

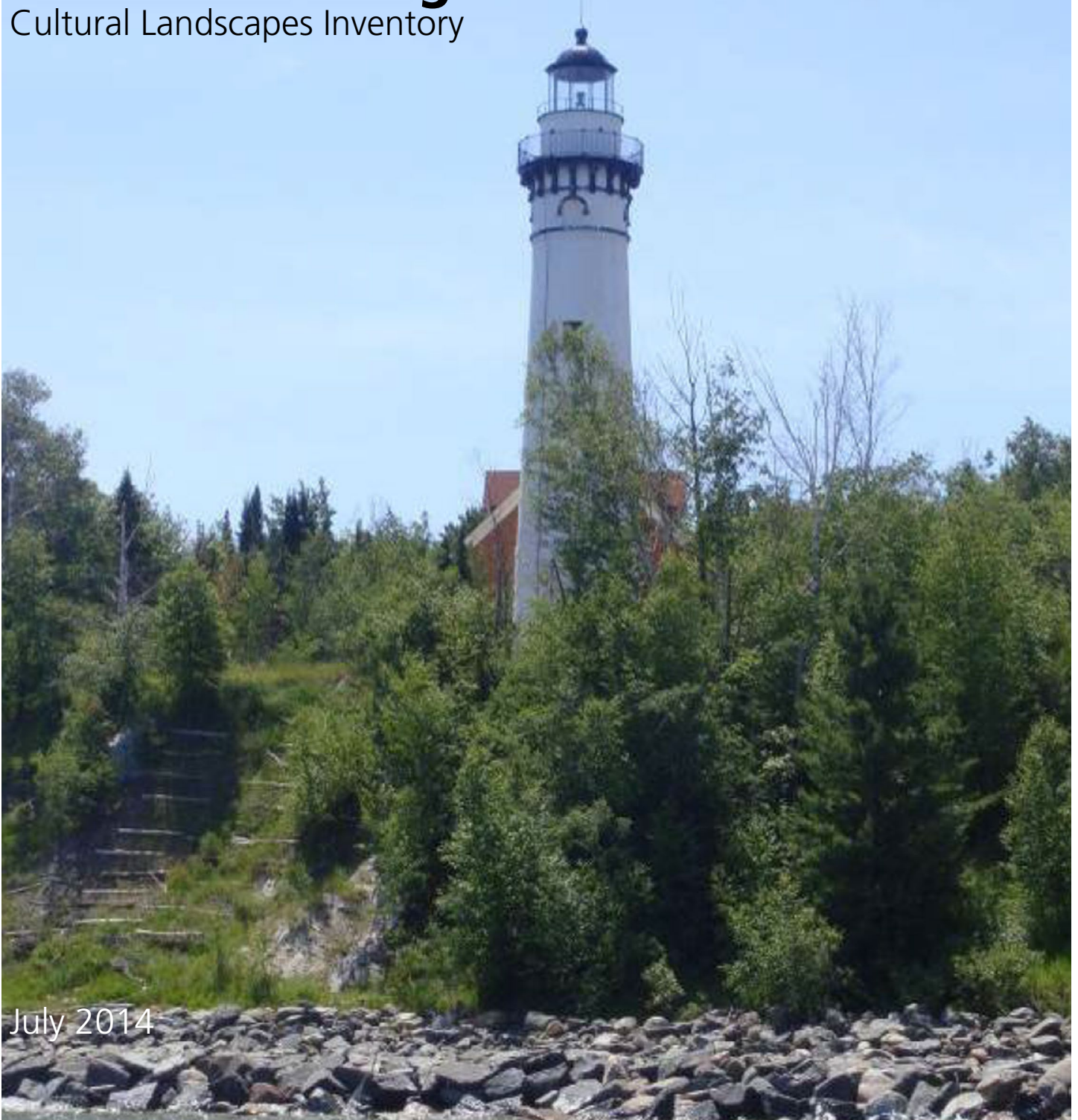
National Park Service
U.S. Department of the Interior

Apostle Islands National Lakeshore
Wisconsin



Outer Island Light Station

Cultural Landscapes Inventory



July 2014

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The Cultural Landscapes Inventory Overview:

CLI General Information

The Cultural Landscapes Inventory (CLI) is a database containing information on the historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape’s location, size, physical development, condition, landscape characteristics as character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved inventory records when all required data fields are entered, the park superintendent concurs with the information, and the landscape is determined eligible for the National Register of Historic Places through a consultation process or is otherwise managed as a cultural resource through a public planning process.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2001), and Director’s Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that responds to NPS strategic plan accomplishments. Two goals are associated with the CLI: 1) increasing the number of certified cultural landscapes (1b2B) servicerwide; and 2) bringing certified cultural landscapes into good condition (1a7). The CLI is maintained by the Park Historic Structures and Cultural Landscapes Program, WASO, and is the official source of cultural landscape information servicerwide.

Implementation of the CLI is coordinated and approved at the regional level. Each region annually updates a strategic plan that prioritizes work based on a variety of park and regional needs that include planning and construction projects or associated compliance requirements that lack cultural landscape documentation. When the inventory unit record is complete and concurrence with the findings is obtained from the superintendent and the State Historic Preservation Office, the regional CLI coordinator certifies the record and transmits it to the national CLI Coordinator for approval. Only records approved by the national CLI coordinator are included in the CLI for official reporting purposes.

Relationship between the CLI and a Cultural Landscape Report (CLR)

The CLI and the CLR are related efforts in the sense that both document the history, significance, and integrity of park cultural landscapes. However, the scope of the CLI is limited by the need to achieve concurrence with the park superintendent, and resolve eligibility questions when a National Register nomination does not exist, or when an existing nomination inadequately addresses the eligibility of landscape characteristics. Ideally, a park’s CLI work (which many include multiple inventory units) precedes a CLR because the baseline information in the CLI not only assists with priority setting when more than one CLR is needed it also assists with determining more accurate scopes of work for the CLR effort.

The CLR is the primary treatment document for significant park landscapes. It therefore requires a more in depth level of research and documentation, both to evaluate the historic and the existing condition of the landscape and to recommend a preservation treatment strategy that meets the Secretary of Interior’s Standards for the treatment of historic properties.

The scope of work for a CLR, when the CLI has not been done, should include production of the CLI record. Depending on its age and scope, existing CLR’s are considered the primary source for the history, statement of significance, and descriptions of contributing resources that are necessary to complete a CLI record.

Chapter 1: Inventory Unit Summary

Inventory Unit Description

The Outer Island Light Station landscape is one of six light stations in Apostle Islands National Lakeshore located in Ashland and Bayfield Counties, Wisconsin. The light station cultural landscape occupies approximately 8.3 acres of the light station reservation, approximately 200 acres, on the north end of Outer Island, which is 7,999 acres in size, and is situated at the north eastern edge of the lakeshore. The cultural landscape is a collection of features that remain from its development as a light station over the last 140 years. The light station consists of a tower and keepers quarters, privy, fog signal building, and oil storage building. These buildings, along with their adjacent structures and various connecting pathways, all largely date to the period of development of the site and illustrate the architecture and evolving technologies of lighthouse design and operation.

The Outer Island Light Station was included in a National Register of Historic Places nomination of the Apostle Islands Lighthouses listed in the National Register on March 8, 1977. The lighthouses were listed with state level of significance in the areas of transportation and commerce and varying periods of significance spanning from 1852 to 1929. The nomination emphasizes the significance of the light stations under National Register Criterion A for their contributions to the understanding of the broad patterns of history related to navigation, shipping, and commerce both on Lake Superior and in the nation. According to the Cultural Landscape Report, the Outer Island Light Station landscape represents six distinct development eras: Pre Light Station (1852-1872), Early Light Station (1873-1900), Light Station (1901-1938), Coast Guard (1939-1960), Automated Light Station (1961-1969), and National Park Service (1970 to present).

Overall, the Outer Island Light Station landscape retains integrity of location, design, setting, materials, workmanship, feeling, and association. Despite minor losses, the buildings and structures at the station generally retain a high degree of integrity and are integral components of the cultural landscape. Today, the island’s land use is as Apostle Islands National Lakeshore operated by the National Park Service. The island continues to serve as an aid to navigation with an automated light tower and radio beacon maintained by the United States Coast Guard.

Property Level and CLI Numbers

Inventory Unit Name:	Outer Island Light Station
Property Level:	Landscape
CLI Identification Number:	500365
Parent Landscape:	Outer Island Light Station

Park Information

Park Name and Alpha Code:	Apostle Islands National Lakeshore- APIS
Park Organization Code:	6140
Park Administrative Unit:	Apostle Islands National Lakeshore

CLI Hierarchy Description

As of September 2006, twenty-three cultural landscapes at Apostles Islands National Lakeshore had been identified as currently eligible or potentially eligible for the National Register of Historic Places. The Outer Island Light Station is one of those landscapes.

Chapter 2: Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative

Initial research was conducted by seasonals Kathleen Fitzgerald and Richard Radford in FY99 to determine the number of potential landscapes for the park. Former Cultural Landscapes Program Leader Sherda Williams and Historical Landscape Architect Marla McEnaney reviewed the landscape hierarchy presented in the CLI. Data entry was completed by Intern Jennifer Kelliher and Landscape Historian Alesha Hauser in FY10 based on the Draft Cultural Landscape Report (CLR).

Concurrence Status:

Park Superintendent Concurrence:	8/25/2010
National Register Concurrence:	Listed on the NRHP- 3/8/1977

Chapter 3: Geographic Information & Location Map

State & County:

State:	Wisconsin
County:	Ashland

Size (Acres):

Boundary Description:

The Outer Island Light Station cultural landscape lies in Section 18, Township 53 North, Range 1 East, Ashland County, Wisconsin.

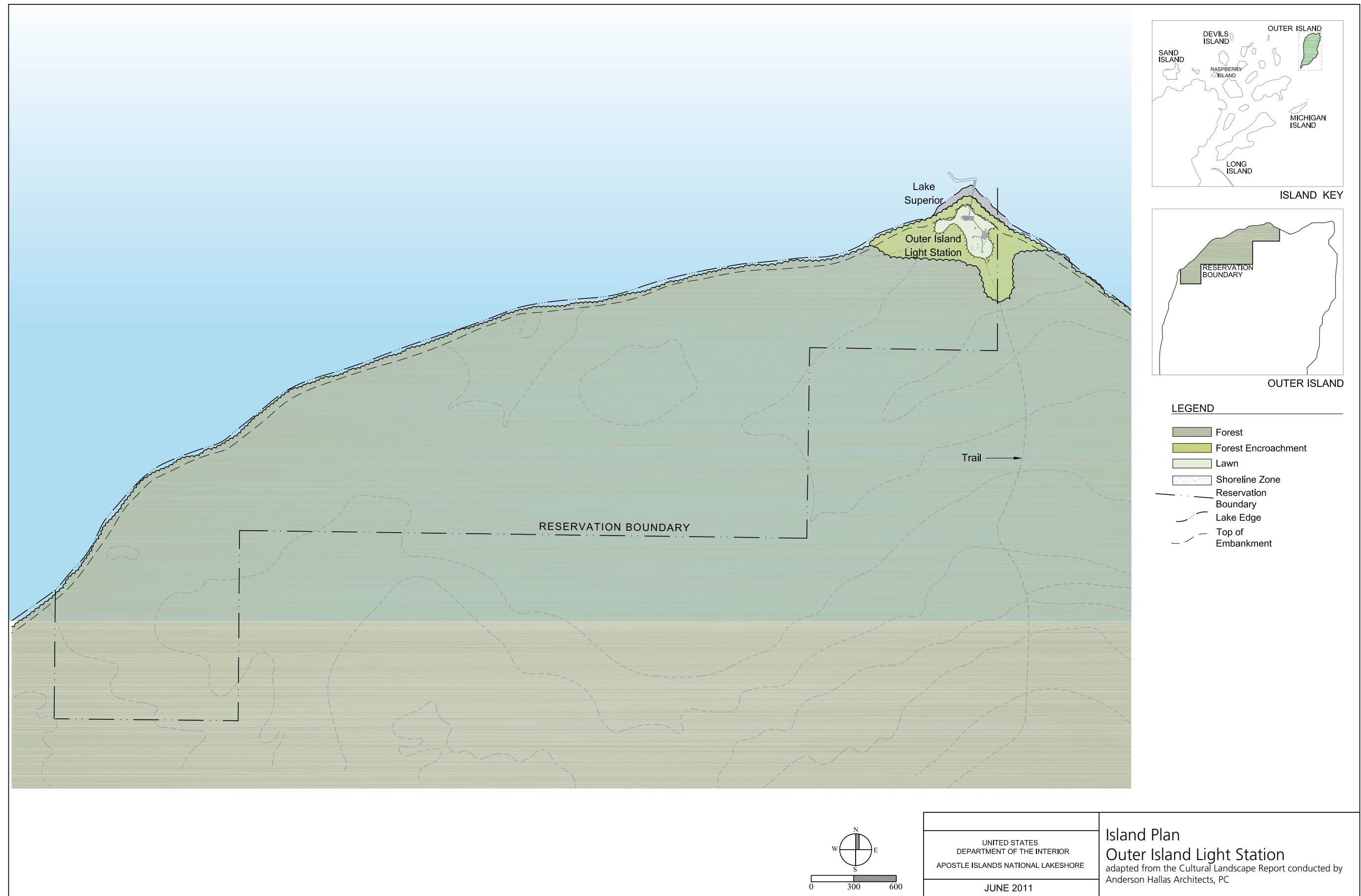
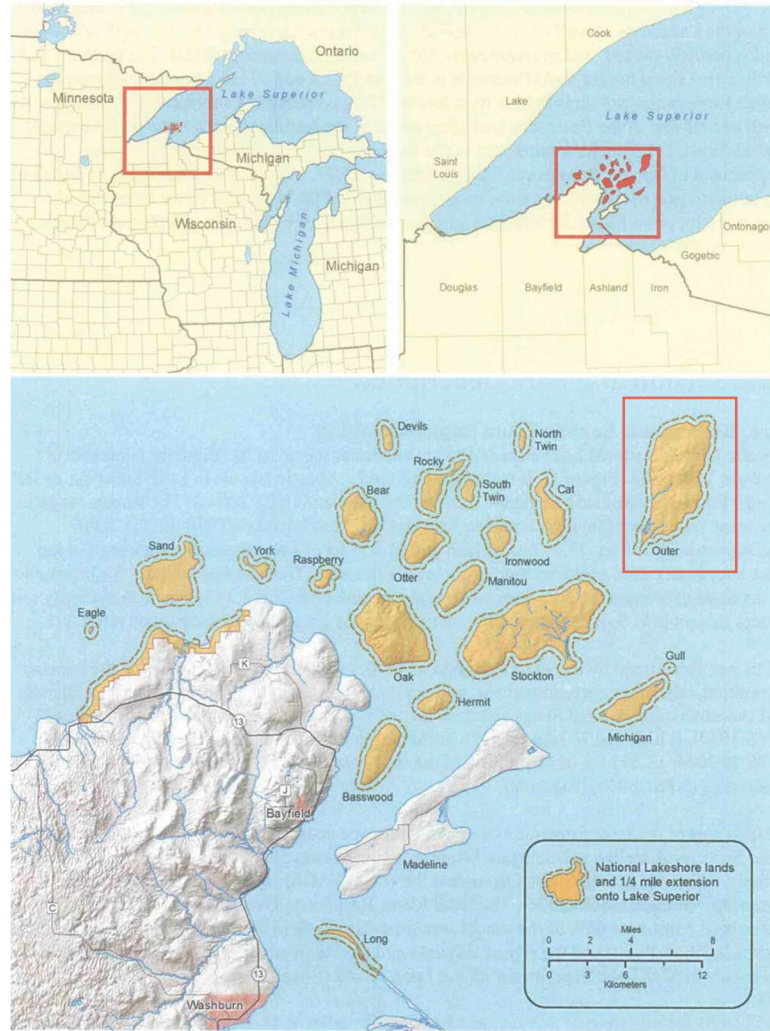
The 1977 National Register nomination states, “It is situated on a property 600 feet long parallel to the shore and centered midway between the light tower and the compressor - fog horn building, and 600 feet deep from the shoreline, an area of approximately 8.3 acres.”

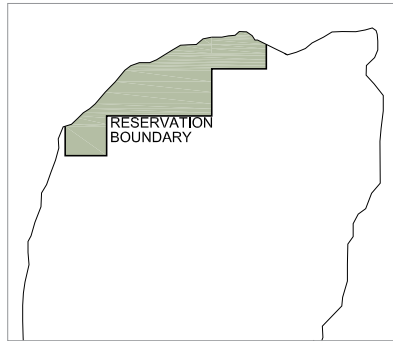
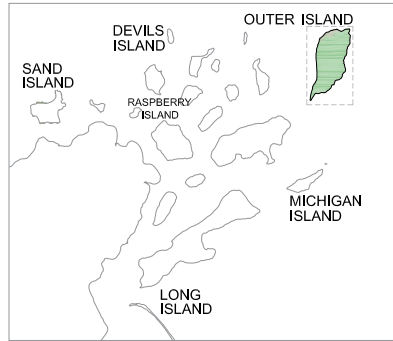
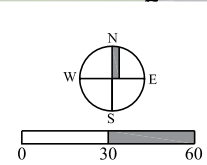
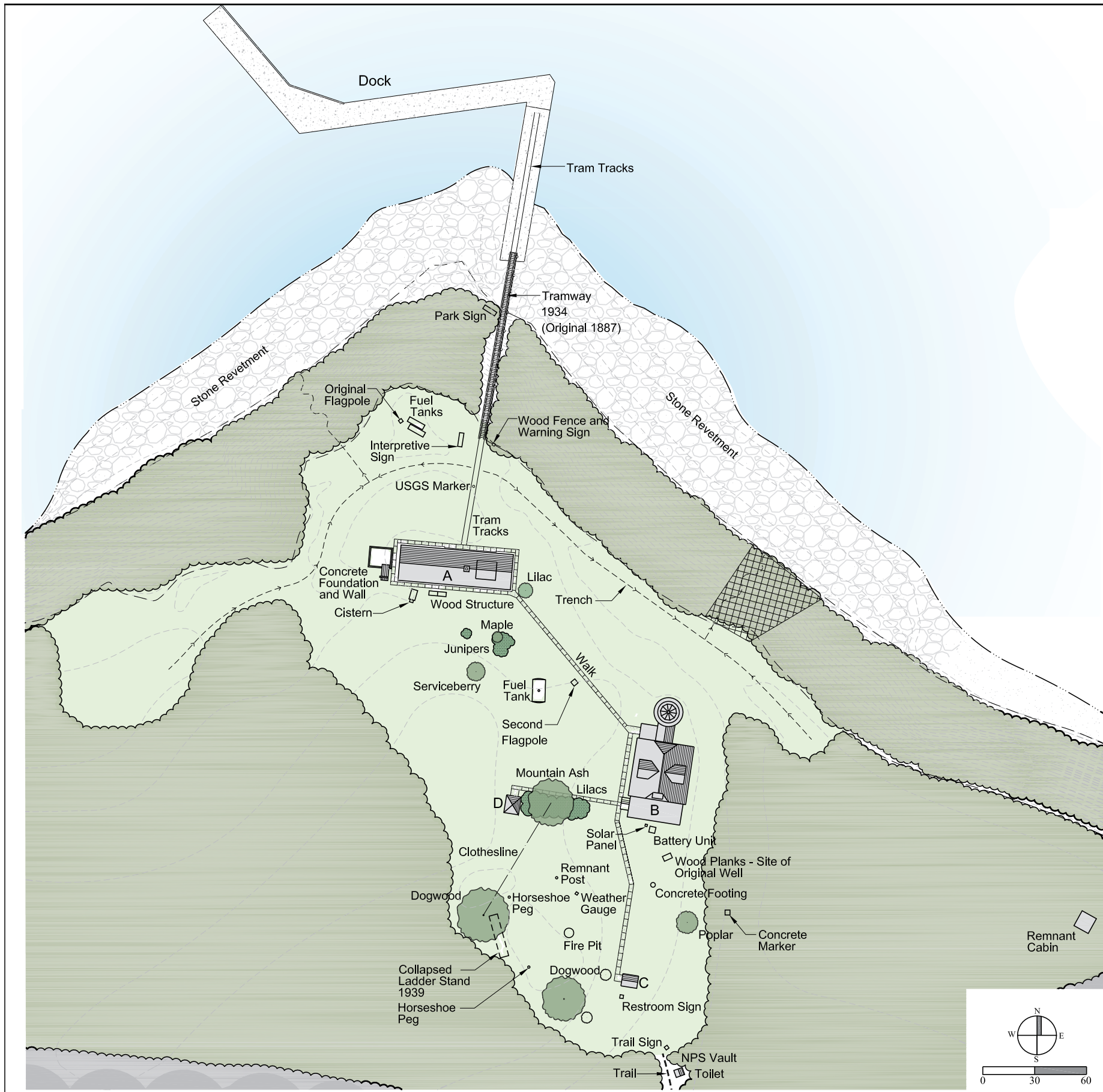
An updated boundary and acreage of the cultural landscape will be determined in 2011 once the treatment plan for the landscape is finalized in the cultural landscape report.

Boundary UTMs

Source:	GPS- Uncorrected
Point Type:	Area
Datum:	WGS84

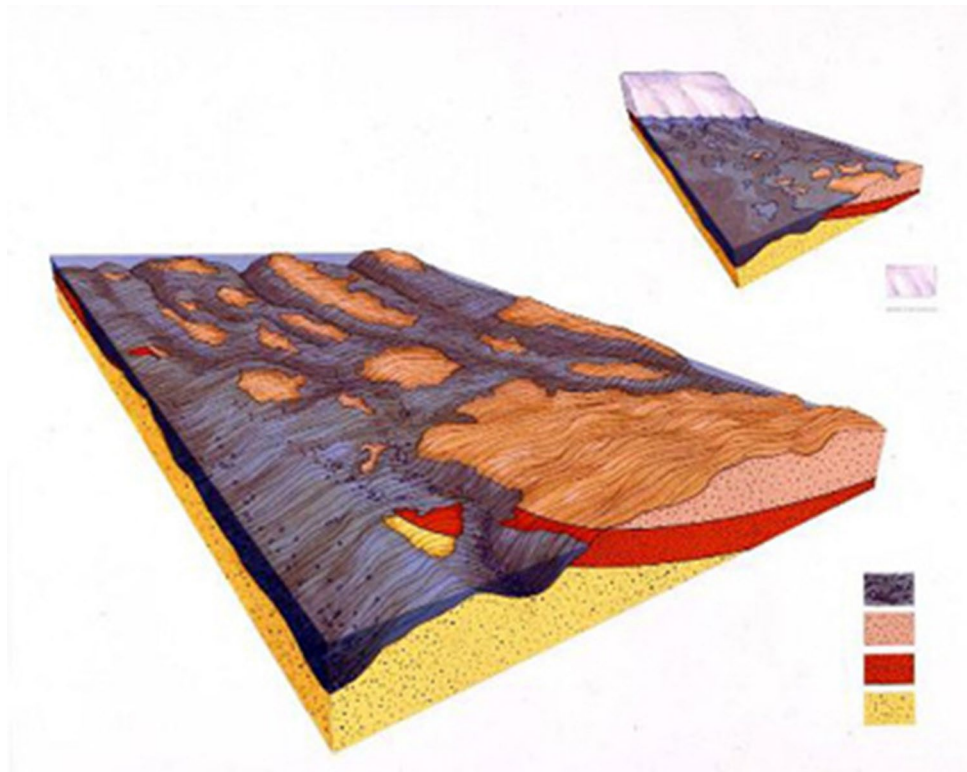
Map Point	UTM	Easting	Northing	Long/Lat
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- LEGEND**
- Forest
 - Forest Encroachment
 - Lawn
 - Beach
 - Stone Revetment
 - Erosion Control
 - Deciduous Tree
 - Tram Tracks
 - Concrete Walk
 - Trench
 - Top / Bottom of Embankment
 - Lake Edge
- BUILDINGS**
- A. Fog Signal Building (1901)
 - B. Outer Light Tower and Keepers Quarters (1874)
 - C. Privy (1874)
 - D. Oil Storage (1895)

UNITED STATES DEPARTMENT OF THE INTERIOR APOSTLE ISLANDS NATIONAL LAKESHORE	Site Plan- Outer Island Light Station adapted from the Cultural Landscape Report prepared by Anderson Hallas Architects, PC
	JUNE 2011



Glacier in retreat 9,000 years ago, right, and present day strata, left.
Yellow is Orienta Sandstone; rust is Devils Island Sandstone; gray is Glacial Drift; and beige is Chequamegon Sandstone (NPS commissioned art, Mobium Corp., Leon Bishop, 1985).

Physiographic Context: Regional Context

Outer Island is one of the twenty-two islands in the Apostle Islands archipelago. The islands range in size from only a few acres in the case of Gull Island to over 10,000 acres on Stockton. Repeated periods of glaciation during the last Ice Age resulted in deposits of glacial till with a high clay content covering most of the islands. The majority of the islands are comparatively flat with sandstone bedrock lying close to the surface. As a result, the islands in general have poor drainage and swampy areas are common. The shorelines for the majority of the islands are characterized by either sandstone cliffs or high clay bluffs.

The Apostle Island archipelago’s sandstones were deposited during the late Precambrian era, about 600 million years ago, and form the basement rock for all the islands. The upper and lower most layers (Chequamegon and Orienta formations) are in the Precambrian Bayfield Group and were deposited by northeastward-flowing braided streams. The Devils Island Formation, between the sandstones, represents deposition across sand-flats that were intermittently covered by shallow ponded water. The Pleistocene ice advances provided an abundance of till, with lesser amounts of glacial outwash, which covers most of the islands. Some glacial drift was streamlined by overriding ice. Terraces, wave-cut benches, and elevated beaches show evidence of higher levels of Lake Superior. High bluffs and glacial drift erode to provide sand for today’s sandspits and beaches such as the narrow strip at Manitou Fish Camp on Manitou Island.

Forest types on the islands include both boreal forest and northern hardwood hemlock. White pine and red pine both highly desirable species for nineteenth century lumbering activities, are found throughout the islands. Pockets of old growth trees remain, including several hundred acres of hemlock forest on Outer Island, although most existing forest cover consists of second, third, or even fourth growth timber. With the possible exceptions of North Twin, Gull, and Eagle Islands, extensive and repeated forest harvesting has occurred on all the islands within the national lakeshore.

Cultural Context: Regional Context

The Outer Island Light Station landscape reflects the culture and lifestyle of the keepers and the changing technology associated with navigational aids. The light station was continuously inhabited from 1873, when the station grounds began to develop, until 1961, when it was fully automated which limited the need for manned presence on the island. The vegetation on the island has been disturbed by clearing associated with establishing and maintaining the light station and by logging. Although the vegetation around the light station was affected by operations, much of the remainder of the reservation was not logged.

In 1970, the Apostle Island National Lakeshore was established. This is the beginning of the NPS Period that continues until present day. This period opened the island to additional visitors and brought about changes in the landscape that primarily related to island access, recreation and visitor use.

Political Context: Regional Context

Outer Island is located in LaPointe Township in Ashland County, Wisconsin. It is in Wisconsin’s 7th District for the United States House of Representatives, District 25 for the Wisconsin State Senate, and District 74 for the Wisconsin State Assembly.

Chapter 4: Management Information

General Management Information

Management Category: Should be Preserved and Maintained

Management Location Code: 101403

Management Category Explanatory Narrative:

The Outer Island Lighthouse landscape contributes to the significance of the cultural landscape of Apostle Islands National Lakeshore. The landscape contains structures which reflect the economic history of Outer Island.

Agreements and Legal Interest

Management Agreement:

Type of Agreement: Unknown

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access

Type of Access: Unrestricted

Explanatory Narrative:

Public access to the grounds of the light station is essentially unrestricted. Access to the island is water based and the boat dock is the only formal boat landing on the island. The boat dock is used by NPS staff, and visitors in small pleasure boats.

Access to the structures, such as the light tower, is contingent on park staffing.

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Description:

The Apostle Islands National Lakeshore encompasses 21 islands and 12 miles of mainland. The light station is one of several within the lakeshore.

FMSS Location Numbers

26771	Outer Island Light Station Brick Outhouse
78484	Outer Island Light Station Dock
26770	Outer Island Light Station Fog Signal
26768	Outer Island Light Station Keepers Quarters
26768	Outer Island Light Station Light Tower
26772	Outer Island Light Station Oil House
1002781	Outer Island Light Station Sidewalks
55193	Outer Island Light Station Steps/Tramway

Chapter 5: National Register Information

Existing National Register Status

National Register Landscape Documentation:

Entered- Inadequately Documented

National Register Explanatory Narrative:

All of the light stations in Apostle Islands National Lakeshore are listed on the National Register of Historic Places. The five stations on Devils, Michigan, Outer, Raspberry and Sand Islands were nominated as one 33.8 acre unit (but not as a district) although they are on individual islands. They were listed on March 8, 1977 with state level of significance in the areas of transportation and commerce, and varying periods of significance spanning from 1852 to 1929.

Long Island was not a part of the National Lakeshore until 1986, so it was not included in the 1977 nomination. In 1979, the United States Coast Guard prepared a nomination entitled “Coast Guard Lighthouses and Light Stations on the Great Lakes”, including the Long Island station among a large collection of stations. This nomination was approved and placed on the National Register on August 4, 1983. The listed period of significance was 1832-1919.

Both the 1977 and the 1983 nomination forms emphasize the significance of the light stations under National Register Criterion A for their contributions to our understanding of the broad patterns of our history related to navigation, shipping and commerce both on Lake Superior and in the nation. The 1983 nomination also addresses the significance of the stations under Criterion C as examples of the trends and transitions in lighthouses related to architecture, operations and technologies between 1855 and 1929. The 1977 nomination notes the stations have excellent integrity, particularly in comparison to other surviving historic light stations in the area.

The 1977 National Register nomination form indicates that all of the structures and buildings at each light station are “considered significant,” except for certain buildings at Michigan and Devils Islands. The cultural landscapes of the light stations are not adequately described or documented in the nomination. Additional information has been gathered in the 32 years since the nomination was prepared. A related National Register of Historic Places Multiple Property Documentation Form entitled “Light Stations of the United States” was completed and approved in 2002. This comprehensive summary of the history of lighthouses in the United States includes discussions of administrative history, architecture and engineering, evolution of lighthouse optics and technology, and significant associated persons. The document includes extensive information that was not available to the 1977 and 1983 nominations.

The new information has been incorporated into the reconsideration of the significance of the contributing features and structures for the Cultural Landscape Report and is discussed in section 1.1.3 General Contributing Features and Structures.

A draft nomination for a National Historic Landmark District encompassing all of the Apostle Island light stations has been developed and is on file at the offices of Apostle Island National Lakeshore. The draft has received a preliminary review by the NPS and requires amendments.

National Register Eligibility

National Register Concurrence:	3/8/1977
Contributing/Individual:	Contibuting
National Register Classification:	Multiple Property
Significance Level:	State
Significance Criteria:	A - Associated with events significant to broad patterns of our history
Period of Significance:	1852-1901
Historic Context Theme:	Changing Role of the U.S. in the World
Subtheme:	Commerce
Facet:	Commerce
Historic Context Theme:	Developing the American Economy
Subtheme:	Shipping and Transportation by Water
Facet:	Ships, Boats, Lighthouses, and Other Structures
Period of Significance:	1929
Historic Context Theme:	Changing Role of the U.S. in the World
Subtheme:	Commerce
Facet:	Commerce
Historic Context Theme:	Developing the American Economy
Subtheme:	Shipping and Transportation by Water
Facet:	Ships, Boats, Lighthouses, and Other Structures
Area of Significance:	Commerce Maritime History Transportation

National Register Information (cont.)

Existing NRIS Information:

Name in National Register:	Apostle Islands Lighthouses
NRIS Number	77000145
Primary Certification:	Listed to the National Register
Primary Certification Date:	3/8/1977

Statement of Significance:

The Outer Island Light Station cultural landscape is significant under National Register Significance Criterion A: the property is associated with events that have made a significant contribution to the broad pattern of our history. The Outer Island Lighthouse is one of five included in a multiple property National Register nomination listed on March 8, 1977. Along with Outer Island, the lights on Michigan Island, Devils Island, Sand Island, and Raspberry Island complete the nomination. The Apostle Islands Lighthouses are associated with the development of the U.S. Lighthouse Service and the national importance of commercial maritime traffic on the upper Great Lakes.

The period of significance begins in 1852 when Congress authorized the construction of eleven light stations on the upper Great Lakes. Completed in the mid 1850s, these lights functioned principally as navigational aids for vessels bound to and from Chequamegon Bay and La Pointe, on Madeline Island, via the North and South Channels. The first Apostle Islands lighthouse, the Michigan Island Light, built in 1856 and placed in service in 1857, marked both the North and South Channels into La Pointe and Bayfield for boats coming from the east. Before 1855, Lake Superior shipping was almost entirely local. The treacherous rapids at Sault Ste. Marie prevented all boats except those that could be portaged from entering into inter lake commerce. But with the opening of the “Soo” canals in 1855, Lake Superior became the western terminus of a one thousand mile long water highway.

La Pointe Light, which has since been demolished, was established in 1858 and served primarily as a local navigational aid, marking the locations of La Pointe and Bayfield harbors. None of the previously mentioned lights provided much assistance to the ever increasing volume of shipping moving through the islands’ West Channel to the new ports of Bayfield and Ashland. In response, Congress appropriated funds for the construction of the Raspberry Island Light Station in 1859. Completed in 1862, difficulties in obtaining a lens prevented the station from entering service until the following summer. The Raspberry Island Light of 1862 guided vessels through the West Channel into the harbors.

By the late 1860s, shipping patterns had again shifted, with larger vessels passing north of (or “outside”) the Apostles. To meet the demands of these new shipping patterns, a second ring of lighthouses was developed on the outer edges of the archipelago. The Outer Island Station was first lit in 1874, followed in 1881 by the Sand Island Station, and in 1891 by the Devil’s Island Station, the last built in the archipelago.

As well as being an aid to navigation, the light stations also played a role in projecting the authority of the Federal government into a remote area, and communicating certain values of the emerging industrial society into what was essentially a frontier region. Construction of the Michigan Island Lighthouse in 1856 followed closely upon the 1854 Treaty of La Pointe with the Ojibwe (Chippewa) which opened the region to white settlement. From that date onward, the establishment and evolution of the Apostle Islands

Statement of Significance, continued:

Lighthouses provided both a tangible embodiment of Federal authority and a vehicle for dissemination of values. This process entailed both the physical form of the structure, and the presence of the light keepers as representatives of the central government (Männikkö and Mackreth 2002, 19 20).

In the book *Great American Lighthouses*, F. Ross Holland, Jr. describes the Apostle Island Light Stations as the “largest and finest collection of lighthouses in the United States.” Numerous lighthouses have been preserved throughout the United States, but many of these properties exist in isolation. In many cases, the ancillary buildings such as oil houses, privies, barns, and workshops that existed at the site when the light was manned have been lost. These outbuildings, and the landscape in which they and the lighthouse exist, provide the context required to fully interpret the property’s history and significance. In contrast, the cultural landscape of the Apostle Islands Lighthouses remains unusually intact.

The Outer Island Light Station is significant as part of the collection of Apostle Island Light Stations. These stations are defined by two themes: 1) the development and evolution of resources directly associated with light stations’ use as navigational aids, a history strongly affected by the economic conditions that influenced shipping patterns and by the technological changes that influenced lighthouse working systems (foghorns; lights) and 2) the development and evolution of domestic resources associated with the shelter, sustenance, and recreation of the personnel charged with station operation and maintenance.

Chapter 6: Chronology and Physical History

Cultural Landscape Type and Use

Cultural Landscape type:	Historic Site
Current and Historic Use/Function:	
Primary Historic Function:	Lighthouse
Primary Current Use:	Lighthouse

Chronology

Year	Event	Annotation
CE 1852	Established	Congress Authorizes construction of the first Lighthouse in the Apostle Islands. (Busch 2008)
CE 1871	Established	District Engineer Orlando Poe recommends establishing lighthouse reservations on Gull, Outer, Sand, and Devils Islands. (Busch 2008)
CE 1873	Purchased/Sold	Congress Appropriates \$40,000 for Outer Reservation. (Busch 2008)
CE 1874	Built	Lighthouse, Fog Signal Building, and Privy constructed. (LCS 2009 & Busch 2008)
CE 1875	Reconstructed	Fog Signal Building rebuilt due to caved-in bank. (LCS 2009 & Busch 2008)
CE 1878-1879	Built	West Fog Signal Building built next to 1875 East Fog Signal. (Letter from District Engineer, 1879)
CE 1883	Built	Shore Protection and Boat Harbor for pier protection built. (Ashland Daily Press 9/4/58: Outer Island – Most Isolated Place In State of Wisconsin)
CE 1886	Built	Pipe Box constructed, pumping water from the Siphon House to the East Fog Signal Building. (Ashland Daily Press 9/4/58: Outer Island – Most Isolated Place In State of Wisconsin)
CE 1887	Restored	Tramway improvements made. (Ashland Daily Press 9/4/58: Outer Island – Most Isolated Place In State of Wisconsin)

Chronology

Year	Event	Annotation
CE 1892	Altered	Lard oil lamps are replaced by kerosene lamps and the Oil Storage is built. (Busch 2008 & LCS 2009)
CE 1895	Built	Oil Building constructed. (Ashland Daily Press 9/4/58: Outer Island – Most Isolated Place In State of Wisconsin)
CE 1901	Altered	East Fog Signal Building removed. West Fog Signal Building expanded into the current configuration. (Busch 2008 & Ashland Daily Press 9/4/58: Outer Island – Most Isolated Place In State of Wisconsin)
CE 1908	Altered	Tramway improvements made. (Outer Island Lighthouse Log, October 1908)
CE 1913	Altered	Kerosene lamp was replaced by a vapor lamp. (Busch 2008)
CE 1925	Altered	Keepers Quarters had dormers added, and the attic and second floor were converted into separate living spaces for 1st and 2nd Assistants. (Historic Drawings, 1925; CLR 2010)
CE 1929	Altered	Two Diesel Powered Air Diaphones were installed in the Fog Signal Building. (Busch 2008)
CE 1934	Altered	Tramway improvements made. (Outer Island Lighthouse Log, July 1934)
CE 1939	Altered	Radio Transmitter installed. (Busch, 2008)
CE 1941	Altered	Coast Guard renovates the radio and electrical systems in the Fog Signal Building. (Electrical Plans; CLR 2010)
	Altered	Tower and Fog Signal were electrified by 1941. (Busch 2008)
CE 1948	Altered	Diesel-driven air compressors were installed in the Fog Signal Building. (Electrical Plans; CLR 2010)
CE 1952	Rehabilitated	Mechanical and Electrical remodel of the Keepers Quarters. (Mechanical Plans)

Chronology

Year	Event	Annotation
CE 1961	Altered	Light becomes automated. (J. Busch, 2008)
CE 1970	Established	Apostle Islands National Lakeshore formed.
CE 1992	Altered	VEGA VRB-25 Solar Powered Optic beacon replaced the 12 Volt DC Optic beacon. (J. Busch, 2008)
CE 2002	Restored	Keepers Quarters and Fog Signal Building re-roofed (HSPT Reports, 2009)
CE 2003	Restored	Erosion control efforts employed on the Light Station’s banks as well as a drainage swale that runs along the north end of the site (Photos & Reports, NPS, 2003)

Cultural Landscape Physical History Narrative

The Wisconsin State Legislature requested an appropriation from Congress for a new light station on Outer Island in 1868. The Legislature’s March 6 plea said “This [island] is the easternmost of a dangerous group of islands lying off a point right on the course of vessels bound in and out of the important and much frequented harbor of Superior. . . .” Apparently Congress needed to be further convinced because they did not provide the funding. After repeated requests, a \$40,000 appropriation finally came through for Outer Island Light Station on March 3, 1873.

Lighthouse District Engineer, Major Orlando M. Poe, obtained the lighthouse reservation that year. Louis Lederle supervised the work crews who began work in August of 1873, but extremely bad weather made for a brief construction season. The crews were only able to complete the boat landing and the foundations for the house and tower before the weather forced them off the island in early October.

The work resumed by May of 1874 and proceeded until it was discovered that the station was in the wrong place. The correct site was actually located about 1,300 feet away. Crews cleared four new acres and started over at a feverish pace to build the house, privy, tower and fog signal building. They completed the project in September of 1874. A third order revolving Fresnel lens, built by Sautler and Company was installed in the top of the tower. “It gives a splendid light,” remarked the lighthouse keeper in the log entry for the light’s inaugural day on October 20, 1874. Located high above the water, atop a bluff, the light from the more than 80 foot tall tower was visible for more than 19 miles. The ten inch fog steam whistle blasted for the first time on November 5. It was the first fog whistle in the Apostle Islands, but it would not survive for long.

After a distinguished career during the Civil War, Major Orlando Poe was appointed the Chief Engineer of the 11th Lighthouse District and served from 1870 to 1873. Lighthouse designs under Poe’s supervision were elegant departures from the previously plain schemes used on these utilitarian structures. The Outer

Island Light Station incorporated details such as a cut stone foundation for the brick house, and sixteen ornate brackets supporting the tower walkway and hooded arched windows gracing the whitewashed tower. The Poe influenced station designs brought praise from Army Quartermaster General Montgomery Meigs, “I rejoice to see that the Board is paying some attention to architectural design in the newer lighthouses, and that there is a prospect that hereafter the Bald [sic] towers which for so many years... have offended all persons of taste. . . will give place, at very little increase of original cost, to buildings which it will be a pleasure to regard.”

Masonry light towers with bracket supported walkways and decorative window surrounds were a popular design choice. At least eight other similar towers built between 1871 and 1880 are located at Great Lakes light stations.

The brick Keepers Quarters (LCS ID 101140) was constructed on a locally quarried sandstone foundation. A one story passageway connected the house to the conical whitewashed brick tower (LCS ID 006376). The lighthouse was very similar to one under construction at Au Sable, which was also instigated while Major Poe was the District Engineer.



Outer Island Light Tower and Keepers Quarters, c. 1893 (NPS APIS Archives)

Cultural Landscape Physical History Narrative, continued

The Privy (LCS ID 006380) was designed in a manner worthy of the elegant new lighthouse, including a beadboard interior and an arched entry. It was constructed at the same time as the lighthouse.

Exposed to the fury of Lake Superior, the Outer Island station battled with the elements from day one. On October 28, eight days after the first lighting, the keeper noted in the log “The dock has all washed away, and our new boat would have gone with the dock if it had not been for the assistance of the gentleman working on the fog whistle.” Two days later, a storm washed the bank away, creating a new shoreline within eight feet of the new fog signal building. The signal building went down in a landslide in November within weeks of the first whistle blast. It was too late in the year to do anything about the lost building, but the keeper built a new boat dock. The next year, the keeper worked on remodeling the dock to try to keep the boats from “. . .getting smashed to pieces [sic]”.

The lighthouse kept shining through that first November. The keeper turned the light off for the season in December and remained on the island through the winter.

Crews constructed a new fog signal building in June and July of 1875. This time the building was located farther back from the edge of the bluff. The signal was a ten inch steam powered whistle with a coal fired boiler. The keeper’s logs provide some insight into the difficulty of running the fog signal. Apparently the coal was of poor quality and it was difficult to generate adequate heat to produce steam in the colder months. The tanks to the boiler also suffered from cracks and leaks, requiring steady vigilance of the system.

In late 1876 the well providing the water source for the steam ran dry and did not replenish itself until May 1877. A new well and cistern were eventually installed. Just getting fuel to the signal house was a challenge. While they were at Outer Island to complete the new signal building, the crew from the supply ship Dahlia unloaded 26 tons of coal which the crew “wheeled” up the hill, presumably using a hand powered hoist for the tram. The transfer of coal took two full working days.

A duplicate signal building was constructed in September 1878 and held a second fog signal whistle. H. Bamber’s (1893) survey of the light station shows “Whistle House 1” and “Whistle House 2”, located about 100 feet apart. The cistern is just south of Whistle House 1. The Outer Island fog signals were the first steam powered whistles to be established in the Apostle Islands (Letter from the Lighthouse District Engineer).

Bamber’s survey also illustrates the pier and dock configuration, which was constructed to provide a protected landing for the boats and to attempt to reduce erosion of the shoreline. On October 16 and 17, 1880, the Keeper reported the fiercest storm he had ever seen on the lake. The light tower “. . .swayed like the top of a tree”, and the boat dock was entirely washed away. Inspection reports in 1882 noted the bluff was washing away and addressed plans to build a boathouse and pier.



Outer Island Fog Signal Building 1 in the foreground with tram tracks inset on a wooden platform; Fog Signal Building 2 in the background, c. 1893 (NPS APIS Archives).

Cultural Landscape Physical History Narrative

In 1883, crews remodeled the boat house and constructed the new pier. The estimated total cost for both projects was \$7,572. Over time, the boat dock, pier and shoreline received more than five major alterations or adjustments. Two new cribs were added in 1894. The boat landing was rebuilt in 1901, 1948 and 1958. In the 1960s the boathouse was washed away by heavy storms. Work in the 1980s, 1990s and the early 2000s continued to address shoreline erosion.

Other elements of the light station did not suffer quite as much as the boat docks. In 1886, work crews installed a steam powered injector that delivered water from the lake to the signal houses and the Keepers Quarters. The next year, the crew extended the tram tracks down the pier and replaced the old hand powered tram hoist with a steam powered mechanism.

In August 1892, Henry Crump, the District Lampist, replaced the lard oil lamps with kerosene fueled lamps. A brick Oil Storage (LCS ID 006379) was constructed in 1895 to provide storage for the volatile fuel. The two fog signal buildings received new brick foundations in 1894 (Ashland Daily Press). In 1900, the western most fog signal building (#2) was taken down and salvaged to add on to the eastern fog signal building. The tram route was rerouted slightly to accommodate the remodel. The steam powered tram



Outer Island Tramway, c. 1904 (NPS APIS Archives)

hoist machine shared quarters with the fog signal equipment in the newly reconfigured building, which is the currently standing structure (LCS ID 006378). A new pair of diaphones with diesel powered compressors were installed in the signal building in 1929. The keeper noted the occasion with a terse “Air signal in commission.” in his October 31, 1929, entry. The keeper built a saddle for the fuel barrel in April of 1930.

A. Klette, the District Lampist, changed the lamp to a vapor lamp on May 28, 1913 (Lighthouse Keeper’s Log). The lamp was put into use on June 5, and subjected to some on the job trial and error training by the keeper.

A dormer was added to the house in 1925 to convert the third floor attic space into comfortable quarters for a new second assistant keeper. Other improvements on the island are only briefly noted in various records. Siblings Walter Daniels and Isabel Daniels Cassidy revisited their childhood home (1917-1937) and remembered gardens located between the house and the privy. The Daniels children remembered the garden had corn, potatoes and other vegetables.

The keeper’s logs refer to storing potatoes at the end of the chicken coop and also reference a cow that was brought over to the island in at least two different years. A barn and a chicken coop burned down in 1930. Former keeper, Ben Hudak, served at Outer Island in the 1930s. He remembered keeping a goat and commented that there were no other buildings at the station beyond the tower, house, privy, oil house and signal building. Entries in the keeper’s logs in the 1930s refer to a shed and to a smokehouse. Lighthouse Keeper A.G. Carpenter built the ladder rack in July of 1939, noting the work in his keeper’s log.

Cultural Landscape Physical History Narrative

Nearby Activity

Outer Island was a remote and lonely place to work. The island gained a little more activity when the Schroeder Lumber Company established a logging operation on the opposite end of the island. The lumber company had purchased the timber rights by 1920, anticipating profits from escalating post World War I demands. A five mile railroad line and a 650 foot dock were completed and logging began in 1924. The last year the company worked on the island was 1930, when 225 men cut six million board feet of timber. The logging camp provided a mail station and an alternative landing site for employees of the light station.

The Lullabye Furniture Company purchased the remaining productive logging acreage on Outer Island, effectively the entire island that was not within the lighthouse reservation, in 1936 and the loggers returned in 1942. Lullabye had an airstrip and gas powered vehicles as part of their operation. Logging ended on the island in the 1960s.

New Technology

Technological advances continued. The United States Coast Guard assumed responsibility for all light-houses and worked to modernize and streamline the operations. The Amaranth lighthouse tender delivered a radio transmitter on September 14, 1939 as part of the Apostle Islands radio system. In that same year the rotating mechanism for the light was electrified. The light and fog signal system were electrified in May, 1942. The first electric lamp (bulb) shone on May 15. New radio equipment with a radio phone was installed later that year.

Currently the Fog Signal Building contains two compressors made by the Ingersoll Rand Company. Identical plates on the compressors identify the machinery as provided under Purchase Order No. CG 12627 C, dated December 17, 1948. A General Motors Diesel motor Model PTA 2109, serial number 91491, is also in the building along with other equipment. It appears the Coast Guard replaced some equipment along with the extensive repair and restoration work they did to the boat dock and pier in 1948.

A three person crew tended the Light Station until it was automated on October 5, 1961. A solar powered 12 volt DC optic beacon was installed and was replaced in 1992 with a VEGA VRB 25 solar powered optic beacon (CLR 2010).

Chapter 7: Analysis and Evaluation of Integrity

Summary:

The Outer Island Light Station retains high integrity of location, setting, feeling, association, workmanship, design, and materials and exhibits the following landscape characteristics: spatial organization, topography, vegetation, circulation networks, buildings and structures, views and vistas, and small-scale features. The site is characterized as a navigational aid illustrating the evolution of lighthouse design and construction in response to the changing requirements of Great Lakes shipping as the volume of traffic increased, routes changed, and the size and the speed of ships increased.

The spatial organization of the Light Station Reservation has changed from early historic periods. The cleared area of the light station is greatly reduced as adjacent forest vegetation has regenerated and encroached onto the original cleared area. The original spatial organization was also altered with the addition of the Oil Building and when the two Fog Signal Buildings were connected.

The topography of the reservation generally remains as it has since development of the light station with one exception. Erosion control on the northern banks was implemented in the early 1980s and again in 2003, which included stone revetment covering the shoreline zone and a drainage swale along the northern edge of the light station grounds.

The view to the Tower historically served as a reference point and as an aid to navigation. This continues today with the Tower signaling either the beginning or terminus of the Apostle Islands. However, the views to the light station grounds from Lake Superior have been reduced due to the encroachment of forest vegetation.

The cleared area of the reservation was historically maintained as an open field by seasonal burning. The relationship between the extant of cleared area to forest vegetation on the reservation has changed due to the extensive encroachment of forest vegetation. The light station grounds were maintained as lawn or low vegetation. There is little evidence of garden plantings except the mature plantings by the Fog Signal Building, Oil Storage and Privy from the NPS Period.

Circulation on Outer Island has remained similar to the original access and basic routes that were established during the Lighthouse Period. Today, the historic circulation system, consisting of the primary access at the boat dock, the inclined tramway, the tram tracks and the concrete sidewalks on the light station grounds contribute to the island’s significance as a cultural landscape. The 1990s hiking trail does not detract from the cultural landscape.

The extant small-scale features that date from the station’s period of significance retain enough integrity to be contributing elements. The addition of the tramway, a well, concrete walks and other small scale features relate to the evolution of the light station grounds and contribute to the significance of the cultural landscape. The few modern intrusions on the scene a picnic table, bulk propane tank, privy, and solar panel are either sufficiently small scale or sited in such a way as to be unobtrusive. None detract from the overall historic integrity of the cultural landscape.

The extant historic period buildings and structures retain integrity of location, design, setting, workmanship, feeling and association. Outer Island Tower is in good condition with the exception of rust stains and peeling paint. The Keepers Quarters is also in good condition, but in fair condition on the interior. Most of the historic ceilings and floors are covered up or replaced. Despite minor losses, the buildings and structures at the station generally retain a high degree of integrity and are integral components of the cultural landscape (CLR 2010).

Aspects of Integrity:

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling
- Association

Landscape Characteristics:

- Spatial Organization
- Topography
- Views and Vistas
- Circulation
- Buildings and Structures
- Small Scale Features
- Vegetation

Buildings and Structures: Landscape Characteristics

The Outer Island Light Station buildings include: the Outer Island Tower and Keepers Quarters, Fog Signal Building, Oil Storage Building, and Brick Outhouse.

The Outer Island Tower (LCS 006376) was constructed in 1874 based on the recommendations and design of the District Engineer, Major Orlando M. Poe. The conical brick tower is 90’ tall, painted white, and once contained the most powerful light in the Apostle Islands. The Lantern is ten sided with a cast iron stair from the main level of the attached Keepers Quarters. There are hooded, arched windows and Italianate bracketing around the walkway, in concert with the “Poe” style. The Keepers Quarters are connected to the tower by a short passageway. The house is two and a half stories, has a clipped gable roof, and constructed with brick.

The keeper’s dwelling (LCS 101140) is attached to the tower at the north end of the house by a short gabled passageway and is a three-story brick structure on a tooled sandstone foundation. The hipped gable roof is finished with asphalt shingles. There is a one-story room with a shed roof at the south end of the house. This room historically served both as a summer kitchen and as a woodshed. It currently serves as the only kitchen for the structure. The summer kitchen addition has an airlock entry with a gable roof and clapboard with corner board walls on the west facade. Door sills are stone.

There is also a shed roofed airlock entry into the passageway connecting the tower with the dwelling. There is a full basement under the main portion of the house. The tooled brownstone foundation is of locally quarried stone. The tower is painted white with a black lantern and trim, while the dwelling is unpainted red brick.

The Outer Island Fog Signal Building (LCS 006378) was originally built in 1875. This Light Station had the first fog signal, which was a steam locomotive whistle, in the Apostle Islands. In 1893 there were two documented buildings, Whistle Buildings 1 and 2. Around 1900 the western building was removed from the site, and the eastern building was expanded.

The Oil Storage (LCS 006379) was built in 1892 to provide a safe storage area for the kerosene needed to fuel the lamps. It has a sheet metal hip roof with a centered circular metal vent, brick foundation, brick water table, brick walls, metal door on north facade, stone lintel and threshold, and a concrete floor.

The Privy (LCS 006380) was built in 1874, but is presently inaccessible. It has a metal shingle gable roof with boxed rafter tails and a square wooden ridge vent, brick walls and foundation, a two pane casement window with arched opening, and a panel door with wood threshold in west gable end.

The structures on Outer Island provide a human scale to the Island and convey important history and use of the light station. The structures include the boat dock, tramway, and tram tracks.

The concrete boat dock (LCS 006377) is 14 feet wide and extends north from the base of the banks 100 feet, then jogs west nearly 200 feet. The dock is bordered on the north by stone revetment. The existing “L” shape of the boat dock, to protect the harbor, reflects the original 1883 crib constructions. The dock has been modified and repaired multiple times since the initial implementation. Several Boathouses have existed at the dock, in varying orientations, but always within the protected area southwest of the dock. There is no extant boathouse remaining on the site.

The concrete tramway (LCS 101137) dates to 1934. It was preceded by a wooden tramway in the same location dating to the earliest years of the Lighthouse Period. The inclined, elevated, concrete tramway is 105 feet in length and connects the boat dock to the bluff, rising approximately 50 feet above the shoreline. The tramway includes tram tracks, 108 steps formed into the concrete between the tracks and a steel pipe railing on the east side. The tramway is constructed of cast in place, reinforced concrete and is supported by concrete footings spaced evenly along the length of the tramway. The tramway is forty eight inched wide with tracks spaced at thirty six inches and steps centered in the structure. The tram tracks begin on the boat dock, continue along the tramway, and lead to the Fog Signal Building.

The tram tracks being on the boat dock, continue along the tramway, and lead to the Fog Signal Building. The tracks are steel, spaced at 36 inch width, and set on concrete. The current tram tracks were built in 1934 during the Lighthouse Period. The tracks are a feature also associated with Michigan and Devils Islands (CLR 2010).

Buildings and Structures: Landscape Characteristics, continued

Feature:	Outer Island Light Tower
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Light Tower
LCS ID Number	6376
LCS Historic Structure Number:	22105A
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Area	
Datum: WSG84	
Zone: 15	Easting: 696105 Northing: 5216920
Longitude: -90.416777	Latitude: 47.076656
Associated Image Page Numbers in CLI:	Page 42

Feature:	Keepers Quarters
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Keepers Quarters
LCS ID Number	101140
LCS Historic Structure Number:	22105B
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Area	
Datum: WSG84	
Zone: 15	Easting: 696103 Northing: 5216908
Longitude: -90.416805	Latitude: 47.076544
Associated Image Page Numbers in CLI:	Page 43

Buildings and Structures: Landscape Characteristics, continued



Outer Island Light Station, Tower and Keepers Quarters. (Anderson Hallas Architects PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature:	Fog Signal Building
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Fog Signal Building
LCS ID Number	6378
LCS Historic Structure Number:	22104B
Locational Data:	
Source:	GPS- Uncorrected
Point Type:	Area
Datum:	WSG84
Zone: 15	Easting: 696070 Northing: 5216945
Longitude: -90.417226	Latitude: 47.076890
Associated Image Page Numbers in CLI: Page 43	



Fog Signal Building from the top of the Tower, facing west. (Anderson Hallas Architects, PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature:	Oil House
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Oil House
LCS ID Number	6379
LCS Historic Structure Number:	22104C
Locational Data:	
Source:	GPS- Uncorrected
Point Type:	Area
Datum:	WSG84
Zone: 15	Easting: 696078 Northing: 5216904
Longitude: -90.417134	Latitude: 47.076518
Associated Image Page Numbers in CLI: Page 44	



Oil Storage House, north and west elevations. (Anderson Hallas Architects, PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature:	Brick Outhouse
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Brick Outhouse
LCS ID Number	6380
LCS Historic Structure Number:	22104D
Locational Data:	
Source:	GPS- Uncorrected
Point Type:	Area
Datum:	WSG84
Zone: 15	Easting: 696098 Northing: 5216873
Longitude: -90.416889	Latitude: 47.076230
Associated Image Page Numbers in CLI: Page 45	



Brick Outhouse, west elevation. (Anderson Hallas Architects, PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature:	Boat Dock
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Dock
LCS ID Number	6377
LCS Historic Structure Number:	22104A
Locational Data:	
Source:	GPS- Uncorrected
Point Type:	Area
Datum:	WSG84
Zone: 15	Easting: 696065 Northing: 5217025
Longitude: -90.417250	Latitude: 47.077610
Associated Image Page Numbers in CLI: Page 45	



Concrete Boat Dock, western portion, viewed from the east.. (Anderson Hallas Architects, PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature:	Tramway	
Contributing?	Yes	
LCS Structure Name:	Outer Island Light Station Steps/Tramway	
LCS ID Number	101137	
LCS Historic Structure Number:	22104E	
Locational Data:		
Source:	GPS- Uncorrected	
Point Type:	Line	
Datum:	WSG84	
Zone: 15	Easting: 696077	Northing: 5216984
Longitude: -90.417115	Latitude: 47.077236	
Associated Image Page Numbers in CLI: Pages 47 and 48		



Tramway Concrete Footing. (Anderson Hallas Architects, PC/NPS 2010)



Tramway, viewed from the north. (Anderson Hallas Architects, PC/NPS 2010)

Buildings and Structures: Landscape Characteristics, continued

Feature: Tram Tracks

Contributing? Yes

LCS Structure Name: Not Currently Listed

LCS ID Number

LCS Historic Structure Number:

Locational Data:

Source: GPS- Uncorrected					
Point Type: Line			Datum: WSG84		
Line	UTM Zone	Easting	Northing	Longitude	Latitude
1	15	696073	5216958	-90.417179	47.077000
2	15	696072	5216958	-90.417187	47.077002

Associated Image Page Numbers in CLI: Pages 46 and 48



Above, tram tracks from the tramway to the Fog signal Building, viewed from the north.
Below, tramway steps and tram tracks.
(Anderson Hallas Architects, PC/NPS 2010)



Light station grounds from the Light Tower towards the Fog Signal Building, looking west. Note the vegetation on the embankment. (Anderson Hallas Architects PC/NPS 2010)

Spatial Organization: Landscape Characteristics

The light station at Outer Island is located on the north side of the island, elevated on a bluff above the water's edge. The light station grounds are set on a level plateau, cleared and maintained as an open landscape. The clearing is defined on its south and west sides, and partially on its east side, by forest vegetation. The Outer Island Tower and Keepers Quarters mark the east of the light station grounds, and the Fog Signal Building generally defines the north. The clearing surrounds the buildings. Together, the Tower/Keepers Quarters, Fog Signal Building, and forest define a central space containing domestic vegetation and utilitarian and recreational features. The north perimeter of the grounds along the cliffs is edged by new growth on the cliff and is open and exposed. The spatial organization of the grounds is in good condition.

The spatial organization of the Light Station Reservation has changed from the early historic periods. The cleared area of the light station is greatly reduced as adjacent forest vegetation has regenerated and encroached onto the original cleared area.

The original spatial organization of the station was altered when the Oil Building (Storage) was built in 1895, and again when the two Fog Signal Buildings were connected to form one building in 1901. The spatial organization of the light station contributes to the cultural landscape, however the encroachment of forest vegetation into the original cleared area of the light station grounds and along the cliffs is diminishing the integrity of the cultural landscape (CLR 2010).



View west from the Tower with the (right to left) Boat Dock, Tram Tracks, and Concrete Walk from the Fog Signal to the Keepers Quarters. Note the encroaching vegetation on the embankment. above: after 1934 (NPS APIS Archives) below: 2010 (Anderson Hallas Architects PC/NPS)

Small Scale Features: Landscape Characteristics

The small scale features at the Outer Island include: sidewalks, railings, signs, posts, foundations, fuel tanks, the flagpole, a solar panel and other site features.

The sidewalks (LCS 101143) are made from poured concrete sidewalk, which are approximately 30 inches wide and the flagpole is a four-part metal post set into a 3 foot square concrete base. The base is slightly higher in the center.

The small scale features are generally in good condition. These features provide a human scale to the island and convey important history and use of the light station. The addition of sidewalks, the flagpole and a well relate to the evolution of the light station grounds and contribute to the significance of the cultural landscape. In addition to these features, there are signs, a solar panel, and other site features that have been added to the site outside the early historic periods that are non-contributing to the identified period of significance. There are also some features that have not yet been determined, but may contribute (CLR 2010).

Small Scale Features: Landscape Characteristics, continued

Feature:	Concrete Walks
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Sidewalks
LCS ID Number	101143
LCS Historic Structure Number:	22104H
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Area	
Datum: WSG84	
Zone: 15	Easting: 696082 Northing: 5216929
Longitude: -90.417073	Latitude: 47.076739
Associated Image Page Numbers in CLI: Page 53	



Concrete sidewalk, viewed from the west side of the Keepers Quarters, northwest to Fog Signal Building. Fuel tank and Flagpole visible at left and center. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristcs, continued

Feature:	Remnant Flagpole
Contributing?	Yes
LCS Structure Name:	Outer Island Light Station Flagpole
LCS ID Number	101145
LCS Historic Structure Number:	22106A
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone: 15	Easting: 696057 Northing: 5216968
Longitude: -90.417384	Latitude: 47.077097
Associated Image Page Numbers in CLI:	Page 57



Remnant flagpole. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Tramway Pipe Railing
Contributing?	Yes
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Line	
Datum: WSG84	
Zone: 15	Easting: 696077 Northing: 5216983
Longitude: -90.417108	Latitude: 47.077229
Associated Image Page Numbers in CLI:	Page 54



Concrete tramway pipe railing. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Well Foundation
Contributing?	Yes
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone:15	Easting: 696065 Northing: 5216940
Longitude: -90.417293	Latitude: 47.076842
Associated Image Page Numbers in CLI:	Page 55



Well Foundation. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Flagpole
Contributing?	Yes
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone:15	Easting: 696088 Northing: 5216927
Longitude: -90.416993	Latitude: 47.076716
Associated Image Page Numbers in CLI:	Page 56



Flagpole in foreground, at right of image. Outer Island Light Tower and Keepers Quarters, behind, viewed from the north east. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Collapsed Ladder Stand		
Contributing?	Yes		
LCS Structure Name:	Not Currently Listed		
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Point		
Datum:	WSG84		
Zone: 15	Easting: 696080	Northing: 5216886	
Longitude: -90.417115	Latitude: 47.076358		
Associated Image Page Numbers in CLI: Page 58			



Collapsed ladder stand. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Concrete Footing		
Contributing?	Undetermined		
LCS Structure Name:	Not Currently Listed		
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Point		
Datum:	WSG84		
Zone: 15	Easting: 696102	Northing: 5216888	
Longitude: -90.416831	Latitude: 47.076364		
Associated Image Page Numbers in CLI: Page 59			



Concrete Footing. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Concrete Structure
Contributing?	Undetermined
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type:	
Datum: WSG84	
Zone:	Easting: Northing:
Longitude:	Latitude:
Associated Image Page Numbers in CLI: Page	



Concrete structure, on ground nxt to solar panel.
(Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Concrete Foundation and Wall
Contributing?	Undetermined
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Area	
Datum: WSG84	
Zone: 15	Easting: 696058 Northing: 5216946
Longitude: -90.417378	Latitude: 47.076896
Associated Image Page Numbers in CLI: Page 60	



Concrete foundation and wall. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Wood Planks
Contributing?	Undetermined
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone: 15	Easting: 696104 Northing: 5216891
Longitude: -90.416793	Latitude: 47.076396
Associated Image Page Numbers in CLI:	Page 61



Wood planks. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Remnant Post
Contributing?	Undetermined
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone: 15	Easting: 696085 Northing: 5216891
Longitude: -90.417045	Latitude: 47.076400
Associated Image Page Numbers in CLI:	Page 58



Remnant post in foreground. (Collapsed ladder stand in background). (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Weather Gauge
Contributing?	Undetermined
LCS Structure Name:	Not Currently Listed
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone: 15	Easting: 696091 Northing: 5216888
Longitude: -90.416969	Latitude: 47.076369

Associated Image Page Numbers in CLI: Page 62



Weather gauge. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Clothesline
Contributing?	No
LCS Structure Name:	
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Line	
Datum: WSG84	
Zone: 15	Easting: 696081 Northing: 5216896
Longitude: -90.417106	Latitude: 47.076440

Associated Image Page Numbers in CLI: Page 63



Clothesline. Oil Storage and Fog Signal Buildings in background. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Fire Pit		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Point		
Datum:	WSG84		
Zone: 15	Easting: 696087	Northing: 5216882	
Longitude: -90.417029	Latitude: 47.076312		
Associated Image Page Numbers in CLI: Page 63			



Fire pit. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Wood Structure		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Point		
Datum:	WSG84		
Zone: 15	Easting: 696070	Northing: 5216940	
Longitude: -90.417232	Latitude: 47.076839		
Associated Image Page Numbers in CLI: Page 64			



Wood Structure. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Wood Fence and Warning Sign		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:			
Point Type:			
Datum:			
Zone:	Easting:	Northing:	
Longitude:	Latitude:		
Associated Image Page Numbers in CLI: Page 65			



Wooden fence and warning sign. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	USGS Marker		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Point		
Datum:	WSG84		
Zone: 15	Easting: 696073	Northing: 5216959	
Longitude: -90.417179	Latitude: 47.077014		
Associated Image Page Numbers in CLI: Page 68			

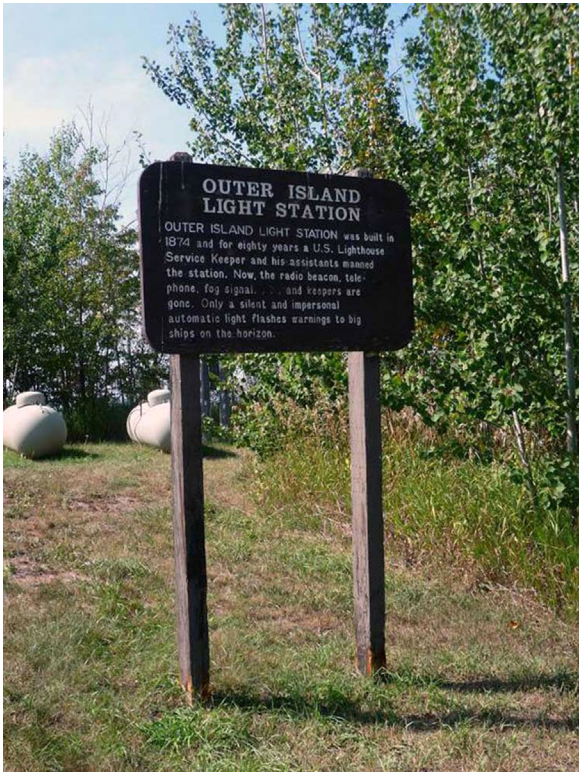


USGS Marker. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Interpretive Sign		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source: GPS- Uncorrected			
Point Type: Point			
Datum: WSG84			
Zone: 15	Easting: 696070	Northing: 5216965	
Longitude: -90.417217	Latitude: 47.077068		

Associated Image Page Numbers in CLI: Page 66



Interpretive sign. (Anderson Hallas Architects PC/NPS 2010)

OUTER ISLAND LIGHT STATION was built in 1874 and for the eighty years a U.S. Lighthouse Service Keeper and his assistants manned the station. Now, the radio beacon, telephone, fog signal... and keepers are gone. Only a silent and impersonal automatic light flashes warnings to big ships on the horizon.

Small Scale Features: Landscape Characteristics, continued

Feature:	Park Sign		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source: GPS- Uncorrected			
Point Type:			
Datum: WSG84			
Zone:	Easting:	Northing:	
Longitude:	Latitude:		

Associated Image Page Numbers in CLI: Page 69



Park sign. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature: Restroom Sign

Contributing? No

LCS Structure Name:

LCS ID Number

LCS Historic Structure Number:

Locational Data:

Source: GPS- Uncorrected

Point Type:

Datum: WSG84

Zone: Easting: Northing:

Longitude: Latitude:

Associated Image Page Numbers in CLI: Page 67

Feature: Hiking Trail Sign

Contributing? No

LCS Structure Name:

LCS ID Number

LCS Historic Structure Number:

Locational Data:

Source: GPS- Uncorrected

Point Type:

Datum: WSG84

Zone: Easting: Northing:

Longitude: Latitude:

Associated Image Page Numbers in CLI: Page 67

Small Scale Features: Landscape Characteristics, continued



Restroom sign, foreground, and hiking trail sign, background. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Fuel Tank
Contributing?	No
LCS Structure Name:	
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type: Point	
Datum: WSG84	
Zone: 15	Easting: 696081 Northing: 5216919
Longitude: -90.417084	Latitude: 47076655
Associated Image Page Numbers in CLI:	Page 70



Fuel Tank. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Propane Tanks
Contributing?	No
LCS Structure Name:	
LCS ID Number	
LCS Historic Structure Number:	
Locational Data:	
Source: GPS- Uncorrected	
Point Type:	
Datum: WSG84	
Zone:	Easting: Northing:
Longitude:	Latitude:
Associated Image Page Numbers in CLI:	Page 70



Propane Tanks (2), with remnant flagpole in background. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Solar Panel	
Contributing?	No	
LCS Structure Name:		
LCS ID Number		
LCS Historic Structure Number:		
Locational Data:		
Source:	GPS- Uncorrected	
Point Type:		
Datum:	WSG84	
Zone:	Easting:	Northing:
Longitude:	Latitude:	
Associated Image Page Numbers in CLI: Page 72		



Solar Panel. (Anderson Hallas Architects PC/NPS 2010)

Small Scale Features: Landscape Characteristics, continued

Feature:	Horseshoe Pegs (2)	
Contributing?	No	
LCS Structure Name:		
LCS ID Number		
LCS Historic Structure Number:		
Locational Data:		
Source:	GPS- Uncorrected	
Point Type:	Point	
Datum:	WSG84	
Zone: 15	Easting: 696084	Northing: 5216885
Longitude: -90.417070	Latitude: 47.076342	
Associated Image Page Numbers in CLI: Page 60		



Horseshoe Peg. (Anderson Hallas Architects PC/NPS 2010)

Vegetation: Landscape Characteristics

Vegetation at Outer Island includes natural forested areas, cleared and maintained areas, and ornamental plantings. The forest area is of mixed hardwoods and pines and is the predominant landscape of the Island. The light station grounds also include historically cleared areas that have been infiltrated by the adjacent forest and are now brush landscape types. The core of the light station is a maintained lawn of mown native grasses. Ornamental plantings exist near the Fog Signal Building, the Oil Storage, and at the south end of the site, near the Privy. The condition of the vegetation on the light station grounds varies from good to poor.

Historic drawings and photographs indicate that a significantly larger cleared area on the reservation existed than that which exists today. The cleared area of the reservation was historically maintained as an open field by seasonal burning. A large portion of this open field has been filled by encroaching forest today and the field vegetation type is missing from the landscape. The embankment was also cleared of vegetation and today much of that clearing is diminished. The cleared area of the Light Station Reservation is an important contributing feature of the cultural landscape. The relationship between the extant of cleared area to forest vegetation on the reservation has changed significantly since the early historic periods. The extensive encroachment of forest vegetation diminishes the integrity of the cultural landscape.

During the Lighthouse Period the light station grounds were maintained as lawn or low vegetation. According to the keeper’s log, the first Keeper in 1874 brought currant and raspberry bushes, planting them near the Keepers Quarters. Historic photos show plantings along the east side of the Keepers Quarters as late as 1939. The keeper’s log also has several references to planting potatoes, and setting out trees. There is little evidence of garden plantings at the light station remaining from the Lighthouse Period. While garden and landscape planting was done at the Outer Island Light Station the plantings did not make a substantial contribution to the cultural landscape of Outer Island.

Today, there are areas near the Fog Signal Building, Oil Storage, and Privy with mature plantings. These planting appear to have been planted in the NPS period although no documentation exists (CLR 2010).

Vegetation: Landscape Characteristics, continued

Feature:	Lawn Area	
Contributing?	Yes	
LCS Structure Name:	Not Currently Listed	
LCS ID Number		
LCS Historic Structure Number:		
Locational Data:		
Source: GPS- Uncorrected		
Point Type: Area		
Datum: WSG84		
Zone: 15	Easting: 696082	Northing: 5216918
Longitude: -90.417071	Latitude: 47.076640	
Associated Image Page Numbers in CLI: Page 76		



Lawn Area. (Anderson Hallas Architects PC/NPS 2010)

Vegetation: Landscape Characteristics, continued

Feature:	Domestic Plantings: Fog Signal Building				
Contributing?	No				
LCS Structure Name:					
LCS ID Number					
LCS Historic Structure Number:					
Locational Data:					
Source: GPS- Uncorrected					
Point Type: Area	Datum: WSG84				
Map Point	UTM Zone	Easting	Northing	Longitude	Latitude
1	15	696078	5219632	-90.417124	47.076767
2	15	696073	5216927	-90.417185	47.076722
3	15	696083	5216941	-90.417051	47.076846
4	154	696072	5216935	-90.417206	47.076798
Associated Image Page Numbers in CLI: Page 77					



Serviceberry, Juniper, and Maple plantings near Fog Signal Building. (Anderson Hallas Architects PC/NPS 2010)

Vegetation: Landscape Characteristics, continued

Feature:	Domestic Plantings: Oil Storage		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source: GPS- Uncorrected			
Point Type: Area			
Datum: WSG84			
Zone: 15	Easting: 696086	Northing: 5216904	
Longitude: -90.417032	Latitude: 47.076510		
Associated Image Page Numbers in CLI: Page 79			



Mountain Ash and Lilacs near Oil Storage Building. (Anderson Hallas Architects PC/NPS 2010)

Vegetation: Landscape Characteristics, continued

Feature:	Domestic Trees near Privy		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:			
Datum:	WSG84		
Zone:	Easting:	Northing:	
Longitude:	Latitude:		
Associated Image Page Numbers in CLI: Page 79			



Domestic plantings near the Privy. (Anderson Hallas Architects PC/NPS 2010)

Vegetation: Landscape Characteristics, continued

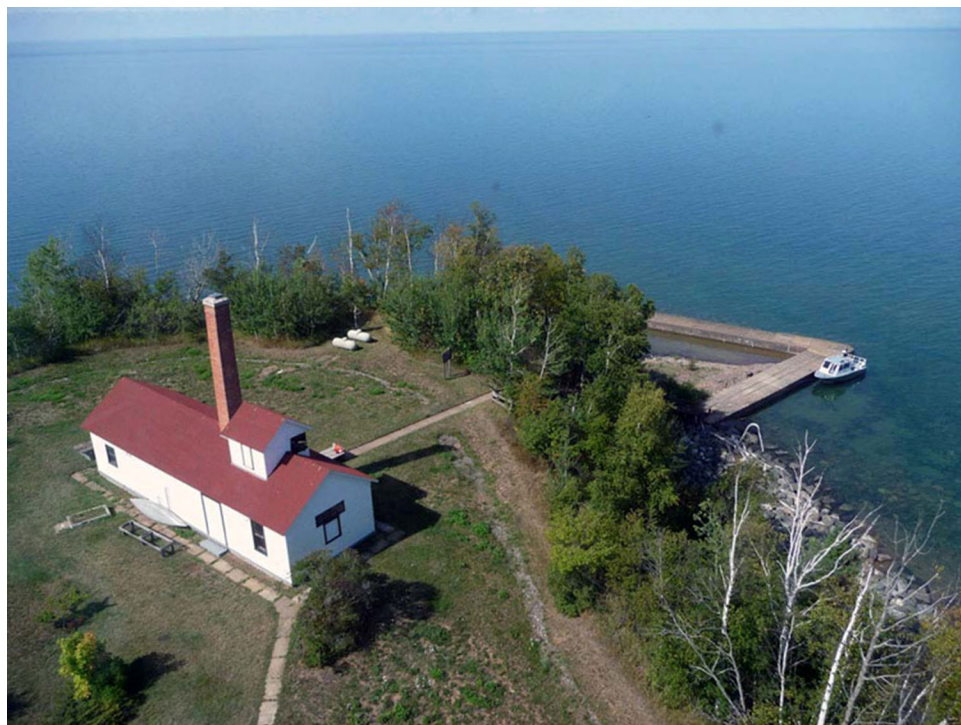
Feature:	Slope Vegetation		
Contributing?	No		
LCS Structure Name:			
LCS ID Number			
LCS Historic Structure Number:			
Locational Data:			
Source:	GPS- Uncorrected		
Point Type:	Area		
Datum:	WSG84		
Zone: 15	Easting: 696069	Northing: 5216963	
Longitude: -90.417227	Latitude: 47.077049		
Associated Image Page Numbers in CLI: No Image			

Circulation: Landscape Characteristics

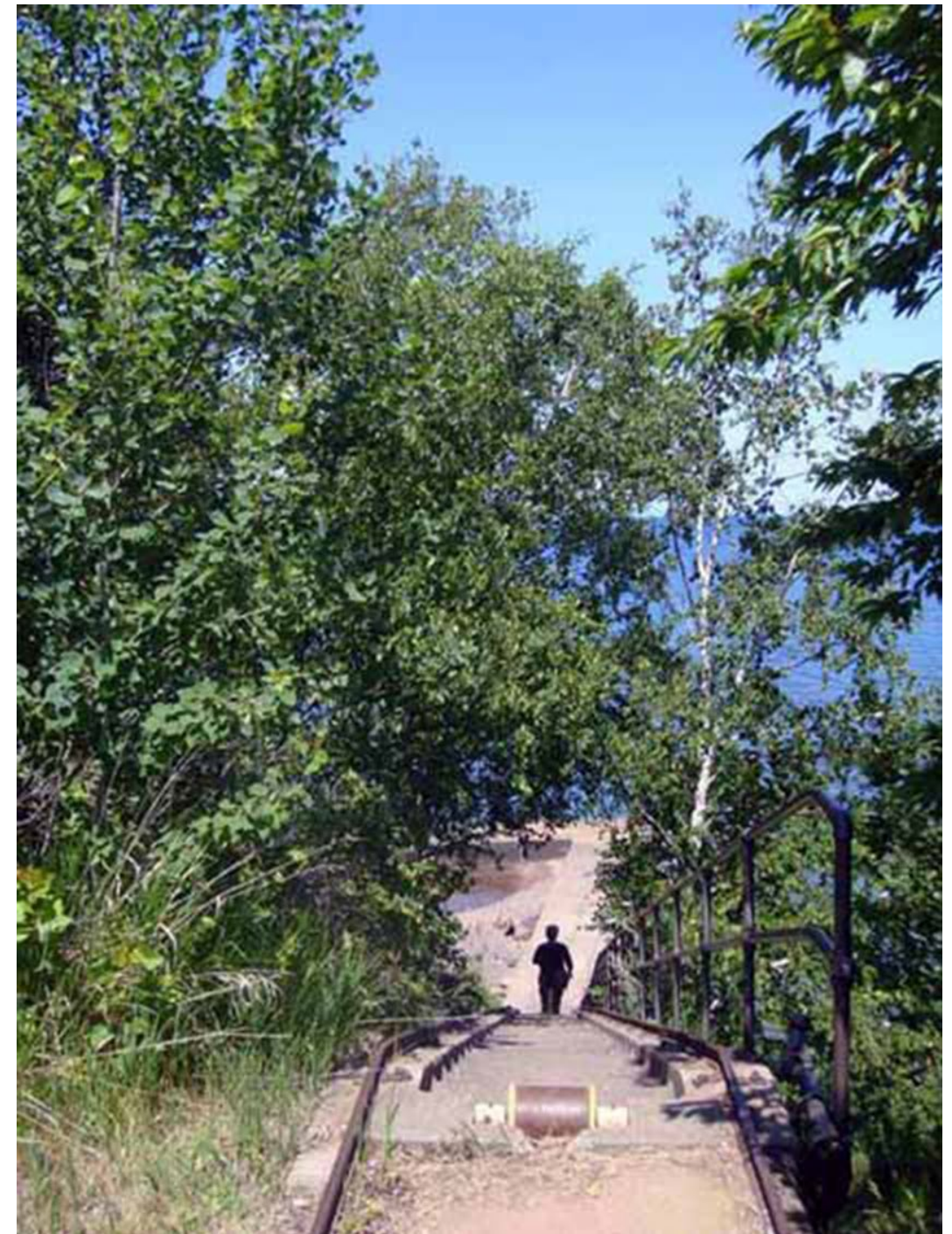
Circulation at the light station begins at the boat dock and continues on the tramway, allowing access up the steep northern bank. The tramway provides pedestrian circulation and is used as a means of transporting supplies up the bluff. On the light station grounds, concrete sidewalks guide pedestrian circulation from the Fog Signal Building to the Tower and Keepers Quarters. From the Tower and Keepers Quarters, sidewalks connect to the Oil Storage and the Privy. A hiking trail into the forest begins near the Privy at the southern end of the site. Circulation on the light station is in good condition.

Circulation on Outer Island has remained similar to the original access and basic routes that were established during the Lighthouse Period. Primary transit to the island was historically, and continues to be by boat, landing at the boat dock on the island's north side. Pedestrian circulation from the shore to the grounds was initially via an inclined wooden tramway leading to the Fog Building. The tramway was later modified and a concrete tramway was built, in the same location. This structure remains to present day. The tram track from the top of the tramway to the Fog Signal Building served as both a means for moving goods and fuel as well as pedestrian circulation. The concrete sidewalks were installed on the grounds during the Lighthouse Period, and remain today. Typical to the Apostle Islands light stations, the concrete walks were narrow in width; placed in straight lines connecting buildings and other site features; and were finished with a rough texture. Concrete sidewalks linked the Fog Signal Building to the Tower and Keepers Quarters, then south to the Privy, and eventually west to the Oil Storage. In the 1990s a hiking trail was built leading from the light station south into the forest.

Today, the historic circulation system, consisting of the primary access at the boat dock, the inclined tramway, the tram tracks and the concrete sidewalks on the light station grounds contribute to the island's significance as a cultural landscape. The 1990s hiking trail does not detract from the cultural landscape (CLR 2010).



View west from the Tower with (right to left) the boat dock, tram tracks, and concrete walk from the Fog Signal Buildings to the Keepers Quarters. (Anderson Hallas Architects, PC/NPS 2010)



View of the boat dock, from the top of the tramway. (Anderson Hallas Architects, PC/NPS 2010)



Banks and shoreline with erosion control and stone revetment.
Above, looking east from the dock. Below, looking west from the dock.
(Anderson Hallas Architects, PC/NPS 2010)



Drainage swale along the norther edge of the site, viewed east from the north of the Outer Island Tower. (Anderson Hallas Architects, PC/NPS 2010)

Topography: Landscape Characteristics

The cleared light station area sits approximately fifty feet above Lake Superior. The Outer Island Tower, Keepers Quarters and Fog Signal Building occupy the highest points of the site. The remainder of the site slopes gently south, east, and west towards the bordering forest. A contemporary drainage swale runs the length of the light station grounds northern perimeter. At the north edge of the grounds, steep banks slope down to Lake Superior. The level light station topography contrasts with the surrounding dense forest and gently rolling hills. Overall, the condition of the light station’s topography is good, with the exception of the diminishing beach.

The topography of the reservation generally remains as it has since development of the light station with one exception. Erosion control on the northern banks was implemented in the early 1980s and again in 2003. That work included stone revetment covering the shoreline zone (which was once a sandy beach) and a drainage swale along the northern edge of the light station grounds. It is unknown whether the narrowing of the beach was due to natural forces, man-made developments (boat dock) or a combination.

The topography of the reservation and light station grounds contributes to the cultural landscape. The erosion control work has diminished the integrity of the cultural landscape (CLR 2010).



View from the tower to the west (Anderson Hallas Architects, PC/NPS 2010)

Views and Vistas: Landscape Characteristics

Views of the Outer Island Tower exist from passing ships and pleasure boats on Lake Superior. From the top of the eighty foot Tower, there are clear vistas looking over the lake and south across the island. Views to and from the light station grounds are in poor condition.

The Outer Island Tower is the furthest east and north of all the Apostle Islands Light Stations. The view to the Tower historically served as a reference point and as an aid to navigation for passing ships on Lake Superior. This continues today with Tower signaling either the beginning or terminus of the Apostle Islands.

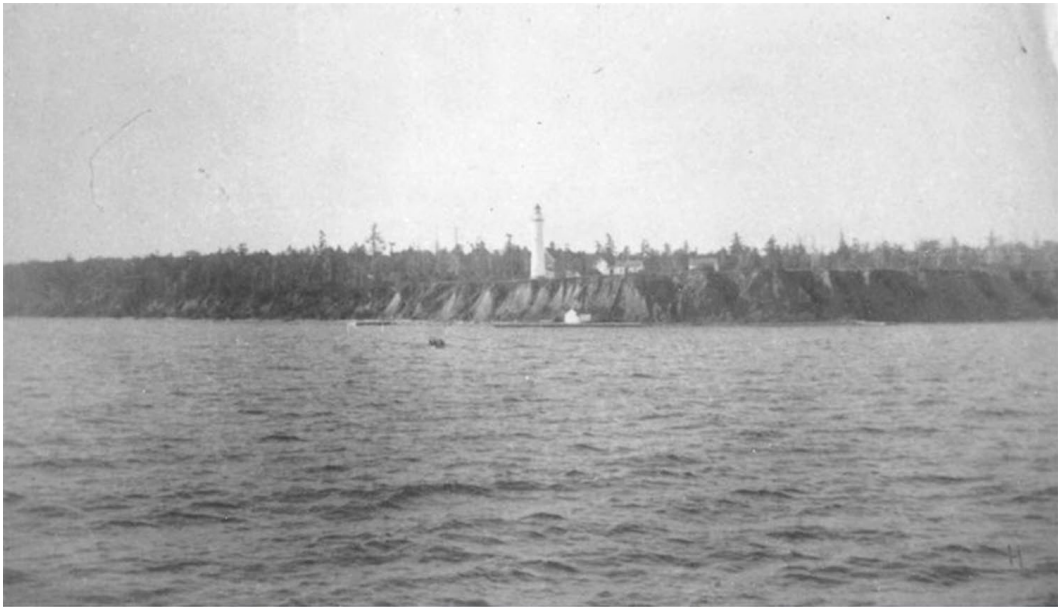


View from the tower to the east (Anderson Hallas Architects, PC/NPS 2010)

Today, the views to the light station grounds from Lake Superior have been reduced due to the encroachment of forest vegetation.

Views and vistas contribute to the cultural landscape of the Outer Island Light Station. The reduction in views to the grounds is diminishing the integrity of the cultural landscape. Today, views to the Tower are intact from the early historic periods (CLR 2010).

Views and Vistas: Landscape Characteristics, continued



View to the Tower from Lake Superior.
Above, c. 1891 (NPS APIS Archives) Below, 2010 (Anderson Hallas Architects, PC/NPS)

Chapter 8: Condition Assessment

Condition Assessment and Impacts

Condition Assessment: Good
Assessment Date: 6/9/2010

None of the structures is in an advanced state of decay. Most have features that are in need of repair, but overall the structures are well constructed and in good to fair condition. No major structural damage was observed. Most of the maintenance deficiencies are related to lack of annual maintenance, storm damage repair, and general upkeep. Historic fabric will be lost, and the structures may incur significant damage, if basic maintenance and repair tasks are not completed in a timely manner.

Impacts

Impact Type:	Erosion
Internal/External:	Internal
Explanatory Narrative:	In 2003 there were modifications made to the island as part of an erosion control project. The cliff along the north side of the light station was modified.
Impact Type:	Vegetation/Invasive Plants
Internal/External:	Internal
Explanatory Narrative:	The encroachment of vegetation into areas that once demonstrated significant historic periods is the main change on Outer Island.
Impact Type:	Improper Drainage
Internal/External:	Internal
Explanatory Narrative:	In 2003, a drainage swale extending along the entire north end of the grounds modified the topography.
Impact Type:	Deferred Maintenance
Internal/External:	Internal
Explanatory Narrative:	Several buildings are experiencing peeling paint, inadequate finishes, and worn wood due to deferred maintenance.

Chapter 9: Treatment

Approved Treatment Document Explanatory Narrative:

Approved Treatment:	Preservation
Approved Treatment Document:	Cultural Landscapes Report
Document Date:	7/2011

Approved Treament Document Explanatory Narrative

The treatment measures are intended to preserve and rehabilitate the cultural landscape features. This requires a variety of actions that may be accomplished by either a series of preservation steps implemented over time or as a one-time action paired with future maintenance. Emphasis should be placed on the preservation and/or rehabilitation of the contributing features that most strongly define the character of the landscape.

The period of significance for the Outer Island Light Station (1874 –1961) begins with the establishment of the Outer Island Light Tower and Keepers Quarters and ends with automation of the light. The extant contributing features best represent the Light Station (1901- 1938) and Coast Guard (1939-1960) periods. The treatment approach for extant contributing features should emphasize these periods when the light station was in its most vibrant state. Recommendations also include the restoration of landscape features lost since the period of significance. (CLR 2011)

Approved Treatment Completed: No

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GPS Data provided by the CR-GIS Program, 2014.