

**MEMORANDUM OF AGREEMENT  
AMONG  
THE UNITED STATES COAST GUARD,  
THE MICHIGAN STATE HISTORIC PRESERVATION OFFICER,  
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING  
THE REMOVAL OF THE FOURTH ORDER FRESNEL LENS  
AT PORT SANILAC LIGHT STATION  
PORT SANILAC, MICHIGAN**

**WHEREAS**, the United States Coast Guard (USCG) plans to carry out the removal of the Fourth Order Fresnel Lens at Port Sanilac Light Station (undertaking) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470f), and under authority of 14 USC § 93 (a)(20); and

**WHEREAS**, the undertaking consists of the removal of the Fourth Order Fresnel Lens (Lens) and replacing it with a modern LED tiered-lantern; and

**WHEREAS**, the USCG has defined the undertaking's area of potential effects (APE) as the structure of the Light Station, itself, and any area within visual range of the light; and

**WHEREAS**, the USCG has determined that the undertaking will have an adverse effect upon the structure, a property which is listed in the National Register of Historic Places (NRHP #84001842, MI Site ID#24755) and has consulted with the Michigan Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the NHPA; and

**WHEREAS**, the USCG has determined that the undertaking will have no effect on the Joseph M. Loop House (NHRP#72000654, MI Site ID#P24754), the Port Sanilac Masonic and Town Hall (NHRP#84001842, MI Site ID#P644), or the Uri Raymond House (MI Site ID#P25436), which are additional properties located in the APE; and

**WHEREAS**, the USCG has consulted with Mr. Tim Conklin (owner of the Light Station) on May 7<sup>th</sup>, 2014, the Port Sanilac Village President on May 7<sup>th</sup>, 2014, the Sanilac County Museum on May 7<sup>th</sup>, 2014, and identified the appropriate points for seeking public input and for notifying the public of proposed actions, consistent with §800.2(d); and

**WHEREAS**, in accordance with 36 CFR § 800.6(a)(1), the USCG has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and the ACHP has chosen to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

**WHEREAS**, a previous Memorandum of Agreement (MOA) was executed in 1995 between the USCG and SHPO regarding this undertaking but the undertaking was not completed; and

**WHEREAS**, the USCG, the SHPO, and the ACHP have agreed that an updated MOA is warranted for this undertaking; and

**NOW, THEREFORE**, the USCG, the SHPO, and the ACHP agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

## **STIPULATIONS**

The USCG will ensure that the following measures are carried out, subject to fund availability:

### **I. RECORDATION**

- A. Prior to removing the Lens and replacing it, the USCG shall document the Lens and the Light's lantern room so that there is permanent record of the Lens and its lighthouse context. The photographs shall include views of the Lens from all sides as well as details of the selected prism examples and interesting features of the Lens such as manufacturer's insignia. Views of the lit Lens, close up and from a distance, shall also be included. All interior views of the lantern room, including ceiling and floor, shall be photographed.
- B. The documentation shall be submitted for review and approval by the SHPO prior to removal of the Lens. The photography shall meet the digital photography standards outlined in Secretary of Interior's Standards and Guidelines for Historical Documentation. Copies of the recordation shall be submitted to the SHPO, if desired, and to the organization that may receive the classical lens on loan from the USCG.

### **II. LENS REMOVAL, DISPOSITION, STABILIZATION AND DISPLAY**

- A. Upon final execution of this MOA, the USCG shall enter into a loan agreement with the Sanilac County Historic Village and Museum (SCHVM) for the proper storage and display of the Lens, contingent upon the satisfaction of the USCG loan requirements.
- B. The USCG shall remove the Lens with a qualified Professional Lampist who meets the standards and requisites identified in Appendix A.
- C. The Lens will be stored by SCHVM at the Sanilac County Historic Village and Museum under conditions subject to USCG approval per Appendix B, titled "Coast Guard Curatorial Services Policy for Borrowing Fresnel Lenses" sample.

- D. If the USCG determines that SCHVM is unable to meet the loan requirements, the USCG, in consultation with the SHPO, shall attempt to identify an appropriate alternate institution, who meets the requirements for care, security, and display of Fresnel Lenses, per Appendix B. If an appropriate alternate institution cannot be identified, the USCG will transfer the Lens to the USCG Exhibit Center.
- E. The USCG will notify SHPO and the ACHP upon conclusion of the Lens being removed, the new equipment being installed, and the loan agreement having been successfully executed with SCHVM or appropriate alternate institution per Part II D, above.

### **III. EVALUATION OF FUTURE ALTERNATIVE TECHNOLOGIES TO REPLACE SOLARIZATION**

The USCG will continue to evaluate cost-effective innovative and/or evolving alternative technologies as suitable replacements for the tiered-lantern and power equipment installed under this MOA. At such time if a suitable new technology, at a reasonable cost is available that would not adversely affect the historic property, the USCG shall remove the equipment from the current project and install the new technology. If the USCG determines that the undertaking will cause, or has the potential to cause an effect, the USCG will consult with SHPO pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the NHPA.

### **IV. DURATION**

This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the USCG may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VI below.

### **V. DISPUTE RESOLUTION**

Should any signatory party to this agreement object within thirty (30) days to any actions proposed or the manner in which the terms of this MOA are implemented, the USCG shall consult with such party to resolve the objection. If the USCG determines that the objection cannot be resolved, the USCG will:

- A. Forward all documentation relevant to the dispute, including the USCG's proposed resolution, to the ACHP. The ACHP shall provide the USCG with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the USCG shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The USCG will then proceed according to its final decision.

- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the USCG may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the USCG shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- C. The USCG's responsibilities to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

## **VI. AMENDMENTS**

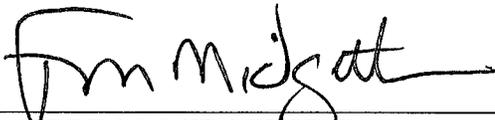
This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

## **VII. TERMINATION**

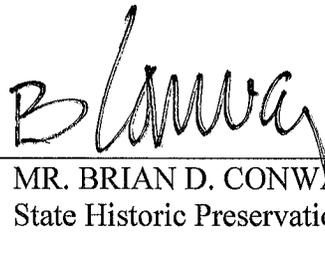
If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation VI, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories. Once the MOA is terminated, and prior to work continuing on the undertaking, the USCG must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. The USCG shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the USCG, the SHPO, and the ACHP, and implementation of its terms evidence that the USCG has taken into account the effects of the undertaking on historic properties. (see page 5 for signatures)

**UNITED STATES COAST GUARD**

By:  Date: 11 MARCH 15  
FRED M. MIDGETTE, Rear Admiral  
Commander, Ninth Coast Guard District

**MICHIGAN STATE HISTORIC PRESERVATION OFFICER**

By:  Date: 2/11/15  
MR. BRIAN D. CONWAY  
State Historic Preservation Officer

**ADVISORY COUNCIL ON HISTORIC PRESERVATION**

By:  Date: 3/31/15  
MR. JOHN M. FOWLER  
Executive Director

## **POINTS OF CONTACT**

### **RADM Fred M. Midgette, Commander**

Ninth Coast Guard District  
1240 E. 9<sup>th</sup> Street, 20<sup>th</sup> Floor  
Cleveland, OH 44199-2060  
Phone: (216) 902-6001

### **Mr. Brian D. Conway**

State Historic Preservation Officer  
State Historic Preservation Office  
Michigan State Housing Development Authority  
702 W. Kalamazoo Street  
P.O. Box 30740  
Lansing, MI 48909-8240  
Phone: (517)373-1630

### **Mr. John M. Fowler**

Executive Director  
Advisory Council on Historic Preservation  
401 F Street NW, Suite 308  
Washington DC 20001-2637  
Phone: (202)517-0200

# Appendix A

## Coast Guard Curatorial Program Professional Lampist Standards



**United States Coast Guard**  
U.S. Department of Homeland Security

## **United States Coast Guard Curatorial Program**

### **Professional Lampist Standards**

In order to be considered a qualified Coast Guard lampist with the authorization to professionally conserve, restore, repair, treat, disassemble or assemble, any or all components of a Coast Guard-owned classical Fresnel lens, the following standards and requisites must be met:

1. Two years of direct supervised training by a qualified and approved professional lampist or trained industrial equipment conservator with experience in optical glass, metal, wood, or historic lighthouse optical navigational equipment.
2. At least three years of demonstrated full-time experience (or part-time equivalent) of working directly on Fresnel lens conservation, restoration, treatments, repair, assembly and disassembly. Internships will not be counted toward this requirement.
3. Documented continuing education courses (via accredited conservation programs or through the American Institute of Conservation (AIC)) completed with a concentration on materials and treatment methods pertaining to industrial artifacts made of multiple materials and/or Fresnel lenses.
4. Knowledge of and experience in industry standard conservation methods specifically related to historic optical equipment and metals.

# Appendix B

## Coast Guard Curatorial Services Policy for Borrowing Fresnel Lenses

## **Coast Guard Curatorial Services Policy for Borrowing Fresnel Lenses**

Fresnel lenses represent a unique aspect of U.S. Coast Guard history. These artifacts are highly sought by a wide variety of museums and associations. Due to their historic significance, fragility, high value and the U.S. Coast Guard's policy to protect and preserve these artifacts, an additional set of conditions is placed upon prospective borrowing organizations. Requirements for the care, security and display of Fresnel lenses are as follows:

### **Facility**

- Due to harsh environmental conditions, temperature fluctuations and the impossibility of maintaining museum standard conditions, Fresnel lenses will not be placed in lantern rooms or be relit for navigational purposes, in or outside of lantern rooms.
- Lenses will be placed in museum settings or restored keeper's quarters with controlled access by staff, theft prevention and security safeguards.
- Use of museum standard display techniques and barriers (to prevent unauthorized handling and damage) such as: UV protective Plexiglas exhibit cases, ropes or partitions.
- A lens must be exhibited in a low-traffic area free of debris, obstructions, and vibrations.
- The lens exhibition/display area must be accessible to all visitors.

### **Environment and Lighting**

- Temperature range 65-70 degrees F.
- Relative humidity 45 - 55%  
Must be monitored and stable. Fluctuations in light, temperature, and relative humidity are very damaging.
- Avoid direct sunlight or intense indoor lighting. Light damage is cumulative and irreversible and will discolor the optical glass prisms.
- Use of UV filters and /or shades on windows is a must if the lens is situated near a window.
- Light exposure will speed up degradation of Litharge (lead based putty that helps seal the prisms within the brass framework.) Once the Litharge dries out and cracks, the underlying wood wedges that hold the prisms within the metal frame will deteriorate and potentially rot causing the prisms to loosen and fall out.
- Use of lower wattage bulbs and low heat emitting LED lights for purposes of exhibit illumination are acceptable.
- Prospective borrowers in areas prone to natural disasters (hurricanes/earthquakes) may not be permitted to borrow a lens or may be subject to additional special loan considerations.

### **Where applicable, interpretation of lens should include the following:**

- Local maritime history and location.
- Original use, structure, location, and history of the Fresnel lens.
- History of the U.S. Lighthouse Establishment and the U.S. Coast Guard.
- Current uses by U.S. Coast Guard and private groups.
- Restoration and preservation issues.

### **Restoration and conservation of historic lenses**

**NOTE:** Three standard museum treatments for historic artifacts are:

- 1     **Stabilization:** minimal treatment/work on a lens or lens part that ensures a lens is sufficiently structurally sound in order to withstand disassembly, movement or display.
  - 2     **Conservation:** extensive repair of a lens or lens part that has suffered damage due to use, age, or some environmental or natural disaster.
  - 3     **Restoration:** extensive treatment that involves bringing the entire lens apparatus back to its original condition or state.
- Borrowing organizations will need specific permission from U.S. Coast Guard curatorial staff to polish, treat, restore, conserve or otherwise alter a Fresnel lens on loan from the U.S. Coast Guard.
  - Glass elements may be given a light dusting and cleaning using approved methods and materials of the U.S. Coast Guard curatorial staff.
  - Under no circumstances will mercury be placed in mercury float lenses.
  - Detailed exhibit plans and environmental recordings must be submitted to the U.S. Coast Guard curatorial staff in order for a museum or organization to be considered for Fresnel lens loan.
  - U.S. Coast Guard curatorial services retains the authority to require the borrower to cover the costs of having the lens professionally evaluated, disassembled, crated, shipped, and reassembled at the borrowing organization's facility.
  - Fresnel lenses will be considered for loan only on a long-term basis.
  - Any work done on a U.S. Coast Guard lens must be fully insured by the lampist or conservator doing the work.
  - A slow rotation of the lens is permitted only when the original wheeled mechanism is not being used, prior approval is required.
  - Lenses and associated original mechanical apparatus are to be used for display purposes only, no consumptive use is permitted.

### **Financial issues**

- Prospective borrowing organizations must have appropriate financial and staff resources on hand to care for and maintain a lens on ongoing and long term basis.
- Private, non-profit borrowers are required to carry full value insurance coverage (up to one million dollars) on a loaned lens for the entire time they have the lens in their custody.

**ENCLOSURE (2)**

**SUMMARY OF PUBLIC COMMENTS**

**SUMMARY OF PUBLIC COMMENTS****Public Participation and Outreach**

USCG Civil Engineering Unit Cleveland mailed consultation letters to:

- Village President, Port Sanilac
- Mr. Tim Conklin, owner of the house attached to Port Sanilac Light
- Sanilac County Museum

Additionally, we invited public comments utilizing an official press release that was carried in multiple newspapers throughout the region.

**Public Comments Received**

-----Original Message-----

From: edw\_jr@yahoo.com [mailto:edw\_jr@yahoo.com]  
Sent: Thursday, September 11, 2014 7:38 AM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac Light

Hope plans to change Port Sanilac light come to fruition. After watching the light for 70+ years I would hate to see it deactivated . As for the current lens, I feel the local museum is the correct spot for it to be preserved for future generations. Hope these comments are relevant to your decision .

E. Willis  
Port Sanilac

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Thursday, September 11, 2014 8:17 AM  
To: edw\_jr@yahoo.com  
Subject: RE: Port Sanilac Light

Good Morning,

Thank you for your support in the Coast Guard's proposal to replace the Fresnel lens at Port Sanilac light, your comments are very relevant and important to us. The Fresnel lens not only represents a unique aspect of U.S. Coast Guard history but also represents the history of Port Sanilac with respect to aids to navigation and safety.

We understand that keeping the lighthouse lit is important to the community, and initially the Coast Guard did consider discontinuing the light. After seeking input from marina users and local citizens we have decided NOT to discontinue the light at this time.

SUMMARY OF PUBLIC COMMENTS

You may already know or may be pleased to learn that it is the Coast Guard's policy to loan the Fresnel lenses to a local organization that meets the requirements for the care, security and display of the Fresnel lenses so the public can see these beautiful, historic artifacts. We have consulted with the Village of Port Sanilac President and the Sanilac County Museum to discuss possible locations where the lens could be displayed. The Sanilac County Historical Society Board voted unanimously to accept the Port Sanilac Lighthouse Lens, if they meet the Coast Guard's loan agreement, and intend to display the lens in the Historic Village's Museum Mansion in the maritime room.

Thank you again for your support and comments.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

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-----Original Message-----

From: andersonslakehouse@yahoo.com [mailto:andersonslakehouse@yahoo.com]  
Sent: Thursday, September 11, 2014 9:48 PM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac Fresnel Lens

- > I love the idea of keeping the lens at the Sanilac County Historical Society Museum property. It is a part of this areas history and would be much more available to the public.
- >
- > I toured the light once as a child. The family has generally NOT opened the house or tower to the public. This would be a way of putting at least a part of this history where the public could learn from and experience a bit of this story.
- >
- > My husband and I volunteer at the Big Sable Lighthouse on Lake Michigan. The lens from that light is in a local museum and the tower has a modern light. Still does the job and the lens is where it is safe and can be appreciated.
- >
- > Thanks for considering this option.
- >
- > Sent from my iPad

SUMMARY OF PUBLIC COMMENTS

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Friday, September 12, 2014 6:39 AM  
To: andersonslakehouse@yahoo.com  
Subject: RE: Port Sanilac Fresnel Lens

Good Morning,

Thank you for your comments and support in our proposal to remove and place the Port Sanilac Fresnel lens in Port Sanilac's Historic Village Museum Mansion. The Fresnel lens not only represents a unique aspect of U.S. Coast Guard history but more importantly, as you pointed out reminiscing about your childhood days, also represents the history of Port Sanilac with respect to aids to navigation and safety. The Coast Guard is very pleased with the support received from the Village of Port Sanilac President and the unanimous vote of the Sanilac County Historical Society Board to pursue the loan of this beautiful, historic artifact.

Thank you for your volunteerism at the Big Sable Lighthouse and again for your comment and support of this proposed project.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

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-----Original Message-----

From: jmint5@att.net [mailto:jmint5@att.net]  
Sent: Friday, September 12, 2014 12:04 AM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac Light

Good day, Wayne Kean,

It is very good of the Coast Guard to replace the Port Sanilac lighthouse lamp and lens assembly with a modern and efficient LED light. As a former, childhood resident of Port Sanilac, I was quite pleased that the Sanilac Historical Museum is being considered to house the current lighthouse lens assembly. During my years growing up in the village, I had spent a great deal of time at that museum with my father, and there cannot possibly be a better place to loan and display such an important piece of local, Great Lakes history.

Thank you, and best regards,

George P. Lawson, IV  
Lexington, Michigan

## SUMMARY OF PUBLIC COMMENTS

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Friday, September 12, 2014 7:08 AM  
To: jmint5@att.net  
Subject: RE: Port Sanilac Light

Good Morning Mr. Lawson,

Thank you for taking time to provide your comments and support in our proposal to replace the historic Port Sanilac Fresnel lens with a modern LED. We are also very pleased with the support received from the Village of Port Sanilac President and the unanimous vote of the Sanilac County Historical Society Board to pursue the loan of this beautiful, historic artifact. Hopefully, in the next year or two, you will be able to visit the Sanilac County Historic Village Museum Mansion and see the lens on display. Perhaps this will bring back fond memories of your father and you visiting the museum when you were a child.

Thank you again for your support and comments.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

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-----Original Message-----

From: jwoods484@hotmail.com [mailto:jwoods484@hotmail.com]  
Sent: Saturday, September 13, 2014 6:37 AM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac Lighthouse Fresnel

Dear USCG,

Please do not remove the treasured Fresnel from the Port Sanilac Lighthouse. These days the number of Fresnels in use are shrinking. Even though it is just a Fourth Order it still is a majestic sight. The view of the lighthouse is so perfect, you don't know what period you are in, with an LED, it would scream 2014. Please, the number of Fresnels in active service has diminished today to only a few. Future generations must see them in their natural habitats. I can say that when I go to a lighthouse, the trip is so much more enjoyable if the lighthouse has a working Fresnel in the top. Particularly one that has been there as long as and in service continually like the one in Sanilac. Please do not remove this treasured lighthouses lens. When you see a lens in a museum it is one thing, but when you see it in the top with light gleaming through it, and at sunset when it shoots it's beam it is a majestic sight. If I had the money I would have bought the Port Sanilac Keeper's House, but without the Fresnel I would never even consider buying the attached house.

## SUMMARY OF PUBLIC COMMENTS

Please keep is treasure in Sanilac, keep her burning for the keepers of her past and the history loves of the future. Keep her light as a tribute to the amazing Augustine Fresnel. By 1856 a plan was under work to put a Fresnel in every lighthouse. This lens has been emitting its light since the lamp was first lit in 1886, through oil, and today electricity. If cost is the issue, couldn't a photocell be installed if one has not already been.

Kind Regards,

Jacob Woods

-----Original Message-----

From: Kean, Wayne E CIV

Sent: Monday, September 22, 2014 1:39 PM

To: jwoods484@hotmail.com

Subject: RE: Port Sanilac Lighthouse Frensel

Dear Mr. Woods,

Thank you for taking the time to provide comment to the U.S. Coast Guard's proposal to replace the Port Sanilac Fresnel with a modern LED. As a proponent of preserving our historic treasures I do truly understand and appreciate you wanting to keep the Fresnel in the lighthouse however I must provide you with the reasons that it is necessary to replace the lens and then perhaps you will support our efforts.

When the Fresnel lenses were being installed in these new lighthouses back in the late 1800's early 1900's we had lighthouse keepers for each light. The keeper would physically light the lamp and care for the Fresnel lens on a daily basis. Once the Coast Guard began modernizing the lights, lighthouse keepers were out of a job and maintenance only occurred when the light was reported extinguished or when regularly scheduled maintenance came up on the calendar. Of course that meant that the lights were now exposed to harsh environmental conditions, temperature fluctuations, and changes in humidity that are very damaging to Fresnel lenses. Light exposure speeds up degradation of litharge, the lead putty that assists in maintaining the glass prisms in place. Not only does the lead present a significant health hazard but we no longer have the expertise to repair the lenses and it is economically unfeasible to maintain them in an environment where temperature and humidity are uncontrolled. Keeping the lenses in their current structure will result in further deterioration of the lenses and may result in a prism falling out, shattering, and lessening the historic value of the lenses. It would be nice for future generations to enjoy the lenses in the lighthouse structure themselves but I hope that you can now see that this is not the best place for them and if we want to have future generations enjoy seeing the lenses, then we must take care to protect them.

To address your concern with the view/glow of the light emanating from the lens, I do understand and have heard similar objections to the luminescence of the LED. The Coast Guard has received feedback that the Fresnel lens does tend to "glow" a bit more than the LED as the LED is a clearer light. Sometimes the navigation lights are obscured by fog, haze, dust, smoke, or precipitation which may be present at the light, or between the light and the observer, and which is possibly unknown by the observer. We have received feedback from some maritime users that the LED is more easily seen under these obscured conditions and they appreciate the cleaner glow keeping them from harmful shoals. Based upon the feedback that we have received

SUMMARY OF PUBLIC COMMENTS

regarding previous Fresnel to LED replacement projects, most mariners and the public will see no visual change in the emitted light since the new optic sends out the same light characteristic signal utilizing new LED technology.

Finally, it is the U.S. Coast Guard's policy to loan the Fresnel lenses to a local organization that meets the requirements for the care, security and display of the Fresnel lenses so the public can see these beautiful, historic artifacts. You may be pleased to learn that the Coast Guard has received support from the Village of Port Sanilac President and the unanimous vote of the Sanilac County Historical Society Board to pursue the loan of this lens. They intend to display the protected/preserved lens at the Sanilac County Historic Village Museum Mansion.

I realize that asking for 100% of your support for the removal of something that you are passionate about preserving in place is a bit much to ask, but hopefully you have a better understanding of need to remove the Fresnel lens in order to preserve it for future generations to enjoy.

Thank you again for comments.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

-----Original Message-----

From: jwoods484@hotmail.com [mailto:jwoods484@hotmail.com]  
Sent: Monday, September 22, 2014 4:08 PM  
To: Kean, Wayne E CIV  
Subject: Re: Port Sanilac Lighthouse Fresnel

Okay thanks. I do understand that now days with out the curtains in the windows, the putty and lintage is exposed to harsh UV rays and high temperatures. Of course what the mariners think is also important. Is an acrylic or glass replica still an option? Possibly lit by an LED bulb inside but with the same outer look of the original fixed fresnel.

Kind Regards,

Jacob Woods

## SUMMARY OF PUBLIC COMMENTS

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Wednesday, September 24, 2014 6:59 AM  
To: jwoods484@hotmail.com  
Subject: RE: Port Sanilac Lighthouse Frensel

Hi Mr. Woods,

I have heard of the option that you mention, and I believe that discussion is among the Coast Guard circles so I will forward your comments and recommendation to our Aid to Navigation (ATON) Department for consideration. While it may/may not be a consideration for this particular proposal, I am sure the ATON Department will consider for future project. Thank you, again, for your comments.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

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From: cathibulonecampbell@yahoo.com [mailto:cathibulonecampbell@yahoo.com]  
Sent: Saturday, October 04, 2014 1:46 AM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac lighthouse lens

As a local historian for Port Sanilac, Sanilac Township, and Sanilac County, I have a very special interest in contacting you in relation to the replacement of the Fresnel lens in the Port Sanilac light tower. The Port Sanilac light has been the evening heartbeat of this village on Lake Huron since the 1880's. Many of the pleasure boats that come and go in the lake do not have sophisticated equipment aboard and they still use the light for navigation. The commercial freighters utilize it as a landmark. In our area, when you're out on Lake Huron at night, it is darker than dark, but you already know all this.

As a two-time past president of the board of directors of the Sanilac County Historical Society, which manages the Sanilac County Historic Village & Museum, I can also speak to the splendid idea that it would be to lend it to the museum for display. I am told it may require a climate controlled environment, and I hope the museum finds a way to meet those requirements.

I also have a few additional special connections to the lighthouse. My mother, as a child, played in the light of that tower at night in the 1920s and 30s. Generations of people in these parts have a great affection for the light. In addition, I am currently annotating the 1893-1935 journal of Grace Sinclair Holmes, the wife of the second, and last, keeper of the Port Sanilac lighthouse, William Henry Holmes, who was a member of the U.S. Lifesaving Service before he became a keeper. Grace Holmes was the granddaughter, daughter, and sister of Michigan light keepers. She was raised in the Fort Gratiot and Thunder Bay Island lighthouses, where her family, the Sinclairs, were keepers. When Grace's husband suffered from neuritis near the end of his life, it

## SUMMARY OF PUBLIC COMMENTS

was Grace who occasionally hauled the oil up those stairs, trimmed the wick, and polished that lens, when he couldn't. She even fell through the trap door at the top of the tower once while tending to the light and was laid up for months. After her husband's death, she was appointed custodian of the already-automated Port Sanilac light for a time, one of the handful of Michigan women ever given that honor. So, on behalf of Grace, her husband, Will, and her uncle, Richard W. Morris, who was Port Sanilac's first, and only other, lighthouse keeper, I hope that you will retire that Fresnel lens with honors, and replace it with the LED lantern that will extend the life of our light tower for years to come, so that many more generations can dance in its light or ply the waters of Lake Huron safely with the continued assistance and reassurance of its beacon.

Cathi Bulone Campbell  
Port Sanilac, Michigan

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Monday, October 06, 2014 7:33 AM  
To: Cathi Campbell  
Subject: RE: Port Sanilac lighthouse lens

Good Morning Ms. Campbell,

Thank you for taking the time to provide comment to the Coast Guard's proposal to replace the Port Sanilac Fresnel lens with an LED, but more importantly, thank you for sharing your story about your connection to Port Sanilac Light.

I am sure that as a two-time Past President of the Board of Directors of the Sanilac County Historical Society, you must be pleased to learn that it is the Coast Guard's policy to loan the Fresnel lenses to a local organization that meets the requirements for the care, security and display of the Fresnel lenses so the public can see these beautiful, historic artifacts. We have received support from the Village of Port Sanilac President and the unanimous vote of the Sanilac County Historical Society Board to pursue the loan of this lens. They intend to display the protected/preserved lens at the Sanilac County Historic Village Museum Mansion where citizens can actually see this beautiful artifact up close.

Thank you, again, for sharing your story and for your support with our proposed project.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

## SUMMARY OF PUBLIC COMMENTS

-----Original Message-----

From: cathibulonecampbell@yahoo.com [mailto:cathibulonecampbell@yahoo.com]  
Sent: Monday, October 06, 2014 12:11 PM  
To: Kean, Wayne E CIV  
Subject: Re: Port Sanilac lighthouse lens

Thank you for your service and for your involvement with this project. In this Blue Water area, we have a special appreciation for the Coast Guard. I know you're mostly involved with the administrative end of this project, but I thought it might be nice if I could put a human face on this little bit of Port Sanilac lighthouse history. The attached photos depict Capt. William Henry Holmes with his wife, Grace, his son and grandson, Lewis and Roger, and with the lighthouse itself, where he cared for the buildings, the property, and that Fresnel lens, for 33 years, more than half of his life. Thanks again.

Cathi

-----Original Message-----

From: Kean, Wayne E CIV  
Sent: Monday, October 06, 2014 12:22 PM  
To: Cathi Campbell  
Subject: RE: Port Sanilac lighthouse lens

Ms. Campbell,

Excellent pictures. Thank you for sharing with us.

Sincerely,

Wayne

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-----Original Message-----

From: jeff.shook@nlbusa.com [mailto:jeff.shook@nlbusa.com]  
Sent: Wednesday, October 08, 2014 3:45 PM  
To: Kean, Wayne E CIV  
Subject: Port Sanilac Lighthouse Lens

Dear Wayne,

I am responding to the comment period, which ends today regarding the Port Sanilac, MI. Classical Fresnel Lighthouse Lens being removed from the tower. At this time I am against removing it from the tower and it being replaced with a different type of lens such as an LED lantern. I would like more information on the proposed LED installation in regards to light output and distance seen out to sea and then compare it to the current classical Fresnel Lens output.

## SUMMARY OF PUBLIC COMMENTS

I am also wishing to support the historical significance of the lens remaining in the tower giving the lighthouse its historical look that only a classical lens can give a tower. This lighthouse is located in a residential area inside the city limits and it is a well recognized landmark and daymark with the tower and the lens present in it. If you wish to discuss anything further, please contact me via e-mail at this address or call 810-444-9589.

Thank you,

Jeff Shook

Fenton, MI

-----Original Message-----

From: Kean, Wayne E CIV

Sent: Friday, October 10, 2014 8:04 AM

To: jeff.shook@nlbusa.com

Subject: RE: Port Sanilac Lighthouse Lens

Good Morning Mr. Shook,

Thank you for taking the time to provide comment to the U.S. Coast Guard's proposal to replace the Port Sanilac Fresnel with a modern LED. As a proponent of preserving our historic treasures I do truly understand and appreciate you wanting to keep the Fresnel in the lighthouse however I must provide you with the reasons that it is necessary to replace the lens and then perhaps you will support our efforts.

When the Fresnel lenses were being installed in these new lighthouses back in the late 1800's early 1900's we had lighthouse keepers for each light. The keeper would physically light the lamp and care for the Fresnel lens on a daily basis by covering it with a light cloth or drawing the shades around the cupola, and wiping down and condensation in the lantern room. Once the Coast Guard began modernizing the lights, lighthouse keepers were out of a job and maintenance only occurred when the light was reported extinguished or when regularly scheduled maintenance came up on the calendar. Of course that meant that the lights were now exposed to harsh environmental conditions, temperature fluctuations, and changes in humidity that are very damaging to Fresnel lenses. Light exposure speeds up degradation of litharge, the lead putty that assists in maintaining the glass prisms in place. Not only does the lead present a significant health hazard but we no longer have the expertise to repair the lenses and it is economically unfeasible to maintain them in an environment where temperature and humidity are uncontrolled. Keeping the lenses in their current structure will result in further deterioration of the lenses and may result in a prism falling out, shattering, and lessening the historic value of the lenses. It would be nice for future generations to enjoy the lenses in the lighthouse structure themselves but I hope that you can now see that this is not the best place for them and if we want to have future generations enjoy seeing the lenses, then we must take care to protect them.

## SUMMARY OF PUBLIC COMMENTS

To answer your question regarding the light output and distance, I will address distance first. The estimated nominal range listed for all lights in the Coast Guard Light List is the maximum distance a given light can be seen when the meteorological visibility is 10 nautical miles (NM). If the existing visibility is less than 10 NM, the range at which the light can be seen will be reduced below its nominal range. If the visibility is greater than 10 NM, the light can be seen at greater distances. When converting Port Sanilac's distance from statute miles to nautical miles, it has a nominal range greater than 10NM. The nominal range of the current light is 16 NM, and the new light is calculated to be 14 NM. There are many factors that can further reduce the range at which a light can be seen, including: the transparency of the atmosphere may vary between observer and light, glare from background lighting will reduce the range that lights are sighted, the rolling motion of a vessel, and the height of the vessel are a few. The condition of the atmosphere has a considerable effect upon the distance at which lights can be seen. Sometimes lights are obscured by fog, haze, dust, smoke, or precipitation which may be present at the light, or between the light and the observer, and which is possibly unknown by the observer. Atmospheric refraction may even cause a light to be seen farther than under ordinary circumstances. In any case, the Coast Guard always recommends that mariners not solely rely on one source for navigating. Now, as far as output, I am going to assume that your question is in regards to the visual aspect of the beam of light. The Coast Guard has received feedback that the Fresnel lens does tend to "glow" a bit more than the LED as the LED is a clearer light. Sometimes the navigation lights are obscured by fog, haze, dust, smoke, or precipitation which may be present at the light, or between the light and the observer, and which is possibly unknown by the observer. We have received feedback from some maritime users that the LED is more easily seen under these obscured conditions and they appreciate the cleaner glow keeping them from harmful shoals. Based upon the feedback that we have received regarding previous Fresnel to LED replacement projects, most mariners and the public will see no visual change in the emitted light since the new optic sends out the same light characteristic signal utilizing new LED technology.

I realize that asking for 100% of your support for the removal of something that you are passionate about preserving in place is a bit much to ask, but hopefully you have a better understanding of need to remove the Fresnel lens in order to preserve it for future generations to enjoy.

Thank you again for comments.

Sincerely,

Wayne E. Kean II  
CEU Cleveland  
Environmental Compliance  
W:(216)902-6258

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No further comments received.