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Nat. Register of Historic Places
National Park Service

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Presque Isle Harbor Breakwater Light
Other names/site number: _____
Name of related multiple property listing: Light Stations of the United States

2. Location

Street & number: In Lake Superior on breakwater at NE side of Presque Isle Harbor
City or town: Marquette State: Michigan County: Marquette
Not For Publication: [ ] Vicinity: [x]

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets __ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level of significance:

___**national** ___**statewide** X **local**

Applicable National Register Criteria:

X **A** ___**B** X **C** ___**D**

2-3-2016

Signature of certifying official/Title: **Date**

United States Coast Guard

State or Federal agency/bureau or Tribal Government

In my opinion, the property X meets ___ does not meet the National Register criteria.

4/27/16

Signature of commenting official: **Date**

SHPO

Title : **State or Federal agency/bureau or Tribal Government**

4. National Park Service Certification

I hereby certify that this property is:

✓ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

for Edson W. Beall 6-7-16

Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private: ☐

Public – Local ☐

Public – State ☐

Public – Federal ☒

Category of Property

(Check only **one** box.)

Building(s) ☐

District ☐

Site ☐

Structure ☒

Object ☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		objects
1	0	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use
Historic Functions
(Enter categories from instructions.)
Transportation
Water-related

Current Functions
(Enter categories from instructions.)
Transportation
Water-related

7. Description

Architectural Classification
(Enter categories from instructions.)
Modern Movement

Materials: (enter categories from instructions.)
Principal exterior materials of the property: Steel, concrete

Narrative Description

Summary Paragraph

The Presque Isle Harbor Breakwater Light was established in 1941 and marks the breakwater forming the northeastern side of Presque Isle Harbor at the City of Marquette in Marquette County, Michigan. Located in southern Lake Superior, Presque Isle Harbor is the ninth busiest port in the Great Lakes and contains Michigan's only operating iron ore pocket dock. The Presque Isle Harbor Breakwater Light consists of one contributing resource, a lighthouse that stands approximately 55 feet tall above water level. It includes a rectangular concrete pier, octagonal concrete first story, and three-story steel light tower. The lighthouse is painted white with a red band on its tower. Its design reflects Modern Movement Streamlined Moderne styling. This property is a Federal aid to navigation owned by the U.S. Coast Guard and is identified as number 14670 on the regional light list. It is equipped with modern automated aids to navigation including a light-emitting diode (LED) optic mounted atop the light tower that signals a red flash every four seconds and is visible for 11 miles in clear weather. There is also an electric horn fog signal and a solar array used to recharge the lighthouse's power supply batteries. The Presque Isle Harbor Breakwater Light's structure is essentially unchanged from when it was built. This property is accessible on foot along the breakwater but is not open to public visitation.

Contributing Resource (Lighthouse):

The Presque Isle Harbor Breakwater Light was established as a Federal aid to navigation in 1941 and is situated in southern Lake Superior 0.4 mile from shore in approximately 25 feet of water. It marks the offshore end of the breakwater forming the harbor's northeast side. Presque Isle Harbor is located in the City of Marquette, Marquette County, Michigan. This lighthouse is approximately 55 feet tall from water level to the top of its light tower. It includes an unpainted rectangular concrete pier and a superstructure approximately 41 feet tall that consists of a one-story octagonal concrete base supporting a three-story steel light tower. The superstructure is painted white with a red band midway up the tower. Its appearance is representative of the Modern Movement in twentieth century American architecture and exhibits a Streamlined Moderne character, reflecting design concepts that flourished in the United States during the 1930s and 1940s. This property is owned by the U.S. Coast Guard and operated as an automated aid to navigation. It identified as number 14670 on the Great Lakes regional light list. This property is accessible on foot by way of the breakwater but is not open to public visitation.

The Presque Isle Harbor breakwater is a navigation structure owned by the U.S. Army Corps of Engineers. It extends southeast from the shore of Presque Isle, a Marquette city park, and is 2,816 feet long. This structure consists of a 1,216-foot long concrete segment, which includes the original breakwater built circa 1896 to 1900, and a riprap extension 1,600 feet long which was constructed circa 1936 to 1939. The lighthouse is located on the breakwater's southwestern (inner) side with the riprap breakwater between it and Lake Superior's open waters. The State of Michigan owns the submerged land beneath the breakwater and lighthouse.

Presque Isle Harbor is also called the Upper Harbor of the City of Marquette. It is the location of Michigan's last operating iron ore pocket dock and transships eight to nine million tons of taconite pellets per year of iron ore mined from the Marquette Iron Range. This port also receives freighters bringing coal to fuel the Presque Isle Power Plant and is the location of a recreational boat marina. Presque Isle Harbor's amount of commercial shipping activity makes it the ninth busiest port in the Great Lakes.

Concrete Pier

The lighthouse's concrete pier is square, 32 feet long by 32 feet wide, with the sides facing north, east, south, and west. Its deck is 14 feet above water level. The breakwater's riprap wraps around the concrete pier's northern exterior from the east side's northern half to the western side's northern half. This shows that the riprap was emplaced after the pier was built. There is no riprap on the pier's south side which is accessible to watercraft.

The pier's west, north, and east sides rise vertically to approximately two feet from the top where they curve outward forming an overhanging lip that can deflect wave action. There is no outward-curved lip on the pier's south side which faces away from the open waters of Lake Superior. It is flat from water level to the deck. The pier includes two built-in steel access ladders, one each on the west and south sides. Both consist of rungs held in a frame affixed to the pier in a vertical recessed channel. The west side ladder stands near the pier's northwest corner and is accessible from the riprap breakwater. The other one is centered on the pier's watercraft-accessible south side. Its top is directly in front of the lighthouse superstructure's entrance door.

The pier's open-air deck is concrete and flat. There are four 19-inch tall bollards, one each near the deck's four corners. They are painted red. These are made with 9-inch diameter steel pipe topped with a steel cap. There is a circular concrete manhole cover with an embedded steel ring near the pier deck's southwest corner. It is 2 feet, 3 inches in diameter. The deck's other three corners have circular concrete patches of similar size, suggesting the former presence of manholes at those locations.

Superstructure First Story

The lighthouse superstructure includes an octagonal first story made of concrete. It is situated at an off-center position on the pier's deck. The first story's exterior wall is four feet from the pier's outer edge on the south side, and six feet from the pier's edge on the east and west sides. The first story's north side is 10 feet from the pier's edge, which faces Lake Superior's open waters.

The first story is 11 feet tall, approximately 22 feet wide, and is painted white. It is octagonal in plan, but not equilateral. The exterior's north, east, south, and west sides are each 10 feet long while its northeast, southeast, southwest, and northwest sides are 8 feet, 9 inches in length. There is a surrounding water table 40 inches above the deck. A steel pipe handrail is attached above the water table on the southwest and southeast sides, along with the south side where it flanks the doorway. The first story exterior wall's upper edge is recessed about two inches at approximately six inches from the top by an inward step in the façade.

The first story's west, north, and east sides are each pierced above the water table with a rectangular window opening. These are 48 inches tall by 38 inches wide. Each is covered with a steel plate painted white. The south side holds the lighthouse's entrance doorway which is centered and approximately eight feet tall by four feet wide. It includes a cast concrete decorative surround that frames the entry on top and sides within a tightening series of receding steps. The recessed doorway opening is fitted with a 7-foot tall by 3-foot wide steel door that has a covered vent opening near its base.

The first story interior includes three rooms (southeast, southwest, and north) and a closet. The walls are painted white. The floor and ceiling are concrete. Partition walls are made with concrete block. Ceiling-mounted florescent lights provide illumination. The ceiling is 9 feet, 10 inches above the floor. Circular ceiling openings near the first story's north and east outer walls are fitted with ventilation pipes reaching upward.

The entrance door opens into the southeast room. It measures 13 feet, 6 inches north-south and 11 feet, 11 inches east-west. The floor and ceiling are concrete. This room's southeast, south and east walls are the inner side of the first story's structural concrete exterior. The north and west walls are concrete block partitions. There is a 1-foot by 1-foot concrete column extending from floor to ceiling near the room's west partition wall. It is positioned at the center of the first story plan and supports the light tower above. A 10-step steel ship's ladder painted red stands next to the concrete column's south side. It rises to a rectangular 28-inch by 36-inch opening in the ceiling and provides access to the lighthouse's second story. The southeast room's only furnishing is a wooden work bench 52 inches long, 23 inches wide, and 38 inches tall.

A steel-framed doorway three feet wide by seven feet tall fitted with a steel door pierces the southeast room's western partition wall and leads to the southwest room. Another 3-foot by 7-foot steel-framed doorway in the northern partition wall leads to the north room. This doorway does not have a door.

The first story's southwest room measures 11 feet, 2 inches north-south and 7 feet east-west. A partition wall at its southern end encloses a closet. The room's west and southwest walls are structural concrete. The north and east walls are concrete block partitions. Electrical panels for the lighthouse's power supply are attached to the west wall. The closet at the room's south end includes a steel door two feet wide by seven feet tall. Inside, the closet is three feet wide and triangular in plan with three wooden shelves. The first story's north room is accessed from the southeast room. It measures 20 feet, 2 inches east-west by 6 feet, 4 inches north-south and is vacant.

Light Tower

The lighthouse's tower is approximately 30 feet tall. It includes three stories and a small cupola topped with the lighthouse's modern optic. The tower is built of steel plates and members fastened with rivets and bolts with nuts. Its base is fastened with rivets to a steel flange affixed to the first story's concrete roof.

In plan, the tower's lower and middle stories are a modernistic stylized octagon with four flat and four curved facets. The north, east, south, and west wall sections are flat and 38 inches wide. The northeast, southeast, southwest, and northwest sections are 36 inches wide and curved outward. The tower's upper story and cupola are circular in plan. The light tower's interior walls and ceilings are painted white. The ladders going from one story to another are painted red.

The tower's lowest level is the lighthouse's superstructure's second story. The floor is concrete. The ceiling is 7 feet, 8 inches above and made of steel. The second story room is 8 feet, 6 inches in diameter from flat side to flat side. The distance across from curved side to curved side is eight feet. The north and south walls are each pierced with an original 15-inch diameter port light at 4 feet, 2 inches above the floor. There is a port light opening in the east wall that is covered with a steel plate. The second story's west wall is pierced with a doorway fitted with a steel ship's door 25 inches wide by 65 inches tall. This door opens inward and has a 5-inch diameter port light and two rotating latch handles ("dogs") to secure it. A steel ship's ladder with seven rungs rises from the center of the second story's floor to a rectangular opening in the ceiling. It provides access to the story above.

The second story's west wall doorway provides access to an open-air deck which is the first story's concrete roof. It is approximately seven feet wide all around the light tower. The deck is pierced with three vertical vent pipes, one each near the edge on the northwestern, eastern, and southern sides. Each vent is 18 inches tall, painted red, and made with 12-inch diameter steel pipe and a 20-inch diameter steel cover. A fourth circular opening on the northern side of the deck is covered with a flat steel plate. It is above the first story's north room and may have formerly held an exhaust stack for machinery. A steel pipe handrail 3 feet, 6 inches above the deck surrounds the second story's exterior wall. A modern automated electric horn fog signal is affixed to the open-air deck's north side. It sounds two blasts every 30 seconds when activated by keying a radio microphone five times on VHF-FM channel 83A. A steel rectangular open-faced box is mounted on the second story exterior's western side. It formerly sheltered a fog-sensor device which has been removed. A solar array is affixed to the exterior wall's southeast side. It recharges batteries that power the lighthouse's optic and fog signal.

The tower's middle level is the lighthouse's third story. This room's configuration and dimensions in plan are the same as the room below. The floor is made of steel plates painted red. The ceiling is steel and is eight feet above the floor. A steel ship's ladder with seven rungs rises from third story room's center to a rectangular opening in the ceiling. It provides access to the story above. The third story's east, south, and west walls are each pierced with an original 15-inch diameter port light at 3 feet, 10 inches above the floor. The north wall is pierced with two holes 11.5 inches in diameter, one above the other. These are covered with an acrylic pane. These holes held the resonator horns for the lighthouse's original diaphone fog signal, which has been removed. The third story's north side exterior has an attached rectangular metal plate approximately five feet wide by seven feet tall. It is also pierced with two round holes one above the other. This plate provided a mounting surface for the resonators and reflected sound energy towards the open waters of Lake Superior. The third story's exterior is painted red, including the rectangular steel plate.

The tower's upper level is the lighthouse's fourth story. Unlike the tower's lower and middle levels, this one is circular in plan and 7 feet, 11 inches in diameter. The steel ceiling is eight feet above the steel floor, which is painted red. The room's surrounding wall is pierced on the north, east, south, and west sides with port light openings. The north, east, and south port lights are 15 inches in diameter and original with glass glazing. The west side is fitted with a non-original six inch diameter port light with acrylic glazing. This room's ceiling has a 38-inch wide circular opening in the center. This opening is capped with the light tower's circular cupola which is bolted to a flange affixed around the opening. A steel ship's ladder rises from the fourth story's floor to inside the cupola's south side.

The cupola is 3 feet, 8 inches tall and 3 feet, 2 inches in diameter. Its interior and exterior are painted white. There is a two-leaf steel door 21 inches wide by 41 inches tall on the north side. It has a latch on the inner side and opens outward. The door leaves are painted red on the inside and white on the outside. The doorway's inner side is flanked left and right with a vertical steel pipe gripping handle. These provide handholds and assist in moving across the open space between the access ladder's top and the doorway.

The cupola sits centered atop the tower and is surrounded by a circular open-air gallery that is 25 inches wide. This gallery has a 30-inch tall circular railing made with steel rod stanchions and three tiers of horizontal flat steel bars spaced 10 inches apart. The gallery floor and railing are painted white.

Except for the doorway, the cupola's exterior is surrounded around its top by a steel pipe hand rail. A 5-inch tall by 19-inch wide circular platform sits centered atop the cupola's roof. It supports the lighthouse's modern, automated optic, a light-emitting diode (LED) marine beacon. This beacon signals a red flash every four seconds.

Changes through time

The Presque Isle Harbor Breakwater Light's concrete base and steel tower retain structural integrity from when they were constructed and are essentially unchanged. Physical changes to the structure's exterior and interior have been largely minor and are reversible. These include the removal of a vertical exhaust stack that pierced the first story roof on the north side and installing modern florescent lighting in interior rooms. The lighthouse was originally equipped with a beacon that signaled a flashing red light, a diaphone fog signal that sounded a double blast every 20 seconds, and a continuous radiobeacon that transmitted five 12-second dashes followed by 10 seconds of silence, along with related machinery and equipment. These have been removed. The property is presently equipped with a modern optic, electric horn fog signal, and power supply batteries recharged using a solar array.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [x] A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B. Property is associated with the lives of persons significant in our past.
- [x] C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

- [ ] A. Owned by a religious institution or used for religious purposes
- [ ] B. Removed from its original location
- [ ] C. A birthplace or grave
- [ ] D. A cemetery
- [ ] E. A reconstructed building, object, or structure
- [ ] F. A commemorative property
- [ ] G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance
Maritime History
Transportation
Architecture
Engineering

Period of Significance
1941 to 1965

Significant Dates
1941

Significant Person
N/A

Cultural Affiliation
N/A

Architect/Builder
U.S. Coast Guard Ninth District

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Presque Isle Harbor Breakwater Light was established in 1941 and is located in the City of Marquette, Marquette County, Michigan. Situated 0.4 mile from shore in southern Lake Superior, it is an operating Federal aid to navigation marking the entry to Presque Isle Harbor. This lighthouse is significant in Marquette County's local history. Its period of historical significance begins in 1941 when it was established and ends in 1965, the most recent year of its operation 50 years before the present. The Presque Isle Harbor Breakwater Light qualifies for inclusion in the National Register under Criterion A by exemplifying the long-term Federal government program to improve navigational safety in the Great Lakes through constructing and operating aids to navigation. It also qualifies under Criterion C for being a well-preserved example of architectural design and engineering methods used in constructing Great Lakes offshore lighthouses during the second quarter of the twentieth century. This property combines concrete and steel components in a structure designed with Modern Movement Streamlined Moderne architectural styling. The Presque Isle Harbor Breakwater Light retains integrity of design, setting, materials, workmanship, feeling, and association. It is widely recognized as a historic landmark in Marquette County.

Narrative Statement of Significance

The Presque Isle Harbor Breakwater Light is located in southern Lake Superior at the City of Marquette in Marquette County, Michigan. It sits atop a rectangular concrete pier 0.4 mile from shore and marks the breakwater forming the northeast side of Presque Isle Harbor. This harbor is used by commercial freighters transporting processed iron ore from the Marquette Iron Range and bringing coal to fuel an electric power plant. The harbor includes a commercial marina providing facilities for recreational watercraft.

This lighthouse property is significant in the local maritime and transportation history of Marquette County, and is eligible for inclusion in the National Register of Historic Places (NRHP) under Criteria A and C. Its period of historical significance begins in 1941 when it was established as a Federal aid to navigation and ends in 1965, the most recent year of its operation 50 years before the present. The lighthouse's character and appearance are essentially unchanged from its period of significance, except that its original optic and fog signal have been replaced with modern equipment. The Presque Isle Harbor Breakwater Light continues to stand at its original location in a setting that remains the same as when it was constructed. It possesses integrity in the historical qualities of design, materials, workmanship, feeling and association.

This property is significant under Criterion A for its association with the Federal government's program for establishing and maintaining an integrated system of maritime aids to navigation throughout the United States. It exemplifies how this important nationwide program was manifested in Marquette County. Today, the Presque Isle Harbor Breakwater Light maintains its historical association with maritime safety by continuing to function as an operating lighthouse. It is a prominent local landmark and conveys feelings that recall the dedication to duty characteristic of lighthouse keepers throughout the course of American history.

The Presque Isle Harbor Breakwater Light is also significant under Criterion C as a representative of second-quarter twentieth century lighthouse architecture and engineering. It exemplifies characteristics of design, construction methods, and materials used in building concrete and steel superstructure lighthouses during that time period. These design and construction aspects proved to be well-suited for marking piers and breakwaters in the Great Lakes. The Presque Isle Harbor Breakwater Light's existing integrity attests to the lasting value of its design, as well as the high quality of its materials and construction. Its structure remains essentially unchanged from when it was originally built.

This NRHP registration form is submitted as an individual listing under the overarching *Light Stations of the United States* multiple property documentation form (MPDF). The specific historic context that applies is *Lighthouses under the U.S. Coast Guard (1939-present)*. The property type sections relating to this registration are *U.S. Lighthouse Construction Type – Steel Tower (1880-Present),* and *Reinforced Concrete (1908-1943)*. Information and historic contexts available in the overarching MPDF are not repeated here. This submission emphasizes the historical significance of the Presque Isle Harbor Breakwater Light as an individual property.

Regional Historical Context

The property's Great Lakes regional setting includes Lakes Superior, Michigan, Huron, Erie, and Ontario, along with their connecting waters and the St. Lawrence River. This is one of the largest concentrations of fresh water on earth. It encompasses a waterway system having a total shore length of approximately 11,000 statute miles and a total water surface area of about 95,000 square miles.

Explorers, missionaries, and fur traders from French colonial Canada came to the Great Lakes region during the seventeenth century, meeting and interacting with Native American peoples inhabiting the region. The French included Father Jacques Marquette, a Jesuit, who traveled extensively and established missions in the Great Lakes from 1668 to 1675. He and Louis Jolliet explored routes between Lake Michigan and the Mississippi River, including descending the Mississippi to some 400 miles from its mouth. The map Marquette produced from these explorations was the most accurate for those parts of North America up to that time.

Father Marquette is an important figure in the history of Michigan's Upper Peninsula. He established missions at Sault Sainte Marie (1668) and Saint Ignace (1671). His travels along the south shore of Lake Superior included the area where Marquette city and county were later established.

The French presence in the upper Great Lakes included the 1715 establishment of Fort Michilimackinac at the northern tip of Michigan's Lower Peninsula, alongside the Straits of Mackinac which connects Lake Huron with Lake Michigan. This fort and its associated settlement soon became an important center for fur trading and other commerce.

Rivalry between France and Great Britain during the eighteenth century led to intermittent warfare in North America. This culminated in decisive British victory during the Seven Years' War and caused France to lose control over Canada and the Great Lakes. British forces occupied Fort Michilimackinac in 1761 but subsequent tensions between the British and the region's Native Americans led to the 1763 outbreak of Chief Pontiac's rebellion during which the fort was captured. The British regained control of the Upper Great Lakes a year later, after which fur trading and other colonial economic activity resumed. Fur trading in the region continued to grow in economic importance through the early nineteenth century. Locations such as Green Bay in Lake Michigan and Duluth in western Lake Superior were initially established as fur trading posts. Over time, they attracted settlers and developed into permanent communities.

The American Revolutionary War began in 1775 and ended with the 1783 Treaty of Paris. This peace treaty provided for British recognition of United States sovereignty and the cession by Britain to the U.S. of a large portion of the upper Great Lakes region known as the Northwest Territory. This area included a vast expanse of lands bordering Lakes Erie, Huron, Michigan and Superior, including the present-day State of Michigan.

The U.S. government, however, did not achieve uncontested control over the Northwest Territory until decades later. Even though the United States established the State of Ohio in 1803 and the Territories of Indiana (1800), Michigan (1805) and Illinois (1809), rivalry with Great Britain continued in the region until years after the War of 1812 was settled with the 1814 Treaty of Ghent. An agreement delineating the United States' Great Lakes border with British Canada was finally concluded in 1818. Of great importance also were early nineteenth century negotiations between the U.S. government and Great Lakes Native American tribes. This led to treaties transferring vast tracts to Federal ownership. Ongoing tensions, however, led to intermittent periods of warfare such as the 1827 Winnebago War and 1832 Black Hawk War. In each of these armed conflicts, United States forces ultimately prevailed.

The Great Lakes region's abundant forest, fishery, and mineral resources attracted increasing numbers of settlers from the 1820s to the close of the nineteenth century. A great number of people from the northeastern United States migrated into the western Great Lakes where they established communities, followed by immigrant groups from western and central Europe.

Growth in the Territory of Michigan's settlement and economic development led to it being admitted into the Union as a state in January 1837. This event came after decades of confusion and dispute concerning an area called the "Toledo Strip" along its southeastern boundary line with the State of Ohio. In 1836 Michigan's government yielded ownership of the Toledo Strip to Ohio in exchange for the territory being offered extensive lands between Lake Michigan and Lake Superior. This became the State of Michigan's Upper Peninsula.

As more of the region's lands were opened to settlement and development during the first half of the nineteenth century, economic and population growth increased rapidly. Maritime traffic in the region also expanded through time. An important development in this process was the 1855 opening of the St. Mary's Falls Ship Canal (the Soo Locks) at Sault Sainte Marie, where Father Marquette had established the first European settlement in Michigan. Sault Ste. Marie is at the northern end of the Saint Mary's River which connects Lake Superior with Lake Huron. The ship canal made it possible for vessels to navigate between Lake Superior and the lower Great Lakes. Maritime trade on Lake Superior expanded rapidly following its completion.

States bordering the Great Lakes were characterized by substantial growth from the middle nineteenth century to the late twentieth century. The lumber industry accounted for a major part of the early development and expansion of waterborne commercial traffic. In addition, the large-scale development of iron ore production in Michigan's Upper Peninsula, northern Wisconsin, and Minnesota, as well as grain from farms and flour from mills in the Midwest and northern Great Plains, furnished cargoes carried aboard vessels bound for the lower Great Lakes. These shipments corresponded with the heavy up-bound movement of coal and manufactured goods from ports in the lower lakes.

By 1910, the amount of goods shipped annually on the Great Lakes increased to 80 million tons. Most of this was bulk cargo such as iron ore and coal. Shipped freight tonnage reached a record of 217 million tons in 1948. The combined movement of lumber, grain, flour, iron ore and coal, together with limestone cargoes from the Lake Michigan area to centers of steel production, resulted in the greatest bulk freight marine commerce the world had ever seen.

With the 1959 opening of the St. Lawrence Seaway connecting the Great Lakes with the Atlantic Ocean, the industrial and agricultural heartland of North America became accessible to deep-draft oceangoing vessels. In addition, barge and small craft traffic reaches the Great Lakes from the Gulf of Mexico via the Mississippi River and the Illinois Waterway, as well as from the Hudson River by way of the New York State Barge Canal System.

The need for aids to navigation on the Great Lakes increased with the expansion of shipping associated with the growth of settlement and commerce. Seven lighthouses were built in the region between 1818 and 1822, and 32 were completed during the 1830s. From 1841 to 1852, the U.S. Lighthouse Establishment added 33 new lights. Between 1852 and 1860, the total number of Federal aids to navigation in the Great Lakes increased from 76 to 102. More were added during the late nineteenth century, and by the beginning of the twentieth century there were 334 major lighted aids, 67 fog signals, and 563 buoys in the region.

The Federal government's U.S. Lighthouse Establishment (USLHE) was administered by the Treasury Department's Fifth Auditor from 1798 to the early 1850s. This management structure administered lighthouse construction and operation during a period of significant USLHE expansion. However, it became problematic in several respects. One is that an emphasis on frugal financial management did not provide for optimal quality control in lighthouse construction or for the adoption of innovative, but expensive, technological advancements relating to navigational aids. Newly constructed lighthouses tended to deteriorate quickly due to poor construction, and the reflector lamp beacons in standard use were of limited effectiveness. The resulting situation led to widespread dissatisfaction among mariners.

The Lighthouse Establishment improved significantly after 1852 when Congress authorized the Treasury Department to establish the U.S. Lighthouse Board. The Lighthouse Board provided well-qualified management and brought professional naval, military, and civilian persons with practical maritime and engineering experience into the Federal lighthouse program. This resulted in better construction practices and included coordinating the establishment of new lighthouses with Federally-funded harbor improvement projects undertaken by the U.S. Army Corps of Engineers.

The USLHE and its administrative parent, the Lighthouse Board, were abolished by Congress in 1910 and reorganized as the Bureau of Lighthouses and U.S. Lighthouse Service (USLHS). This action also transferred the lighthouse program from the Department of the Treasury to the Department of Commerce and Labor (later, the Department of Commerce).

Several distinct designs or types of lighthouses were constructed in the Great Lakes during the nineteenth century. Until 1870 or so, the most common design consisted of a wood, stone, or brick keeper's dwelling that exhibited the lighthouse's optic in a lantern on the roof or atop an attached square tower. Taller masonry towers connected to a keeper's dwelling by an enclosed passageway also became popular by the 1870s. From 1870 to around 1910, lighthouse engineers also practiced and perfected the construction of light stations built on isolated islands and atop submerged reefs and shoals.

Wooden crib foundations were widely used for the construction of lighthouses on submerged lands in the Great Lakes from the middle nineteenth century through the middle twentieth century. This method was employed for lights built on piers that extended from land into nearby waters, as well as for offshore lights. It involved constructing the crib (a massive wooden box) onshore using heavy timbers. Each was tall enough to reach to, or near to, the water's surface at its designated offshore location. A crib included several open-top compartments. When completed, it was towed to its designated location and sunk using ballast. Additional ballast and concrete were added to stabilize and strengthen the crib structure for serving as a foundation.

The superstructures of lighthouses built on piers in the Great Lakes also went through an evolution in design and technology. The earlier ones were built of wood, but this material deteriorated over time. Cast iron came into widespread use for building U.S. lighthouses during the middle nineteenth century. Cast iron lighthouse structures were commonly built from parts manufactured to specification at a foundry and sent to the designated site as a prefabricated kit for onsite assembly.

Steel products for building lighthouse structures became available in the U.S. during the late nineteenth century. As the output of mass production steel mills increased through time, its cost as a building material declined. By the 1920s, the cost versus benefit ratio for building a structure using steel instead of cast iron led to its adoption as the preferred material for constructing both pier and offshore lighthouses in the Great Lakes.

In addition to navigational aids, the Federal government developed a program during the nineteenth century for saving the lives of shipwreck victims. This grew out of privately-funded efforts to assist distressed mariners such as the Massachusetts Humane Society which was organized in 1786. A substantive commitment of Federal funds to establish lifesaving boat facilities was made in 1848. These stations were manned by volunteer crews until additional funding in 1854 provided money to employ supervisory staff. Federal pay for entire crews began after 1871 with funding that included expanding the number of lifesaving stations. This program was administered by the U.S. Treasury Department's Revenue Marine (also known as the U.S. Revenue Cutter Service).

The lifesaving program's increasing importance led Congress to establish the U.S. Life-Saving Service (USLSS) in 1878, also under the Department of the Treasury. From then until the early twentieth century, the USLSS developed and operated a nationwide network of stations staffed with Federally-employed professional crews using state-of-the-art lifesaving equipment.

A 1915 governmental reorganization merged the USLSS with the U.S. Revenue Cutter Service to form the U.S. Coast Guard (USCG). The new entity remained part of the Treasury Department. The Coast Guard was transferred to U.S. Navy control two years later when the United States entered World War I. It reverted to the Treasury Department after the war ended.

A 1939 reorganization of the Federal government abolished the Bureau of Lighthouses and transferred administration of the U.S. Lighthouse Service to the Coast Guard where it became the USCG's aids to navigation program. The Coast Guard was again transferred to the U.S. Navy in 1941 on the eve of U.S. entry into World War II. It returned to the Treasury Department in 1946. The U.S. Coast Guard was reassigned to the newly-formed U.S. Department of Transportation in 1967 and remained there until 2003 when it was transferred to the U.S. Department of Homeland Security.

Local Historical Context

Presque Isle Harbor is situated in the northern part of the City of Marquette, and approximately 150 miles west of Sault Ste. Marie ("the Soo") at Lake Superior's eastern end. The Marquette vicinity was first settled by Native American groups approximately 10,000 years ago. During the early nineteenth century, bands of Ojibwe (Chippewa) Indians occupied camps along the Lake Superior shore. One such band led by Chief Marjigesick lived at the mouth of the Carp River during the 1840s, at a site now within the City of Marquette.

William Austin Burt, a gifted surveyor and inventor, was hired by the State of Michigan in 1840 to survey the Upper Peninsula. While his surveying party was working in Marquette County in 1844, Burt observed erratic movements in his magnetic compass. This alerted him to the presence of magnetic minerals which turned out to be iron ore of unusually high quality.

News of this discovery motivated a group from Jackson, Michigan, led by Philo Everett to travel to Marquette County. There, they met Chief Marjigesick who took them to an iron ore outcrop at the present-day City of Negaunee. Everett and his group soon established the Jackson Mine at that location. This was the first commercial development of the Marquette Iron Range. Early mining activities included a furnace along the Carp River that processed ore into iron pigs. Its site is now the location of the Michigan Iron Industry Museum.

Ore and pig iron from the iron range were brought to the Lake Superior shore for transshipment at a sheltered area originally named "Iron Bay" (later renamed Marquette Bay). A settlement initially named "Worchester" was established there in 1849. It was renamed Marquette in 1850. That same year, the new community's role as the Marquette Iron Range's transshipment port led Congress to appropriate funds to construct a lighthouse. It was built in 1852, began operating in June 1853, and included a light tower and detached keeper's dwelling. The Marquette Harbor Light Station provided a landfall light for mariners approaching the port.

The 1852 light tower and keeper's dwelling deteriorated over time. This led the U.S. Lighthouse Board to request funding to construct a new lighthouse. Completed in 1866, it was built of brick and consisted of a dwelling with an attached rectangular tower. Later improvements to the light station included adding a second story to the lighthouse and constructing a separate fog signal building. The Marquette Harbor Light Station was occupied by USLHE and USLHS keepers and later by U.S. Coast Guard personnel. The lighthouse was leased in 2002 to the Marquette Maritime Museum, which maintains the structure and provides for public visitation. The Marquette Harbor Light Station is included in the National Register of Historic Places (Registration Number 84001803).

The Marquette settlement was incorporated as a village in 1859 and as a city in 1871. Until 1876, it was the only port on Lake Superior that shipped iron ore. The principal port facilities during the nineteenth century were located along the community's central waterfront at what became known as the Lower Harbor. (Marquette's upper harbor is located at Presque Isle, 2.5 miles to the north.)

The U.S. Army Corps of Engineers undertook work in 1866 to improve Marquette's lower harbor by constructing a breakwater. It was completed in 1875 and a lighthouse marking its offshore end was established. The breakwater was extended in the early 1900s and a new lighthouse built in 1908. Consisting of a square pyramidal skeletal tower topped with an enclosed service room and a lantern holding a fourth order Fresnel lens, it was designated the Marquette Breakwater Outer Light. The 1908 lighthouse operated until 1986 when it was demolished and replaced with a cylindrical "D9 tower" supporting an automated light. Light towers of this design are commonplace throughout the Great Lakes region, which is the area of responsibility for USCG District Nine (D9).

Marquette's prominence as a Great Lakes port led the U.S. Life-Saving Service to establish a station there in 1891. Located on the Lower Harbor's northern shore at Lighthouse Point, it included a crew of eight men under the command of Captain Henry J. Cleary and an eight-oared wooden lifeboat. At that time all lifeboats worldwide were propelled by oars. (Although a sail was sometimes rigged, it was not the norm.) The Marquette Lifesaving Station achieved several noteworthy accomplishments during Captain Cleary's tenure. In addition to rescues on Lake Superior, Captain Cleary and his crew held the record fastest time for righting a capsized lifeboat (13 seconds). An essential lifesavers' task, it was one of the drills practiced by USLSS personnel. Captain Cleary and his crew were chosen by the USLSS to represent it at major national expositions where they demonstrated this skill. One demonstration was recorded on early motion picture film and is today viewable on the internet.

In 1899, the USLSS and the U.S. Revenue Cutter Service decided to develop a motor-powered lifeboat. The Marquette Lifesaving Station and Captain Cleary were selected to accomplish this in collaboration with Lieutenant C. H. McLellan of the Revenue Cutter Service and Marquette's Lake Shore Engine Works. The team installed a gasoline engine, two propeller shafts, and propellers into a wooden lifeboat and conducted trial runs in the Lower Harbor. It proved to be a revolutionary success and pioneered a technological development that came to be adopted worldwide. The Marquette Lifesaving Station's motorized lifeboat was the first in the world.

After the Coast Guard's founding in 1915, the Marquette Lifesaving Station became U.S. Coast Guard Station Marquette. It remains in active service today and occupies a modern building named "Cleary Hall" that was built in 2009 on Lighthouse Point alongside the Lower Harbor.

The Marquette Iron Range was the most productive source of iron ore for United States industry during the middle to late nineteenth century. Most output from the mines was taken to the port of Marquette for transport to industrial centers in the lower Great Lakes. The loading of ore onto vessels during the port's early years was accomplished with wheelbarrows. This was time-consuming and labor-intensive, and became a serious bottleneck in the iron ore transport process.

The need to improve the transshipment system led to the 1850s invention in Marquette of the iron ore pocket dock (commonly called an ore dock). This technology for loading ore aboard vessels utilized an elevated dock supporting a railway segment and which was lined along its sides with a series of pockets (large bins). In use, a train of loaded hopper cars was run out the dock and their iron ore cargo dumped into the dock's pockets, which included a chute at the base of each one. After a bulk cargo vessel was moored next to the dock, the chutes were dropped down and ore was discharged from the pockets into the vessel's hold.

The world's first iron ore pocket dock was built at Marquette circa 1860. It helped make Marquette the U.S. leader in iron ore shipments for the Union's armament industry during the Civil War. Ore docks built later at Marquette and other Great Lakes ports were made taller and longer, and their holding capacities increased. These docks were originally built of wood. This changed to concrete and steel during the early twentieth century.

The size and capacity of Great Lakes iron ore freighters also increased through time. This led to development of a specialized class of late nineteenth to twentieth century steamships known as "ore boats," built narrow in relation to their length in order to pass through the Soo Locks.

The port of Marquette's lakeshore configuration provides it with two harbors. The Lower Harbor is located in front of its downtown section and was where the first pocket ore dock was built. This structure type's development in Marquette culminated with the construction in 1931 to 1932 of Ore Dock Number 6 by the Duluth, South Shore & Atlantic Railroad. It was built of steel-reinforced concrete, is 970 feet long, and rises to 85 feet, 7 inches above water level. This ore dock was originally connected with a railway trestle approximately a half-mile long that extended through downtown Marquette. Ore Dock No. 6 was decommissioned in 1971 and its trestle demolished in 2000. The main dock remains as a historic monument exemplifying Marquette's role as Michigan's greatest Lake Superior iron ore port.

The port of Marquette's Upper Harbor, officially known as Presque Isle Harbor, is a sheltered area on the south side of the Presque Isle peninsula. Presque Isle is an elevated headland extending northward from the mainland and would be an island but for a narrow neck of connecting land. Its name is the term used by French colonial explorers for Great Lakes shoreline features of this nature, and translates as "almost an island." The Presque Isle headland amounts to more than 320 acres and was donated to Marquette as a city park in 1886 by Peter White, a prominent resident. The park includes the grave sites of Charley Kawbawgam (born circa 1799, died 1902), last Chief of the Marquette-area Ojibwe Indians, and his wife, Charlotte. In 1849, Chief Kawbawgam resided at Marquette's future location and welcomed the pioneers who first established a permanent settlement there. He remained a prominent and respected local citizen throughout his life. His Presque Isle grave site is marked with a prominent monument.

Increasing Marquette Iron Range ore production during the late nineteenth century led the Cleveland-Cliffs Iron Company (now Cliffs Natural Resources) in 1893 to organize the Lake Superior & Ishpeming Railway Company (LS&I). The LS&I began operations in 1896 with a railroad extending from the Iron Range's mining area to Presque Isle Harbor where the company constructed a pocket ore dock that was 1,200 feet long, 54 feet tall, and built of wood.

In conjunction with the LS&I's development, the U.S. Congress appropriated funds in 1896 for the U.S. Army Corps of Engineers (ACOE) to build a breakwater sheltering Presque Isle Harbor from rough waters on Lake Superior. It extended south-southeast from Presque Isle's southern end and was 1,216 feet long when completed circa 1900.

Severe storms some years later damaged the Presque Isle Harbor ore dock to the extent that construction of a new one to replace it was undertaken in 1911. The new LS&I dock was built of steel-reinforced concrete and completed in 1912. It is 1,250 feet long, 75 feet tall above water level, and 60 feet wide. This dock includes 200 ore pockets with a total storage capacity of 50,000 tons. The LS&I today continues to transport iron ore, now in the form of taconite pellets, to its dock at Presque Isle Harbor where an average of eight to nine million tons are shipped per year. During the 2011 shipping season this dock loaded over 400 vessel visits. It is now the only ore dock in Michigan remaining in active use.

Presque Isle Harbor is also visited by freighters bringing fuel for the Presque Isle Power Plant which supplies electricity to the Marquette Range's Tilden Iron Mine. Coal is brought aboard a self-unloading ship and discharged into a conveyor belt structure extending from shore. The harbor also includes a marina for recreational watercraft. The amount of iron ore and coal shipping traffic at Presque Isle Harbor ranks it as the ninth busiest port in the Great Lakes.

In 1935, the ACOE undertook another major project to improve Presque Isle Harbor. It included dredging the port and extending the breakwater with a 1,600-foot long riprap segment. The Polaris Concrete Products Company of Duluth was awarded the contract to build this breakwater addition, which was oriented towards the southeast and ended atop a hazardous shoal. Completed in 1939 at a cost of $596,000, it gives the existing breakwater a dogleg bend and an overall length of 2,816 feet.

In coordination with the ACOE's construction project, the U.S. Lighthouse Service considered options for marking the extended breakwater and announced plans in 1938 for establishing an unattended light. This plan continued to be developed following the Lighthouse Service's 1939 transfer to the Coast Guard. It led to construction of the Presque Isle Harbor Breakwater Light, which was officially established as a Federal aid to navigation in 1941. Designed with attention to the Modern Movement in American architecture, the lighthouse reflects characteristic elements of Modern Movement Streamlined Moderne styling which flourished in the United States during the 1930s and 1940s.

This lighthouse was built with a concrete pier, concrete first story, and a three-story steel tower topped with a cupola. Its day mark since being established has been a white tower with a red band atop an octagonal first story. The first story was originally equipped with machinery including compressors, fuel tanks, and compressed air storage tanks. The lighthouse's original aids to navigation included an optic signaling a red flash, a diaphone fog signal that sounded a double blast every 20 seconds, and a continuous radiobeacon that transmitted five 12-second dashes followed by 10 seconds of silence. The lighthouse was maintained by USCG personnel based at the Marquette Harbor Lighthouse until being automated circa the 1970s.

Today, the Presque Isle Harbor Breakwater Light occupies its original offshore location in a natural setting that remains unchanged from its 1941 to 1965 period of historical significance. It continues to serve as a U.S. Coast Guard aid to navigation marking the breakwater's offshore end. This lighthouse retains integrity in design, materials, and workmanship. Their quality and appropriateness for the property's designated purpose are reflected in the structure's good state of preservation. The Presque Isle Harbor Breakwater Light maintains its association with the Federal government's long-term program for promoting maritime safety on the Great Lakes and evokes feelings that recall the dedication to duty characteristic of lighthouse keepers throughout the course of United States history. It also illustrates the spirit of innovation that characterized American lighthouse engineers during the first half of the twentieth century. Their focus on lasting results has characterized generations of U.S. lighthouse builders. The Presque Isle Harbor Breakwater Light is widely recognized as a prominent landmark in Marquette County and serves as a lasting reminder of the importance of maritime commerce in Michigan and Great Lakes history.

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Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
____ previously listed in the National Register
____ previously determined eligible by the National Register
____ designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
____ recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
_X_ Federal agency
____ Local government
____ University
_X_ Other
Name of repository: _U.S. National Archives_____

Historic Resources Survey Number (if assigned):

10. Geographical Data

Acreage of Property __Less than one acre._____

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates
Datum if other than WGS84:_____
(enter coordinates to 6 decimal places)

1. Latitude: 43 – 34 – 28.11000 North Longitude: 087 – 22 – 28.18000 West

Or
UTM References
Datum (indicated on USGS map):

☐ NAD 1927 or ☐ NAD 1983

1. Zone: Easting: Northing:

Verbal Boundary Description (Describe the boundaries of the property.)

The property's boundary is the perimeter of the concrete base that rests atop the pier at the offshore end of the Presque Isle Harbor breakwater.

Boundary Justification (Explain why the boundaries were selected.)

This boundary encompasses the entirety of the Presque Isle Harbor Breakwater Light.

11. Form Prepared By

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date: 28 January 2016

Additional Documentation

- **Map:** Figure 1. Location Map: USGS map (7.5' series) indicating property's location.

- **Photographs:**

Name of Property:	Presque Isle Harbor Breakwater Light
City or Vicinity:	Marquette
County:	Marquette County
State:	MI
Name of Photographer:	Daniel Koski-Karell
Date of Photographs:	September 2015
Location of Original Digital Files:	U.S. Coast Guard Historian's Office, U.S. Coast Guard Headquarters, 2703 Martin Luther King Jr. Ave. SE, Washington, DC 20593
Number of Photographs:	6

Photo # 1. Lighthouse setting, camera facing southeast.

Photo # 2. Lighthouse west façade, camera facing east.

Photo # 3. Light tower east side, camera facing west.

Photo # 4. Lighthouse second story ship's door and first story roof, camera facing southeast.

Photo # 5. Lighthouse tower, third story ladder lading to fourth story, camera facing up to cupola interior.

Photo # 6. Lighthouse tower, cupola gallery, camera facing northwest.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Figure 1. Location Map. This is a portion of the "Marquette, Mich." 7.5 minute quadrangle topographic map, scale 1:24,000 (United States Geological Survey 1954).

▲ North 0 2000 |Feet| Presque Isle Harbor Breakwater Light