

**CULTURAL LANDSCAPE REPORT • HISTORIC STRUCTURE REPORT**

**APOSTLE ISLANDS NATIONAL LAKESHORE**  
LIGHT STATIONS OF MICHIGAN ISLAND, OUTER ISLAND, DEVILS ISLAND,  
LONG ISLAND AND SAND ISLAND  
**VOLUME IV**

100% DRAFT  
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*Apostle Islands National Lakeshore – Bayfield, Wisconsin*

**VOLUME IV OF VI: DEVILS ISLAND CLR/HSR**



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## CHAPTER 1: INTRODUCTION

### ORGANIZATION OF THE VOLUME

This volume presents the overall Light Station History, the Cultural Landscape Report (CLR), and the Historic Structure Report (HSR) for the Devils Island Light Station. This document is one of six volumes that present the comprehensive CLR/HSR for five of the six light stations in Apostle Islands National Lakeshore (park or APIS). The five light stations are Michigan Island, Outer Island, Devils Island, Long Island, and Sand Island. The light station at Raspberry Island was previously addressed separately.

This volume presents detailed documentation of the light station's physical evolution and historical development; an evaluation of existing condition of its associated buildings, structures, features and vegetation; an analysis of the cultural landscape and historic structures; and the recommended treatment for the Devils Island Light Station. Supplemental information applicable to all of the light stations, including Devils Island, is presented in Volume I, Introduction and Overall Development History.

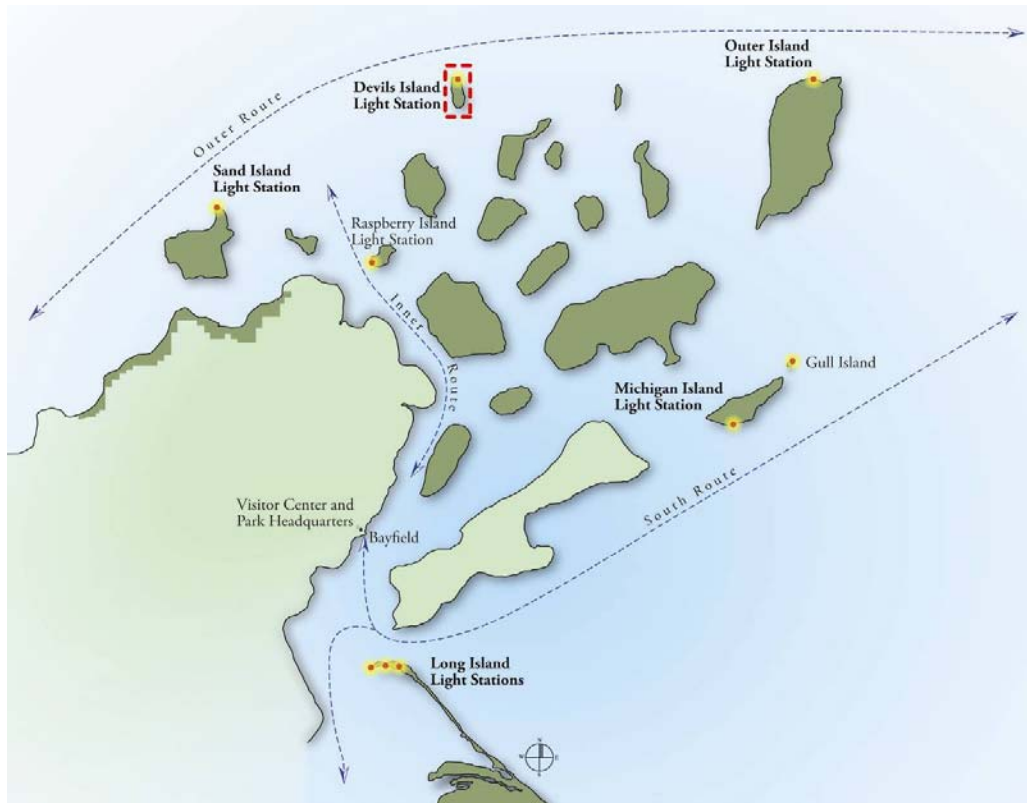
The island history is presented first, followed by the CLR and finally the HSR. Together, the combined CLR/HSR will guide the treatment of the significant resources associated with the Devils Island Light Station and provide guidance for the continued management of these resources consistent with the park's General Management Plan (GMP).

### STUDY AREA

Devils Island is one of seven islands within the park, the six light stations and Gull Island, which provide aids to navigation for ships on Lake Superior. Devils Island is 1.3 miles long, 0.4 miles wide, and approximately 318 acres in size. The island is located at the northern edge of the park, approximately 21 miles from Bayfield, Wisconsin and 14 miles from Little Sand Bay. The 1894 H. Bamber reservation survey indicates that the entire island was purchased and set aside as the reservation, and notes it as being 320 acres in size. The Devils Island Light Station is located on the north shore of the island occupying approximately 10 acres with a Boathouse and landing area located on the south tip of the island. The light station and Boathouse are connected by a trail corridor, formerly a road established in the earliest years of the light station. The majority of the island, approximately 303 acres, is part of the Gaylord Nelson Wilderness area.

The Devils Light Station is an important navigational aid for the outer shipping route, serving the midpoint between the Sand Island Light Station and the Outer Island Light Station. The light station is located atop sandstone cliffs that rise approximately 50 feet above Lake Superior. The light station grounds are surrounded by boreal forest, dominated by spruce, fir, cedar, birch and aspen. The grounds consist of historic buildings and structures, clearings, site features and vegetation. The study area includes the original Devils Island Light Station Reservation, which encompassed the entire island.

Today, the island's land use is as the Apostle Islands National Lakeshore under the jurisdiction of the National Park Service (NPS). The light station continues to serve as an aid to navigation with the automated light tower and other aids maintained by the United States Coast Guard (USCG). The NPS maintains the sites and buildings, and the light station is open to visitation and is frequented by visitors and park staff for its cultural and natural resources.



***Devils Island Light Station Context Map (Source: MBD 2010)***

## **SIGNIFICANCE OF DEVILS ISLAND**

Devils Island is important to the Apostle Islands system because of the extent of its development as an outer route light station, and for its representation of the continuum of navigational aid technology during the period of significance of 1892 to 1978. The USCG remained on the island until automation in 1978, longer than any of the other Apostle light stations. During its peak, the light station contained three separate residential keeper's quarters, an extensive tram and loading system, a Boathouse and dock, a pump house and many other site features that supported the operation of the light station. Navigational aid equipment was wide ranging during the period of significance and included the Light Tower, radio beacons, fog signals and fueling equipment. The entirety of the Devils Island Light Station Reservation comprises its cultural landscape. However, the majority of its contributing features occur on the light station grounds at the north end of the island and at the Boathouse site at the southern tip.

Contributing features include buildings and structures and their organization, historic cleared areas and corridors, circulation features, and the views of the light station from Lake Superior. Eleven structures on the List of Classified Structures (LCS) are on the grounds including the Devils Island Light Station Tower, Keepers Quarters, Assistant Keepers Quarters, Fog Signal Building, East Oil Storage Building (Oil House #1), the West Oil Storage Building (Oil House #2), Tramway Engine Building, Boathouse, pump house, dock, and the road corridor (cross-island trail).

With many of its original features intact and in good condition, the Devils Island Light Station clearly portrays the history of the light station as an aid to navigation. It continues to convey the development of navigational technology, the story of the people who resided at the light station, and the management of the station.

## **TREATMENT RECOMMENDATIONS SUMMARY**

The treatment recommendations for the Devils Island Light Station are focused on revealing the role the light station had in the navigational history of the Apostle Islands, and in conveying the historical significance of the light station's cultural landscape and historic structures. The treatment recommendations are addressed in detail in the CLR/HSR.

Rehabilitation has been identified as the general treatment approach for the Devils Island Light Station. It is a holistic approach that addresses the island's extant cultural resources and the relationships between those resources. This approach protects those characteristics and features that convey the island's full historical and cultural significance, while allowing for those repairs, alterations, and additions necessary for the compatible use of the island.<sup>1</sup>

Rehabilitation also allows for noncontributing, compatible features to remain, and for the removal or relocation of noncontributing, noncompatible features. While the overall treatment intent of the cultural landscape is one of rehabilitation many individual treatment recommendations focus on preservation of existing features. Treatment recommendations include the following:<sup>2</sup>

- 1) Reestablish portions of the historic cleared areas of the light station;
- 2) Reestablish views from Lake Superior to the light station;
- 3) Preserve circulation features including the tram tracks and concrete walks;
- 4) Preserve small scale landscape features and structures;
- 5) Remove noncompatible features;
- 6) Rehabilitate the Light Tower, Keepers Quarters, Assistant Keepers Quarters and Fog Signal Building;
- 7) Preserve the Tramway Engine Building, Oil House # 1, Oil House # 2 and Boathouse.

The recommendations for treatment are comprehensive and are intended to address all aspects of the cultural landscape and historic structures. To achieve full implementation of these recommendations a phased approach for construction activities will be required. Initial actions may include basic preservation measures to protect and stabilize contributing features followed by more detailed repair measures as park resources allow.

In addition to recommendations for physical improvements, actions are proposed to provide improved visitor access; improved efficiency of park operational and maintenance activities; and improved protection of the light station's natural systems.

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<sup>1</sup> Page et al 1998

<sup>2</sup> A glossary of terms used to describe treatment recommendations is included in the appendix of this volume.



## CHAPTER 2: LIGHT STATION HISTORY

### LIGHT STATION HISTORY

Devils Island was a critical navigation point marking the northwestern edge of the Apostle Islands. The Cleveland Vessel Owners Association recognized the need for a navigational aid on the Island, and requested a signal be located there. Congress approved the requested \$15,000 appropriation in 1889, and added \$5,500 for a fog signal the next year.<sup>3</sup>

The Lighthouse Board quickly realized it had sorely underestimated the costs to build on such a distant island with difficult landing and site conditions. The Board phased the construction into successive periods, based on available funding.

The first phase of improvements occurred in 1891 and 1892.<sup>4</sup> This phase included constructing a temporary wood light tower and an extensive complex of buildings and improvements. The wood tower was completed in 1891. It was fitted with a fourth order Fresnel lens casting a fixed red light. The light was first lit on September 30, 1891 and was visible for thirteen miles.

A wood frame Fog Signal Building with corrugated iron siding was also constructed in 1891. Work crews installed a pump house with piping to the Fog Signal Building that same year.<sup>5</sup>

Other buildings constructed in the 1891 and 1892 phase included a wood frame store house, a brick Oil House, the elegant brick Keepers Quarters and a Privy. Since the Keepers Quarters building site had almost no topsoil, workers blasted a sewer line into the partially exposed bedrock to drain the Privy.

During the 1891 and 1892 construction seasons, the crew also laid track for the tram, cleared ten acres of land and built a covered walkway down the bank at the north end of the Fog Signal Building. South of the station, the crews built a landing crib and a boathouse.

Apparently the construction had proceeded before a lighthouse reservation was established. The 1892 Annual Report of the Lighthouse Board indicates that the Board had submitted paperwork in that year, requesting that the United States Attorney's Office begin condemnation procedures to establish a lighthouse reservation. The 1893 Annual Report states that on June 5, 1892, the island was appraised at \$1,600. The 1894 Annual Report notes the necessary proceedings had been completed to condemn the entire island for a lighthouse reservation. A "Reservation Survey" map, dated September 1894, shows that the entire island is included in the reservation.<sup>6</sup> Lighthouse Board reports indicate that \$1,600 was paid for the land to the State of Wisconsin, based on the value determined in the condemnation hearings. The federal government filed a quit claim deed in August of 1895 to clear any tax liens on the property.<sup>7</sup>

While condemnation activities were in process, the Lighthouse Board requested an additional \$22,000 from Congress in 1893. The requested funding was not appropriated until two years later. In 1895, with clear

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<sup>3</sup> Untitled typed history of Devils Island located in the Apostle Islands National Lakeshore files and prepared in 1951, presumably by USCG personnel. See also Pepper, Terry. Lighthouses of Lake Superior website [www.terrypepper.com/lights/superior.htm](http://www.terrypepper.com/lights/superior.htm) accessed September and October, 2009

<sup>4</sup> Unless otherwise noted, construction and funding information for improvements at Devils Island was found in the Annual Reports of the Lighthouse Board. Transcripts of these reports are available in the Apostle Islands National Lakeshore files.

<sup>5</sup> The 1892 Lighthouse Board annual report noted the ten-inch steam whistle in the Fog Signal Building operated for 259 hours and consumed 13 ½ tons of coal.

<sup>6</sup> "Devils Island Light Station Reservation Surveyed" map located in the map files of the Apostle Islands National Lakeshore Administrative Offices.

<sup>7</sup> Annual Reports of the Lighthouse Board and Untitled typed history of Devils Island located in the Apostle Islands National Lakeshore files and prepared in 1951, presumably by USCG personnel

1 title and new funding, the Lighthouse Board ordered the new permanent light tower and approved drawings  
2 for the Assistant Keepers Quarters. A new third order Fresnel lens was commissioned from the Henri  
3 LePaute Company of France. The Assistant Keepers Quarters and associated Privy were completed in  
4 1897. The boat landing was also extended and improved in 1897. The iron cylinder tower (Devils Island  
5 Light Station Tower) arrived in pieces and was completed by October of 1898.

6  
7 The new tower stood unused for three years until the Fresnel lens arrived in 1901. Upon its arrival, the lens  
8 was immediately installed and illuminated. The light could be seen for 22 miles. The temporary wood  
9 tower stood a couple more years. The 1903 Annual Report of the Lighthouse Board noted the tower had  
10 been torn down.

11  
12 Other improvements occurred in 1901. A new brownstone Tramway Engine Building with hoisting  
13 apparatus was constructed 1901. A woodshed for the Fog Signal Building was also built. In 1901 crews  
14 also cleared a road through the forest and the underbrush to the boathouse on the south side of the island.

15  
16 By 1903, the elements of the station that are still extant included the Keepers Quarters, Fog Signal  
17 Building, Oil House, the Assistant Keepers Quarters, the metal Tower, the brownstone Tramway Engine  
18 Building, the tram tracks and the boathouse.

19  
20 The two brick keepers' quarters stood side by side and were originally connected by wood plank walks.  
21 The wood walks were replaced by concrete walks. A 1909 plan shows the site layout, illustrating concrete  
22 walks and the tram. The date, 1909, is inscribed in the concrete in front of the Keepers Quarters, further  
23 supporting the likelihood that concrete walks replaced the wood walks in 1909. It appears that a wood  
24 frame dwelling was also used for a keepers quarters during that time. Historic photographs in the Apostle  
25 Islands administrative files show evidence of people living in each of the three buildings.

26  
27 The approximately 80' tall light tower was similar in design to three other towers on the Great Lakes.  
28 These three other towers are at the Sturgeon Bay Canal on Lake Michigan, and at Manitou Island and  
29 Whitefish Point on Lake Superior. Although the oldest of the towers at Manitou and Whitefish (both 1861)  
30 were stable and are still standing, the Sturgeon Bay tower (1899) was rife with structural problems wrought  
31 by the heavy winds in the area. Even though it was supported by eight triangular lattice buttresses and  
32 secured with guy wires, the Sturgeon tower had to be reinforced and remodeled to withstand the winds. It  
33 was totally rebuilt in 1903 in a design that reused the original tower as the circular stairway within a larger  
34 structure.

35  
36 Structural concerns also caused revisions to the Devils Island Tower. In 1915 exterior braces were added to  
37 the base of the tower. The Devils Island tower may have been remodeled in a manner similar to the  
38 Sturgeon tower. During a September 2009 field assessment, structural engineer David Wittman P.E.  
39 observed that the center cylinder and the additional braces are riveted together. Therefore, the tower is not  
40 made of cast iron. (Cast iron cannot be riveted.) Wittman believes the tower material is either wrought iron  
41 or steel. Future work could positively identify the material by doing a spark test, where one looks at the  
42 sparks generated by grinding on the material; or a sample of the material could be metallurgically tested.

43  
44 A second Oil House was constructed sometime between 1908 and 1913.<sup>8</sup> It is likely that the lamp was  
45 changed to an oil vapor lamp in about 1913 or 1914 as part of a system wide upgrade to the vapor  
46 apparatus. A 1921 inventory noted the presence of the oil vapor lamp and said the Oil House had 250  
47 gallons of oil stored in five gallon cans.

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<sup>8</sup> The annual Lighthouse Board report for 1908 recommends a new oil house for Devils Island. A historic photograph in the Apostle Islands files dated 1913 show the house and the new tower.

Some form of radio transmission equipment was installed on the Island in the 1920s, but the exact function of the equipment is not clear. It is not apparent if the radio equipment was used for communication or as a fog signal. Different sources offer varying information related to the radio equipment. On May 28, 1920, the *Bayfield County Press* reported that representatives from the Navy were visiting to assist with placing both a new wireless telegraph apparatus and a radio compass station on Devils Island. The article noted that construction would begin in July. Historians indicate a radio beacon went into commission on October 30, 1925.<sup>9</sup> It is not clear if the wireless telegraph described in the 1920 newspaper report was different from the 1925 radio beacon or if the work anticipated in the newspaper article was delayed until 1925. Another source indicates that batteries that operated the original radio fog beacon were replaced by diesel engine run generators by 1928.<sup>10</sup> This source suggests the radio beacon was a fog signal, but the station also had a diaphone fog signal, lending doubt that the radio beacon was a fog signal.

The Fog Signal Building contained duplicate ten-inch steam whistles and boilers. A diesel engine powered diaphone, a modernization implemented at many light stations in the mid 1920s, replaced the steam powered whistles. The exact year that the diesel engine diaphone was installed remains to be determined but it appears likely that the diaphone was constructed between 1925 and 1929.<sup>11</sup>

An acetylene powered “winter light” was installed after the diaphone.<sup>12</sup> The light was connected to a gas tank fitted with a valve that was sensitive to the changing night and day time temperatures and could regulate the light operation through the winter months when the island was not occupied.

## Docks

Like most of the weather-battered boathouses at the Apostle Islands light stations, the dock and boathouse suffered periodic destruction from storms and ice. By 1909 the Boathouse and dock had been substantially repaired and/or improved at least twice and a 76-foot long rubble sea wall had been installed (1906). Extensive work continued over the years, including a large scale repair of the dock and reconstruction of the sea wall undertaken by the United States Coast Guard (USCG) in 1947.

It is interesting that the cleared area adjacent to the dock and boathouse may have been used for gardening. Historian Jane Busch notes in her comprehensive historic resource survey that

Walter Parker, who lived on Devils Island when his father was assistant keeper during the 1910s, remembered a garden by the boathouse with lettuce, peas, onions, and other vegetables, but no potatoes because the soil was too thin.<sup>13</sup>

Boats often landed on the east side of the island to avoid the rough waters. A 1921 inventory noted an old boating engine house had been moved to the east landing dock. The old engine house provided storage for gas and oil. One visitor to the east landing was President Calvin Coolidge who arrived with his wife and son for a mid day picnic on August 8, 1928. The party toured the island and ate off of folding tables.

<sup>9</sup> Sources reporting a 1925 installation include Pepper, Terry. Lighthouses of Lake Superior website [www.terrypepper.com/lights/superior.htm](http://www.terrypepper.com/lights/superior.htm) accessed September and October, 2009; and Busch, Jane C. “People and Places: A Human History of the Apostle Islands; Historic Resource Study of Apostle Islands National Lakeshore” Bayfield: Apostle Islands National Lakeshore. 2008. Page 133.

<sup>10</sup> Rathbun, Peter A. “Special History Study: Light Stations of the Apostle Islands National Lakeshore—Draft.” Springfield, IL and Hollandale, WI: Rathbun Associates for the National Park Service, Midwest Regional Office, 1988. Page 70.

<sup>11</sup> A chronology posted in the Keepers Quarters on Devils Island lists 1925; Terry Pepper op.cit. states 1926 on his website; and a diesel powered generator was installed for the radio beacon and was operating by 1929 per Rathburn op.cit., page 75.

<sup>12</sup> Terry Pepper provides a construction date of 1928 for the winter light per Lighthouses of Lake Superior website [www.terrypepper.com/lights/superior.htm](http://www.terrypepper.com/lights/superior.htm) accessed September and October, 2009 but a plan of the winter light, dated 10/25/1937 is on file at the Apostle Islands administrative offices. It is more likely that the actual date of installation is 1937.

<sup>13</sup> Busch, Jane C. “People and Places: A Human History of the Apostle Islands; Historic Resource Study of Apostle Islands National Lakeshore” Bayfield: Apostle Islands National Lakeshore. 2008. Page 295.

The crew at Devils had an early additional incentive to protect their boats, because in 1909 they were the first station in the Apostle Islands to get a motorized boat from the Lighthouse Board. The Board had begun placing motorized boats in service in 1905.

#### New Technology

Other changes also took place after the USCG took over the station in 1939. By 1941, the station was electrified.<sup>14</sup> Plans on file at the Apostle Islands National Lakeshore offices illustrate the USCG revisions to the Fog Signal Building. It appears a compressor was replaced in 1947 and changes were made to ventilation and the chimney in 1954. The USCG added a new radio room on to the building in 1962.

Devils Island was the headquarters for the USCG crew that oversaw various Apostle Islands light stations as each light station was automated and the keepers left the islands. A remodel of the second floor of the Keepers Quarters in 1946 indicates installation of cabinets and a sink that came from the Michigan Island station. The Assistant Keepers Quarters received a new indoor bathroom in 1950. The wood dwelling and two privies were demolished in 1956, as was the woodshed for the Fog Signal Building.

The USCG crew remained on the island until July 27, 1978. In 1989, in spite of protests from the National Park Service and local residents, the USCG removed the Fresnel lens and installed a solar powered light on the tower. The Park Service retrieved and stored the lens. A local resident filed a suit against the USCG for acting without proper notice as required by the tower's listing on the National Register of Historic Places. Eventually, in 1992, National Park Service conservators repaired and restored the lens and then reinstalled the lens in the tower. The lens is not in use. A VEGA VRB-25 solar light is located on the gallery railing and provides the light.

## HISTORIC EVIDENCE

Historic photos of the island date back to 1893 and show the no longer existing second assistant keepers quarters, the temporary wood light tower, and various types of tram ramps. For more detailed descriptions of the photos, see the CLR and each building's Chronology of Alterations and Use in the HSR.

The historic drawings include two site maps, one from 1894 and the other from 1909. The 1894 map shows the location of the skeleton tower that was temporary until the funds could be raised for the current tower. (CLR Site Image DI-03) It also lists a "Siphon House," which is a "wood frame tin roof, 16.7' x 4.3'" structure.<sup>15</sup> This plan also shows the tramway route, the pipe that drew water from the lake which was pumped up into the Fog Signal Building, and it lists the dimensions and general materials of the buildings on the island. The 1909 map shows where the concrete walkways were located. (HSR Historic Drawing DI-13) There are two privies drawn, one behind the Keepers Quarters and the other behind the Assistant Keepers Quarters, each with walkways from their respective houses. There are no extant historic privies on Devils Island.

An undated elevation of the Tower without the 1915 structural bracing can be assumed to be the original construction drawing. (HSR Historic Drawing DI-01) In 1937, a winter light was installed in the Tower. (HSR Historic Drawing DI-15)

A 1946 plan to remodel the second floor of the Keepers Quarters called for the east bedroom to be turned into a kitchen for the first assistant. The remodel may have been done and then the Coast Guard reverted

<sup>14</sup> Busch, Jane C. "People and Places: A Human History of the Apostle Islands; Historic Resource Study of Apostle Islands National Lakeshore" Bayfield: Apostle Islands National Lakeshore. 2008. Page 132.

<sup>15</sup> "Devils Island Light Station, Wis., Buildings Surveyed September 5<sup>th</sup> 1894 by H. Bamber," Site Map, 11-5D-34; RHL No.: 705,492.

the extra kitchen back into a bedroom, but there is no plumbing or structural evidence that the remodel ever occurred. (HSR Historic Drawing DI-18)

A collection of original construction plans for the Keepers Quarters and Assistant Keepers Quarters exists, as does a USCG era plot plan and a set of plans and elevations of the Keepers Quarters and Fog Signal Building that detail some alterations made during the USCG era. (HSR Historic Drawings DI-02 to 09 and 19 to 223)

## OVERVIEW OF DEVELOPMENT AND USE

Date	Work Described
Annual Report for 1890	<i>“Devil’s Island, Apostle Group, Lake Superior, Wisconsin.</i> – As appropriation of \$15,000 was made for a light on Devil’s Island, and the station will be built as soon as title to the site can be procured. A fog-signal is as necessary as the light. It can be built at an estimated cost of \$5,500. The Board recommends that an appropriation of that amount be made therefor.” (“1890 Annual Report of the Lighthouse Board,” Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
1891	Keepers Quarters, temporary wood tower, wood frame store house, Fog Signal Building, Tramway Engine Building, Boathouse and Oil House #1 constructed (Historic Drawings DI-01; N. Howk, Jan 2010; LCS, 2009)
Annual Report for 1891	<i>“Devils Island, Apostle Group, Lake Superior, Wisconsin.</i> - The act approved March 2, 1889, appropriated \$15,000 for building a light station, and the act approved March 3, 1890, appropriated \$5,500 for establishing a fog signal to complete the station to be erected on Devils Island. The appropriation for the light was insufficient. Devils Island is an isolated station with no adequate harbor. The light, which is to be flashing and of third order, will become one of the most important turning points in Lake Superior. In addition it is to have a fog signal, and provision must be made, therefor, for not less than three keepers. The station, exclusive of the fog signal, is estimated to cost \$35,000, leaving an additional appropriation of not less than \$22,000 to be made after paying for the land and other contingent expenses. In view of the improbability of securing the additional amount needed at the current session of Congress it was decided that, pending action in this regard, a temporary skeleton-frame tower should be built to prevent further delay in exhibiting the light and, while awaiting the arrival from France of the third order flashing lens required, to exhibit a fixed red light of the fourth order. The building of the duplicate fog signal boilers and machinery was in progress under contract at the end of the year. An addition of \$22,000 is needed for furnishing the station with a permanent tower, and it is recommended that this amount be appropriated for that purpose. * * A fixed red light of the fourth order was shown from a temporary structure at this station on the night of September 30, 1891, for the first time. The light is 87 feet above the lake level, and it can be seen in clear weather about 13 miles. The fog signal is a 10-inch steam whistle.” Request repeated in 1892. (“1891 Annual Report of the Lighthouse Board,” Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
Annual Report of 1895	<i>“Devil’s Island, Apostle Group, Lake Superior, Wisconsin.</i> – The title papers to this island were recorded in the proper office. Cession of jurisdiction was obtained from the State of Wisconsin. The completing of this light station, at a cost not to exceed \$22,000, was authorized by the act approved February 15, 1893, but no appropriation was then made. The act approved March 2, 1895, appropriated \$22,000 “for constructing a permanent tower.” As the completion of the station demands, in addition to the permanent tower, the building of additional quarters for keepers, and the purchase of a third-order lens to fully carry out the design, it is feared that under the wording of the act the work can not be done, as in order to do it economically the tower and dwelling should be built at one time. Recommendation is therefore made that the appropriation available for the completion of the station be made to include the erection of an additional keeper’s dwelling.” (“1895 Annual Report of the Lighthouse Board,” Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
Annual Report of 1896	<i>“Devils Island, Lake Superior, Wisconsin.</i> – The amount of the award for this island, \$1,600, was paid in August, 1895. A quit-claim deed to the United States for the extinguishment of the outstanding tax title against Devils Island, Wisconsin, was duly recorded. A design was made for an iron tower. By the sundry civil appropriation act approved June 11, 1896, authority was given that \$4,000 of the unexpected balance, or the appropriation of \$22,000, made in the act approved March 20, 1895, for

Date	Work Described
	constructing a tower at Devil's Island light station, be applied to the construction of a light-keeper's dwelling at Devil's Island light and fog signal station. This will be done as soon as practicable." ("1896 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
1897	Assistant Keepers Quarters built (LCS, 2009)
Annual Report of 1897	" <i>Devils Island, Lake Superior, Wisconsin.</i> – Material for the construction of a keeper's dwelling was obtained and transported by the tender Amaranth to the station. Boiler tubes and pipes and fittings were purchased for making repairs to the fog-signal plant. Plans and specifications for a cylindrical tower are being prepared." ("1897 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
1898	Light Station Tower pieces made off-site and shipped to Devils Island; by 1901, Tower constructed and operational (LCS, 2009)
Annual Report of 1898	" <i>Devils Island, Lake Superior, Wisconsin.</i> – A working party arrived at the island July 1, 1897, and the building was begun and it has been partially completed. A contract was made for the construction, delivery, and erection of the light tower. In September the site for the foundation of the tower was begun. A contract for the third order lantern was made. In June, 1898, structural metal work of the tower, under contract, was completed, inspected, and shipped to the light station. A crib for extension to the boat landing was built, sunk in place, and filled with ballast stone and a superstructure was built above the water line. Some 36 feet of the old landing that was out of level were raised 26 inches on the west side and 8 inches on the east side and refilled with ballast stone. The center truss of the boathouse was repaired and the roof was painted." ("1898 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
Annual Report of 1899	" <i>Devils Island, Lake Superior, Wisconsin.</i> – The construction, delivery, and erection of this light tower by contract were completed on October 17, 1898. The hoisting engine was repaired and 160 feet of steel hoisting rope was provided." ("1899 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
1901	Tramway Engine Building built (Historic Drawing DI-11)
Annual Report of 1901	" <i>Devils Island, Lake Superior, Wisconsin.</i> – The illuminating apparatus for the new light was received in April at the light-house depot. A hoisting engine and derrick, together with a lot of material of various kinds for repairs, were taken to the station by the tender Amaranth, June 22, 1901. A working party was landed at the same time. About 1,000 feet of the roadway to connect the boathouse with the tower and other buildings of the station was cleared of timber and underbrush, a woodshed for the storage of fuel for the fog-signal plant was built, the stone for a small building for the protection of the hoisting engine at the north end of the island was quarried and dressed, the engine was removed, and the work on foundation of the new structure was commenced. The foundation for the derrick was commenced, two sections of portable tracks, each 20 feet long, were built, and the work of installing the third-order flashing lens in the new tower was commenced. This work is being paid for from the unexpended balance of the appropriation for Devils Island (Wisconsin) light-station." (1901 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
Annual Report of 1904	" <i>Devils Island (one of the Apostle Islands), Lake Superior, Wisconsin.</i> – The old frame tower and the lantern from which the temporary light was exhibited were taken down and the material stored. Various repairs were made." ("1904 Annual Report of the Lighthouse Board," Devils Island listings in Lighthouse Establishment Annual Reports 1890-1914)
1908-1913	Oil House #2 completed (N. Howk, Jan 2010)
1909	Concrete walks installed (Historic Drawings and Photos, c. 1909)
1915	Metal framework supports added to the Tower (LCS, 2009)
1925	Radio beacon installed in Fog Signal Building (J. Busch, 2008)
1928	Diesel-powered electric generator installed (J. Busch, 2008)
1937	Acetylene-powered Winter Light installed (J. Busch, 2008 and Historic Drawing DI-15)
1937-1941	Tower converted to electricity (J. Busch, 2008)
1944	Radio Room added to Fog Signal Building (APIS/NPS Business Office File # D3423 – Devils)
1946	Keepers Quarters plans to remodel 2 <sup>nd</sup> floor, likely never completed (1946 USCG Historic Drawings DI-02)
1950	New indoor bath installed in Assistant Keepers Quarters (Historic Drawings, Plans by USCG)

Date	Work Described
1952	<p>- East and West landings operational</p> <p>April 5: Description of Fog Signal Building specifically and general site condition: "Dry-rotted, buildings need painting."</p> <p>May 23-28: Installation of new fresh water pump.</p> <p>July: "Buildings being painted by station personnel."</p> <p>September: "Buildings good except for fog signal."</p> <p>October 3: "Repaired railroad and board walk."</p> <p>(USCG Log, summarized by Bob Mackreth, 2004)</p>
1953	<p>April 7: "Took down chicken coop behind small dwelling. Removed junk piles behind dwelling."</p> <p>April 21: "Several days – much painting to comply with new international safety code."</p> <p>April 22: "Dug hole for new 300 gal gasoline tank on east side of fog signal. New tanks placed in ground and connected up."</p> <p>May 21: Installation of new window in Keepers Quarters; "Making new window for hallway in building."</p> <p>June 12: "Removed wood shelters and dug up old fuel tanks outside fog signal."</p> <p>June 16: "Installed telephone communication system between dwellings and signal."</p> <p>July 14: "Installed and covered tile drain for septic tank."</p> <p>October 21: "Repaired rotted deck in S end of boathouse. Parts of foundation found to be rotted and should be repaired; letter will be sent."</p> <p>(USCG Log, summarized by Bob Mackreth, 2004)</p>
1954	<p>April: "Monthly report describes condition of buildings as 'Poor'; notes matter has been brought to attention of group office and Soo base."</p> <p>May 17: "Started breaking loose old cement around base of light tower and laying forms. Put in steel rods in rock at east landing for boats to tie to."</p> <p>May 26: "Removed old swing and birdhouse from station grounds."</p> <p>June 23: "Completed installing timbers on E landing stairs."</p> <p>August: Monthly report – "Received bulldozer from Bayfield Moorings to repair island road leading to boathouse."</p> <p>August 16: "Started clearing land for road."</p> <p>September: Monthly report – "new roof on fog signal building."</p> <p>October: Continued to cut and lay logs for the road, created drainage ditches and moved soil.</p> <p>November: Monthly report – "Outside of fog signal building in poor condition. Siding will have to be replaced where bad spots exist and the rest chipped and repainted. Work has started but will not be done until next season."</p> <p>(USCG Log, summarized by Bob Mackreth, 2004)</p>
1955	<p>May 30: "Removed all steel kitchen cabinets from dwelling that is not in use and transferred some to CG4o521 for transfer to other units."</p> <p>July: Monthly report – "Fog signal is in unsatisfactory condition due to old corrugated sheet metal siding: rusted out and deteriorated in places. All other siding has 'coats and coats of paint accumulated throughout the years that would take years to remove.' Recommends installation of white asbestos shingles; if approved they could be installed by station personnel. Attempts to remove paint have ceased."</p> <p>August: Removal of old siding and installation of new asbestos siding on Fog Signal Building.</p> <p>September 27: "Constructed cement stand for garbage cans and buckets away from barracks."</p> <p>September: Monthly report – "Boathouse badly needs new roof. Wood shingles are rotten and patching is little help. Should be reroofed next year."</p> <p>October 5: "Bulldozed old corrugated steel siding into woods away from fog signal."</p> <p>(USCG Log, summarized by Bob Mackreth, 2004)</p>
1956	<p>April 19: "Finished removal of outdoor toilets."</p> <p>May: Demolition of single-family home on site – May 2: "Demolition continues w 2 men. Salvaged doors, windows, some lumber. Burned remainder of building."</p> <p>Sept 8: "Planted clover and timothy along road side to prevent erosion."</p> <p>October 25: "Planted trees behind signal building..."</p> <p>(USCG Log, summarized by Bob Mackreth, 2004)</p>
1956	<p>Fog Signal Building's associated wood shed, two privies, and 2<sup>nd</sup> Assistant Keepers Quarters demolished (Historic Drawings, Plans by USCG, LCS, 2009)</p>

Date	Work Described
1957	June 24: "Company from Duluth begins laying floor tile." July 30: "Painting bottom of tower spruce green." (USCG Log, summarized by Bob Mackreth, 2004)
1962	USCG installed fire alarm system and updated electrical system in Keepers Quarters and shed addition to the south side of the Fog Signal Building - built open sided, enclosed by 1994 (Historic Drawing DI-03, 1962 and Park Admin. Files D3423)
1965, Aug 8	"Bayfield 40 arrives with pump to pump out basement." (USCG Log, summarized by Bob Mackreth, 2004)
1970	Apostle Islands National Lakeshore authorized
1978	Light automated and repairs to sewer system (J. Busch, 2008, and Park Admin. Files D3423)
1979	Garage door installed in south shed of Fog Signal Building, Boathouse battens painted and repaired, Boathouse reroofed, Keepers Quarters reroofed and exterior repointed and painted, Assistant Keepers Quarters reroofed and exterior repointed and painted (Park Admin. Files D3423)
1981	Keepers Quarters plans and specifications completed for sewage improvements and fire retardant installed on the roofs of the Keepers and Assistant Keepers Quarters (Park Admin. Files D3423)
1984	Cyclic maintenance of seven buildings including repointing brickwork, painting trim, and reglazing windows; painted interior of Fog Signal Building; replastered interior walls of Assistant Keepers Quarters (APIS/NPS Business Office File # D3423 – Devils)
1987	Installed chimney cap on Tower (Park Admin. Files D3423)
1989	Fresnel lens removed from Tower, VEGA VRB-25 optic installed (N. Howk, Jan 2010)
1991	Stabilization of Keepers and Assistant Keepers Quarters by Williamsport Preservation Training Center (Park Admin. Files D3423)
1992	Fresnel lens reinstalled in Tower (N. Howk, Jan 2010) Three doors hung in the Keepers Quarters after restoration/reconstruction by Williamsport Preservation Training Center; Fog Signal equipment discontinued (Park Admin. Files D3423)
1993	Door knobs and locks installed on both the Keepers Quarters and Assistant Keepers Quarters (Park Admin. Files D3423)
1994	Tramway cart stabilized and NPS replaced lock on Tower (Park Admin. Files D3423)
1997	Installation of shark-hook type rain gutters on the Keepers Quarters (Park Admin. Files D3423)
2000	Fog Signal Building's main roof reroofed with asphalt shingles (HSPT Reports, 2009)
2001	Assistant Keepers Quarters reroofed with cedar shingles and Fog Signal Building's south shed reroofed with corrugated aluminum (HSPT Reports, 2009)
2006	Oil House #1 and Boathouse reroofed with cedar shingles (HSPT Reports, 2009)
2007	Keepers Quarters reroofed with cedar shingles (HSPT Reports, 2009)
2009	SABIK 350 2-tier LED beacon installed on Tower walkway (N. Howk, Jan 2010)
2010	Emergency repairs to the Tower lens and lantern by Perini, Inc. and Lighthouse Lamp Shop, Inc. (Perini 9/2010)

## CHAPTER 3: CULTURAL LANDSCAPE REPORT

### DEVILS ISLAND EXISTING CONDITIONS

#### Introduction

The cultural landscape of the Devils Island Light Station is a composition of features that remain from its development as a light station and aid to navigation over the last 118 years. As one of six light stations in the Apostle Islands, Devils Island is a critical navigation point marking the northwest edge of the Apostle Islands. The intent of the Cultural Landscape Report (CLR), in conjunction with the Historic Structures Report (HSR) is to guide treatment and use of the aboveground resources associated with the light station. The CLR provides park managers with a comprehensive understanding of the physical evolution of the cultural landscape and provides guidance for its management.

The CLR was conducted at a limited level of research, investigation and documentation. This level of research uses select documentation of known and presumed relevance, including primary and secondary sources that are readily available. The periods of landscape change are described using narrative text, historic photographs and annotated historic drawings and maps. Archeological investigations are not included.<sup>16</sup> A more detailed description of the CLR methodology is included in Volume I, Chapter 2: Methodology.

The CLR begins with a description of the site development of Devils Island that documents the physical changes that have occurred on the light station reservation and light station grounds. The light station reservation is the land initially set aside for the construction of light station structures and in this case encompassed the entire island. The portion of the reservation that contains structures and buildings is referred to as the grounds in the CLR. The site development is presented by the five periods of landscape change.

The second section presents the existing condition and analysis of the cultural landscape. This section is organized by cultural landscape characteristics. In September 2009, field investigations were conducted to document the existing condition of the cultural landscape characteristics: spatial organization, topography, views and vistas, circulation, buildings, structures, small scale features and vegetation. The documentation of the island's existing condition is illustrated with existing condition plans, diagrams and photographs that document its cultural landscape.

The analysis compares the island's history with its existing condition, and identifies those landscape characteristics that retain integrity and contribute to the significance and integrity of the Devils Island Light Station.

The historic period and existing condition assessment was developed using a variety of sources including: historic and current maps and photographs provided by the NPS APIS Archives; field work conducted in September 2009; and additional information provided by park staff.

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<sup>16</sup> Page et al. 1998.

## 1 SITE DEVELOPMENT

2 A period of significance of 1852 to 1972 is recommended for the light stations of the Apostle Islands as a  
 3 whole to recognize the role of the light at each island and as a connected system of navigational aids for  
 4 Lake Superior. The beginning date is the first act of Congress authorizing construction of the first  
 5 lighthouse in the Apostle Islands in 1852. The period of significance for Devils Island begins with the  
 6 construction of the original wood light tower, Fog Signal Building, Tramway Engine Building, and  
 7 Boathouse (1892) and ends when the Light Tower was automated in 1978. Five periods of landscape  
 8 change document the evolution of the cultural landscape. Of these, three of the periods are within the  
 9 Devils Island Light Station's period of significance; these periods are noted by italics.

- 10 • Pre-Lighthouse (1852 – 1891)
- 11 • *Early Light Station (1892 – 1893)*
- 12 • *Light Station Development (1894 – 1938)*
- 13 • *Coast Guard (1939 – 1978)*
- 14 • National Park Service (1970 to present)

15  
 16 The beginning and end of each period of landscape change corresponds to major physical changes, related  
 17 to either the site's use, technological advances, and/or governmental control of the island. The periods  
 18 consider the social history of the island; however there are instances where the social history differs since  
 19 physical change in the cultural landscape is the primary rationale in defining the beginning and end of each  
 20 period.

21  
 22 Brief narrative text, graphic illustrations (where applicable), and historic maps and photographs where  
 23 available, describe each period of landscape change. Additional information regarding the period of  
 24 significance for the Apostle Islands light stations is presented in Volume I, Chapter 3: Context, Current  
 25 Designations, and Park Significance.

### 26 27 28 **Pre-Lighthouse (1852 – 1891)**

29 This period began in 1852 with Congress authorizing the construction of the first lighthouse in the Apostle  
 30 Islands, to be built at La Pointe Harbor on Madeline Island. The location was later revised to Long Island.  
 31 Ultimately the location was again revised and the first lighthouse was built on Michigan Island in 1856. In  
 32 1871, a lighthouse reservation was recommended for Devils Island. By 1889, funding was appropriated to  
 33 construct a light station. Funding for a fog signal followed in 1890. No physical improvements related to  
 34 the light station were built on Devils Island during this period.

### 35 36 37 **Early Light Station (1892 – 1893)**

38 Construction of the light station began during this period, illustrated in Site Images DI-02 and DI-03. The  
 39 period began in 1892 with construction of a temporary light tower on Devils Island. Two areas of the  
 40 reservation were cleared of forest vegetation to build the features needed for a light station and a boat  
 41 landing. On the north tip of the Island "Ten acres in the vicinity of the Station were cleared of trees and  
 42 brush in order that the light be more clearly seen."<sup>17</sup> At the south end a smaller area was cleared for the  
 43 Boathouse and related improvements. A direct path was cleared linking the two sites.

44  
 45 In 1892, with the construction of a temporary, wooden skeleton light tower and fog signal in place, the  
 46 basic features of the light station grounds quickly developed.<sup>18</sup> Additional buildings immediately followed

<sup>17</sup>Busch, Jane C. "People and Places: A Human History of the Apostle Islands; Historic Resource Study of Apostle Islands National Lakeshore" Bayfield: Apostle Islands National Lakeshore. 2008. Page 140

<sup>18</sup>ibid, Page 129

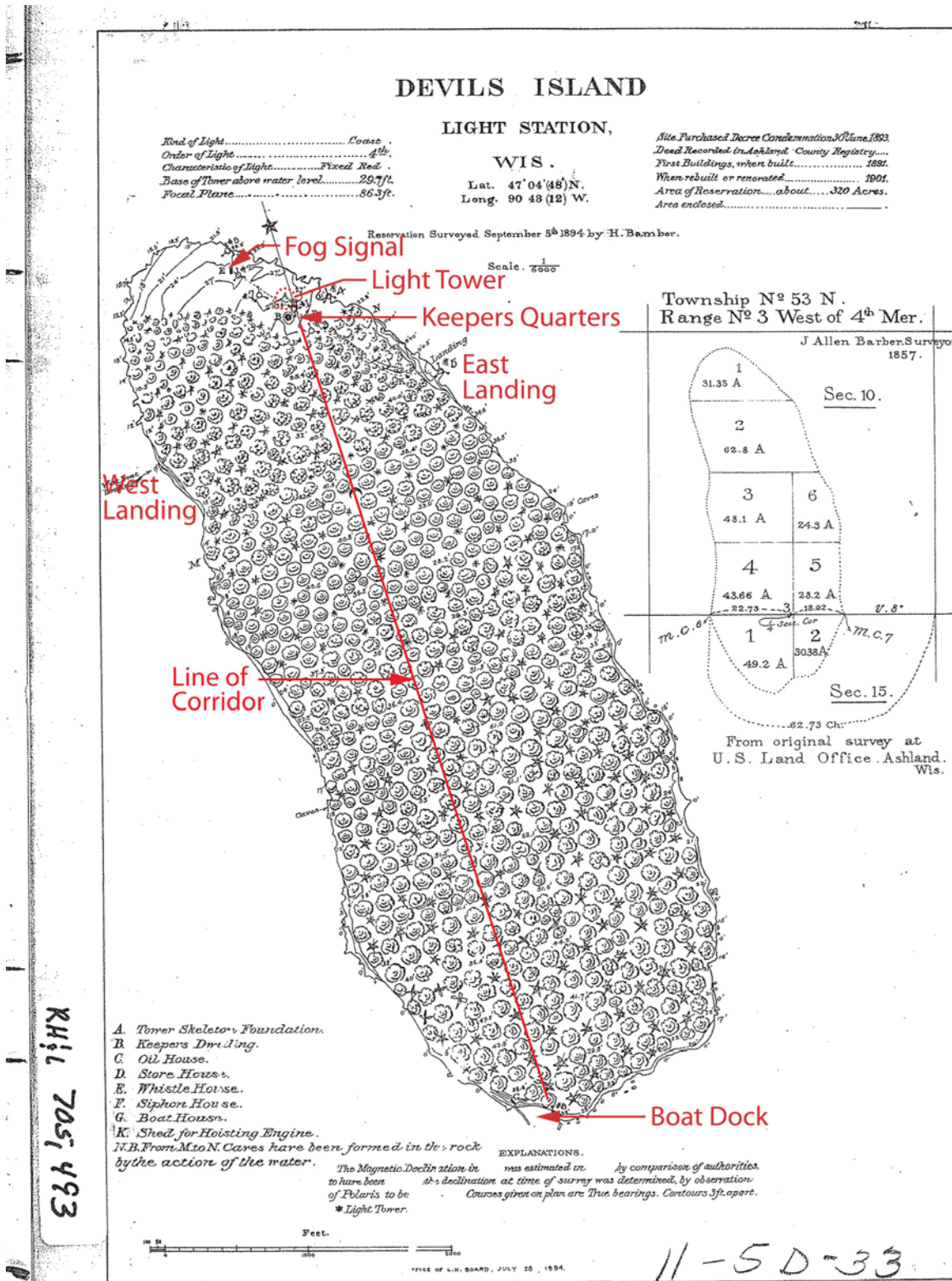
1 including: the two-story brick Keepers Quarters, Privy, Oil House, Fog Signal Building and Siphon House,  
2 and Store House.

3  
4 Tram tracks were laid on wooden timbers to connect the light station buildings along a northwest to  
5 southeast line. A wooden inclined tramway was built at the southeastern end of the tracks, extending from  
6 the top of the cliff down to a natural rock boat landing. This tram system was used to transport goods and  
7 fuel on small carts up to the island and along the track connecting the Keepers Quarters, Light Tower and  
8 Fog Signal Building. Similar systems were also constructed on Michigan, Outer, and Raspberry Islands.

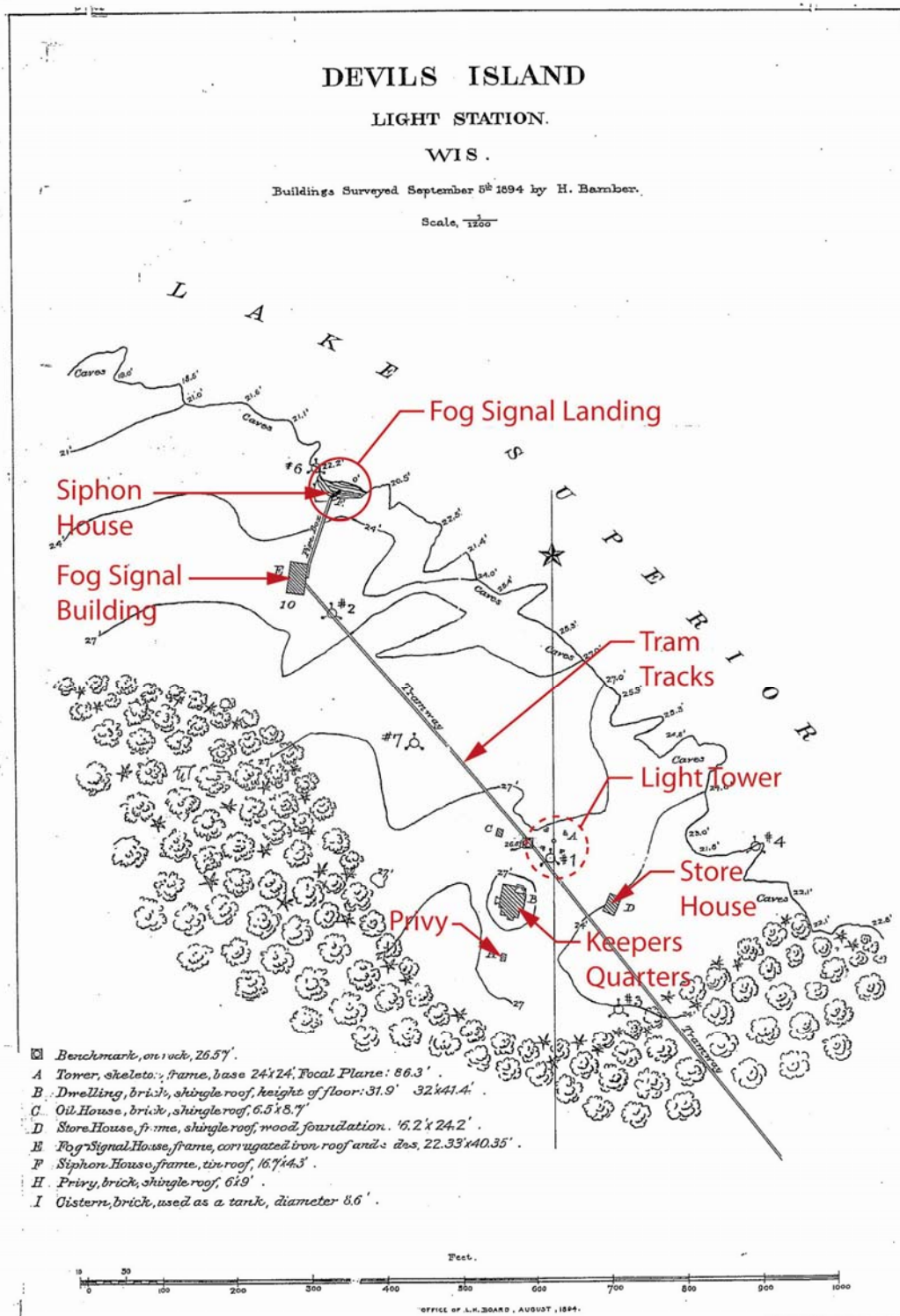
9  
10 Other features built during this period included a wooden pipe box to bring water to the Fog Signal  
11 Building from the Siphon House and a covered walkway leading down the cliff to the Siphon House.  
12 Pedestrian circulation was improved by the addition of wooden planks installed between the tram tracks  
13 and around the Keepers Quarters.

14  
15 At the south end of the island a landing crib and Boathouse were built. It is likely that this location was  
16 chosen because it is more protected than the landing sites on the northern portion of the island. Historic  
17 documents indicate that at least two landings were used near the light station during this period; the eastern  
18 landing where the wooden tramway was built and another natural rock landing on the west side of Devils  
19 Island.

1 **Pre-Lighthouse and Early Light Station Historic Surveys and Photographs**

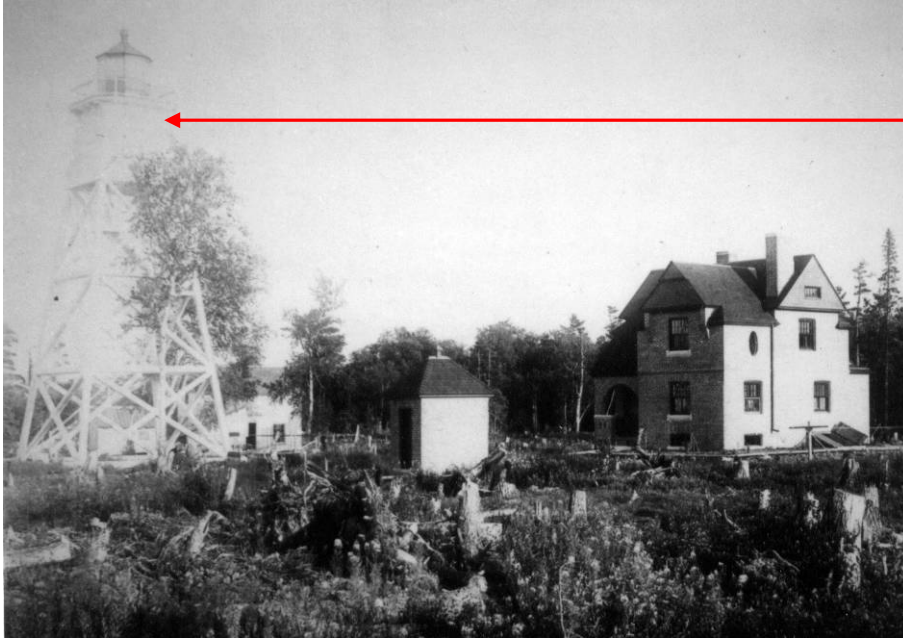


Site Image DI-01: Reservation Survey represents the Early Light Station period (1891-1893), 1894 (Source: NPS APIS Archives)



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2  
3

Site Image DI-02: Devils Island Light Station –North End of Island; represents the Early Light Station period (1891-1893), 1894 (Source: NPS APIS Archives)



Original Wood  
Light Tower

Site Image DI-03: From left; Original wooden Light Tower, Store House, Oil House #1 and Keepers Quarters, c. 1893  
(Source: NPS APIS Archives)



Site Image DI-04: Tramway at East Landing, c. 1893 (Source: NPS APIS Archives)



Boathouse

Boat Dock

1  
2  
3  
4

*Site Image DI-05: Boathouse at southern tip of island, c. 1893 (Source: NPS APIS Archives)*

### Light Tower (1894 – 1938)

During this period, property condemnation was completed and a formal reservation was established.<sup>19</sup> The light station development continued with the addition of a new Light Tower; a second brick Keepers Quarters; and a wood frame Assistant Keepers Quarters. The most substantial addition to the light station during this period was the eighty two-foot tall Light Tower replacing the earlier (and much shorter) wooden light tower. The Light Tower represented a significant improvement as a navigational aid on the light station. The Tower was completed in 1898 but not placed into service until 1901. Another technological addition was the construction of the brownstone Tramway Engine Building built at the southeastern terminus of the tram tracks, or east landing, in 1891. The building housed a hoisting engine used for moving tram carts up and down the inclined tramway which had been in place since 1893.

By 1910, a third residence, the wood framed Assistant Keepers Quarters was built to the southeast of the two brick keepers' quarters. The three residences stood side by side, connected by concrete walks. Many of the concrete walks were installed in 1909 to replace the wooden plank walkways. The concrete walks generally followed the routes previously established by the wooden planks and were built in an unusual manner specifically adapted to the island. Uniformly precast concrete slabs were built and placed end to end on the surface of the ground rather than excavating and laying slabs flush with the adjacent landscape. This was done for ease of construction on a rocky site with shallow soils.

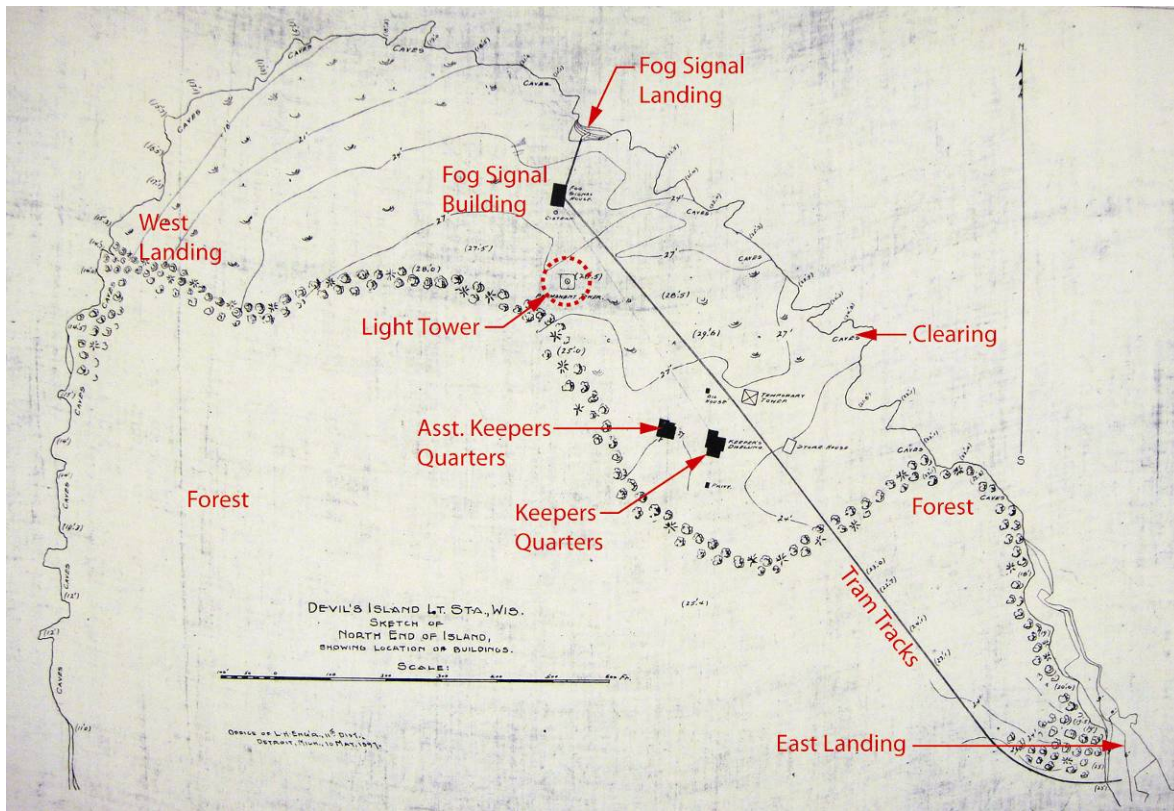
Between 1908 and approximately 1913, a second Oil House was built near the new light tower and in 1913 the large wooden store house was removed. By 1913 all the buildings on the light station grounds that exist today were in place. During the 1920s and early 1930s the grounds were modified slightly with the addition and removal of small structures and features. The northwest portion of the light station grounds, near the Fog Signal Building, was continually modified during this period. Improvements were made to facilitate the loading of supplies and fuel by the construction of a derrick assembly near the Fog Signal landing. A compressed air diaphone replaced the fog signal 'whistle' system. In 1925, a steel framed radio transmission tower was built to replace the diaphone fog signal. The radio beacon installed was one of the first on the Great Lakes. In 1929, a wooden pump house (later replaced by the extant concrete pump house) was added to supply water to the residences; and a fuel storage tank was added south of Oil House # 1.

During much of this period the cleared area of the light station was maintained. This area is shown in historic photographs and the 1897 light station drawing (Site Image DI-07), and includes a contiguous cleared area linking the Keepers Quarters, Light Tower and West Landing area. Other improvements to the station included the clearing and widening the road linking the Boathouse site to the light station. The Boathouse and dock at the southern tip of the island were subject to the harsh weathering conditions of Lake Superior and consequently were modified and repaired several times during this period.

Domestic landscape plantings were not extensive on the light station and limited to a few trees and small planting beds near the Keepers Quarters. There is anecdotal evidence of a vegetable garden near the Boathouse although no further evidence of this was found on site or in historic documents and photographs.

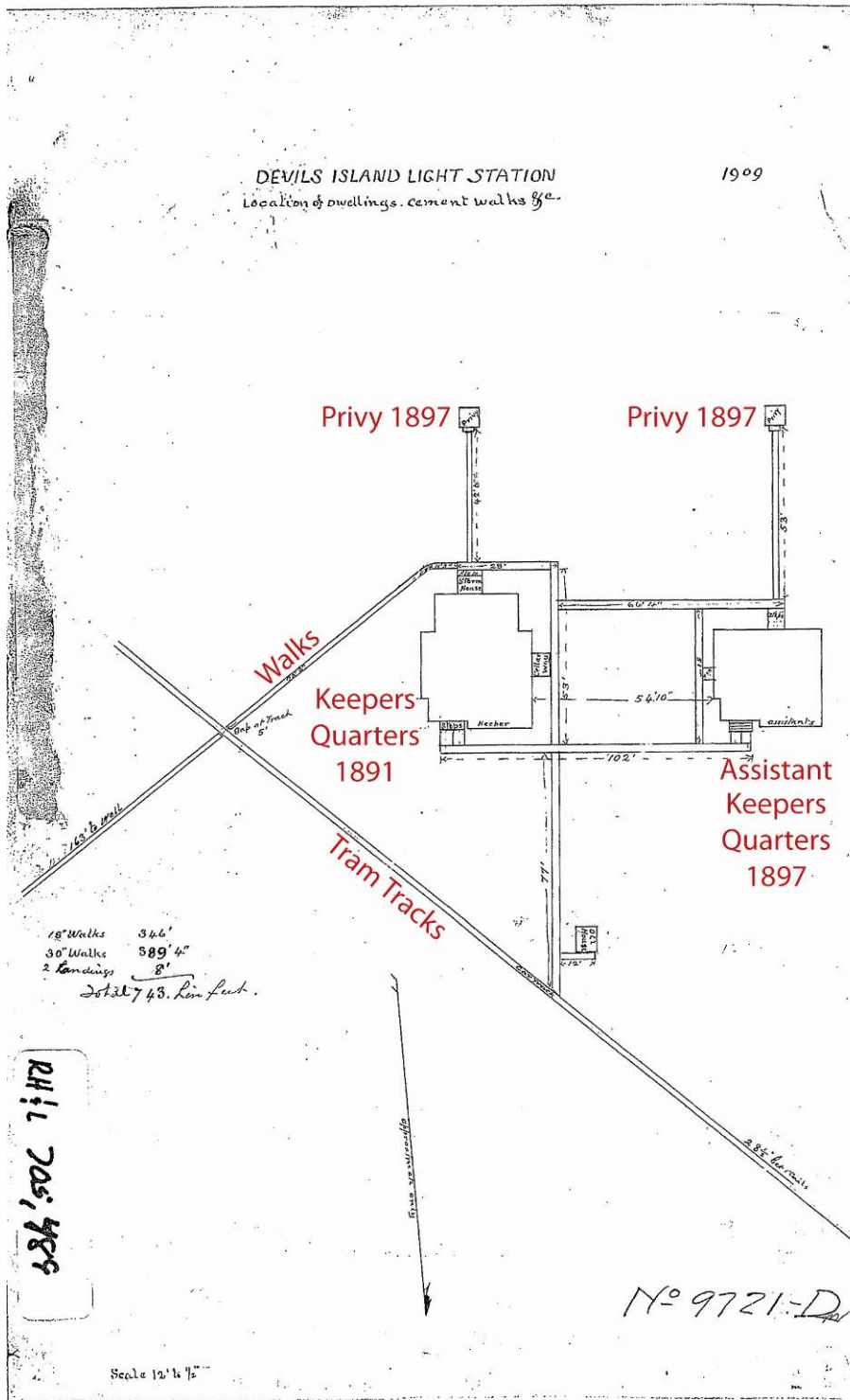
<sup>19</sup> Busch, Jane C. "People and Places: A Human History of the Apostle Islands; Historic Resource Study of Apostle Islands National Lakeshore" Bayfield: Apostle Islands National Lakeshore. 2008., Page 129

1 **Light Tower Historic Surveys and Photographs**



2  
3 Site Image DI-06: Devils Island Light Station sketch represents the Light Tower Period (1894-1938), c. 1897 (Source: NPS  
4 APIS Archives)  
5  
6  
7

1



2

3

Site Image DI-07: Area of Keepers Quarters, 1909 (Source: NPS APIS Archives)



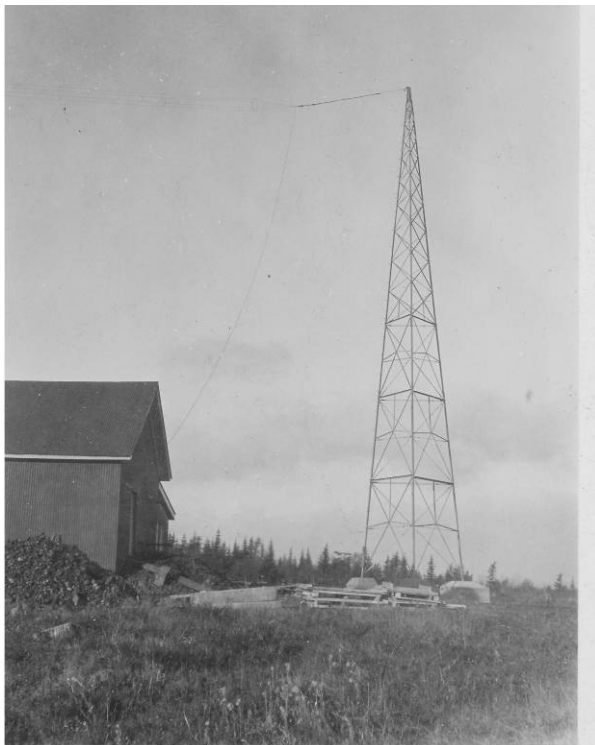
1  
2 Site Image DI-08: Looking northwest along tram tracks; from left; Assistant Keepers Quarters, Keepers Quarters, Light  
3 Tower, Oil House # 1, Fog Signal Building, original light tower, store house, c. 1901 (Source: NPS APIS Archives)  
4



5  
6 Site Image DI-09: From left; Light Tower, Fog Signal Building, Siphon House and derrick assembly. Note extent of clearing  
7 west of light station, 1904 (Source: NPS APIS Archives)

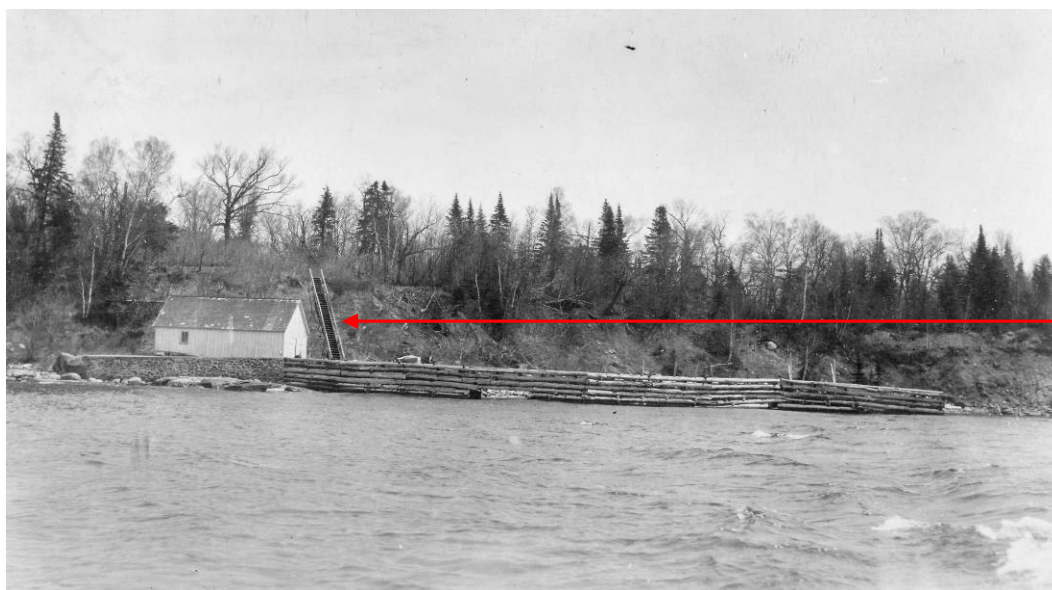


Site Image DI-10: Looking southeast from Light Tower. Note the smaller, wood framed Assistant Keepers Quarters, Privies, and concrete walks, c. 1917 (Source: NPS APIS Archives)



DEVIL'S ISLAND LT. STA. RADIO TOWER, 1925

Site Image DI-11: Fog Signal Building and Steel Radio Tower, 1925 (Source: NPS APIS Archives)



Staircase  
(Currently Nonextant)

1  
2  
3  
4

*Site Image DI-12: Boathouse, stone wall, rock and timber jetty and wood staircase southern end of Devils Island, c. 1927 (Source: NPS APIS Archives)*



5  
6

*Site Image DI-13: Original pump house, c. 1935 (Source: NPS APIS Archives)*



Site Image DI-14: Looking north towards light station from road corridor. Dwellings indicated, date unknown (Source: NPS APIS Archives)

**Coast Guard (1939 – 1978)**

In 1939, the United States Bureau of Lighthouses was eliminated and the United States Coast Guard (USCG) took over management of the light station. Following this, civilian lighthouse keepers were replaced by USCG staff. A USCG crew remained on the Island until automation in 1978.

During this period the basic site arrangement and its features were retained but the grounds were modified by the loss of structures, as well as the addition of some site features and the deterioration of others. The most substantial change was the removal of the wood frame Assistant Keepers Quarters in 1956. In the 1940s, the inclined tramway was modified into a wooden staircase and then ultimately removed. The derrick assembly and covered stairs leading down to the water near the Fog Signal Building were removed. The tram tracks were modified near the Fog Signal Building, ultimately a stone elevated tram terminal was constructed. The USCG added many several small scale features to the grounds, primarily fuel tanks and other elements related to the day to day operation of the light station. Several small buildings were placed at the base of the Light Tower; the concrete footings for these are extant today. The road corridor from the Boathouse to the light station was used for transporting supplies and was maintained during this period.<sup>20</sup>

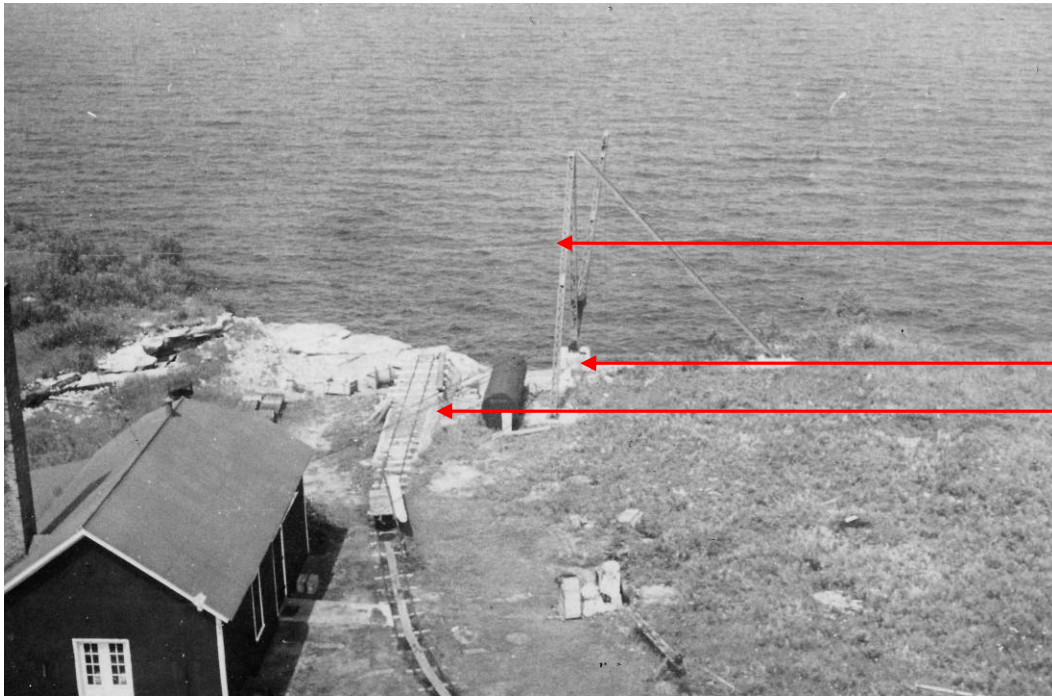
The original cleared area of the light station began to be reduced during this period due to the encroachment of the adjacent forest. The area between the Keepers Quarters and Light Tower remained cleared, while the areas to the southeast along the tram tracks and to the west began to fill in.

**Coast Guard (USCG) Photographs**



Site Image DI-15: From left, Oil House 1, Assistant Keepers Quarters (removed during this period), Keepers Quarters, Assistant Keepers Quarters and Privy. Note clearing and lack of domestic landscape plantings, c. 1945 (Source: NPS APIS Archives)

<sup>20</sup> *ibid*, Page 140



Derrick

Derrick Footing

Tram Terminal

Site Image DI-16: Fog Signal Building, tram terminal, and derrick from Light Tower looking north, c. 1945 (Source: NPS APIS Archives)



Site Image DI-17: Painted fuel tank north of Light Tower, c. 1977 (Source: NPS APIS Archives)



*Site Image DI-18: Utility units and fuel tanks north of Light Tower, c. 1977 (Source: NPS APIS Archives)*

# **National Park Service (1979 to present)**

In 1970, the Apostle Islands National Lakeshore was established. The light station remained staffed by USCG until 1978 when the Light Tower was automated, eliminating the need for on-site personnel. NPS management opened to additional visitors and brought about changes in the landscape that primarily related to island access, recreation and visitor use. The basic configuration of the light station remains as it was during the previous period with all of the buildings and structures in place. The most apparent change to the landscape in this period was the reduction of the cleared area of the light station grounds due to forest encroachment. This change is most notable in the area between the Keepers Quarters and the Light Tower. The NPS performed periodic clearing maintenance activities, including work by the Young Adult Conservation Corps (YACC) in the early 1980s. This work was not frequent enough to maintain the cleared area. The forest encroachment into the cleared area began to change the composition of the cultural landscape from one large open site to two separate areas – a residential area (Keepers and Assistant Keepers Quarters) and a utilitarian area (Light Tower and Fog Signal Building).

Other work during this period is related to the NPS use of the island for recreation and includes the addition of trails, signage, vault toilet restroom, solar panel and minor improvements including upgrades to the buildings and structures, particularly for use as seasonal volunteer housing.

## ***Park Photograph***



*Site Image DI-19: Constructing fuel tank basin north of Light Tower, 1981 (Source: NPS APIS Archives)*

## ENVIRONMENTAL CONTEXT

Devils Island is 1.3 miles long and 0.4 miles wide and 318 acres in size. The maximum elevation above the lake is fifty eight feet.<sup>21</sup> Devils Island is unusual for the archipelago, since the island was not subject to extensive logging. The entire island was set aside as a lighthouse reservation and was not commercially logged. Vegetation was disturbed by light station establishment and operations, but the overall composition of the vegetative communities was not changed. The northern two-thirds of Devils Island supports “classic boreal forest” dominated by white spruce, balsam fir, white cedar, white birch, and aspen.<sup>22</sup> Devils Island also includes the best example of the krumholtz form of a type of wet mesic forest dominated white birch, balsam fir, white cedar, and Canada yew.<sup>23</sup> The stunted krumholtz growth form is caused by the harsh soil and climatic conditions found on Devils Island’s coastal bluff-tops. Devils Island also includes wetlands associated with an inland bog. An unusual plant community occurs on the cliffs, including species such as butterwort, bird’s-eye primrose (*Primula mistassinica*), three-toothed cinquefoil (*Potentilla tridentata*), fragile ferns (*Cystopteris* sp.), bog reedgrass (*Calamagrostis inexpansa*), and sedge (*Scirpus hudsonius*) (Judziewicz and Koch 1993). The area around the lighthouse has been repeatedly cleared for the past century, and contains a mixture of native and exotic plant species (Judziewicz and Koch 1993). Forest trees now grow in formerly cleared areas surrounding and within the light station grounds.

As with the other islands, wildlife on Devils Island is not as diverse or abundant as that on the mainland.<sup>24</sup> Common mammal species include red squirrel (*Tamiasciurus vulgaris*), snowshoe hare (*Lepus americanus*), deer mouse (*Peromyscus maniculatus*), masked shrew (*Sorex cinereus*), and boreal redback vole (*Clethrionomys gapperi*). A variety of migratory birds use the island for foraging, nesting, and as a stop-over during migration. Devils Island is one of only several islands without a history of white-tailed deer.<sup>25</sup>

<sup>21</sup> National Park Service (NPS). 2006. Apostle Islands National Lakeshore Website. Island Statistics. Last updated August 23, 2006. Available at <http://www.nps.gov/apis/parkmgmt/upload/island%20statistics.PDF>. Accessed December 7, 2009.

<sup>22</sup> Judziewicz, E. and R. Koch 1993 “Flora and vegetation of the Apostle Islands National Lakeshore and Madeline Island, Ashland and Bayfield Counties, Wisconsin.” *Michigan Botanist* 32(2): 43-193. Ann Arbor, MI.

<sup>23</sup> National Park Service. 2009. Apostle Islands National Lakeshore Draft General Management Plan/Wilderness Management Plan/Environmental Impact Statement. Bayfield, WI.

<sup>24</sup> *ibid*

<sup>25</sup> *ibid*

## EXISTING CONDITION ASSESSMENT AND LANDSCAPE ANALYSIS

The existing condition assessment and landscape analysis for the Devils Island Light Station are presented in this section. The light station reservation and grounds are documented as one entity through those landscape characteristics that together comprise its cultural landscape. The presentation of the existing conditions assessment and analysis is organized by landscape characteristics - spatial organization, topography, views and vistas, and circulation/accessibility. The landscape analysis identifies those buildings, structures, small scale features and vegetation that contribute to the significance and integrity of the cultural landscape of the light station. An overview of the CLR methodology is presented in Volume I, Chapter 2: Methodology.

The landscape analysis, presented as narrative text, follows and provides an evaluation of the significance and integrity of each characteristic. The landscape characteristics for the Devils Island Light Station are as follows. Their associated character-defining features contribute to the overall integrity of location, design, materials, workmanship, setting, association, and feeling.

- Spatial Organization - is the arrangement of elements creating the ground, vertical and overhead planes that define and create space, including the arrangement of topography and buildings.
- Topography – is the three-dimensional configuration of the landscape surface characterized by features and orientation; includes bluffs, cliffs, slopes and drainages.
- Views and Vistas – are features that create or allow a range of vision which can be natural or designed and controlled; these include views of the light stations from Lake Superior and views from the light towers and lighthouses.
- Circulation – are spaces, features, and materials that constitute systems of movement.
- Buildings - buildings that are either currently or were historically habitable are presented in the Historic Structure Report.
- Structures - are smaller nonhabitable buildings or significant features (now or historically) such as privies, tramways, and outbuildings.
- Small Scale Features – are elements that provide detail and diversity combined with function and aesthetics; including paving, structural remnants, site walls, signs, and walls of building ruins.
- Vegetation – are indigenous or introduced trees, shrubs, vines, ground covers, and herbaceous materials; including lawns, shrubs and landscape garden areas.

The existing condition of the Devils Island Light Station is presented first as a paragraph description. Annotated photographs support the condition assessment. The following criteria were used to evaluate condition:

- **GOOD** – The features of the landscape do not require intervention; only minor or routine maintenance is needed at this time.
- **FAIR** – Some deterioration, decline, or damage is noticeable; the feature may require immediate intervention; if intervention is deferred, the feature will require extensive attention in a few years.
- **POOR** – Deterioration, decline, or damage is serious; the feature is seriously deteriorated or damaged, or presents a hazardous condition; due to the level of deterioration, damage, or danger the feature requires extensive and immediate attention.

The landscape analysis compares the site history with its existing condition to identify and evaluate those landscape characteristics that retain integrity and contribute to the significance of the light station.

The Devils Island Light Station has integrity as it retains the majority of its character-defining features and buildings that depict its role in the development of navigational aids in the Apostle Islands. The most important features include the buildings and light tower, cleared areas that define the spatial composition of the site and circulation and small scale features.

## **Spatial Organization**

The spatial organization of the Devils Island Light Station is of two distinct scales, the organization of the reservation and the light station grounds. While they are distinct they are also directly related. The cleared area of the reservation is also discussed under the vegetation feature.

### ***Devils Island***

**Existing Condition.** The overall spatial organization of Devils Island consists of the cleared areas of the light station grounds on the north end of the Island and the boathouse area at the south end, linked by a cleared corridor or path through the forested wilderness. The overall spatial organization of the island is in good condition.

**Analysis.** The spatial organization of Devils Island remains from the period of significance. The light station (north) and Boathouse (south) areas remain intact, along with the open corridor that bisects the forested island, connecting the north portion of the island to the south. The overall spatial organization of the island is a contributing feature.

### ***Light Station***

**Existing Condition.** The spatial organization light station is defined on the south by dense forest vegetation and open to the sandstone cliffs of Lake Superior on the north. The grounds are partially cleared of forest vegetation and are composed of two primary spaces, one to the north that includes the Light Tower and one to the south that includes the residences. The two clearings are linked by the tram tracks and a natural surface, cleared hiking trail. The tram tracks connect the north and south cleared areas and extend in a southeast direction to the shoreline of the island. The tracks terminate at the northern end near the Fog Signal Building and at the Tramway Engine Building on the southeast end.

The buildings on the site help to define and mark the opposite ends of the light station grounds. The Fog Signal Building and Light Tower mark the northwest portion of the site and the keepers' dwellings anchor the southeast end.

The south clearing consists of the Keepers Quarters and Assistant Keepers Quarters centrally located in a maintained lawn area. The lawn edges are defined by forest vegetation and low, undulating landscape to the south, and tram tracks to the north and east. On the water side of the tram tracks, an area of brush vegetation separates the lawn area from the cliff edge and Lake Superior. The Keepers Quarters, Assistant Keepers Quarters and the topography that marks the area of the nonextant third Keepers Quarters, are arranged in a formal pattern, sited on a row running east-west. A similar area surrounds the Light Tower, enclosed by forest vegetation, tram tracks and brush vegetation.

The Keepers Quarters and Tower clearings are separated by encroaching forest vegetation. The north clearing's west side is flanked by encroaching forest vegetation. To the east, the clearing is defined by the tram tracks. Across the tracks is the brush vegetation that extends along the cliff edge. The area of encroaching forest vegetation is approximately one acre.

1 The spatial organization of the Devils Island Light Station is in fair condition.  
2

3 **Analysis.** The spatial organization of the light station grounds has changed substantially from its early  
4 development primarily due to the encroachment of forest vegetation into the area between the residences  
5 and the Light Tower, and in the areas surrounding the buildings and structures. Historic drawings and  
6 photographs indicate that originally the light station grounds were cleared from the Keepers Quarters area  
7 to the Light Tower and beyond to the western shoreline. The historic cleared area has been reduced from  
8 one large open clearing that contained all of the primary site buildings to two smaller clearings; one at the  
9 Light Tower and one near the Keepers Quarters that are distinctly separated by forest vegetation. The  
10 encroachment of vegetation has primarily occurred since the USCG crew left the island and regular  
11 maintenance of the cleared areas could not be achieved. This change has resulted in two small cleared areas  
12 and has diminished the original form and composition of the light station.  
13

14 The arrangement of buildings and structures also contributes to the spatial composition of the site and has  
15 grown and evolved from the initial construction of the light station to the end of the period of significance.  
16 The two most significant changes were the addition of the taller Light Tower during the Light Station  
17 Development period and the related removal of the original wood skeleton light tower. During the Coast  
18 Guard period the wood-framed Assistant Keepers Quarters was demolished. A slight depression is extant in  
19 the former location of this building.  
20  
21

1 ***Spatial Organization Photographs***



Site Image DI-20: View from the Light Tower showing the cleared area at the Keepers Quarters; top, c. 1940 (Source: NPS APIS Archives); below (2009) (Source: MBD Devils 040.jpg)

## Topography

**Existing Condition.** The topography of Devils Island consists of low, undulating landscape that rises approximately 60' above Lake Superior at its highest point. Bedrock under the northern two thirds of the island is the Devils Island brownstone formation. The outcrop along the island's shoreline forms the island's characteristic sandstone cliffs and sea caves. The topography at the light station grounds is generally level and elevated approximately 20' above Lake Superior. A shallow depression exists east of the Keepers Quarters, marking the location of the nonextant Assistant Keepers Quarters.

The topography at Devils Island Light Station is in good condition.

**Analysis.** The topography of the Devils Island Light Station remains unchanged since the period of significance and is a contributing feature to the cultural landscape.

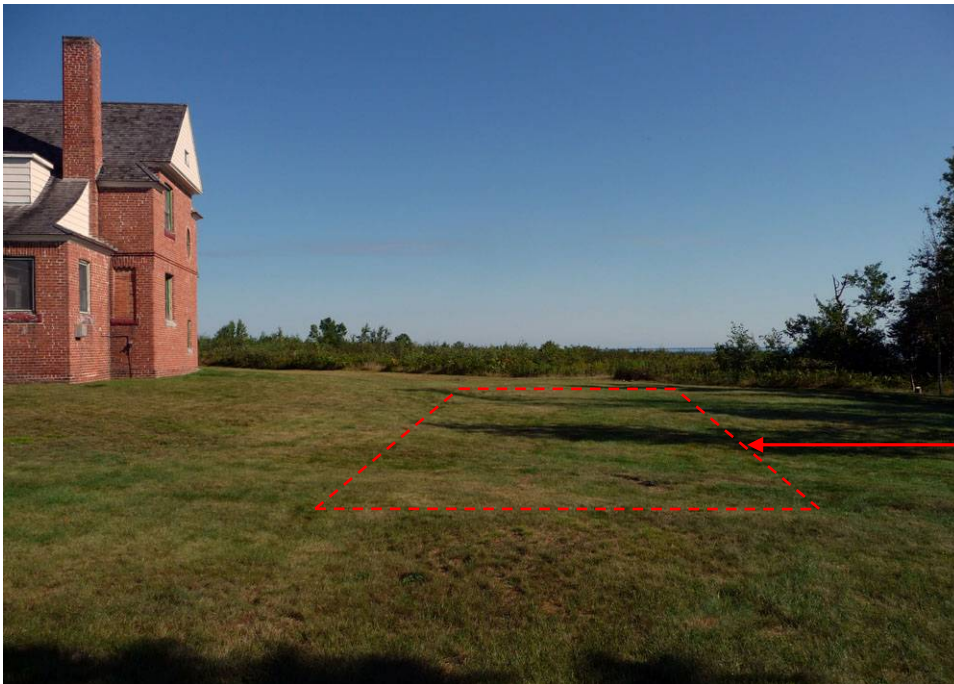
### *Topography Photographs*



Site Image DI-21: Sandstone cliffs, 2009 (Source: MBD Devils 020.jpg)



Site Image DI-22: Devils Island topography, 2009 (Source: MBD P1020189.JPG)



Location of Nonextant  
Assistant Keepers Quarters  
and Associated Barn

Site Image DI-23: Shallow depression marking the nonextant Assistant Keepers Quarters and associated barn, 2009 (Source: MBD P1020058.JPG)

## Views and Vistas

**Existing Condition.** Notable views to Devils Island include those of the island's sandstone cliffs, Light Tower and Keepers Quarters from passing ships and pleasure boats on Lake Superior. Vistas include those from atop the Light Tower looking south over the island and north, east and west over the waters of Lake Superior. The characteristic sandstone sea caves can be seen from several shoreline trails, most notably near the pump house. Views from the Keepers Quarters to the Light Tower are obscured and are in poor condition.

**Analysis.** The Light Tower and light station buildings are less visible from Lake Superior than they were during the period of significance. Once open and clear views are now blocked by the growth of brush along the eastern shoreline. The unchecked growth of trees in the former brushy field will soon result in a forest obscuring the light station from Lake Superior. Historic maps and photographs indicate that a much larger area west of the station was cleared to brush. Presently, forest defines the entire western edge of the light station. Views in the light station grounds have also been substantially obscured by encroaching forest vegetation between the keepers' dwellings and the northern Light Tower area.

The encroaching forest and overgrowth of brush vegetation along the cliff edge and between the quarters and the tower has diminished the integrity of the cultural landscape. The views are contributing features to the cultural landscape and are in poor condition.

## Views and Vistas Photographs



Site Image DI-24: View of Light Tower and Fog Signal Building from Lake Superior, 2009 (Source: MBD DSC00640.JPG)



Site Image DI-25: View to sea caves from footpath near Keepers Quarters, 2009 (Source: MBD Devils 078.jpg)



Site Image DI-26: View from Light Tower over Lake Superior, 2009 (Source: MBD P1020177.JPG)

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*Site Image DI-27: View from Keepers Quarters to Light Tower; top, c. 1930 (Source: NPS APIS Archives); below, 2009 (Source: MBD P1020029.JPG)*