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Mr. Milford Wayne Donaldson, FAIA, State Historic Preservation Officer  
Office of Historic Preservation  
California Department of Parks and Recreation  
P.O. Box 942896  
Sacramento, CA 94296-0001

**SUBJECT: SECTION 106 CONSULTATION FOR RECOVERY OF A U.S. COAST GUARD  
ARTIFACT LOANED TO CITY OF FERNDALE, HUMBOLDT COUNTY, CA**

Dear Mr. Donaldson:

In accordance with Section 106 of the National Historic Preservation Act (NHPA) and 36 CFR Part 800 – Protection of Historic Properties, the U. S. Coast Guard (USCG) sends this letter to initiate consultation for a proposed undertaking. The USCG proposes to recover a Coast Guard-owned artifact that was loaned to the City of Ferndale in Humboldt County, California. The artifact is the first order Fresnel lens originally installed in the Cape Mendocino Lighthouse in 1868. It includes an optic manufactured in France circa 1867 by L. Sautter and Company, pedestal, and associated machinery. This artifact was removed from the lighthouse circa 1947 and loaned by the USCG to the City of Ferndale in 1948. It is currently located in a replica lighthouse constructed in 1948 at the Humboldt County Fairgrounds in Ferndale. The fairgrounds are administered by the Humboldt County Fair Association.

The USCG provided for condition assessment inspections of this USCG artifact in 2006, 2008, and 2010. These condition assessments have documented deterioration of the lens, missing parts, unauthorized modifications, and a supporting floor which may be unable to continue to bear the weight of the artifact (see enclosure (1)). Based on this evidence the USCG has determined that the integrity of the artifact has degraded during the loan period. USCG Curatorial Services has been communicating with the City of Ferndale and the Humboldt County Fair Association about the problematic circumstances relating to the loaned artifact. This has included multiple telephone discussions and correspondence concerning problems and possible solutions. A timeline of events and copies of correspondence are enclosed (enclosures (2) and (3)).

Despite extensive communication (occurring over a substantial period of time) from the USCG to the City of Ferndale informing them that the USCG's artifact is inadequately and inappropriately housed in a leaking building with no temperature controls, where the lens is currently supported by a floor with a potentially inadequate weight-bearing capacity, the problematic circumstances continue and no substantive improvement has been achieved. As recently as 19 January 2010, the USCG conducted a quick onsite inspection of the lens and found that there was a significant amount of water and condensation on the lens which had caused some of the glass prisms to grow mold, that water was dripping onto the lens in places, and that the replica lighthouse structure itself was humid and moldy. On the 19 January visit, the

USCG also noted standing water on both the bottom and middle levels of the replica lighthouse structure. We are uncertain as to whether the floor upon which the Fresnel lens sits is capable of holding the 4,000 lb. lens assembly. Consequently, the USCG has concluded that terminating the loan and recovering this priceless artifact has now become urgent and necessary to prevent further deterioration and ensure its proper care, safety, and long-term preservation. We propose to remove this first order Fresnel lens from its present location, transport it to a USCG installation in California, and provide for appropriate storage pending treatment to mitigate deterioration. At some point in the future, the USCG would like to again loan the lens to an appropriate custodian that can care for it in a manner that ensures its continued preservation and protection.

We have assessed the proposed undertaking in the context of NHPA Section 106 and 36 CFR Part 800, and we have determined that the proposed undertaking will have no effect on a historic property eligible for listing on the National Register of Historic Places (NRHP), as explained further in this letter. We invite the California State Historic Preservation Officer (CA SHPO) to review and comment concerning our determination. It is important to note that the funds to pay for this undertaking are available only until the end of the current Fiscal Year, which ends on 30 September 2010. This short time frame and the inadequate and precarious nature of the condition of the structure in which the lens is housed means that the undertaking must be started as soon as possible. Because of this, we request expedited consultation in accordance with 36 CFR Part 800.3(g).

### **Description of the Undertaking**

The USCG proposes to undertake the recovery of a priceless USCG-owned artifact that was loaned to the City of Ferndale in 1948. This artifact is the first order Fresnel lens (including optic, pedestal and associated machinery) that was installed in the Cape Mendocino Lighthouse in 1868 and removed circa 1947 when the lighthouse was automated. The USCG loaned this artifact to the City of Ferndale in 1948. It was placed in a replica lighthouse built in 1948 at the Humboldt County Fairgrounds in Ferndale.

Inspections performed in 2006 and 2008 determined that this artifact is in deteriorated condition (Zappen 2006; Kimbrell 2008; Woodward and Fosburg 2008). Several important original glass parts are missing including seven bulls-eye lenses and two prisms. The artifact's litharge (putty-like substance) that holds the prisms in place is deteriorated. Several of the glass prisms are moldy and loose, and may fall unless repaired. In addition, unauthorized non-standard modifications have been made to the artifact during its loan to the City of Ferndale. Another problem is that the replica lighthouse at the Humboldt County Fairgrounds does not have a climate control system and in fact has leaked water on the lens and on to the second and first levels of the structure. Thus, the artifact is exposed to water damage and excessive changes in temperature and humidity that greatly exceed the appropriate range for proper curatorial care. These problematic circumstances need to be remediated. This valuable piece of U.S. Coast Guard history needs to be protected through restoration, and placed in a secure climate-controlled environment under appropriate curatorial care.

The USCG intends to utilize the services of a qualified professional to remove the artifact from its present location, transport it to a USCG facility in California, and provide for

appropriate storage pending treatment to mitigate deterioration. The work to recover this artifact may include opening egress space in the replica lighthouse structure where the artifact is presently located. If this is done, the egress opening(s) will be repaired after removal is accomplished. Physical changes to a structure built in 1948 is the type of activity that could impact a historic resource if one were present; thus, the USCG believes removal of the Fresnel lens from the replica lighthouse is an undertaking under Section 106 of the NHPA.

### **Area of Potential Effect**

The Area of Potential Effect (APE) for this undertaking is the replica lighthouse structure (physical effects) and the fairgrounds immediately surrounding the structure (visual effects) containing the USCG artifact. This replica is potentially eligible for NRHP listing since it may be over 50 years old, and it is associated with a 114-year old county fair important to the local community. The replica lighthouse and Fresnel lens are located in the northwestern part of the Humboldt County Fairgrounds (see Enclosure (3), Figure 1). This structure is a replica of the Cape Mendocino Lighthouse (see Figures 2 and 3). It faces west toward Fifth Street and is situated approximately 350 feet south of the intersection of Fifth Street and Van Ness Avenue in Ferndale, CA. This structure was constructed in 1948 and occupies less than one-half acre. Its Universal Transverse Mercator (UTM) grid coordinates (Zone 10) are approximately East 392970, North 4493660.

The USCG has reviewed the NRHP listings for Humboldt County. Neither the Humboldt County Fairgrounds nor the replica lighthouse is listed on the NRHP. The area within one mile of the APE contains 46 properties listed on the NRHP. These include the Ferndale Main Street Historic District (40 contributing resources), Ferndale Public Library (807 Main Street), Alford-Nielson House (1299 Main Street), Shaw House (703 Main Street), Andreasen-Rossen House (Port Kenyon Road and Bush Street), Bending House (455 Ocean Avenue), and the Catholic Church of the Assumption Rectory (563 Ocean Avenue). None of the NRHP-listed properties is within the APE or will be affected by the proposed undertaking.

### **Public Notice Plan**

The USCG has provided significant opportunity for the public to express their views relating to the proposed undertaking. This has included several written and telephone communications with the City of Ferndale as well as the Humboldt County Fair Association, which is responsible for the Humboldt County Fairgrounds (see enclosure (2)). In addition, the USCG has provided information to newspapers in the area that has been reported in several published articles. The proposed undertaking has been extensively publicized in the Ferndale area and the public has had an opportunity to express their views. The USCG has noted views expressed by the public and considered it. Per 36 CFR Part 800.2(c)(3) and (5), the USCG has identified the following interested parties and provided them with copies of this consultation letter and an opportunity to comment: City of Ferndale, Humboldt County Board of Supervisors, Humboldt County Fair Association, and Cape Mendocino Lighthouse Preservation Society.

## **Assessment of Eligibility and Determination of Effect**

The artifact to be recovered is USCG-owned property and an important historic artifact to the USCG Historian's Office and the entire Coast Guard; however, a Fresnel lens in and of itself is not eligible for the National Register of Historic Places according to the Keeper of the National Register, National Park Service. It was loaned to the City of Ferndale in 1948 and placed in the replica lighthouse at the Humboldt County Fairgrounds. The artifact's recovery will affect the replica lighthouse structure which is potentially over 50 years old and possibly eligible for the NRHP.

In accordance with the NHPA Section 106 process, USCG conducted background research, consulted with local officials, and conducted sample field investigations concerning the replica lighthouse structure (see enclosures (1) through (5)). This has included work by the USCG Historian's Office (COMDT CG- 09224), USCG Aid to Navigation personnel, the USCG Office of Environmental Management (COMDT CG-47), and consultants having expert knowledge of nineteenth century Fresnel lenses like the artifact loaned to the City of Ferndale.

The replica lighthouse at the fairgrounds is a three-story wood frame structure approximately 20 feet in diameter at the base and approximately 30 feet tall. Built in 1948, it is configured as a conical tower clad with plywood (see Figures 4 and 5). The structure's exterior is painted white with red trim. The metal roof is not original to the structure. It is painted black. The structure has open air galleries on the second and third story level. The galleries and railings, first story window surrounds, and a band surrounding the base of the first story are painted red. The USCG visited this property in January 2010 and observed standing water inside on the floor.

The first story contains a doorway on the east side that provides access to the single interior room. This room is lighted by three windows fitted with one-over-one double hung sash. The northwestern and southwestern windows are visible in the 1949 photograph and appear to be original. The western window is not present in the structure's 1949 photo. It was constructed sometime later and is non-original. The existing metal roof is a replacement for the original one. Concrete was poured around the structure's perimeter in 1996.

The structure's second story includes a single room that contains the artifact's pedestal and rotation machinery. These parts of the artifact are deteriorated and have been modified from their original condition by the installation of non-standard parts. The unauthorized modifications include an electric motor and wiring, as well as plywood disks in the rotational mechanism (see Figure 6).

The structure's third story is a replica lighthouse lantern containing the artifact's Fresnel lens optic. This optic is currently missing important original parts, including seven bulls-eye lenses and two prisms, and other parts are deteriorated with rust and mold much in evidence (see figures 7 and 8.). The existing electric lamps installed inside the lens are non-standard equipment. In addition, the third story room's interior includes wood portions of the structure with burn marks. These burned areas are consistent with fire caused by sunlight passing through the lens and being intensely focused on flammable portions of the replica lighthouse. These burned areas are evidence that the replica lighthouse is subject to fire and the USCG artifact is in a potentially dangerous location.

The USCG has assessed the historicity of the lighthouse replica in terms of the criteria used for determining whether a property qualifies for listing on the National Register of Historic Places (NRHP). The results are as follows:

Criterion A: Is the replica lighthouse property associated with events that have made a significant contribution to the broad patterns of our history?

No. The replica lighthouse was built as part of a ticket booth and entry gate structure at the western entrance to the Humboldt County Fairgrounds. The Humboldt County Fair was established in 1897 and is an annual event lasting approximately eleven days. It is Humboldt County's example of the many county fairs in the United States. While the fair contributes to the character and heritage of Humboldt County, the replica lighthouse is not original to the fairgrounds where it stands. The replica lighthouse does not make a significant contribution to the broad patterns of our history, nor is it original to the fairgrounds upon which it now stands.

Criterion B: Is this property associated with the lives of persons significant in our past?

No. Research concerning the replica lighthouse has not identified any person significant in our past who is associated with this structure.

Criterion C: Does the replica lighthouse embody the distinctive characteristics of a type, period, or method of construction or represent the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction?

No. The replica lighthouse is a ticket booth and entry gate structure that is not distinctive in terms of its type, period or method of construction. It is a wood-frame structure with plywood siding built in 1948 as a replica of the metal lighthouse constructed in 1868 at Cape Mendocino. The replica structure was constructed by local builders as part of a ticket booth and entry gate structure for the fairgrounds. This purpose is unrelated to the history of Cape Mendocino Lighthouse or American lighthouses in general. The replica lighthouse is not the work of a master, nor does it possess high artistic value. It does not represent a significant and distinguishable entity whose components lack individual distinction.

Criterion D: Has this property yielded, or is likely to yield, information important in prehistory or history?

No. This criterion generally applies to archeological sites. The replica lighthouse is a standing structure that does not have archeological significance.

In conclusion, the U.S. Coast Guard has reviewed the available information and finds that the replica lighthouse structure to be affected by the proposed undertaking is not a historic property eligible for listing on the NRHP. Our determination is that the proposed undertaking will have no effect on historic properties.

Pursuant to NHPA Section 106, we invite CA SHPO to review and comment concerning the proposed undertaking, and the U.S. Coast Guard's findings and determination under Section 106. We also specifically request any information the SHPO may have on any additional interested parties that might wish to receive information on this undertaking. If CA SHPO wishes to provide comment and additional information with regard to interested parties, we are asking that you please provide comments in an expedited manner following receipt of this letter. We would

greatly appreciate a response within 15 days due to the urgency of the situation. I request your response be provided to us in both document form and by facsimile and/or email transmission. My fax number is (202) 372-4980. If you require any additional information, please contact Ms. Arlyn Danielson, USCG Curator. Her telephone number is (301) 763-4008, and her email address is as follows: [Arlyn.Danielson@uscg.dhs.gov](mailto:Arlyn.Danielson@uscg.dhs.gov)

Sincerely,



R. A. LaBREC  
CAPTAIN, U.S. Coast Guard  
Director, Public Affairs (COMDT CG-0922)

Enclosure: (1) Condition assessment PowerPoint  
(2) Timeline of events  
(3) USCG correspondence with City of Ferndale  
(4) Figures and list of references cited.  
(5) Report of Findings and Recommendations Concerning the 1<sup>st</sup> Order Classical Lens from Cape Medocino Lighthouse.

Copy: Hon. Mike Thompson, U.S. House of Representatives (w/ encl)  
City of Ferndale (w/ encl)  
Humboldt County Board of Supervisors (w/ encl)  
Humboldt County Fair Association (w/ encl)  
Cape Mendocino Lighthouse Preservation Society (w/ encl)  
CG D11(DPW) (w/ encl)  
CG-47 (w/ encl)  
CG-0942 (w/ encl)  
CG SILC(EMD) (w/ encl)  
CG CEU Oakland (w/ encl)  
CG-09224