance available 5028.00 ft Actual stop distance available 5028.00 ft Landing distance available 5028.00 ft	
<b>Obstruction</b>	68 ft tree, 3190.0 ft from runway, 329 ft right of centerline, 43:1 slope to clear	56 ft tree, 2174.0 ft from runway, 440 ft right of centerline, 35:1 slope to clear	41 ft trees, 809.0 ft from runway, 295 ft right of centerline, 14:1 slope to clear	80 ft trees, 2866.0 ft from runway, 427 ft left of centerline, 33:1 slope to clear

Source: Federal Aviation Administration

**Table 6-8 The Amount of Freight and Passenger in Alpena and Pellston**

Year	Alpena			Pellston		
	Freight (lbs.)		Passenger	Freight (lbs.)		Passenger
	Inbound	outbound		Inbound.	outbound	
2000	1119710	540194	20847	1175099	231711	64123
2001	923248	417363	21033	960352	207947	58928
2002	1048413	548625	19848	1100858	234415	66707
2003	1056620	570161	17865	1106546	253070	64279
2004	1201940	636108	15929	1046945	245381	75867
2005	1244849	806391	19666	994181	253617	74381
2006	1132541	794543	15625	979949	266598	64719
2007	963505	785840	15288	719975	290506	58902
2008	869140	583223	14608	590185	207846	50263
2009	518930	411489	14876	491583	201326	46219
2010	657722	447923	16818	454132	184549	46619
2011	631246	493640	22747	520592	246805	45422

Source: MDOT

Table 6-9 Comparisons of airports on usage 2011

City	Freight (Inbound)		Freight (outbound)		Passenger	
	lbs.	Share	lbs.	Share	lbs.	Share
Detroit	235423644	76.16%	156008028	63.72%	29892354	86.94%
Grand Rapids	40609373	13.14%	40096086	16.38%	2275332	6.62%
Lansing	22223322	7.19%	19256616	7.86%	358307	1.04%
Flint	12674684	4.10%	9283785	3.79%	938986	2.73%
Traverse City	1424837	0.46%	1608262	0.66%	352250	1.02%
Iron Mountain	450281	0.15%	418767	0.17%	23971	0.07%
Alpena	631246	0.20%	493640	0.20%	22747	0.07%
Pellston	520592	0.17%	246805	0.10%	45422	0.13%
Escanba	847756	0.27%	379167	0.15%	26555	0.08%
Statewide	309120047	100.00%	244845717	100.00%	34382844	100.00%

Source: MDOT

### Port – Tall Ships/Ferry/Cruise Line

The Alpena port does not have any ferry service. There are four carriers operating ferries in Lake Huron. As shown in Table 6-10, three carries operate ferries on the same route form Mackinaw City, MI to Mackinac Island, to St. Ignace, MI and another carrier that provides service between Cheboygan, MI to Bois Blanc Island. All carriers accommodate people and bicycles. Plaut Transportation Company can also accommodate trucks and cars.

Table 6-10 Carriers serving in Lake Huron

Carrier	Routes
Arnold Transit Company	Mackinaw City, Michigan to Mackinac Island, St. Ignace, Michigan to Mackinac Island
Plaut Transportation Company	Cheboygan, Michigan to Bois Blanc Island
Shepler’s Mackinac Island Ferry	Mackinaw City, Michigan to Mackinac Island, St. Ignace, Michigan to Mackinac Island
Star Line Mackinac Island Ferry	Mackinaw City, Michigan to Mackinac Island, St. Ignace, Michigan to Mackinac Island

Source: MDOT

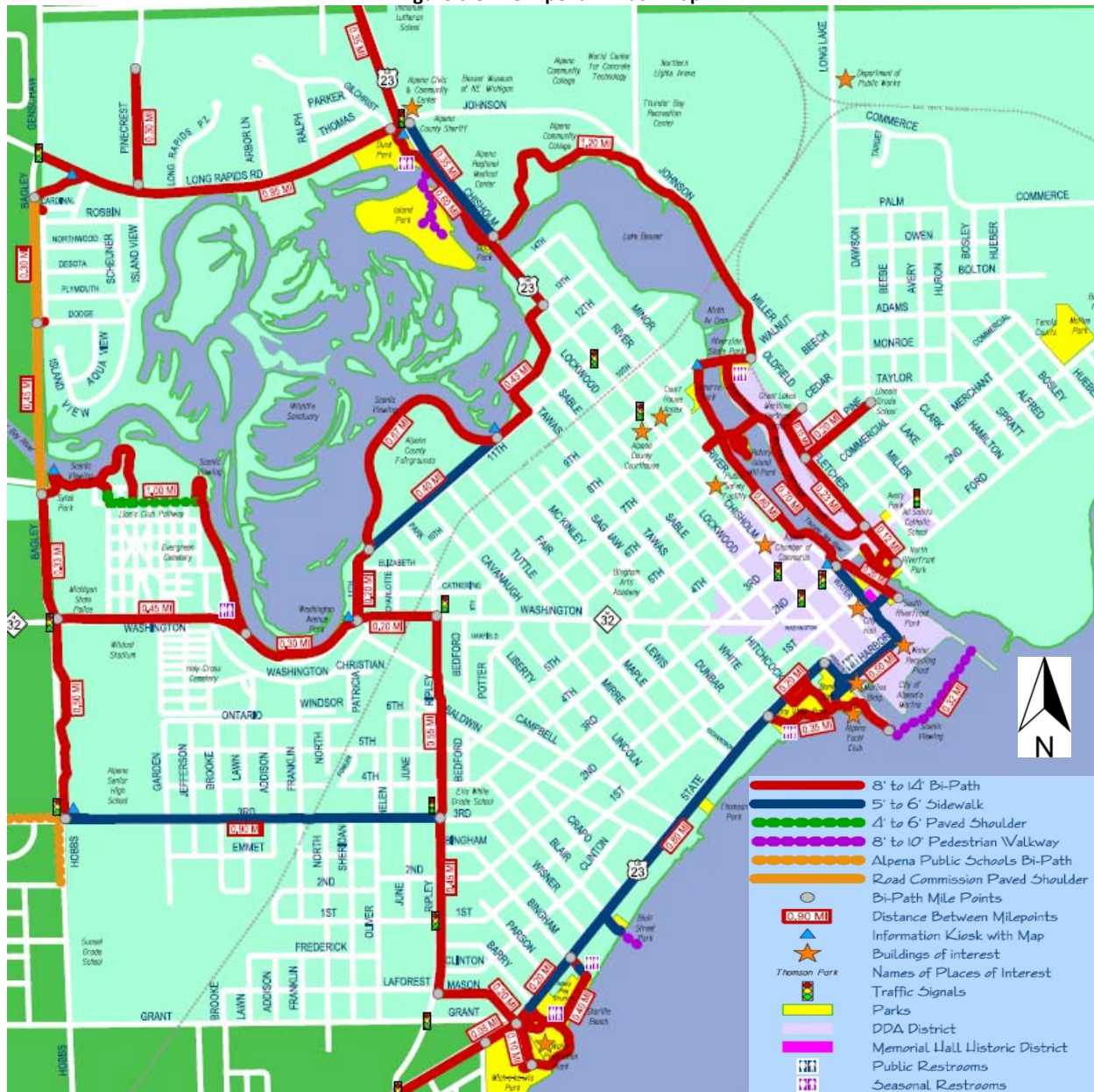
### Cruise

There are not any cruise ship stops or operators at the Port of Alpena. However, in Great Lakes, there are several cruise operators. Great Lakes Cruise Company provides many types of cruise services. One is between Quebec city and the Great Lakes, by Yorktown Ship. Other cruises also go around the Great Lakes and on to New York and Warren, through waterways and rivers.

## Non-Motorized

The Alpena Bi-Path is a bicycle and pedestrian pathway system. The system serves the 14.38 miles of paved pathway in the city. The pathway is intended for bicycle, pedestrian, roller blade and skate board. As shown in the Figure 6-8, the width of pathway is diverse, from 4 inches to 14 inches. The pathway allows residents and visitors to have safe access to the downtown and the nature (the shore of the Thunder Bay River, many commercials, waterfront parks, Marina and beach) by non-motorized transportation.

Figure 6-8 The Alpena Bi-Path Map

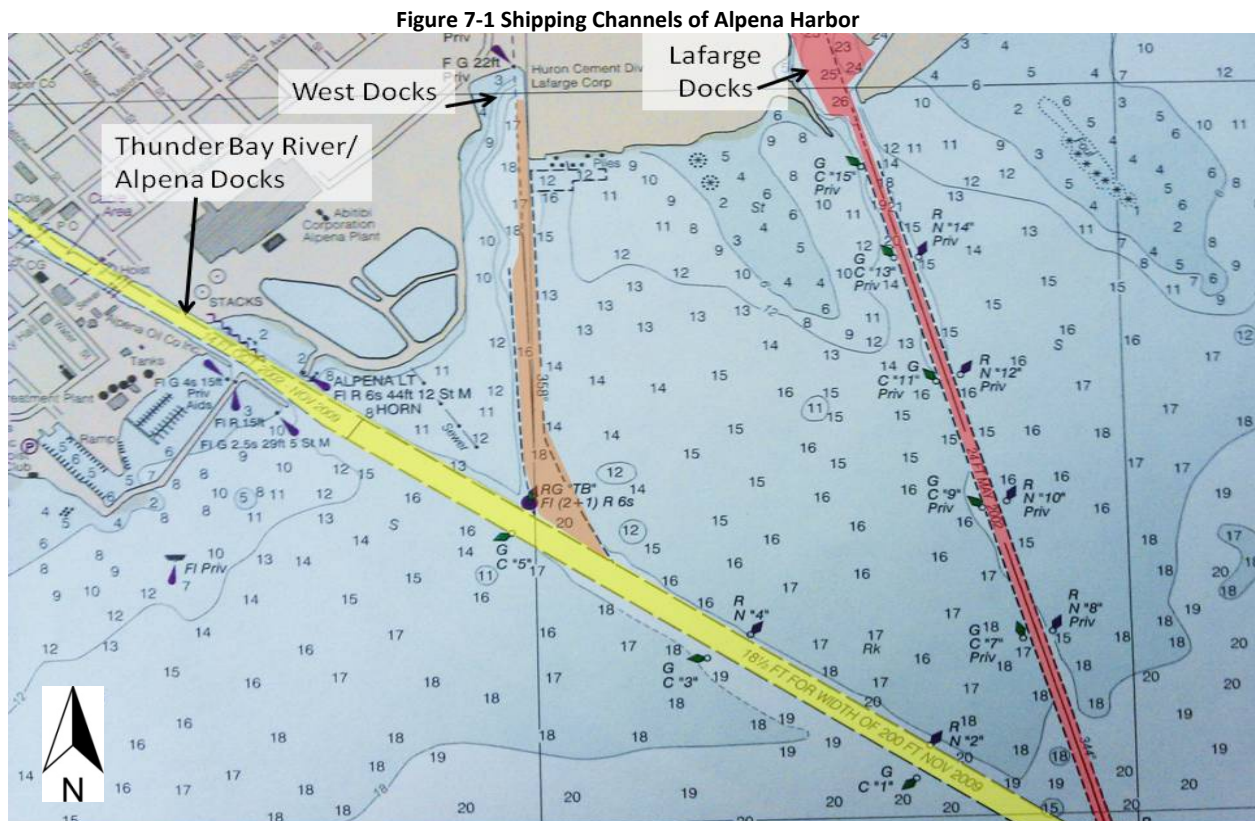


Source: City of Alpena

## 7.) NAVIGATION CAPACITY & WATER DEPTH

There is no unified port authority in Alpena to facilitate and manage port communication and navigation between ships and the various docks. As such, waterway communication is handled by the individual docks under the enforcement jurisdiction of the U.S. Coast Guard. The Coast Guard operates a station in the city and handles basic maritime communication in the area. The City of Alpena Marina docks as well as the LaFarge and DPI private docks operate their own communication systems between ships. The Marina operates over maritime VHF radio channel 9. Inter-ship safety communication is done over channel 13 throughout the United States and all distress calls go out over channel 16 which is monitored 24/7 by the USCG. (US Coast Guard)(Michigan Department of Natural Resources) (Alpena Comprehensive Plan)

The Port of Alpena has three dredged channels, one for the LaFarge dock, one for West dock, and one for Thunder Bay River. The map below highlights the shipping channels in Alpena Harbor.



Source: NOAA



## Harbor Maintenance/Dredging

The LaFarge channel is dredged to a depth of 24 feet, the West dock channel is about 16 feet deep, although this dock is not currently in use, and the Thunder Bay River mouth is dredged to a minimum depth of 14 feet. By comparison, the minimum depth of the St. Lawrence Seaway is 30 feet, limiting the depth of all vessels traversing the Great Lakes to about 27 feet. Shipping channels do not need to be dredged to any depth greater than 30 feet in order to be able to accommodate all ships in the Great Lakes. Most ports west of Lake Erie have a maximum depth of 25 feet.

The Thunder Bay River deposits sediment in Alpena Harbor requiring regular maintenance dredging in order to keep shipping channels open in Alpena. Port dredging in the United States is managed under the U.S. Army Corps of Engineers and funded by a special harbor maintenance tax imposed on shippers based on the value of their goods passing through a port. Alpena harbor was last dredged as part of an Army Corps of Engineers Project in 2007 and completed at a cost of \$586,166. (U.S. Army Corps of Engineers, 2011) Maintenance dredging is recommended to be done every 5-10 years for Alpena, but, because of lack of funding, is generally only undertaken every 15-20 years. This is due to prioritizing by the federal government. Some major ports on the Great Lakes have greater need and are dredged much more often than Alpena. Green Bay, for example, usually has to be dredged yearly due to the conditions of the Bay. Much larger dredging projects are prioritized on the national level such as the almost continual dredging needed to keep the mouth of the Mississippi River open in Louisiana. The cost of dredging usually makes it prohibitive for local or regional government entities to fund and is almost always supported at the federal level, with many ports across the country competing heavily for federal budget allocations for dredging. (Workboat Staff, 2011)

Figure 7-2 US Army Corps of Engineers Logo



**US Army Corps  
of Engineers®**

Source: US Army Corps of Engineers

In 2011, fourteen waterways were dredged to keep shipping channels open in the Detroit District of the U.S. Army Corps of Engineers (Which includes Lake Huron, Lake Superior, and Lake Michigan ports) ranging in costs from \$226,000 to \$2.8 million. With 94 harbors and several major waterways in the District, there is almost always a backlog for dredging projects.



Table 7-1 Army Corps of Engineers Dredging Projects in 2011

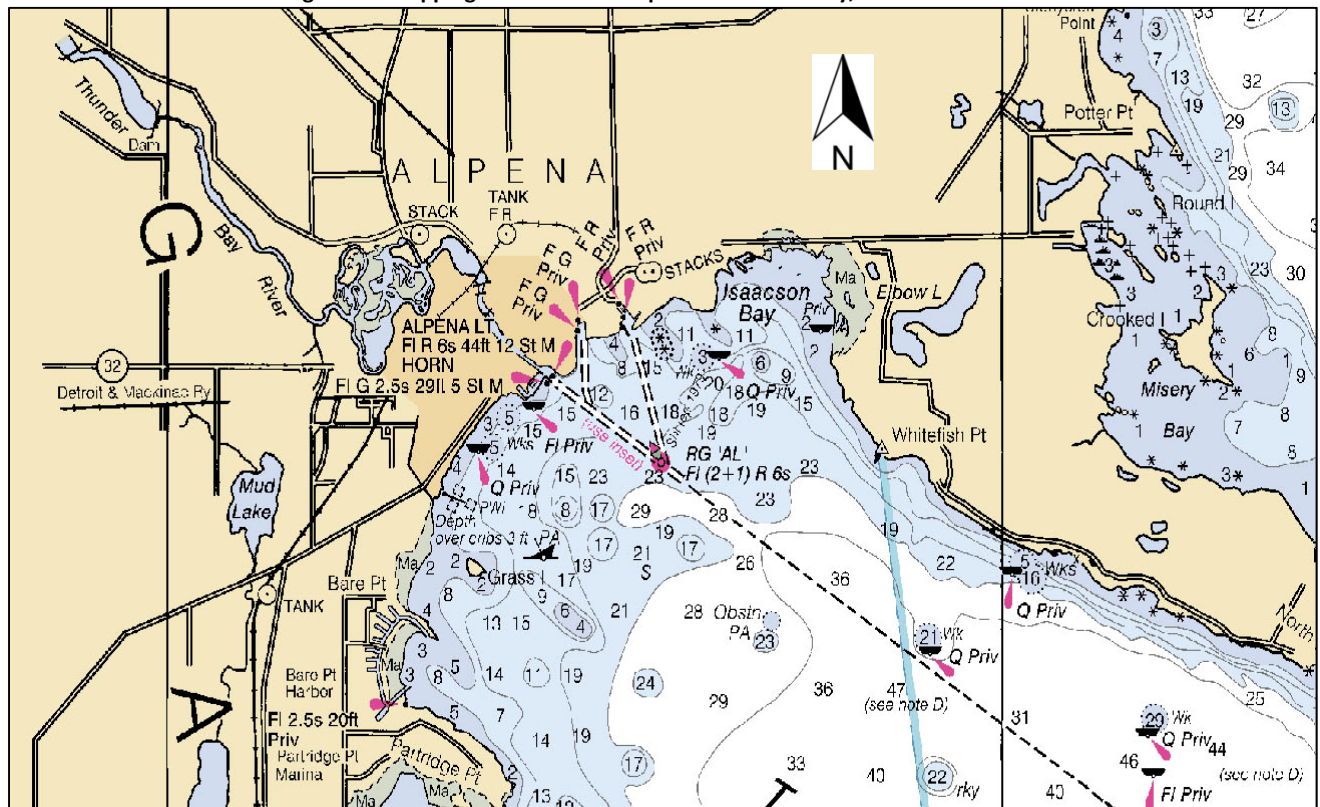
USACE District	Waterway	Date	Cubic yds. dredged	Cost	Company
DETROIT	BAY PORT, MI	10/15/2010	39,308	\$1,036,100	MALCOLM MARINE
DETROIT	GRAND HAVEN HARBOR	1/27/2011	14,000	\$130,000	KING COMPANY, INC.
DETROIT	HOLLAND HARBOR, MI	1/27/2011	25,710	\$189,500	KING COMPANY, INC.
DETROIT	MUSKEGON HARBOR, MI	2/9/2011	n/a	\$396,000	KING COMPANY, INC.
DETROIT	LUDINGTON HARBOR, MI	3/11/2011	51,836	\$226,150	KING COMPANY, INC.
DETROIT	ST JOSEPH HARBOR, MI	3/11/2011	n/a	\$445,000	M.C.M. MARINE INC.
DETROIT	DETROIT RIVER, MI	3/11/2011	258,743	\$1,103,500	LUEDTKE ENGINEERING CO.
DETROIT	NORTH MANITOU IS HBR, MI	4/8/2011	52,382	\$413,040	M.C.M. MARINE INC.
DETROIT	MONROE HARBOR, MI	4/26/2011	79,419	\$651,500	KING COMPANY, INC.
DETROIT	GREEN BAY HARBOR, WI	6/1/2011	145,878	\$2,108,900	ROEN SALVAGE COMPANY
DETROIT	MILWAUKEE HARBOR, WI	6/7/2011	n/a	\$616,875	FAUST CORPORATION
DETROIT	DULUTH-SUPERIOR HBR MN & WI	6/14/2011	n/a	\$2,828,485	MARINE TECH
DETROIT	SAGINAW RIVER, MI	6/24/2011	n/a	\$2,403,750	RYBA MARINE CONSTRUCTION CO.
DETROIT	CHNLS IN LK ST CLAIR, MI	8/26/2011	n/a	\$879,200	MORRISH WALLACE CONSTRUCTN,INC

Source: U.S. Army Corps of Engineers

## Port of Alpena Nautical Charts

The following charts show water depth measurements in Thunder Bay and Alpena Harbor. These depth measures are used in cargo and large ship navigation and safely direct ships through the shipping channels of the appropriate depth. As you can see from the charts, three dredged channels branch off from the main shipping route into Alpena Harbor. The deepwater channel into the Lafarge Docks is dredged to a minimum depth of 24 feet. The channel into Thunder Bay River and downtown Alpena is dredged to a minimum depth of 14 feet. The West Dock channel is unused but has a minimum depth of about 16 feet. These numbers will be used by shipping industries to determine what type and size of ship to operate in Alpena.

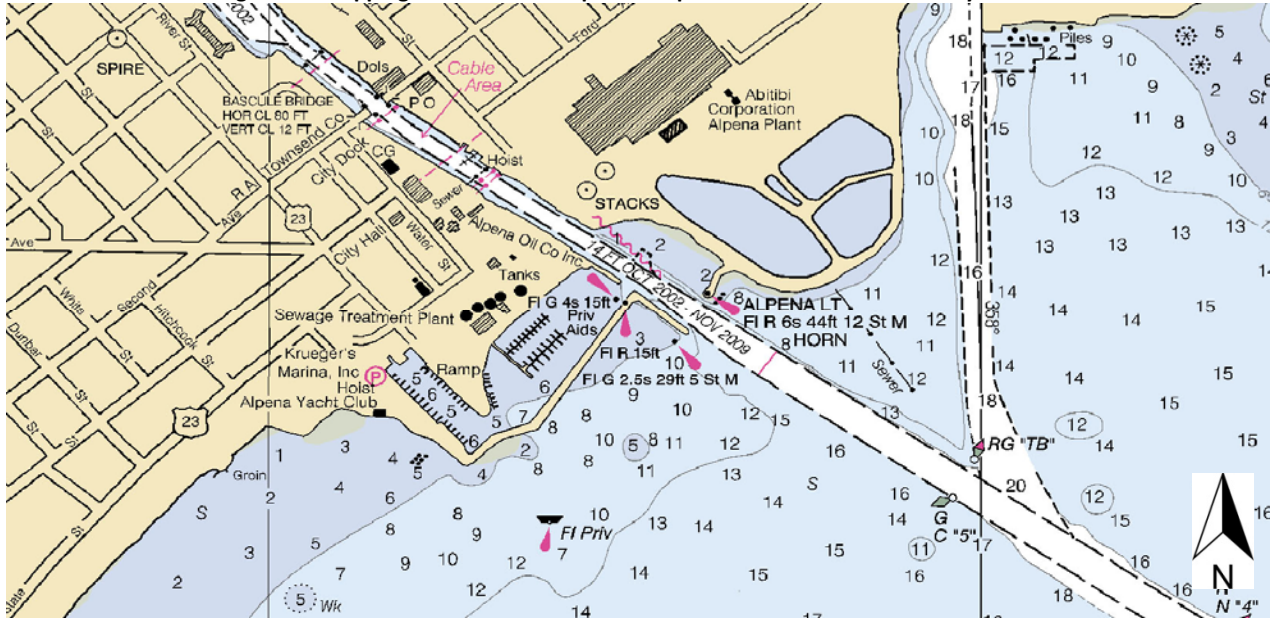
Figure 7-3 Shipping Channels and Depths of Thunder Bay, Lake Huron



Source NOAA

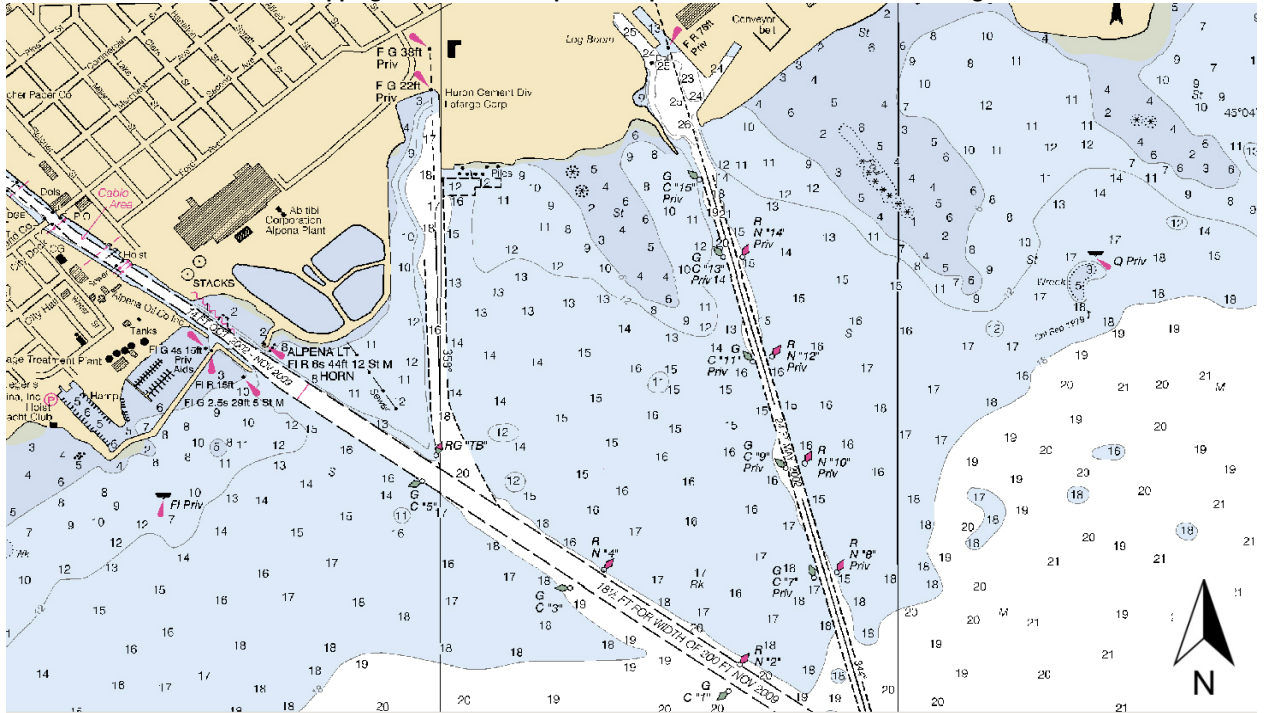
Alpena Harbor Thunder Bay River and West Dock Channels:

**Figure 7-4 Shipping Channels and Depths of Alpena Harbor and Thunder Bay River**



Source: NOAA

**Figure 7-5 Shipping Channels and Depths of Alpena Harbor in Relation to LaFarge Docks**



Source: NOAA

## Minimum Depth of other Great Lakes Ports for Comparison (NOAA, 2011):

### Lake Huron:

- Port of Alpena (Lafarge Dock min depth = 24 feet/ Thunder Bay River docks min depth = 14 feet)
- Port of Roger's City (Rogers City city docks min depth= 6 feet/Calcite Port= 24 feet)
- Port of Cheboygan (min depth = 21 ½ feet)

### Lake Michigan:

- Port of Green Bay, WI (min depth= 20 feet)
- Port of Waukegan, IL (min depth = 12 feet)
- Port of Indiana / Burns Harbor Indiana-Gary (min depth= 23-24 feet)
- Port of Menominee, MI/Marinette, WI (min depth= 19 feet)

### Lake Superior:

- Port of Duluth, MN (min depth = ~25 feet)

## Ships of the Great Lakes

The depth that a shipping channel needs to be dredged will be determined by the capacity draft depth of ships that need to use the particular dock. Ship draft depth is the vertical distance from the waterline to the bottom of the boat, and depends on the type of ship and amount of cargo that a ship is hauling. Glass bottom and recreational boats typically do not have a draft of more than a few feet. A large ferry holding 140 cars has a draft of around 13 feet. Below is a picture of the ship *Alpena*, a typical cement cargo ship used by LaFarge. This ship can haul a maximum capacity of 19,150 tons of cement, but would have a draft of 25 feet 8 inches at full capacity. This is too deep for the LaFarge Shipping channel, and so the ship would not be able to be loaded to its maximum capacity in Alpena. (Boatnerd.com)

Figure 7-6 LaFarge Cargo Ship Alpena in Detroit



Source: [www.Boatnerd.com](http://www.Boatnerd.com)



## Great Lakes Shipping

The map below shows shipping routes in and out of various Great Lakes ports. Alpena, for example, is shown as exporting limestone to points east and south. Limestone is a common export of northern Michigan ports. Other ports in the Upper Peninsula and Lake Superior export iron ore out of the Great Lakes. Coal is imported from points east to Chicago, Milwaukee, and Duluth, and in turn, grain is exported out of these ports, around Michigan, to the St. Lawrence Seaway, and around the world.

Figure 7-7 Major Shipping Routes of the Great Lakes



Source: US Army Corps of Engineers



## Summary

The Port of Alpena is located on Thunder Bay, Lake Huron in Northeast Michigan. The Great Lakes are interconnected through the Straits of Mackinac, connecting Lake Michigan and Lake Huron, the Soo Locks connecting Lake Superior and Lake Huron, the St. Clair and Detroit Rivers connecting Lake Huron and Lake Erie, the Welland Canal connecting Lake Erie and Lake Ontario, and the St. Lawrence Seaway connecting Lake Ontario to the Atlantic Ocean. Hundreds of ports line the Great Lakes importing and exporting goods and products all over the world, while supporting a multibillion dollar recreation and tourism industry. Great Lakes ships that travel the St. Lawrence Seaway to and from the Ocean are called "Salties" and cannot pass through the canal systems with a draft depth greater than 30 feet. Most large ships are limited by the dredged depth of the ports to about 24 or 25 feet. Smaller boats like recreational boats, cruise ships, and ferries travel between ports with little problem. While the Great Lakes are infamous for shipwrecks due to ice, bad weather, and a rocky shoreline, modern navigation technology and a vigilant Coast Guard has greatly reduced this threat. The greatest challenge to navigation is the maintenance of dredged channels which is overseen by the U.S. Army Corps of Engineers and is a multimillion dollar a year project. Most ports rely on federal funding for maintenance dredging, but there is usually a backlog of projects and some go for years without badly needed channel maintenance. Alpena was last dredged in 2007 and will be due for another project in the next five or ten years.

## 8.) ECONOMIC ACTIVITY ANALYSIS

The Alpena port is currently used for great lakes shipping. Since 2005, the amount of freights by ship has been decreased from 3,229,122 to 2,199,097 (Target Alpena). In terms of freight movement by ship, the shipments extremely exceed receipts every year. Furthermore, about ninety percent of freights in the port occupy for the domestic shipment and the rest is for foreign freights which have about half and half for receipts and shipments. Among the commodities traded in the port, the major materials are cement and concrete which occupy for about 75%; however, coil is the main import for the port (Target Alpena).

Three docks (City of Alpena Marina, West Dock and LaFarge Dock) make up the Port of Alpena, which are comprised of both public and private ownership and access.

### Public

#### City of Alpena Marina

Alpena's Marina is owned and maintained by the City of Alpena, operated by Thunder Bay Shores Marine, Inc. and governed by the policies of the Michigan State Waterways Commission, a division of the Michigan Department of Natural Resources. All of the Marina's guidelines follow their grant-in-aid agreement with the Michigan State Waterways Commission and City regulations (City of Alpena)

Located on Lake Huron's Thunder Bay, the City of Alpena offers a full service marina to the boating public.

Figure 8-1 City of Alpena Marina



Source: Great Lakes Cruising Club

The City has out sourced the day-to-day operation of the marina to Thunder Bay Shores Marina, Inc. The marina offers a maintenance/repair facility, marina store, dock hands to help boaters cast off and tie up, refueling boats with gasoline or diesel, and a sewage pump-out station (City of Alpena).

The Marina has 143 boat slips that are at 60% capacity during peak season (May-August). Currently the capacity is increasing at a rate of 1% annually (Don Gilmet, City of Alpena). Below are the fees and rates for the Marina.

**Table 8-1 Marina Rates and Fees**

<b>RATES AND FEES</b>	
<b>Service</b>	<b>Rate</b>
Sewage Pump-Out Fee:	\$5.00 per tank
Boat Launch Fees:	Seasonal: \$35.00 Daily: \$5.00
Winter Storage Rates:	Length x Beam x \$1.35
Daytime Temporary Moorage:	\$5.00 daily

Source: City of Alpena

Boats will not be placed into winter storage prior to September 1. All boats are required to be removed from the marina basin prior to formation of ice. All boats must be removed (from winter storage) no later than May 31.

**Figure 8-2 City of Alpena Marina**



Source: City of Alpena

Table 8-2, shows the dockage fees for recreational boats. Commercial boat fees are twice the amounts shown.

**Table 8-2 Seasonal Boatside Dockage Rates**

<b>SEASONAL BOATSIDE DOCKAGE RATES</b>			
<b>Boat Size (ft.)</b>	<b>Price</b>	<b>Boat Size (ft.)</b>	<b>Price</b>
20 ft. or less	\$947	41	\$2,237
21	\$993	42	\$2,345
22	\$1,040	43	\$2,483
23	\$1,090	44	\$2,564
24	\$1,136	45	\$2,687
25	\$1,182	46	\$2,750
26	\$1,230	47	\$2,846
27	\$1,276	48	\$2,912
28	\$1,325	49	\$2,977
29	\$1,369	50	\$3,027
30	\$1,419	51	\$3,088
31	\$1,481	52	\$3,174
32	\$1,551	53	\$3,242
33	\$1,618	54	\$3,308
34	\$1,690	55	\$3,378
35	\$1,762	56	\$3,442
36	\$1,833	57	\$3,509
37	\$1,905	58	\$3,578
38	\$1,982	59	\$3,644
39	\$2,057	60	\$3,714
40	\$2,136	Over 60 ft.	\$63 per ft

Source: City of Alpena

National Oceanic and Atmospheric Administration (NOAA) – Great Lakes Maritime Center

In 2011, the NOAA Great Lakes Maritime Facility had approximately 75,000 visitors. While admission to the center is free, special attractions at the facility can range in price.

Currently there are several operations utilizing the NOAA dock at the Port of Alpena. Alpena Shipwreck Tours provide glass bottom boat tours of the Thunder Bay National Marine Sanctuary and its nearly 200 historic shipwrecks in and around the bay. In its first year, the glass bottom boat had nearly 8,000 passengers with little to no advertising (Jeff Gray, NOAA). Rates for tours range from \$10.00-\$30.00 per person. The 65 ft. ‘Lady Michigan’ peak operations run from June to August, while offseason operations are from October t May.

**Figure 8-3 NOAA Research Vessel**



**Source: NOAA**

**Figure 8-4 Thunder Bay Expedition Festival**



**Source: NOAA**

**The Great Lakes Maritime Heritage Center features:**

- 9,000 square feet of immersive exhibits
- 93-seat theater showing films daily
- Archaeological conservation lab and shipwreck artifact gallery
- Innovative education space for special programs, meetings, and events
- Scientific research facilities, including a dive operations center
- Community boat-building center small watercraft workshop
- Outdoor access to the Great Lakes Maritime Heritage Trail and open-air picnic grounds
- Maritime Heritage Center Gift Shop
- Hosting approximately 60,000 visitors yearly, the Great Lakes Maritime Heritage Center is significantly increasing public awareness of maritime heritage resources in the Great Lakes.

**Figure 8-5 Tall Ships during the Maritime Festival**



**Source: NOAA**

**Figure 8-6 NOAA Glass Bottom Boat**



**Source: NOAA**



During parts of the year the NOAA dock at the Port of Alpena is also utilized for hosting tall ships. These tall ships are not a permanent attraction and can vary per year depending on the ships summer schedule around the Great Lakes. Entry fees can vary greatly as well depending on the ship operator, tour, or event for which the ship is at the Alpena Port (Jeff Gray, NOAA).

## Private

### Lafarge

The Alpena LaFarge plant is the only dock that imports and exports commodities in Alpena, MI. The dock receives coal 2-3 times per year for its generators and the plant exports cement continuously throughout the active Lake Huron shipping season. The LaFarge Quarry is anticipated to supply raw materials for cement production for the next 50-75 years.

Figure 8-7 The Alpena at the Port of Alpena LaFarge Dock



Source: David Swain, [www.Boatnerd.com](http://www.Boatnerd.com)

The Alpena Plant is Lafarge's largest cement plant. An advantage of this location is its easy access to shipping. This plant is also one of the longest-operating cement facilities in the United States. The Alpena Plant has been in operation since 1908, and the Lafarge Corporation bought it in 1986. This plant is continuously making changes to increase productivity and improve environmentally.

As a result of technology, one kiln can produce in one day what six original kilns produced in one week. The plant currently produces approximately 2.5 million tons of cement per year. This is created in the plant's five kilns where coal, coke, and fuel quality waste is burned. While the community has raised health and environmental concerns through the years, the Alpena Plant has initiated an "industrial ecology" program, which is the concept of reusing other industries waste in place of a raw material to potentially lessen these impacts.

In 2011, all five kilns were optimized to reduce SO<sub>2</sub>, NO<sub>x</sub> and CO emissions. The facility partnered with Dow Agro Sciences to take a waste stream destined for the landfill and extract its remaining energy

value for the kilns. In 2011, this process kept 11,034 tons of fermentation broth out of the landfill and reduced NOx emissions and water usage.

**Figure 8-8 LaFarge Plant, Dock and Quarry**



Source: Google Maps-Images

Alpena's Plant uses waste heat from the kilns to generate steam, which therefore produces electricity. It produces enough electricity to power every resident in the county of Alpena for three weeks. The Alpena plant continues to optimize the energy utilized to convert raw materials (limestone, slag, sand, alumina and iron ore) into clinker. In addition, the plant has improved its fuel flexibility capabilities utilizing powder river basin coal, petroleum coke, plastics, and wood fibers. The plant produced 80 percent of its own electrical needs in 2011. This electricity is produced by using the exhaust gas from the kilns – sending the gas through a boiler system that heats steam that is then used in Lafarge's power plant. By producing most of its own power in 2011, the Lafarge Alpena plant reduced its carbon footprint by approximately 90,000 tons of CO<sub>2</sub>.

In addition, by using wastes from other industries, such as that of glass and chemical, in place of the natural resource, shale, the Alpena Plant has reduced the amount of cement kiln dust going into the environment and landfills.

In 2012, The Portland Cement Association (PCA) and Cement Americas magazine acknowledged the LaFarge Alpena Plant, as part of the Cement Industry Energy & Environmental Awards honoring sustainable manufacturing practices. The plant was a finalist in the Environmental Performance and Land Stewardship categories.

Also in 2012, The Alpena facility was also a runner-up in the Outreach category that recognizes a plant's efforts to enhance community, employee and government relations through innovative communications and programs, as well as in the Energy Efficiency category that honors energy planning, applications of efficiency technologies and practices and climate change mitigation efforts.

**Figure 8-9 LaFarge Plant and the City of Alpena**



**Source: Google Maps-Images**

As a Wildlife Habitat Council Certified Corporate Lands for Learning site, Lafarge has been committed to improving and expanding the wildlife habitat surrounding its plant. In 2011, major projects included the installation of wood duck nesting boxes around the old Paxton Shale Quarry. The quarry is no longer used and has been transformed into a lake and wooded area teeming with aquatic and animal species. The company also developed a pollinator garden that provides an active educational biodiversity/wildlife area near the plant. The garden improves the aesthetics along the approach to the Alpena plant and provides an active on site Wildlife Habitat Council project for all visitors and roadway travelers.

Furthermore, in 2011, the Lafarge plant took on a project to mitigate degraded spawning habitat of reef-spawning fishes in Thunder Bay. Although the primary focus was on lake trout, other reef-associated fishes including lake whitefish, walleye and smallmouth bass will benefit. Restoration included reef construction using more than 12,000 tons of limestone cobble to build several new spawning reefs that will duplicate natural reef conditions. The reefs are located adjacent to existing reefs near the Lafarge Alpena cement plant site where spawning lake trout congregate. Lafarge was also a major funding and in-kind donor for the Besser Museum of Northeast Michigan Lafarge Fossil Park exhibit that provides a hands-on educational tool for students of all ages to learn the science and economic impact of limestone in the region.

Table 8-3 illustrates the Lafarge Dock characteristics.

Table 8-3 LaFarge Dock Characteristics

General Information			
Latitude:	45° 3' 53" N	Publication:	CP06
Longitude:	83° 24' 57" W	Chart:	14864
First Port of Entry:	Yes	USA Representative:	No
ETA Message Required:	No	Medical Facilities:	Yes
Harbor Characteristics			
Harbor Size:	Small	Harbor Type:	Coastal Natural
Shelter:	Good	Turning Area:	No
Maximum Vessel Size:	Up to 500 feet	Good Holding Ground:	Yes
Entrance Restrictions			
Tide:	No	Swell:	No
Ice:	Yes	Other:	Yes
Overhead Limit:	Yes		
Water Depth			
Channel:	21 - 25 feet	6.4 - 7.6 meters	
Cargo Pier:	21 - 25 feet	6.4 - 7.6 meters	
Anchorage:	41 - 45 feet	12.5 - 13.7 meters	
Pilotage			
Compulsory:	Yes		
Repairs, Drydock, Railway & Other Services			
Ship Repairs:	Limited	Drydock Size:	N/A
Marine Railroad Size:	N/A	Garbage Disposal:	N/A
Dirty Ballast:	No		
Quarantine			
Pratique:	Yes	Deratt Cert:	Yes
Communications			
Telephone:	Yes	Telegraph:	Yes
Radio:	Yes	Radio Tel:	Yes
Air:	Yes	Rail:	Yes
Loading & Unloading			
Wharves:	Yes	Anchor:	N/A
Med Moor:	N/A	Beach:	N/A
Ice:	N/A		
Lifts & Cranes			
100+ Ton Lifts:	N/A	Fixed Cranes:	N/A
50-100 Ton Lifts:	N/A	Mobile Cranes:	N/A
25-49 Ton Lifts:	N/A	Floating Cranes:	N/A
0-24 Ton Lifts:	N/A		
Port Services			
Electrical:	Yes		
Supplies			
Provisions:	Yes	Water:	Yes
Deck:	Yes	Diesel Oil:	Yes
Engine:	Yes		
Tugs			
Assist:	No	Salvage:	No

Source: World Port Source



## Decorative Panels International (DPI)

DPI manufactures fiberboard paneling and has approximately a \$25 million economic impact in Michigan. The waste water treatment onsite costs approximately \$3 million a year.

DPI imports coil for its generators 2-3 times a year, but manufactured products are exported through trucks on Highway US 23.

In 2009, U.S. Energy Secretary Stephen Chu and U.S. Agriculture Secretary Tom Vilsack announced that American Process, Inc was awarded nearly \$18 million in Recovery Act funding to accelerate biofuel production. American Process Inc, founded in 1994, has offices in Atlanta (USA), Athens (Greece), and Cluj-Napoca (Romania).

**Figure 8-10 DPI Plant and Thunder Bay**



Source: Google Maps-Images

American Process, Inc. is one of the investors in the Alpena Prototype Biorefinery, a new \$23.5 Million project in a newly created Renewable Energy Renaissance Zone. The Renaissance Zone encompasses land acquired for the project from DPI beside their fiberboard paneling plant.

The new plant encompasses nearly 29 acres adjacent to DPI's Alpena facility and will use DPI's waste material to make cellulosic ethanol and sodium acetate, a commercial de-icer. The biorefinery's goal is to decrease DPI's operating costs, convert waste stream into value added products, local job creation and promote the nation's goals of energy independence and greenhouse gas reduction.

The new biorefinery has created approximately ten new direct full time jobs and will help retain approximately 200 jobs associated with the existing DPI facility.



## Port of Alpena Shipping Volumes and Values

The below tables show the yearly imports and exports measured in value and weight. While weight of both has been decreasing since 2007, the value has substantially increased during that same period.

Table 8-4 Alpena Imports and Exports by Weight

Measured by weight (kg)		
Year	Imports	Exports
2010	15,000,000	131,132,868
2009	7,747,224	236,480,777
2008	10,413,000	187,211,109
2007	71,918,737	245,413,568
2006	75,273,412	277,299,002
2005	82,751,767	293,595,170
2004	36,236,740	230,409,231
2003		85,248,800

Source: World Port Source

Figure 8-11 Lake Freighter in Port of Alpena



Source: www.goseegreatlakes.net

Table 8-5 Alpena Imports and Exports by Value

Measured by value (\$US)		
Year	Imports	Exports
2010	\$487,196	\$8,784,760
2009	\$548,461	\$13,312,621
2008	\$91,634	\$11,345,654
2007	\$1,539,578	\$13,516,252
2006	\$1,219,618	\$5,906,813
2005	\$1,363,292	\$5,783,385
2004	\$813,725	\$5,232,030
2003		\$4,125,896

Source: World Port Source

The below tables represent the yearly import commodities as well as their associated value and weight. Since 2007, import values and weights have decreased. Every other year “Salt; Sulfur; Earth & Stone; Lime & Cement Plaster” is imported, increasing the total import volumes in comparison to other years.

Table 8-6 Alpena Annual Port Imports

Annual Port-Level Imports			
Time	2010		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Inorg Chem; Prec & Rare-earth Met & Radioact Compd	487,196	487,196	15,000,000

Annual Port-Level Imports			
Time	2009		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	48,199	49,199	6,910,000
Inorg Chem; Prec & Rare-earth Met & Radioact Compd	487,196	487,196	15,000,000

Annual Port-Level Imports			
Time	2008		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	91,634	91,634	10,413,000

Annual Port-Level Imports			
Time	2007		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	77,072	77,072	8,631,863
Ores, Slag and Ash	1,462,506	1,462,506	63,286,874

Source: U.S. Trade Online

The below tables represent the yearly export commodities as well as their associated value and weight. Since 2007 the overall value and weight of the shipments have decreased with noticeable fluctuations happening every other year.

Table 8-7 Alpena Annual Port Exports

Annual Port-Level Exports			
Time	2010		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	8,808,223	8,808,223	131,132,868
Organic Chemicals	12,763		

Annual Port-Level Exports			
Time	2009		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	7,639,131	7,639,131	213,573,098
Organic Chemicals	136,138		
Miscellaneous Chemical Products	5,737,472	5,737,472	8,454,475

Annual Port-Level Exports			
Time	2008		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	11,345,654	11,345,654	187,211,109

Annual Port-Level Exports			
Time	2007		
Measures	Total Value (\$US)	Vessel Value (\$US)	Vessel SWT (kg)
Commodity			
Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	12,382,678	12,382,678	237,202,568
Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	1,133,574	1,133,574	8,211,00

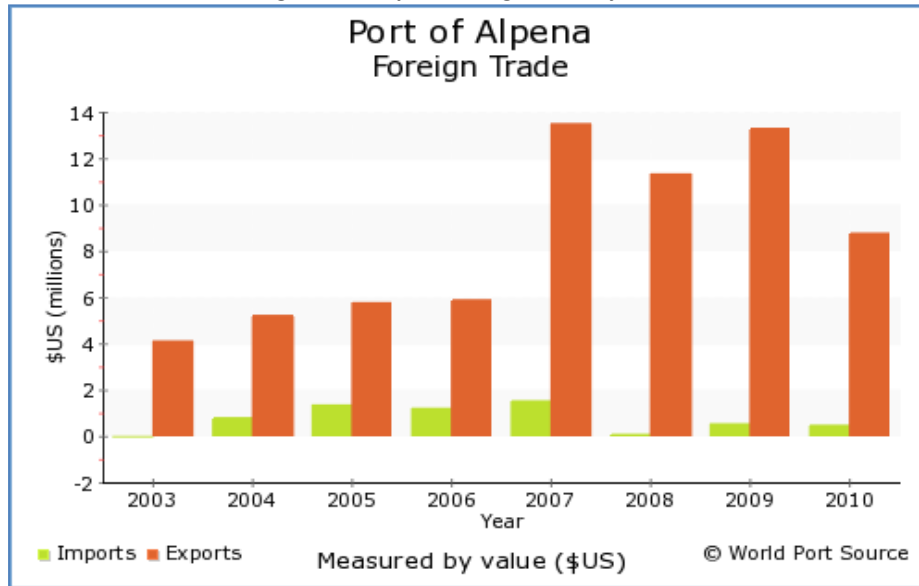
Source: U.S. Trade Online

## Foreign Trade

Foreign imports to Port of Alpena in 2010 were \$487,196, a decrease of 10.1% compared to the prior year. When measured in US dollars, the top country sending goods to Port of Alpena was Canada. Exports from the port in 2010 were \$8,820,986; this was a decrease of 34.73% compared to the 2009 year (World Port Source).

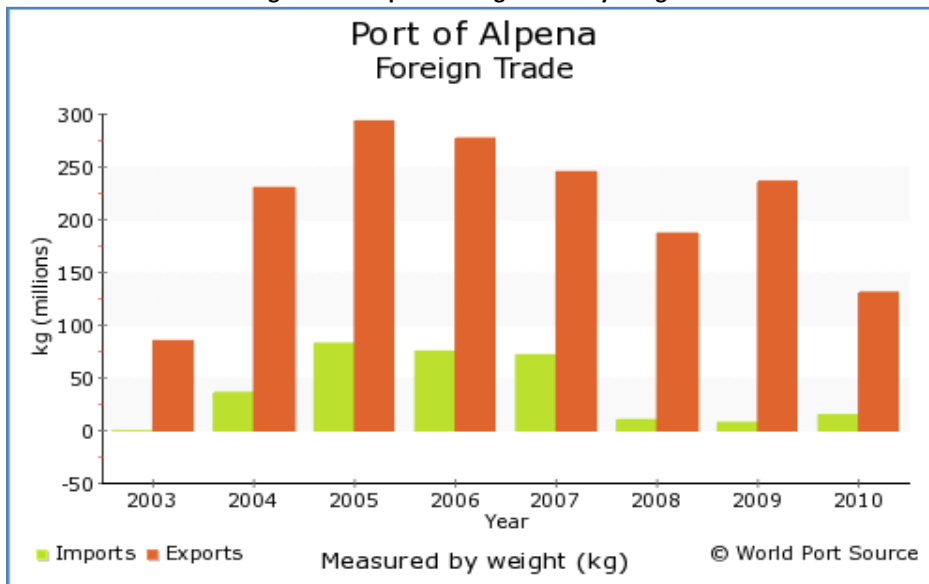
Figures 8-12 and 8-13 show the trend of the amount of domestic and foreign freight for Alpena, MI

Figure 8-12 Alpena Foreign Trade by Value



Source: World Port Source

Figure 8-13 Alpena Foreign Trade by Weight



Source: World Port Source

## Offsite – Surrounding Community

### Cultural

Below is a list of cultural activities within the area year round. There is an event for all age groups and many organizations are pitching in to help the events continuously be successful.

- Alpena Blues Festival, late June at The Alpena Fair Grounds and Merchant Building.
- Alpena County Fair, Alpena County Fairgrounds.
- Besser Museum Log Cabin Day, last Sunday in June. Approved by the Michigan legislature passed a bill to make Log Cabin Day an annual event to be held on the last Sunday in June. The Besser Museum for Northeast Michigan spotlights their own two log cabins on this day and celebrates by offering old fashioned, family-pleasing activities.
- Garden Walk fundraiser for Shelter, Inc., nine gardens in July.
- Great Lakes Lighthouse Festival second weekend in October, which provides funding and support for lighthouse.
- Habitat for Humanity-Alpena Area "Drive to Build" Charity Golf Outing
- Hillman Street Drags, first weekend in July, downtown, Hillman, Michigan.
- Lafarge Downtown Alpena River fest, in mid-June. Family event centered on the Thunder Bay River, celebrating Alpena's lumbering history. Professional lumberjack shows, entertainment, music, storytelling, chainsaw carving, food, fun and games.
- Michigan Brown Trout Festival, a week in mid-July.
- Presque Isle Harbor Wooden Boat Show, mid-June.
- Ramblin' Rods Car Show, second weekend in August at Mich-E-Kewis Park, Alpena.
- Sunrise Side Heritage Bike Ride, first weekend in September. Ride Along Lake Huron Shoreline (US 23) from the Arenac County fairgrounds to Mackinac Bridge then South to West Branch on M-33 and M-55 . This is a 400-mile long organized ride.
- Thunder Bay Arts Council's "Art on the Bay" at beautiful Bay View Park in Alpena. A Juried Fine Arts and Fine Crafts Fair that coincides with The Michigan Brown Trout Festival.
- Thunder Bay Lanes has hosted a long-running annual 6-man team Ten-Pin bowling tournament in March. It also occasionally hosts the Northern Michigan Men and Women's championships.
- Thunder Bay Maritime Festival is presented by the Thunder Bay National Sanctuary and Underwater Preserve in Alpena, MI.
- Thunder Bay Theatre is northeast Michigan's only professional theatrical group, and regularly presents production.
- Youth Sailing Instruction and Training is offered by the Alpena Yacht Club.



Figure 8-14 Alpena Community Facilities



Source: NEMCOG GIS Department

Figure 8-15 Alpena Cultural and Historic Facilities

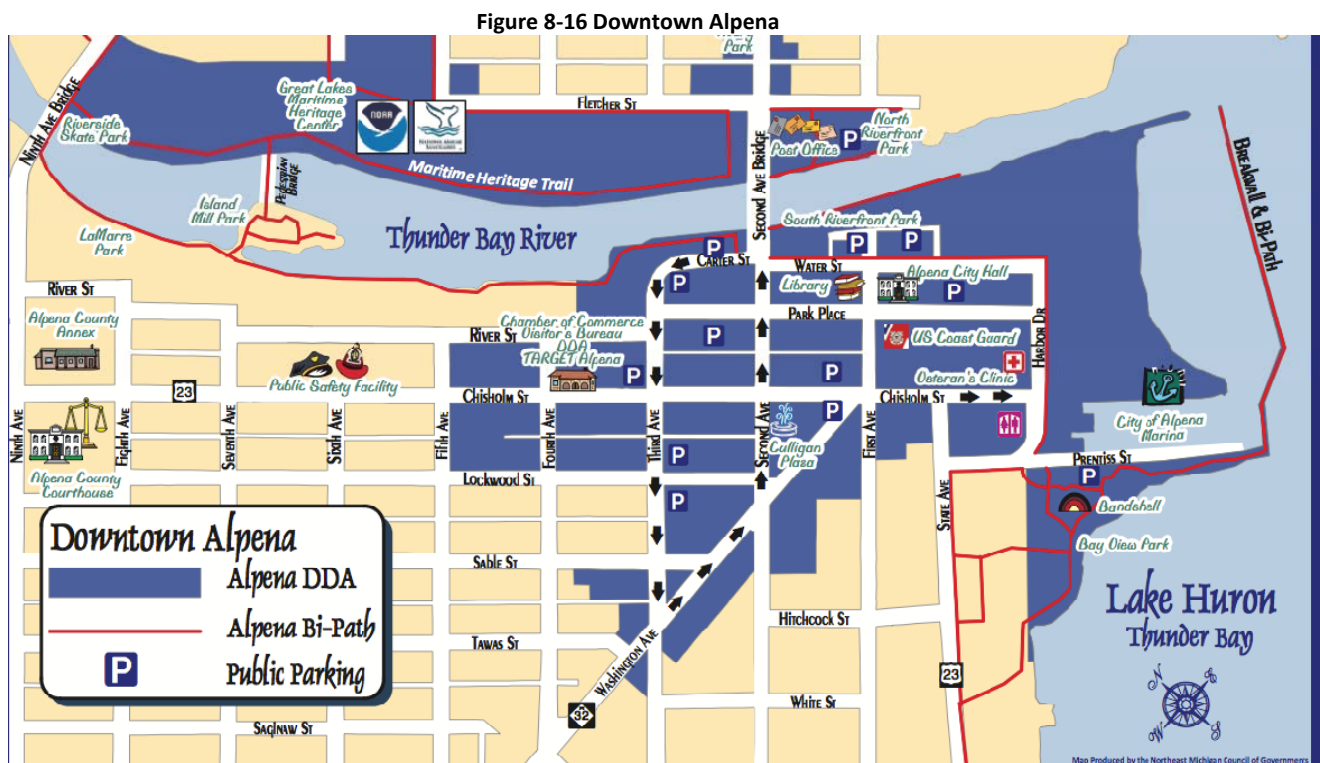


Source: NEMCOG GIS Department

## Downtown

The DDA is an authority of the City of Alpena, and works very closely with City Council and City Staff as it establishes and implements its goals, including participating annually in the City's 5 year Capital Improvement Planning process. The DDA works closely with the City of Alpena, Downtown Alpena Business Association, Alpena Convention and Visitors Bureau, Alpena Area Chamber of Commerce, Target Alpena Development Corporation and many other groups throughout the community to support activities, which help, grow both downtown and the community. The City of Alpena and the DDA have worked together to initiate the Neighborhood Enterprise Zone (NEZ). The NEZ is within the boundaries of the DDA District. The purpose of this zone is to encourage property owners to develop and rehabilitate residential housing within the downtown district by offering tax abatements on new or rehabilitated residential units.

Downtown Alpena is a community made up of one-of-a-kind shops and restaurants, many family-owned and operated.



## Tourism/Recreation

The city of Alpena offers one of the greatest natural living environments in Northeast Michigan. The number of things to do on the thousands of acres of public land is varied. You can hike, there's hunting, bird watching, rock hunting, bike riding and great images of nature for your collections of photographs. Camping is always a great option with the choice of public and private locations available within the area. River, stream, and lake fishing is really popular along numerous public access sites, that are

located along the miles of shoreline and riverbanks. At these access points, people have the options for boating, canoeing, and kayaking in the water throughout the warmer weather months.

The beaches that are along the coast are cleaned and taken care throughout the summer season. Water activities such as swimming, snorkeling, and scuba diving are favorite events that residents and visitors enjoy. One of the most fascinating places that are like no other is the “Thunder Bay National Sanctuary”. It is Michigan’s largest resource for information on Great Lake’s shipwrecks and people come to witness a piece of history.

The shipwrecks of Thunder Bay constitute a microcosm of the Great Lakes commercial shipping industry spanning the last two hundred years. The collection reflects transitions in ship architecture and construction, from wooden schooners to early steel-hulled steamers, as well as several unusual vessel types.

**Table 8-8 Thunder Bay Shipwrecks**

SAILING VESSELS		MOTOR VESSELS	
E.B. Allen	Maid of the Mist	Albany	W.G. Mason
American Union	Ogarita	B.W. Blanchard	William Maxwell
John J. Audubon	Portland	City of Alpena	Messenger
F.T. Barney	Reindeer	James Davidson	Monohansett
Bay City	John L. Shaw	Duncan City	Montana
Harvey Bissell	Kyle Spangler	Egyptian	Monrovia
H.P. Bridge	William H. Stevens	Joseph S. Fay	New Orleans
Alvin Buckingham	Typo	Oscar T. Flint	New Orleans
Corsican	Lucinda Van Valkenburg	Florida	New York
Defiance	John F. Warner	Benjamin Franklin	Nordmeer
Marion Egan	Cornelia B. Windiate	W.C. Franz	Norman
Empire State	John T. Johnson	Galena	O.E. Parks
James H. Hall	Gilchrest Fleet	W.H. Gilbert	Pewabic
Ishpeming		Grecian	Portsmouth
BARGES		D.R. Hanna	W.P. Rend
Barge 12	Haltiner Barge	Loretta	Isaac M. Scott
Detroit	Heart Failure	Marine City	Shamrock
Dump Scow	Barge No. 1	D.M. Wilson	W.P. Thew
Spud Barge	Steel Barge	Viator	

Source: NOAA

For the fall/winter months the scene in the area is the total opposite. With all the beauty of nature and the tress in the area, the colors glow from the leaves on the tress. Most of the land being farmland or forest areas, you can get an image of what it looks like from just about anywhere. Instead of people enjoying the activities of the summer, people engage in hunting of deer and also birds. The area is full of deer during this time of year, and because of this the area is generous in giving of licenses. As the year continues on, winter comes and the snow settles allowing for ice fishing and snowmobilers. Snowmobilers have miles of trails that allow travel throughout the county.

## **Glass Bottom Boat**

In the City of Alpena, the water surrounding the area has its own stories to tell. The glass bottom boat allows you to view the shipwrecks of the Thunder Bay National Marine Sanctuary. The clear waters and the glass bottom' viewing wells allow you to dive the wrecks. The journey is a 2 ½ hour cruise, where passengers experience preserved shipwrecks, scenic shorelines and historic lighthouses.

## **Great Lakes Cruise Lines**

Alpena, Michigan would be added to a lot of tourists, places of destination if they were included as a stopping point for some of these Great Lake cruises. The City of Alpena has several attractions on land and off that are unique only to this location. The glass bottom boat allows you to view the shipwrecks of the Thunder Bay National Marine Sanctuary. The clear waters and the glass bottom' viewing wells allow you to dive the wrecks, but this time without getting wet! The tours could use Alpena as the location for the more scenic an informational stop on the trip, which includes the great views of natural environment. Alpena has the potential to be a great tourist location; there are several ships you can take tours on while on the Great lakes.

An example of a cruise ship that would bring people inland is the *Yorktown*. The *Yorktown* is the perfect vessel for relaxed and convivial exploration of America's great coastal waterways. Voyage to the Great Lakes has 7 tours beginning in June and ending in August 2012. The route that is taken begins in Chicago (Lake Michigan) go north toward Mackinac Island then on to Whitefish Point (Lake Superior) then heading south going to Manitoulin Island, Goodrich (Lake Huron) and (Lake St. Clair) ending in Detroit. The vessel restored in 2009, the *Yorktown* was built in Florida in 1988 and its purpose was for costal cruises only. The ship is 257 feet long, 43 feet wide, with a draft of 8 feet, the *Yorktown's* is able to maneuver in secluded waterways and visit small ports that are inaccessible to larger vessels. Accommodating 138 guests in 69 exterior cabins, the *Yorktown* enjoys an atmosphere of warm and a relaxation environment. The ship's cuisine, served in a dining room large enough to accommodate all guests at once, emphasizes American regional culinary traditions and specialties. Both the lounge and dining room are surrounded by large picture windows that afford unobstructed views of the passing scenery. The ship's cuisine, served in a dining room large enough to accommodate all guests at once, emphasizes American regional culinary traditions and specialties. The people on these types of journeys just want for a great place to enjoy themselves and also possibly seeing things that are unique and different because that the reason why we tour the world! The price range for these tours range starting at \$4,000 and the highest being near \$9,000.



## **9.) MICHIGAN PORTS- A POLICY FRAMEWORK**

To understand Michigan's current port situation, a brief history of the states legislation and policy is necessary.

Michigan is bordered by four of the five Great Lakes and Lake Sinclair, which translates into 3,224 miles of coastline in the State, making it the longest freshwater coastline in the world (Ocean, 2011). Given that fact, it also presents great opportunities for the shipping of goods and merchandise from the many ports around the state. However, the lack of regulation and uniformity through an overseeing entity of these ports, port authorities and/or port districts in Michigan can hinder the overall productivity and success of Michigan's shipping industry.

It has been said that the state of Michigan has a weaker model of Port Authorities than other neighboring states such as Ohio and Indiana. It is the intention of this analysis to determine why the Michigan model is lagging behind other states and what could possibly be changed to rectify that situation in the future. However, to understand the dilemmas of the port authority today, one must first examine the history of them and the legislation that grants their existence and establishes their powers.

### **Historic Policy Overview**

The following is a summary of major legislation in Michigan with respect to its ports. This material was gathered through researching the history of ports and the legislation in Michigan in printed and online sources. Much of the background information was also gathered through an interview with John Kerr of the Detroit/Wayne County Port Authority.

#### Port Districts - Act 234 of 1925

"AN ACT to provide for the creation and establishment of port districts; to prescribe their rights, powers, duties and privileges; to prescribe their powers of regulation in certain cases; to prescribe their powers in respect to acquiring, improving, enlarging, extending, operating, maintaining and financing various projects and the conditions upon which certain of said projects may extend into another state or county." (Port Districts)

In simpler terms, the Port Districts Act 234 of 1925, allowed the creation of port districts with the intention of improving areas around the waterfront via land acquisition and expansion, as well as financing projects and other prescribed powers (Port Districts). This Act was the initial step in creating the port authorities as we know them today, but it was referred to in lesser known terms, the port district. A port district could be compared to our modern business improvement districts, but they are no longer in vogue due to the more modern and powerful alternative, the port authority.

## Hertel-Law-T. Stopcynski Port Authority Act - Act 639 Of 1978

“AN ACT to authorize the establishing of port authorities in cities and counties; to prescribe the powers and duties of port authorities, cities, and counties; to authorize the incurrence of contract obligations and the issuance and payment of bonds or other evidences of indebtedness; to provide for a pledge by a city or county of its full faith and credit for the payment of contract obligations entered into under this act and the levy of taxes without limitation as to rate or amount to the extent necessary; to validate obligations issued; to provide for the adoption of a port facilities plan; to provide for the financing of the operating budget of port authorities; to prescribe penalties and provide remedies; and to repeal acts and parts of acts.” (Hertel)

The Hertel-Law-T. Stopcynski Port Authority Act authorized the creation of port authorities in cities and counties (Hertel) and was first chaired by Mr. Henry Ford II, of the Ford Motor Company, from October 1980 to December 1981 (Kerr, 2008). This legislation authorized what is known as a Special-Purpose Authority with more latitude and power than the previous legislation of 1925 (Kerr, 2008) and it has the ability to:

- Own real/personal property
- Enter into contracts with public/private companies
- Capacity to issue bonds
- Ability to obtain government/foundation grant funding
- Condemnation abilities

In an interview conducted by the MSU student practicum team in Spring of 2012 with Mr. (John) Kerr, the Director of Economic Development & Grants Management of the Detroit/Wayne County Port Authority, much valuable information was garnered from a very knowledgeable and respected port authority expert. Mr. Kerr also explained that it is many times a collaboration between two entities, in any combination of cities and counties, like the Detroit/Wayne County Port Authority for instance. There are also stipulations as to the make-up of the five member board of directors, as follows:

- One member to be appointed by the Governor
- Two members by the county commission
- Two members by the city

The following tables are intended to be tools for easily distinguishing what port districts and port authorities can do and also is useful in determining the major differences as well as the advantages and disadvantages between the two different entities as well.

Table 9-1 Port Districts

<b>PORT DISTRICTS</b>	
<b>LEGAL CITATION:</b>	Port Districts, Public Act 234 of 1925, MCL 120.1 et seq. <a href="http://www.legislature.mi.gov/mileg.aspx?page=getObject&amp;objectName=mcl-Act-234-of-1925">www.legislature.mi.gov/mileg.aspx?page=getObject&amp;objectName=mcl-Act-234-of-1925</a>
<b>SERVICE OR FUNCTION:</b>	To provide for the establishment of port districts which will be coextensive with the limits of any county government.
<b>APPLICABILITY:</b>	Any county, independently or in combination with another county, may establish a port district. No more than five contiguous counties may combine to form a port district.  Any city or township, or any two or more whole contiguous cities or townships, or any combination thereof may establish a port district.
<b>FORM OF COOPERATION:</b>	Joint service provision.
<b>IMPLEMENTATION METHOD:</b>	<b>County Port Districts.</b> The board of county commissioners may act by resolution, or on petition of 10 per cent of the qualified electors of such county, the board of county commissioners may act to submit to the voters of such county the proposition of creating a port district.  <b>Municipal Port Districts.</b> The question of establishment of a municipal port district must also be submitted to the voters using the same procedures as establishment of county port districts.
<b>GOVERNANCE:</b>	<b>County Port Districts.</b> A port commission consisting of five members appointed by the boards of commissioners. In any port district located in more than one county, representation is in proportion to the state equalized value of each county in relation to the total state equalized value of the port district.  <b>Municipal Port Districts.</b> In any port district, the boundaries of which are coterminous with one or more whole cities or townships, the appointment of members of the port commission shall be made by the governing bodies of the cities or townships in which the port district is located.
<b>FINANCIAL AUTHORITY:</b>	May fix and collect tolls, fees, rents and other charges. May levy a tax not exceed two mills. May borrow money and issue bonds to an amount not greater 0.2 percent of the total assessed valuation of such port district in any one year, nor to a total amount including all outstanding bonded indebtedness of such district exceeding two percent of the assessed valuation of such district.
<b>APPLICATION:</b>	The Monroe Port Authority is the only authority that continues to operate under, and derive its power from this act. All other port authorities now operate under the Hertel-Law-T. Stopczynski Port Authority Act, Act 639 of 1978.

Source: Citizens Research Council of Michigan

**Table 9-2 Hertel Law - Port Authorities**

<b>HERTEL-LAW-T. STOPCZYNSKI PORT AUTHORITIES</b>	
<b>LEGAL CITATION:</b>	Hertel-Law-T. Stopczynski Port Authority Act, Public Act 639 of 1978, MCL 120.101 et seq. (Supersedes Public Act 234 of 1925 for the incorporation of port authorities.)
<b>SERVICE OR FUNCTION:</b>	To provide for the establishment of port authorities.
<b>APPLICABILITY:</b>	A city and county, a combination of counties or a combination consisting of at least one city and one county
<b>FORM OF COOPERATION:</b>	Incorporation of special authority.
<b>IMPLEMENTATION METHOD:</b>	Initiated by joint resolution of the respective governing bodies. Resolution requests the governor to authorize the incorporation of an authority. The governor is to consider the recommendations of the Department of Transportation and the Department of Labor and Economic Growth in authorizing the authority. The initial articles of incorporation must be approved by the governor and may thereafter be amended by resolution of the authority, subject to approval by the governor. After approval by the governor, the articles of incorporation and any amendments to those articles are effective upon filing with the secretary of state.
<b>GOVERNANCE:</b>	An authority consists of five or seven members with one member appointed by the governor and the remaining members appointed by the governing body of each participating city and county. The interlocal agreement provides for representation on, and the number of members of, the authority. An authority that is established in a county having a population of 1,500,000 or more (Wayne County) consists of five members with one member appointed by the governor; two members appointed by the county board of commissioners (The members appointed are to be nominated by the commissioners on the board who do not reside within the political boundaries of a city having a population of 750,000 or more (e.g., outside of the City of Detroit)); and two members appointed by the mayor of a city having a population of 750,000 or more that is located in the county (the City of Detroit).
<b>FINANCIAL AUTHORITY:</b>	Participating units may enter contracts for the acquisition, improvement, enlargement, or extension of port facilities. Each contracting constituent unit pledges its full faith and credit for the payment of its obligations under the contract. If the constituent unit has taxing power, each year it must levy a tax upon all real and personal property within the constituent unit, which may be imposed without limitation as to rate or amount, to the extent necessary for the prompt payment of that part of the contract obligations. Contract may be settled also by service charge to users of the facilities, diversion of state shared revenues, special assessments upon lands benefited, or otherwise. The authority may issue revenue bonds.  The state is to provide 50 percent of the operating budget of the authority. Fifty percent of the operating budget of an authority in which not more than one county and not more than one city participate shall be funded equally by the participating county and city. No additional taxing power is obtained for operating costs by cooperating through the provisions of this act.
<b>POWERS:</b>	An authority may acquire by condemnation lands, property rights, rights of way, franchises, easements, and other property, or parts thereof or rights therein.
<b>APPLICATION:</b>	All Michigan port authorities have transitioned to the provisions of this act, except that the Monroe Port Authority has not created an authority under the Hertel-Law-T. Stopczynski Port Authority Act and continues to operate under, and derive its power from, Act 234 of 1925, being MCL 120.1 to 120.35.

**Source: Citizens Research Council of Michigan**

## Summary

In addition to the PA 639 of 1978, there was newer legislation, Senate Bill 332 of 2005, requiring that all ocean-going vessels obtain a special permit from the Michigan Department of Environmental Quality (MDEQ) before dockage can occur at a port in State waters (Great, 2008). The Bill stipulated that MI will only issue the permits when it is proven that specific methods or measures are in place on the vessel to prevent aquatic invasive species, like the zebra muscle, from being discharged into the Great Lakes water when ballast water is exchanged.

According to John Kerr, there are four approved methods instituted by MDEQ, but none of them have been proven to work currently; in addition, none of the four methods are approved for use by the U.S. Coast Guard either (Kerr, 2012). In Mr. Kerr's opinion, many shipping companies are opting to dock in other states like Ohio or Indiana due to more relaxed regulations and the lack of special permits which require expensive infrastructure investment and more time.



## 10.) PORT CASE STUDIES

The objective of this study was to find port characteristics that we could compare to the Port of Alpena. Six ports located on the Great Lakes were analyzed: Monroe, Detroit, Toledo, Muskegon, Green Bay, and Hamilton. All ports are located in the United States except for the Port of Hamilton, which is located in Canada, but still resides on Lake Ontario. Characteristics such as, water depth, the amount of cargo that goes through each port, dock space, recreational activities, and transportation accessibility were researched in order to compare information to the Port of Alpena. The Port Case Studies were researched in collaboration with Team Cheboygan, another MSU practicum team conducting a port inventory and analysis for the Port of Cheboygan.

### Port of Detroit, Michigan

Detroit was founded in 1701 by Antoine de La Mothe Cadillac when he staked France's claim to it by planting the flag in the ground of the current location of Griswold Street ("Detroit"). The location of Detroit was advantageous as it was between the upper and lower Great Lakes and was therefore in the middle of its most important resources at the time: the forest for timber, soil for agricultural uses, and various mining materials ("Detroit"). The city flourished upon creation of the Erie Canal, whose purpose was to provide a link between the Great Lakes and the Hudson River and consequently became a leading manufacturing center in the 1950's to the 1960's ("Detroit").

Figure 10-1 Detroit River

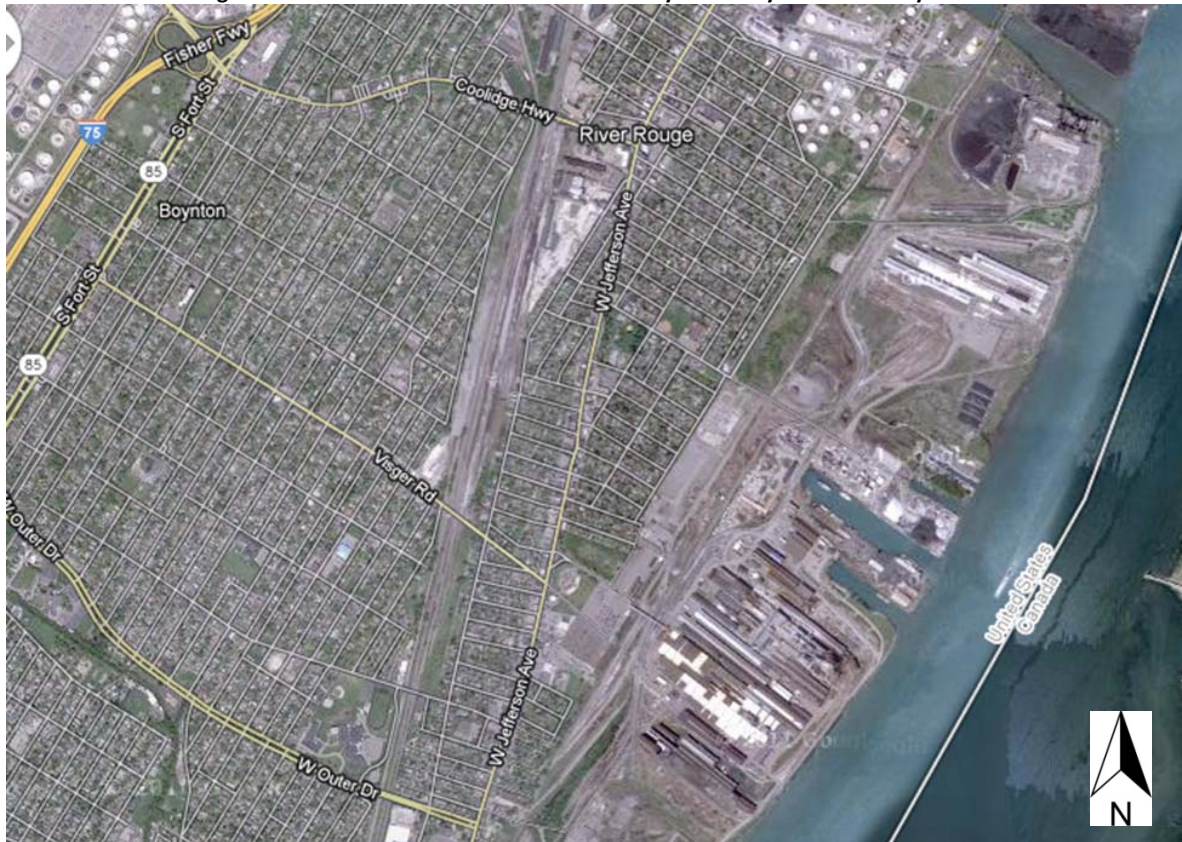


Source: Google.com

The legislature passed Public Act 234, the Ports District Act in 1925, which provided the ability to form Port Districts to oversee regional maritime actions (“Detroit”). The Detroit Wayne County Port District was then formed in 1933 and has jurisdiction of the waters and shoreline of Wayne County (“Detroit”). In 1978, the District was converted into the Detroit /Wayne County Port Authority due to a marked increase in the development of it and an increased need for port activities and supervision (“Detroit”). The Port Authority is controlled by a five member board consisting of one person appointed by the State of Michigan, two by the City of Detroit, and two by Wayne County (“Detroit”).

Figure 10-1 demonstrates the use of one of the many terminals found in the 32 mile stretch of the Detroit River that is included in the Detroit Wayne County Port Authorities jurisdiction.

Figure 10-2 Aerial of the one of the Detroit Wayne County Port Authority Docks



Source: [www.GoogleEarth.com](http://www.GoogleEarth.com)

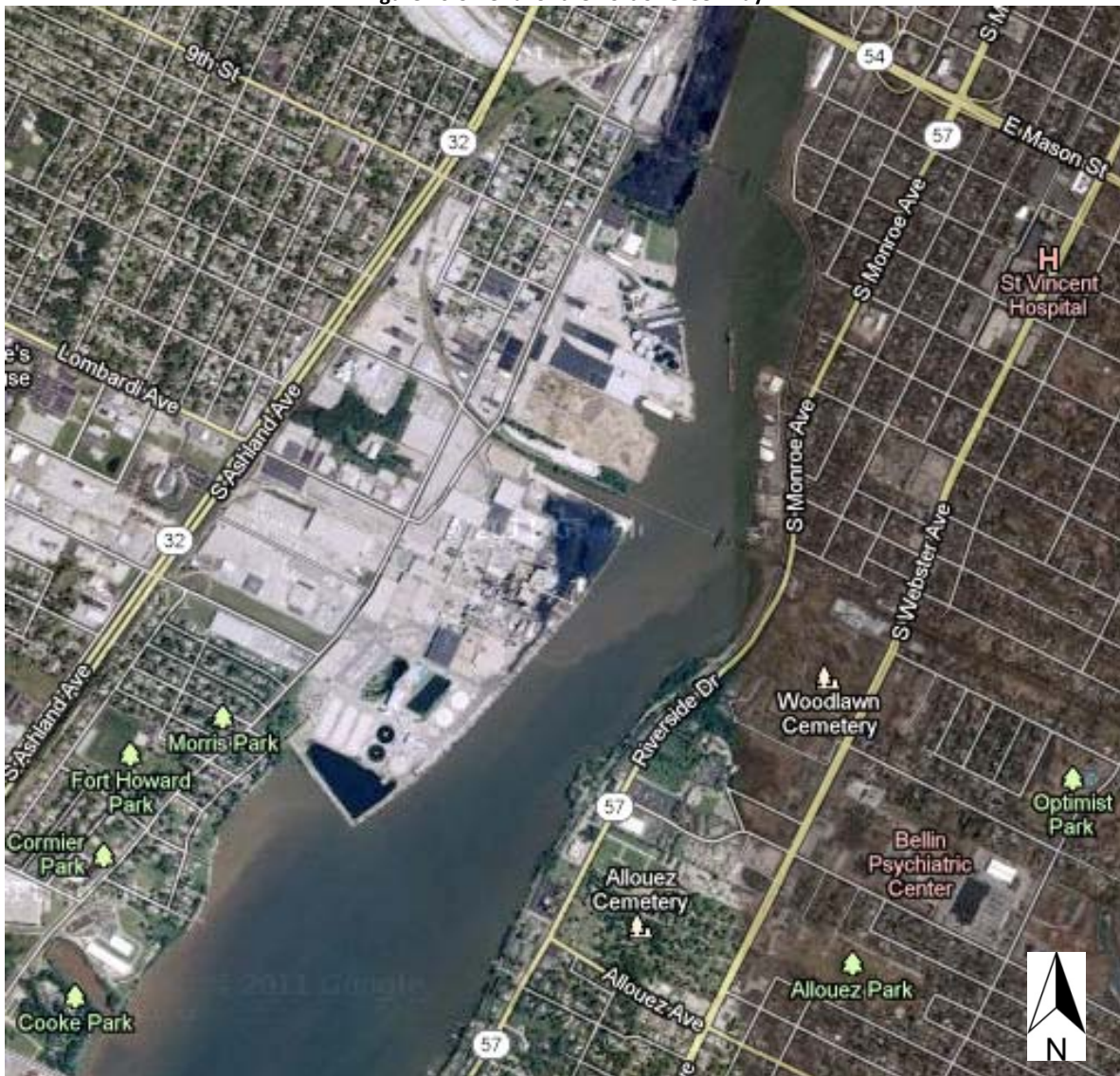
On July 18, 2011, the Detroit Wayne County Port Authority opened a new \$22M facility that boasts 22,000 sf. of ship terminal and 250 ft. of public dock space to process international and domestic ships on the Great Lakes (Rogue HAA, 2011). The new facility will improve processing and expand possibilities for greater numbers of and varieties of ships than in the recent past.



## Port of Green Bay, Wisconsin

The Port of Green Bay is the western most port of Lake Michigan and was established in the 1800's when waterway trading was focused in fur and peltry (Port of Green Bay, 2012). During the 1800's forts were built on Fox River by French, British and Americans military forces. In 1816 the first vessel with US flags arrived for Fort Howard. By 1867 major commodities exported from port were lumber, barrel, shingles, rail road ties and other forest products for Chicago and New York. The Peshtigo Fire destroyed the Northwestern Wisconsin forests and changed the Port. In the late 1800's it exported agricultural products with the largest flour export port on the Great Lakes. By the mid 1930's, the port shifted from an export to an import port for petroleum coke and coal. Today it continues to import both dry and liquid bulk commodities (Port of Green Bay, 2012).

Figure 10-3 Aerial of the Port of Green Bay



Source: [www.GoogleEarth.com](http://www.GoogleEarth.com)

The Brown county Harbor Commission was created in 1956 in anticipation of the 1959 opening of the St. Lawrence Seaway gave the port international status due to the direct link to Atlantic Ocean and the World from the Midwest (Port of Green Bay, 2012). Now there are 13 port businesses spread over a 3 mile span on Fox River. The Port of Green Bay has a depth of 26' and transports more than two million metric tons of coal, limestone, cement, salt, pig iron, fuel oil, forest products, liquid asphalt and many other essential commodities valued at more than \$300 million. In 2010, the port received more than 1.7 million metric tons of cargo, supporting 823 jobs and had an annual economic impact on the Green Bay area of \$83 million (Port of Green Bay, 2012).

**Figure 10-4 Birds eye view of the ports channel leading to Lake Michigan**



Source: [www.Google.com](http://www.Google.com)

The turning basin lies immediately above the Canadian National RR Bridge (Mile 3.3) opposite Georgia-Pacific Corp. at the south limits of the City of Green Bay and is adjacent to the dredged channel. Its irregular shape is maintained at a depth of 22' (Port of Green Bay, 2012). The Port of Green Bay is situated close to an airport, railway, and highway making it an easily accessible port with intermodal connectivity. Recreational activities around the port include, golfing, boating, and hiking making it an attractive place to visit. Due to international exporting the Port of Green Bay is a part of the Foreign Trade Zone.



## Port of Muskegon, Michigan

Muskegon, also known as the Port City, has a metropolitan area population of 170,000, with 40,000 people in the city itself, so it is on a larger scale than Cheboygan. Lake Muskegon, separated from Lake Michigan by a small channel, makes up the Port of Muskegon, providing protected and calm waters on a large scale. A high speed ferry operates out of Muskegon, connecting it with Milwaukee, Wisconsin.

Figure 10-5 Aerial of the Port of Muskegon



Source: [www.GoogleEarth.com](http://www.GoogleEarth.com)

The port of Muskegon, located on the west side of the state about half way down the western coast of Michigan, is a large port (in comparison with Cheboygan), with several different marine terminals and services. The Port of Muskegon is run by the West Michigan Port Operators, which also runs ports located in Grand Haven, Holland, and Manistee. The Port of Muskegon has services that include bulk material storage and transport by both truck and rail. The Port also has covered storage, a 600 ton capacity crane, and tug and tow assistance. Muskegon has five main docks, all located on the south side of Lake Muskegon near downtown. All have drafts of over 27 feet and dock frontage of over 950 feet, including the Mart dock which has 2,500 feet of dockage. The port has many intermodal transit options, including the onsite Short Line (which is part of Michigan Shoreline Railroad), which connects with CSX. US-31, which runs into downtown Muskegon along the shore of Lake Muskegon, connects the port with



I-96, only six miles to the east. The Muskegon airport is also only 8.2 miles from the port terminals (Port of Muskegon).

**Figure 10-6 Birds eye view of the ports major loading dock and Terrace Point Marina**

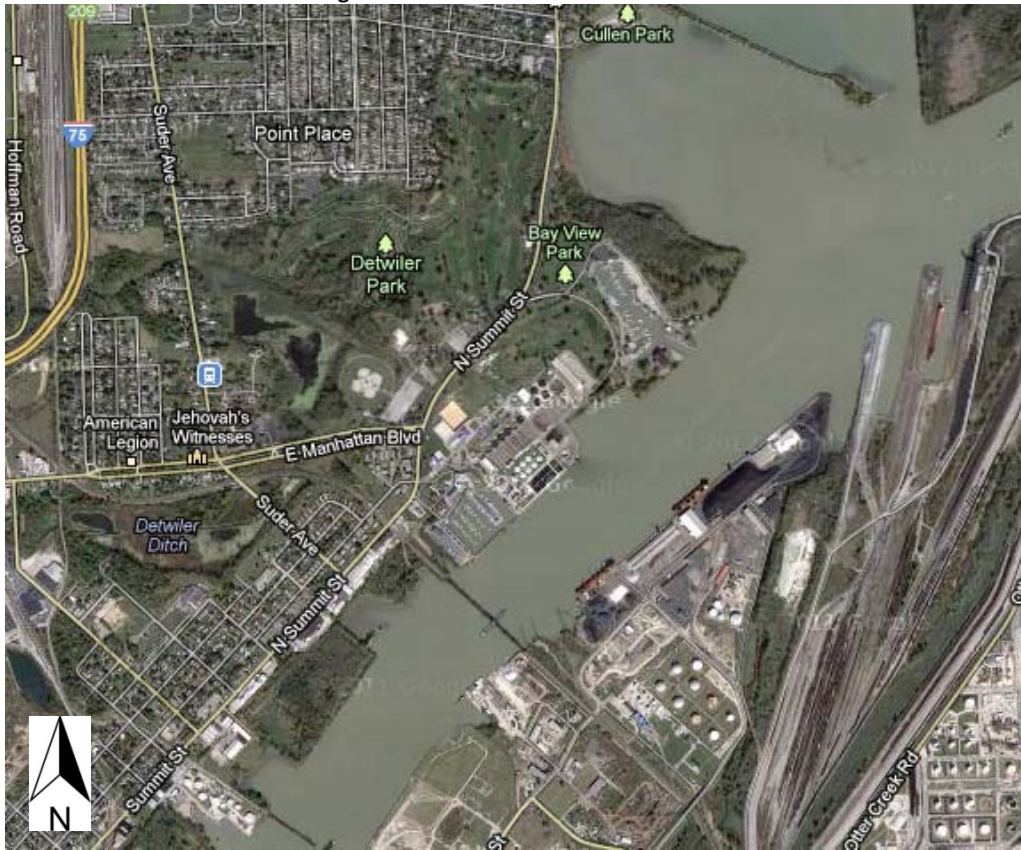


Source: [www.Google.com](http://www.Google.com)

## **Port of Toledo, Ohio**

Toledo, Ohio is a multi-modal transportation hub with heavy waterborne, rail and highway activity. The seaport, rail station, two airports and Foreign Trade Zone 8 are managed by the Toledo-Lucas County Port Authority. The Port of Toledo has a water depth of 27 feet and handles over 12 million tons of cargo and 700 vessel calls each year. The Toledo Shipyard is one of the only few full service shipyards with graving docks. It is the largest land mass seaport on the Great Lakes. The port has 1,054 ft. of docks which includes 15 terminals linked to global markets. The shipping terminals serve lake trading vessels, salt water vessels and lake trading barges. Port of Toledo is 100% navigable and can accommodate any sized vessel utilizing the Great Lakes St. Lawrence Seaway System up to and including 1000' lake-trading vessels. The seaport terminals import and export fertilizers, corn, wheat, soybeans, oats, and other grains on barges, Lakers, tankers, and ocean vessels. Toledo has the most cargo diverse inland port on the Great Lakes.

Figure 10-7 Aerial of the Port of Toledo



Source: www.GoogleEarth.com

Figure 10-8 Birds eye view cargo ships docked and connected rail spurs - Toledo



Source: www.Google.com

## Port of Hamilton, Ontario, Canada

The Hamilton Port Authority is governed by a seven member Board (Hamilton). The Board is responsible to the Federal Minister of Transport. Directors serve a three-year term and are eligible for renewal only once. A period of 12 months must pass after the expiry of the second term before the individual may be eligible for another appointment (Hamilton). The Hamilton Port Authority officially came into existence on May 1, 2001 (Hamilton). Part of the Port Hamilton Port Authority's mission is to enhance and improve public access to the waterfront and enhance support the development of commercial enterprises like restaurants and shops there (Hamilton). The Port Authority has a 2020 vision of becoming The Great Lakes Port of Choice.

Figure 10-9 Aerial of the largest dock at the Port of Hamilton



Source: [www.GoogleEarth.com](http://www.GoogleEarth.com)

The Port of Hamilton handles the largest volume of cargo and shipping traffic of all the Canadian Great Lakes ports (Hamilton). The Port of Hamilton is linked to two major Great Lakes shipping routes, the Welland Canal entrance sitting approximately 26 nautical miles from the Burlington Canal and the St. Lawrence River, approximately 151 nautical miles from the entrance into Hamilton Harbor (Hamilton). The port has a water depth of 30 feet and a dock size of 36,089 feet which serves as the destination for 550 domestic vessels and 96 international vessels visited the port from January 1, 2010 to December 31, 2010 (Hamilton). The marina in Port Hamilton can dock about 250 vessels and can store more than 400 vessels in the winter (Hamilton).



**Figure 10-10 Birds eye view of a cargo ship near storage tanks - Hamilton**



Source: [www.Google.com](http://www.Google.com)

In 2006, Port Hamilton was recognized as an emerging arts and culture center, with several art galleries, production facilities for independent films, and recording studios (Hamilton). A marine railway and dockyard was constructed specifically for pleasure boaters and small commercial craft use that provides repairs as well as refitting and winter storage of smaller, privately owned vessels. Restrooms, showers, laundry and BBQ areas are conveniently located dockside. Restaurants and shops are only moments away. Today the marina offers dockage facilities for approximately 250 pleasure craft and houses over 400 vessels in winter storage (Hamilton).

### **Port of Monroe, Michigan**

Port of Monroe, Michigan Monroe is one of Michigan's gateway cities and is located 17 miles north of Toledo and 35 miles south of Detroit. It is the third oldest community in Michigan, with its earliest economic roots originating from Native American activity. Monroe was later settled by French missionaries and fur trappers, giving it the nickname "Frenchtown". During the War of 1812, 300 Americans were killed during the Battle of River Raisin, making it the deadliest battle of the war. The River Raisin Battlefield was placed on the National Register of Historic Places in 1982.

The port of Monroe is home to several major industrial businesses that share easy access to the water, major highways, and class 1 rail transportation networks. The port has a water depth of 27 feet and 3,500 feet of docks space. Some of these businesses include DTE Energy, Holcim, Inc., Gerdau MACSTEEL, The Mickow Corporation, Michigan Paving & Materials Company, and OmniSource, Inc. The port of Monroe as well as the county as a whole has a history in the manufacturing industry. Other top employers in the area are Meijer, Monroe Public Schools, Mercy-Memorial Hospital, and Guardian Industries Corp. Monroe is home to several recreational attractions for tourism including the Historic Sawyer Homestead, River Raisin Centre for the Arts, and the Monroe County Labor Museum (The Port of Monroe).

Figure 10-11 Aerial view of the Port of Monroe



Source: [www.GoogleEarth.com](http://www.GoogleEarth.com)

Figure 10-12 Birds eye view of the Port of Monroe and its channel connecting it to Lake Erie



Source: [Google.com](http://Google.com)



**Analysis:**

In this study we compared nine factors from ports all over the Great Lakes they are:

- Water depth: To understand how big of a cargo ship each port could handle.
- Dock Space: In order to compare how much cargo each port is able to accommodate.
- Cargo handled yearly: Used to compare the amount of cargo each port experiences to the Port of Cheboygan.
- Transport Facilities: In order to see how easy it is for a port to ship cargo either by rail, highway, or by air.
- Recreation: Understanding the recreational activities each port has to offer for people visiting the surrounding area.
- Ferry & Cruise Service: Comparing Cheboygan’s ferry ship to ferry services for ports used in this analysis.
- Import/Export: Used to determine whether each port imports, exports, or does both.
- International: Used to determine if any of the ports used ship internationally.
- Foreign Trade Zone: Used to determine whether the ports that ship internationally are a part of this program that exempts duty payments for exports and exonerates tariffs until the goods leave the zone and are formally entered into the U.S. for imports.
- Port Authority: Used to understand how each port regulates its assets and waterfront.

**Table 10-1 Comparison between the Port Case Studies**

Ports	Toledo	Detroit	Hamilton	Green Bay	Monroe	Muskegon	Alpena	Rogers City
<b>Water Depth (ft)</b>	27	27	30 ft.	26 ft.	21 ft.	27 ft.	<b>16-24 ft.</b>	21 ft.
<b>Dock Space</b>	1,054 ft.	5,500 ft.	36,089 ft.	n/a	5,300 ft.	3,500 ft.	<b>N/A</b>	5,600 ft
<b>Cargo (in millions/yr)</b>	12	80	10.4	2.5	1.8	n/a	<b>18.26</b>	n/a
<b>Transport Facilities</b>	Rail, Highway, Airport	Rail, Highway, Airport	Rail, Airport	Rail, Highway, Airport	Rail, Highway, Airport	Rail, Highway, Airport	<b>Rail, Highway, Airport</b>	Rail, Highway, Airport
<b>Recreation</b>	Boat shows, kayaking	Eco-tourism, boat rentals, fishing	Sailing school, waterfront trails	Golfing, boating, hiking	Bike trails, boat rentals, fishing	Boat rentals, fishing	<b>Bike trails, glass bottom boats, tall ships, fishing, tourism</b>	Bike trails, hiking, fishing
<b>Ferry &amp; Cruise Service</b>	No	Yes	No	No	No	Yes,	<b>No</b>	No
<b>Import / Export</b>	Both	Both	No	Both	No	Both	<b>Both</b>	Both
<b>International</b>	Yes	Yes	No	Yes	No	Yes	<b>Yes</b>	n/a
<b>Foreign Trade Zone</b>	Yes	Yes	No	Yes	No	No	<b>No</b>	n/a
<b>Port Authority</b>	Yes	Yes	Yes	Yes	No	N	<b>No</b>	No

Source: World Port Source and Team Cheboygan, MSU Practicum

## Summary

The port of Alpena has a water depth ranging from 16 to 24 feet between the City of Alpena Marina, the West Dock and Lafarge Docks. On a yearly basis 18.26 tons of cargo pass through the port. The port has close access to highways, an airport, and a railroad making it easily accessible through any mode of transportation. Recreational activities around the port include miles of biking trails, boating, tall ship, glass bottom boat tours, fishing and tourism. The tall ships come once a year and the glass bottom boat tours of shipwrecks of Thunder Bay runs during the spring summer and fall months. While Alpena does import and export internationally from its ports, it is not recognized as a foreign trade zone. Furthermore the import/export commodities are mostly limited to coal and limestone.

All the ports that were used in this case study besides the Port of Hamilton share almost similar characteristics. The ports of Monroe, Detroit, Toledo, Muskegon, and Green Bay have similar water depths, recreational activities and transportation access. As for dock space, Hamilton has the largest out of all six ports and Monroe has the smallest but the rest have dock space that is close to one another.

## 11.) SWOT ANALYSIS

A SWOT analysis is a strategic planning method used to evaluate the Strengths, Weaknesses/Limitations, Opportunities, and Threats involved in a project. It involves specifying the objective of the project and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.

- Strengths: characteristics of the business, or project team that give it an advantage over others
- Weaknesses (or Limitations): are characteristics that place the team at a disadvantage relative to others
- Opportunities: external chances to improve performance (e.g. make greater profits) in the environment
- Threats: external elements in the environment that could cause trouble for the business or project



Source: Team Alpena, MSU Practicum

The strengths, weakness, opportunities and threats (SWOT) listed below provide an outline of the positive and negative internal characteristics of Alpena in which the city can expand on and improve, as well as the external prospects the city can pursue and the external threats the City of Alpena can provide adaption and mitigation strategies for.

## Strengths:

- Unique downtown shops.
- DDA is over the land near the water, and along the channel. So helps them try and find things to put in the area to make the Downtown better.
- Shipwrecks and tourism of Thunder Bay
- Location on a port on Lake Huron
- NOAA Maritime Center
- Parks and beaches located on the waterfront
- Bike paths run along the waterfront (City easements along shoreline)
- As noted in the Comprehensive Plan there is good prospects of connecting the downtown to the waterfront over time
- Some of the brownfield redevelopment has been successful i.e the Child and Family Center
- There are waterfront parks the city owns which can be used to generate interest (ex. South Riverfront Park).
- There are still brownfield grants to be distributed
- Airport has two long runways that can accommodate most commercial aircraft
- Proximity to the regional airport
- Railway
- Intercity bus
- availability to use railway more
- Full Service electric, gas, water and sewer services to port area
- State and National gas and electric systems
- Three separate ports

## Weaknesses:

- Not having a steady flow of heavy traffic because of the area, population and the age range.
- The population is decreasing proportionally faster in the City than in the County;
- There is population decline in both the City and County; and
- The age of the population is on average older in all parts of northeast Michigan than State and Nation.
- A city relies on declining and temporary industries which are the base of most of the tax revenues
- Limited public access to waterfront
- No public transportation to airport
- No regular public transportation in the city
- No interstate highway
- Flights only three times a day
- Coal dependent electricity service
- Lack of a unified port authority to oversee port activity
- LaFarge Dock and West Dock are privately owned – limiting public control on future uses

## Opportunities:

- Ferry or Cruise ship service
- Expanding on the Riverfront making it more appealing, an attraction for the people in the area and also things for visitors to engage in.
- Brownfields
- Festivals
- Hike, hunting, bird watching, rock hunting, bike riding,
- Water activities such as swimming, snorkeling, scuba diving
- Offshore wind power generation
- Broadband service
- West Dock development and dredging
- Establishment of a Port Authority

## Threats:

- The population and age range, hard to really expand the city and downtown when the people only do things during certain hours of the day.
- The State of Michigan has been in a recession since 2001. In addition, Michigan lost 465,000 people between 2001 and 2009, nearly a resident every nine minutes (Miller-Wilson, 2012). The combination of higher unemployment and population loss has hurt vacation destinations, such as Alpena.
- The end of the Lafarge quarry will create a large void in the City's budget. Also, the structures that could possibly be left behind would hinder the redevelopment of the land by making the rehabilitation too expensive. Therefore, it would be in the best interest of the City of Alpena to negotiate an exit strategy with Lafarge and begin the transformation process of converting the property from Heavy Industry to PUD – Residential sooner rather than later.
- Cancellation of subsidies for intercity bus service will limit transportation access of residents as well as visitors from around the state
- Decreasing of population
- Aging population
- Unemployment
- Low household income
- One tenth vacancy
- Weather – Heavy snow, wind and storm conditions are frequent and cause power outages
- Water pollution, contaminating drinking water obtained from Lake Huron
- Heavy competition from surrounding ports of the Great Lakes (Detroit, Cleveland, Chicago, Green Bay).
- Budget cuts can limit port dredging projects since this is conducted at the discretion of the federal government



## **12.) RECOMMENDATIONS AND STRATEGIES**

The following recommendations and strategies serve as a catalyst for developing the aforementioned assets of the City of Alpena, MI. While financing and property ownership and collaboration are always an issue, these recommendations may look beyond these barriers in some instances and assume ideal situations should investment and property be available.

The short term recommendations are defined as having a time frame ranging between zero to five years in duration. The long term recommendations are defined as having a time frame greater than five years to ten years in duration and beyond. Like any large project or long term planning project the recommendations will need to be revisited and revised every five to ten years, or on an even shorter duration during times of great change in terms of resources and economic fluctuation.

### **LaFarge**

As LaFarge is one of the largest employers and landowners on the Port of Alpena, it is crucial that the City of Alpena and LaFarge have active and ongoing communication. With the 50-75 year projected lifespan of the LaFarge quarry, an exit strategy must be discussed now, not left for the next people in line.

### Short Term

As an initial step towards meeting this recommendation is to nominate an individual with the City of Alpena and an individual with LaFarge to act as liaisons to their respective parties. These individuals should begin with initial discussions centered on LaFarge's thoughts, if any, on their plans for the property and quarry once the quarry is empty. These discussions should take place over the first year before continuing with one meeting per year thereafter between both parties with the liaisons and principals present from the City of Alpena and LaFarge.

### Long Term

It is anticipated that plans and thoughts will change over the years; however, continued communication is important so both parties understand how and why decisions were conceived. As the quarry hits 20, 15 and 10 year periods prior to quarry completion, finalized and concrete plans should become realized with both parties completely aware of the anticipated actions and exit strategies. Meetings between both parties should resume multiple meetings a year.

As LaFarge examines its options and ideas through the next 50-75 years of what will be their exit strategy or development strategy for the property once the quarry is empty, the City of Alpena must establish the character of the physical land. Contamination and remediation of the land is a huge cost burden and the City must realize the extent of this should LaFarge decide to exit the property. If the City would acquire the property after LaFarge exits, a detailed due diligence evaluation of the land contamination would provide a leg up for the City in their turnaround of the property to other private

ownership for residential or industrial uses. This data would also provide a starting point for state or federal funding that would supplement a quicker turnaround of the properties land use.

## **West Dock**

The West Dock, a privately owned property, is not currently being used. Target Alpena did apply for Federal Stimulus funds in 2010 to upgrade the dock with the support of LaFarge, DPI and West Dock Properties; however, funding was not approved and no specific activity relative to the future utilization of the dock has transpired since.

### Short Term

Under the current conditions as well as no plans for use or development for the dock and adjacent property by Lafarge and DPI, site analysis and opportunities of the West Dock should firstly be conducted to determine future uses. In addition, the communication among the city, the property's owner, DPI, and Lafarge should be required for the future uses to utilize the dock and to stimulate the city.

### Long Term

The West Dock may have potential for future activities on the property abutting the dock and even the city. The improvement of the dock will give more opportunities for potential industrial or commercial businesses. In the long-term, one possible way to make the dock more functional is dredging, which makes available for more types of ships to access to the dock. Also, extending the railway to the dock will make it efficient for rail-to-water or water-to-rail intermodal cargo transfers. Continued application to funding is suggested given that successful reactivation of the dock would be a largely beneficial economic development.

## **Foster Maritime Archeological Education**

The National Oceanic and Atmospheric Administration (NOAA) designated Thunder Bay as the nation's thirteenth national marine sanctuary, in October of 2000. The sanctuary's mission is to preserve nationally significant shipwrecks and regional maritime landscape through resource protection, education, and research. Within the 448 square-mile Thunder Bay National Marine Sanctuary, more than 50 shipwrecks have been discovered. In addition, there are more than an estimated 200 sunken vessels in and around The Bay.

The study of human interaction with the sea, lakes, and rivers is a discipline known as maritime archaeology, or nautical archaeology. Schools with these programs in the USA include Texas A&M and East Carolina University. However, there are many more programs across the world including the University of Australia, University of Southern Denmark, University of Bristol, and the Maritime Archaeological Field School in Ramon City, among many others. There is an opportunity to expand on the unique situation that the City of Alpena has and to become a hub of maritime archaeological not only in the Midwest, but in the nation.

## Short and Long Term Goal

The recommendation for the City of Alpena is to partner with Alpena Community College (ACC) to study the feasibility of an associate degree program for maritime archaeology. The presence of NOAA can assist in the training and education of students. In addition, partnering with ACC can enable the City of Alpena to advertise their maritime advantages through student videos posted online and through publications. The partnership with ACC can be mutually beneficial as the City of Alpena could see an increase in tourism and ACC would have a unique specialty that may increase enrollment.

## **Tourism and Marketing**

The City of Alpena has several opportunities that could be expanded upon to attract more visitors. The whole region of Northeastern Michigan would benefit from making tourism a regional focus. Alpena has the ability to draw people in the area to engage in activities that are unique to this location. A focus on these several important topics especially:

- NOAA Maritime Center (*National Oceanic and Atmospheric Administration*)
- Shipwreck and glass-bottomed boat tours
- US-23 Heritage Route
- Making Alpena a Great Lakes cruise ship destination
- Attracting boaters to dock in the Alpena Marina

## Short Term

Some preliminary first steps to be taken would be devising a marketing campaign and brand for the city of Alpena as well as a regional one to set forth an identity to the rest of the state of Michigan and the Midwest; spreading knowledge of Alpena's rich maritime history and preservation efforts in particular. With the year-round festivals and events the city hosts especially during summer months, marketing Alpena as a weekend getaway, targeting residents of Michigan who enjoy summer vacations north, is both viable and promising. Including supplementary events to the festivals such as glass bottom boats tours, spending an afternoon at the NOAA Maritime Preservation Center, and half-day canoe tours of the myriad of shipwrecks along the Thunder Bay would be key. Informing non-residents of the available marina space and offering a docking space would also be an excellent use of this underutilized resource.

## Long Term

The long-term strategy for creating an identity for Alpena is to eventually, with Rogers City, Cheboygan, and Presque Isle, promote a regional recreational destination. Utilizing the US-23 Heritage route as a base map for tourists, encouraging travel along US-23 and visiting each unique city along the way would bring economic growth to the entire region especially during peak seasons. Because the region is not densely populated, it offers a unique escape from city life with its true wilderness feel and beautiful, winding waterscape views. The region is an ideal get away for tourists interested in becoming acquainted with nature whether it be bird watching, fishing, camping, hiking, or seeking out karst—large geological limestone formations carved from groundwater.

Fostering collaboration from the region as a whole to inform other residents of Michigan and the Midwest of all it has to offer and encourage visitors is the first major step. Once Alpena can become established as having a unique, exciting experience to offer it is strongly recommended that the city attempt to become a stop along the Great Lakes Cruise routes. This would further introduce the region to affected states and potentially Canada.

“Aside from the fabulous natural environment activities, there is also the attraction of the Downtown district. The district is filled with great shopping locations and restaurants, the great thing for the downtown is the opportunity to expand towards the river and place mixed-use development along the river walk. Once completed the city’s commercial within the downtown will expand along with the economic growth. River walks are a great place to kick back and enjoy your evenings. “

### **Port Authority and Regional Collaborative**

The overall goal of the NEMCOG Port Inventories is to establish a basis for regional collaboration among the port cities of Northeastern Michigan in order to facilitate resource sharing, foster mutually beneficial economic development, and create interconnected recreational and tourism opportunities. There are many considerations that will go into establishing this collaboration, including the involvement of multiple different public entities and private stakeholders as well as community input.

The information laid out in this inventory is intended to be used not only as a starting point for the improvement of the ports and long term planning, but also as a tool for comparing assets among the different ports in order to increase efficiency and develop specialty areas for each city to offer for the greater advantage of Northeast Michigan as a whole. Alpena port improvement, for example, may end up being geared more toward intermodal commercial cargo with rail and airport capacity while Cheboygan capitalizes on facilities for oil and fuel storage and distribution. Alpena may be marketed toward shipwrecks and marine archeology, and develop as a cruise ship destination, while Cheboygan and Rogers City develop for yachts and recreational boating tourism. Other assets can be developed throughout the region in ways that will meet the needs of corporations and economic development opportunities.

#### Short Term

While regional collaborative initiatives will be long term and highly adaptable, there is an immediate need to create a recognizable identity for the Port of Alpena and start opening up a dialogue about the future. As the first step, we would suggest the creation of a 501(c)(3) nonprofit organization to begin steering port activity in Alpena. The organization would be mainly tasked with setting up a structure for communication among the different stakeholders of the Port of Alpena, as well as community members, to discuss needs of the port and growth opportunities as they come. All stakeholders and community members must have an awareness of the port’s opportunities and assets in order for regional cooperation to move forward.

#### Long Term

Within the next five to ten years, the Alpena organization might join with similar organizations in Rogers City and Cheboygan in order to take on a regional focus. Each port alone is relatively small, but pulling

resources together and developing a regional port strategy will create a more influential economic driver and allow the region to compete with larger ports around the Great Lakes. The collaborative could obtain support and utilize political and economic tools that might not otherwise be available to the smaller ports individually.

In the long term, a unified port authority for all three cities may come out of the collaboration. A registered port authority would be able to organize stakeholders and facilitate development in ways that a nonprofit could not. This may become especially important as large mining operations in Alpena and Rogers City begin their decline and the prospect of large empty dock and waterfront space is imminent. A registered port authority would be able to plan for the transition of these spaces into other uses in a way that would fit the needs of the region as a whole. The port authority would be able to take part in strategic planning, land acquisition, and policy implementation to protect the region's interests in a changing economic and political environment. This could be accomplished at a lower cost than three port authorities acting separately. Lastly, a regional port authority would have the ability to start to form partnerships with other major ports around the Great Lakes and begin the process of interstate and international collaboration.



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