



**US Army Corps
of Engineers**®
Detroit District

HARBOR INFRASTRUCTURE INVENTORIES

Marquette Harbor, Michigan



Harbor Location: Marquette Harbor is located in Marquette Bay on the south shore of Lake Superior, 160 miles west of Sault Ste. Marie, MI and 265 miles east of Duluth, MN.

Authority: River & Harbor Acts of 2 Mar 1867, 11 Aug 1888, 25 Jun 1910, 30 Aug 1955, 14 Jul 1960.

Project Description: Marquette Harbor is a deep draft commercial harbor with over 4,500 feet of breakwater structure and over one-half mile of navigation channel.

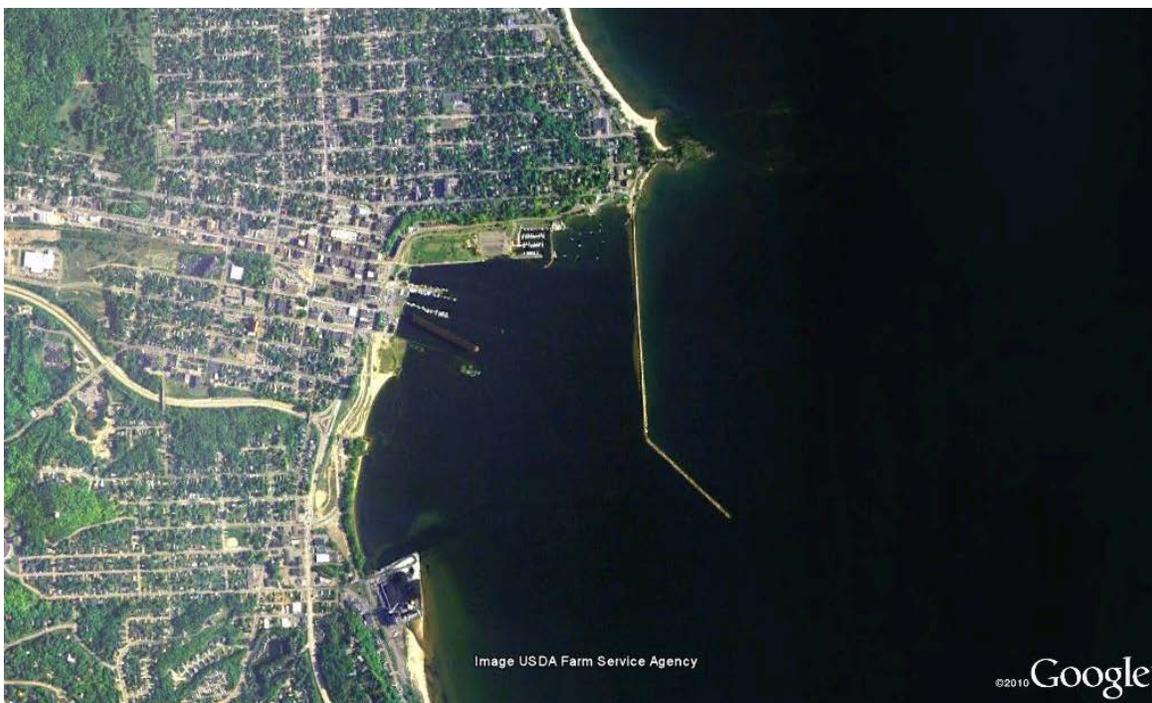
Traffic: 966,000 tons (5-Year average, 2006-2010)

Transportation Importance: This project is a major regional receiving port on the Great Lakes with commodities received including limestone, coal, and iron ore.

Congressional Interest:

- Representative Dan Benishek R-MI-1
- Senator Carl Levin D-MI
- Senator Debbie Stabenow D-MI

Current Condition Assessment: **C**



Date of Site Visit: 24 October 2013

Summary of Impact: Prevailing waves come from a north westerly direction. The harbor has a history of storm events large enough to overtop the federal breakwaters several times a year, especially in the fall. However, even under these conditions the breakwater serves well to slow the momentum of the waves, and significantly reducing the impact on the shore line. Within the harbor, major structures are also protected from shore erosion with steel sheet pile and the municipal harbor also has its own breakwater structure. Additionally, the terrain elevation rises rapidly moving away from the water, which makes assessing the potential impact difficult. The major area of impact would be the private marinas, US Coast Guard Station, and the coal fired power plant. The major portion of Marquette around this area is located on a hill side that rises approximately 100 feet above the mean water level in a relatively short distance, and is therefore not in danger of inundation. However, the structures outlined in this report are immediately adjacent to Lake Superior and may be at a low enough elevation that flooding is possible.

Examples of Protected Infrastructure:



1. South Beach Park: City owned public beach park. Consists of a beach front, restroom facilities, and a small playground.



2. Residential Homes: Privately owned homes located behind South Beach Park. The federal breakwater would provide protection from waves out of the North West.



3. Shiras Coal Fired Power Plant: This power plant is owned by the Marquette Board of Light and Power. It has three (3) generating units with a capability of producing 77.5 Megawatts of electricity. It primarily serves the City of Marquette and the immediate surrounding area. Freighters deliver coal during the navigation season, which is the primary commercial use of the harbor. It can stock pile enough coal to allow it to operate through the winter months.



5. Recreational Path: Approximately two miles of a paved bike and walking path lie behind the breakwater, although the elevation is sufficient to protect against most storms and wave action.



6. Founders Landing Beach: City owned public beach. Consists of a beach front and restroom facilities.



7. New Development: Currently underway is a new development that will house office, retail, and restaurant space.



8. Abandoned Ore Dock: Once used to load taconite onto freighters; however it has not been used in many years. Some consideration was given to developing this into condominiums, but that development project seems to have ceased because of cost.



9. Private Marinas: These marinas are privately owned. Other than their general location the only protection offered to vessels comes from the federal breakwater.



10. Condominiums: These condominiums are located from this location down to founders landing. They have all been constructed within the last ten years, and cost several millions of dollars to construct. They appear to be primarily for residential use; however they may contain smaller areas for commercial use such as store fronts.



11. Mattson Park: A city owned, 22 acre park, consisting of a open festival area, walkways, picnic tables, concession area, restrooms, a memorial, and a playground.



12. Cinder Pond Marina: This marina is owned and operated by the City of Marquette. Completed in 1995 it has 101 slips, 91 Seasonal and 10 Transient. Facilities include boat launch ramps, fueling station, electrical hook up, pump out station, and an administration building with bathroom facilities. Docks are of a floating dock design. There is also several hundred feet of concrete pier wall adjacent to Mattson Park that is available for mooring vessels. It operates from May 1 to November 1 every year. The marina also has additional breakwater structures for added protection.



13. Private Marina: Includes sailboat mooring area, boat launch area, and repair station. Protection comes from its geographical location and the federal breakwater.



14. City Sanitary Lift Station: This structure is the city's largest sanitary lift station. Protection comes from its geographical location and the federal breakwater.



15. U.S. Coast Guard Station: This Coast Guard Station has had multiple improvements completed within the last three years. It houses living quarters, work and storage areas, and full time Coast Guard Staff. Currently dredging operations are being undertaken to deepen the area adjacent to the station for mooring vessels.



Potential Impact Area: The following graphic displays property parcels that could be impacted within various zones defined by different setbacks from the shoreline behind existing Federal coastal structures. The major portion of Marquette around this area is located on a hill side that rises approximately 100 feet above the mean water level in a relatively short distance, and is therefore not in danger of inundation. However, the structures outlined in this report are immediately adjacent to Lake Superior and may be at a low enough elevation that flooding is possible. Values are based on real property tax assessments from these parcels, and don't reflect any detailed coastal zone damage assessments. Figures simply reflect property values at various setbacks.

