EXHIBIT 3

FINAL

INITIAL STUDY
MITIGATED NEGATIVE DECLARATION

Point Cabrillo Light Station and Preserve
Buildings and Infrastructure Rehabilitation Project

December 2003

Lead Agency

State of California
DEPARTMENT OF PARKS AND RECREATION
Acquisition and Development
One Capitol Mall - Suite 500
Sacramento, California 95814

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CHAPTER 1
INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Buildings and Infrastructure Rehabilitation Project at Point Cabrillo Light Station and Preserve, Mendocino County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq*., and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq*.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by, or agreed to by, the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project will not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is DPR. The contact person for specific project information for the lead agency is:

Jim Kimbrell
Point Cabrillo Lightkeepers Association
P.O. Box 641
Mendocino, California 95460
(707) 937-6123
jimk@pointcabrillo.org

Any questions or comments related to this environmental document should be directed to:

Shaelyn Raab Strattan
Department of Parks and Recreation
Acquisition and Development Division
One Capital Mall - Suite 500
Sacramento, California 95814
FAX: (916) 445-9100
Email: ceqansc@parks.ca.gov

Submissions had to be submitted in writing and postmarked or received by fax or email no later than November 13, 2003. The originals of any faxed document had to be received by regular mail within ten working days following the deadline for comments, along with proof of successful fax transmission.

1.3 COMMENTING EFFECTIVELY ON AN ENVIRONMENTAL DOCUMENT

Public participation is an essential part of the CEQA process. Review of environmental documents offer interested governmental agencies, private individuals, and organizations an opportunity to consider a proposed project and share expertise; evaluate agency analyses; check for completeness and accuracy; identify areas of concern; and present alternative or additional options for consideration. (California Code of Regulations §15200).

To comment effectively on an environmental document, consider the following points:

1. Objectively evaluate the project.
   - Consider the activities proposed as part of the project and determine if these actions could result in a impact or change to the environment.
   - If an impact could occur, would it be substantial or "significant"? Significance is determined by the amount of difference between what currently exists and what will exist during or following completion of the project.
   - If you conclude there would be a significant adverse effect, does the document agree with that assessment?
   - If the impact is potentially significant, are there mitigations (ways to reduce the severity of the impact) included in the document? Will they reduce the impact to a less than significant level? (For an MND, mitigations must reduce <u>all</u> potentially significant impacts to a less than significant level. For an EIR, impacts must be reduced to the extent feasible. All mitigations must be feasible and enforceable).
   - If a potential significant impact has not, in the reviewer's opinion, been adequately identified; if no mitigation has been proposed for a potentially significant impact; or if the mitigation proposed does not appear to be sufficient or appropriate, the reviewer should:
     - Identify the specific impact in question;
     - Explain why you believe the impact would occur;
     - Explain why you believe the effect would be significant (§15204[b]); and, if applicable,
     - Explain what additional mitigation measure(s) or changes in proposed mitigations you would recommend.

2. Explain the basis for your comments and recommendations (facts, reasonable assumptions based on facts, or expert opinion supported by facts) and, whenever possible, submit specific data and/or references supporting your conclusions (§15204[d]).

3. Make sure comments are submitted before the deadline. Comments postmarked after the close of the public review period will not be accepted. If necessary, fax or email your comments on or before the close of the review period and follow up by regular mail. Comments must be submitted in writing and must include your name and a valid

address. Although comments may also be submitted by email, you must include your name along with your email address.

4. Reviewing agencies or organizations should include the name of a contact person, who would be available for questions or consultation, along with their comments. (§15204[c]).

1.4 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Buildings and Infrastructure Rehabilitation Project at Point Cabrillo Light Station and Preserve. Mitigation measures have also been incorporated into the project to avoid any potentially significant impacts or reduce them to a less than significant level.

This document is organized as follows:

- Chapter 1 - Introduction.
  This chapter provides an introduction to the project and describes the purpose and organization of this document.

- Chapter 2 - Project Description.
  This chapter describes the reasons for the project, scope of the project, and project objectives.

- Chapter 3 - Environmental Setting, Impacts, and Mitigation Measures.
  This chapter explains the environmental setting for each environmental issue, evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist, and identifies the significance of the potential impacts,. Mitigation measures are incorporated, where appropriate, to avoid any potentially significant impacts or reduce them to a less than significant level.

- Chapter 4 - Mandatory Findings of Significance
  This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.

- Chapter 5 - Summary of Mitigation Measures.
  This chapter summarizes the mitigation measures incorporated into the project.

- Chapter 6 - References.
  This chapter identifies the references and sources used in the preparation of this IS/MND.

- Chapter 7 - Report Preparation
  This chapter provides a list of those involved in the preparation of this document.

1.5 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief

discussion of each impact resulting from implementation of the proposed project.

Based on the IS and supporting environmental analysis provided in this document, the proposed Point Cabrillo Light Station and Preserve Buildings and Infrastructure Rehabilitation Project will result in less than significant impacts for the following issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In accordance with §15064(f) of the CEQA Guidelines, a MND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of mitigation measures in the project. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of mitigation measures, the proposed project will have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2
PROJECT DESCRIPTION

2.1 INTRODUCTION

This MND evaluates potential significant impacts to environmental and cultural resources as a result of the proposed Buildings and Infrastructure Rehabilitation Project at Point Cabrillo Light Station and Preserve (PCLS or Preserve). The project will rehabilitate the Point Cabrillo Light Station to reflect its appearance and atmosphere prior to 1939, in accordance with historical documentation and the findings of the Historic Structures Reports for the buildings and Cultural Landscape Study (currently in progress). Reconstruction of the remaining historic structures and circulation pattern will help support a faithful representation of the Light Station during the interpretive period. Rehabilitation of the residences and adjacent outbuildings for adaptive use (overnight visitor facilities) will provide an enhanced visitor experience and financial support for structure and site maintenance, future historic reconstruction, and interpretation and educational programs. Repair, improvement/upgrade, or replacement of inadequate or failed infrastructure elements (water, sewer, roads, etc.) are essential to protect the site's natural and cultural resources, for the protection of public health and safety, and to support continued pubic access and use.

2.2 PROJECT LOCATION

Pt. Cabrillo LS is located on the Pacific coast, in an unincorporated area of Mendocino County, approximately two miles north of the town of Mendocino and eight miles south of the city of Fort Bragg. The Preserve contains about three hundred acres, with a 30.5-acre historic core on the western edge of the property. The property is bounded on the south and north by small subdivisions and a recreational vehicle park; on the east by Point Cabrillo Drive; and on the west by the Pacific Ocean. Primary access to the property is from Point Cabrillo Drive, which is a loop road off Highway 1. All work associated with this project will occur within the boundaries of Pt. Cabrillo LS, both within and outside the historic core.

2.3 BACKGROUND AND NEED FOR THE PROJECT

The Pt. Cabrillo Light Station, and appurtenant structures and facilities, were constructed for the U.S. Lighthouse Service by the Army Corps of Engineers and Lingreen and Company of San Francisco between 1908-1909, and became operational on June 10, 1909. The U.S. Lighthouse Service became part of the U.S. Coast Guard in 1939, and a portion of the property was leased by the U.S. Air Force in 1962 for a radar tracking facility. Additional buildings and support facilities were constructed or modified until the Light Station was decommissioned in 1974. The buildings on the property were boarded up until 1976, when the Coast Guard modified the interiors of the three residences and reopened them for use by Noyo Harbor Coast Guard personnel. In 1991, the property was purchased from the U.S. Coast Guard by the California State Coastal Conservancy (SCC), who transferred ownership to California State Parks in 2002.

Twelve buildings originally made up the Pt. Cabrillo Light Station; only nine remain standing, although the foundations for the remaining three structures are still in place. During SCC ownership, three of the historic buildings were rehabilitated: the Blacksmith Shop, the Oil House, and the Lighthouse. Minor stabilization and repairs were done at the other structures. Work was performed primarily by volunteers and staff of the North Coast Interpretive Association (NCIA), with some contracted assistance. Management of the rehabilitation work and daily operation of the Light Station was also delegated to the NCIA by SCC. (PCLK currently performs that function for DPR.) Following transfer of the Pt. Cabrillo LS to California State Park ownership, a study was initiated to determine existing conditions and actions needed to protect cultural and natural resources and support continued public access. Historic Structures Reports (HSR) have been completed for all historically significant buildings within the Preserve and a Cultural Landscape Study (CLS) is currently being prepared. The HSRs and CLS will be used as guidelines for rehabilitating both the buildings and grounds of the Light Station.

Residences (3)

The condition of the residences is generally fair, with most problems related to benign neglect and moisture from rainwater intrusion or deteriorating plumbing. However, failure to address these problems in the immediate future will result in continued deterioration, compromised structural integrity, loss of historic fabric, and, ultimately, loss of historical integrity. The outbuildings adjacent to the western and middle residences are in extremely poor condition; improper wood-to-ground clearance, and beetle infestation have seriously compromised certain structural elements of these structures. Immediate action is needed to salvage these buildings. The outbuilding behind the eastern residence is currently being rehabilitated for adaptive use as a public restroom, and is now in stable condition. Electrical and plumbing facilities at all residences are inadequate to support existing and proposed use.

Septic System

The existing septic system was installed in 1983 and is only marginally adequate for current staff operations at the light station. The leach field is subject to seasonal failure. Portable toilets are the only sanitary facilities available for visitor use. Existing facilities do not have the capacity to support outbuildings for public restrooms, lodging accommodations, and administrative office space.

Water System

The existing water source for the light station has sufficient flow to support current and projected demand. However, despite recent improvements, distribution lines, filtration systems, and storage capacity need further upgrades to adequately support irrigation, fire suppression, and proposed daily use.

Barn Reconstruction

Built in 1908-09, the historic barn was part of the original light station structures and was also included in the area leased by the U.S. Air Force for the LORAN monitoring

station in the early '60s. Following the light station's closure in 1974, the barn was abandoned and was destroyed in a "training burn" by the Mendocino Volunteer Fire Department in 1981. Reconstruction of the barn is necessary to accurately represent the light station as it appeared when operated by the U.S. Lighthouse Service (pre-1939). It will also provide needed usable space for interpretive and educational programs and community events.

Circulation and Landscaping

Existing roads, walkways, and landscaping do not accurately reflect the historic gardens, fences, and circulation patterns as they would have appeared during the interpretive period. Most original fencing is gone and existing vegetation fails to support the historic ambience. Natural drainage patterns have been altered by the increased use of asphalt concrete paving and repeated resurfacing, which has resulted in cellar rot and structural damage to the Lighthouse and increased bluff erosion and land slippage, endangering the stability of the Blacksmith Shop. Existing walkways do not comply with ADA accessibility requirements, do not provide adequate access to all current or proposed public buildings, and contribute to improper drainage and localized flooding.

Reconstruction of the Pumphouse and Water Tower

Both the historic pumphouse and water tower were part of the original light station buildings and, as noted with the historic barn above, necessary to present an accurate representation of the historic period for this facility. Only foundations or portions of foundations currently remain. Reconstruction of these structures will enhance the "completeness" of the light station in its historic context.

Relocation of the Blacksmith Shop

As noted in "Circulation and Landscaping" above, the existing roads and walkways have altered natural drainage patterns and accelerated bluff erosion adjacent to the Blacksmith Shop, to the west of the residence area. Some erosion control measures have been implemented, but erosion has progressed to the point where failure to act could result in the Blacksmith Shop sliding off the bluff into the cove below. Moving the shop 30-40 feet west of its current location will remove the immediate threat, and additional erosion controls, along with alterations to the offending roads and sidewalks will reduce future slippage.

2.4 PROJECT OBJECTIVES

The intent of this project is to re-establish, to the extent feasible, the appearance and ambience of the Point Cabrillo Light Station as it appeared prior to 1939, while making the facilities accessible to the public.

The recommended work is expected to:

- Reverse the continued generalized deterioration of the historic buildings and associated infrastructure. Prevent further erosion of the roadbed, shoulders, bluffs, and drainages.

- Prevent potential threats to public health and degradation of water quality from inadequate treatment of wastewater and seasonal failure of the existing leach field.
- Provide enhanced interpretive and educational opportunities and a more accurate representation of the Light Station as it appeared prior to 1939.
- Provide improved disabled accessibility, in compliance with the Americans with Disabilities Act (ADA).
- Provide an improved visitor experience.
- Provide increased protection for plant and animal communities and habitat.
- Provide adequate security and fire prevention for a historic cultural resource.
- Maintain standards of compliance for the National Register of Historic Places.

Additionally, this project furthers the DPR mission by contributing to the following objectives:

- Protect and preserve significant cultural sites, features, and structures.
- Support public understanding of the significance and value of the state's natural and cultural resources through education, interpretation, and leadership.
- Improve the quality of life in California through diverse, high quality recreation experiences and opportunities.

2.5 PROJECT DESCRIPTION

The intent of the proposed project is to rehabilitate the Point Cabrillo Light Station to reflect its look and feel prior to 1939, in accordance with historical documentation and the findings of the Historic Structures Reports for the buildings and Cultural Landscape Study (currently in progress). This will include the reconstruction of the remaining historic structures and circulation patterns to provide an faithful representation of the Light Station during the interpretive period; rehabilitation of the residences and adjacent outbuildings for adaptive use (overnight visitor facilities), providing an enhanced visitor experience and financial support for structure and site maintenance, future historic reconstruction, interpretive and educational programs; and repair, improvement/upgrade, or replacement of inadequate or failed infrastructure elements (water, sewer, roads, etc.) essential to protect the site's natural and cultural resources, public health and safety, and continued public access and use.

The following is a summary of the improvements as they apply to:

- Building Rehabilitation and Reconstruction
- Utilities
- Water System
- Septic System
- Drainage and Erosion Control
- Site Work

BUILDING REHABILITATION AND RECONSTRUCTION

To protect the historic fabric and significance of the structures, all work will be done in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring, and

Reconstructing Historic Buildings (1995, Weeks and Grimmer). Interior modifications will also incorporate recommendations in the Historic Structures Report prepared for each building.

Per Secretary of Interior's Standards:
'Rehabilitation" is defined as..."[T]he act or process of making possible a compatible use for a property through repair, alterations, and additions, while preserving those portions or features which convey its historical, cultural, or architectural values."

"Reconstruction" is defined as..."[T]he act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location."

RESIDENCES

All residences and adjacent storage buildings are considered historic resources and appear much the same today as when built in 1908; only minor changes and general upkeep have occurred during the past 90 years. These structures will be rehabilitated to reflect their look and feel prior to 1939, with some accommodations for modern requirements, such as utilities, building codes, and accessibility. Changes to windows, doors, room layout, walls, and floor surfaces that have occurred will be reversed to the extent possible and in accordance with Historic Structure Report (HSR) guidelines.

Rehabilitation will be done with the intent of preserving the historic significance of the buildings, while adapting the buildings for overnight accommodations, administrative support facilities, and visitor services. The Keeper's (Middle) Residence will be adapted to provide overnight accommodations for park visitors. The lower floor of the Assistant Keepers (Eastern) Residence will be adapted for use as a period house museum; the upper floor will accommodate office and meeting space. The lower floor of the Assistant Keepers (Western) Residence will be adapted for use as meeting rooms and the upper floor for the on-site Keeper’s residence. The following project elements relate to this rehabilitation:

- General maintenance and upgrades, including painting and repair/replacement of windows, doors, hardware, and fixtures.
- Remove non-period elements and replace with original items or accurate reproductions, as appropriate.
- Adapt room configurations as necessary to support use as lodging accommodations and comply with current building and fire codes.
- Adapt kitchen of Keeper's (Middle) Residence to serve as primary kitchen for food preparation associated with lodging accommodations.
- Adapt kitchen of Assistant Keeper's (West) Residence to serve as a catering/serving kitchen for interpretive and educational programs, on-site activities, and special events.

- Excavate a portion of the east basement wall and evaluate rehabilitation of the original French drain system at the Eastern Residence. Refinish; re-seal (waterproof) wall. Backfill and contour landscape to direct runoff away from the residence.
- Recontour soils abutting basements/foundations as necessary to redirect runoff away from structures.

RESIDENCES OUTBUILDINGS (ADJACENT TO RESIDENCES)

Existing buildings are of a single wall, uninsulated, open frame design, suitable for storage, but lacking in the amenities necessary to support use as public lodging. The structures adjacent to the Western and Middle residences will be rehabilitated and adapted for use as handicap-accessible overnight accommodations. The structure adjacent to the Eastern residence is being adapted as public restrooms. Any materials attached to or covering historic fabric, such as insulation, plywood, sheetrock, and other building materials, will be easily reversible, with no permanent modifications, other than basic repair, to the original structure. The following project elements relate to this rehabilitation:

- Insulate and install plywood/sheetrock on interior of walls. Install and insulate ceiling.
- Reconstruct interior partition(s), as appropriate, to accommodate lodging requirements
- Install accessible bathroom, in compliance with the American's with Disabilities Act (ADA), including a toilet, vanity/sink, and shower. Venting will match the design of the Eastern storage building/public restroom, as approved by the State Historic Preservation Office (SHPO).
- Reconstruct exterior double doors of each building to original specifications. Modify original design by replacing tongue-and-groove planking in upper sections with glass inserts, to allow daylighting of the building.
- Install appropriate room heaters and hot water heaters, in compliance with state fire and safety codes.
- Install carpet/padding and/or tile as finished floor over reconstructed concrete floors.

BARN RECONSTRUCTION

- Reconstruct the historic barn at the original location, south of the residences. Building exterior will accurately depict the historic appearance, as indicated in original construction drawings and specifications. The interior will be finished to accommodate exhibit space. Interpretive and educational programs, activities, and special events, and will include construction of a single unisex, ADA-accessible public bathroom. The roadway to and around the barn will be reconstructed to match historic photographs. Work will be conducted in compliance with the Secretary of Interior's Standards and California Historic Building Code. Any heavy equipment necessary during construction will remain on the historic footprint (prior to road reconstruction) or restored roadbed of the Barn Road at all times.

PUMPHOUSE RECONSTRUCTION

- Reconstruct the historic pumphouse on the remaining foundation in its 1914 location, across the road from the residences, as depicted in original construction drawings, contract specifications, and historic photographs. Work will be conducted in compliance with the Secretary of Interior's Standards and California Historic Building Code.

WATER TOWER AND TANK

- Reconstruct historic water tower and tank on the original location southeast of the residences, as depicted in original construction drawings and contract specifications; historic photographs; and remaining portions of the foundation and footings. Work will be conducted in compliance with the Secretary of Interior's Standards and California Historic Building Code.

RELOCATE HISTORIC BLACKSMITH BUILDING

- Move the Blacksmith Shop from its existing location to an area approximately 30-40 feet northwest. Building will be placed along the original roadway, in a configuration that mimics the historic location, but places it further from the unstable, eroding edge of the bluffs. Remove existing foundation once building has been relocated.

UTILITIES

The Light Station was originally constructed in 1908, before the widespread use of electricity and telephones. Although electric and telephone service is currently available in all residences, the wiring and/or level of electrical service is not adequate for the anticipated use. Other services for the buildings were also installed in a “piecemeal” fashion and may not conform to current building code or use requirements, especially as they relate to fire safety and security.

SERVICE CORRIDORS

- Relocate utility lines from existing conduit and connections between the Utility building and Lighthouse. Place new conduit and utility lines between restored roadbed and sidewalk and connect with Lighthouse service lines. Trenching for new alignment will occur concurrently with recontouring of road and replacement of sidewalk. All heavy equipment used for trenching or installation will remain on the roadbed at all times. Old utility lines will be abandoned in place.
- Replace and upgrade existing service lines and install new conduits as necessary to support electrical, telephone, and security systems at reconstructed Barn. Trenching for conduits will occur concurrently with resurfacing of the road to the Barn site and within the footprint of the existing roadbed. The backhoe used for trenching will remain on the roadbed at all times. Old utility lines will be abandoned in place.
- Install a new two-inch utility service conduits or upgrade existing conduits to each Residence and storage building, as necessary. Conduits will carry electrical and

signal lines. Existing telephone lines will remain in existing conduit. Signal lines will monitor fire and intrusion detection, and oil feed controls. Installation will require some trenching in residence yards.

ELECTRICAL SERVICE

- Install new 800 amp transformer, meter panels, distributions boxes, and in-line fuel oil-powered generator as the back-up power source. Construct a small utility structure (approximately 10 foot X 15 foot) to house the electrical equipment and generator. Trench from the existing power lines (north of the residences) to the distribution boxes and install three electrical conduits.
- Install or upgrade electrical sub-panels in each of the three residences.

TELEPHONE SERVICE

- Retain primary telephone service wiring (currently located in conduit running east-west from the residences to the Lighthouse) within the existing conduit or move to the proposed new conduit, if the relocation can occur without changing the configuration of the existing lines.
- Replace existing green telephone (above ground) junction boxes, located at the front of each residence, with in-ground concrete receptacles; lids will be installed flush with the newly redesigned landscapes.
- Install new telephone lines to the historic Barn in the proposed utility conduit along the Barn Road, during the Barn Road rehabilitation.

HEATING OIL FUEL

- Install new oil storage tank, pumps, and control panels in the Utility Building. Install control feeds from the Utility Building to site structures, as appropriate.
- Install new oil distribution lines to residences and adjacent structures.
- Install Day Tanks in structures. Day tanks are small holding tanks that allow the oil to settle prior to use.

FIRE DETECTION AND SECURITY SYSTEM

- Install fire detection and security control system at Utility Building and signal equipment feeds for fire and security alarm monitors to Lighthouse, barn, Visitor Center, residences, and adjacent lodging accommodations.

WATER SYSTEM

The existing water supply system at PCLS includes a pond (1.3 acre feet), supplied by underground springs and seepages, and a pond pumphouse and filtering system that delivers water to a concrete storage tank behind the residences. Adjacent to the storage tank, the Utility Building houses a new filtering system. Distribution lines extend from the tank, through the filtration system, to the light station buildings, irrigation system, and fire suppression lines.

Work proposed for the water system at PCLS will address three needs:

1) Provide an integrated system for treatment and distribution of potable water to light station facilities, visitor accommodations, and visitor center.
2) Provide water with sufficient pressure and flow to meet fire protection requirements and irrigation demands.
3) Improve and maintain existing water supply, including but not limited to replacement of supply lines, improving pond conditions, and increasing pond storage capacity through the removal of existing vegetation and silt.

WATER TREATMENT SYSTEM

- Complete installation, replacement, and/or upgrades of filtration equipment, control panels, and distribution pumps at Utility Building. This may include, but is not limited to, a new filter system; 1-1/2" backwash line routes connecting to septic system; and computerized equipment monitoring system.
- Install new pumps and control equipment at pond. Upgrade/service filters and pre-chlorination equipment as necessary to maintain water quality.

POTABLE WATER DISTRIBUTION SYSTEM

- Replace existing two-inch water line from the storage pond to the Utility Building, as necessary. Connect into secondary filtration/storage system. Directional boring will be used in sensitive resource areas, where feasible.
- Install new potable water feed lines to each structure. Lines will be placed in existing conduits or layered in multiple-use trenches, to the extent feasible.
- Install water line to Barn site. Line will be placed in existing utility trench or within existing roadbed and installed concurrent with roadbed rehabilitation.

FIRE PREVENTION

- Relocate the existing 5,000-gallon wood water storage tank to a position adjacent to the potable water storage tanks and reconnect with the existing wharf hydrant system. System will be independent of the potable water system.
- Repair, replace, and/or upgrade existing wharf hydrant piping as necessary to maintain a workable system.
- Install new electric fire pump and controls at Utility Building.

WATER SOURCE AND RESERVOIR (POND AND SPRINGS)

- Conduct hydrological and natural resource studies to determine potential impacts to spring/seepage function from dredging or other invasive pond maintenance or alterations, prior to the start of any pond alterations (excluding replacement and/or installation of water supply lines indicated above). Determine both short and long term potential natural resource impacts to species and habitat from expansion of

existing maintenance activities to include periodic vegetation removal or dredging/removal of silt. Identify work restrictions and methods to avoid or minimize potential impacts. If results of these evaluations determine that certain actions proposed as part of this project could result in a potentially significant environmental impact that cannot be avoided or reduced to a less than significant level by mitigations proposed in this document, that work will not be performed under this MND. Such actions will be evaluated separately and, if proposed for implementation, will be addressed in an appropriate separate environmental document.

- Remove vegetation around pond intake equipment as necessary to protect and improve efficiency of water filters and support continued facility use and maintenance. Hand-clear portions of existing and emergent vegetation, including cattails. Remove accumulated silt at bottom of pond to increase capacity and maintain pond's viability as a dependable water source. All pond work will occur during the driest part of the year, before the first fall rains, as part of an on-going pond maintenance program. All work will occur in consultation with a DPR qualified Resource Ecologist, Hydrologist/Engineering Geologist, and/or DFG/USFWS, as appropriate.

SEPTIC SYSTEM

The existing sewage treatment system is inadequate to support proposed service levels at either the new Visitor Center (reconstructed Kearns Farmhouse) or the Residences in the historic core. Additional septic tanks, a lift station, and new leach field system will be installed to replace it. Portions of the existing system will be re-used and the force main for the project is already in place, along Lighthouse Road. The following project elements will address both current and projected use requirements:

SEPTIC TANKS

- Install two1500-gallon septic tanks and one holding tank for sewage pump and storage on the north side of the new Visitor Center (Kearns Farmhouse). The three tanks will be clustered to reduce the total footprint of the excavation to approximately 24 feet long X 16 feet wide X 8 feet deep. A trench, approximately two feet deep, will be dug around the back of the visitor center and connected to the existing sewer force main.
- Install two 1200-gallon septic tanks – one each behind the Middle and Western Residences – to service the proposed ADA-accessible lodging accommodations (current outbuildings). Each tank will require excavation of a pit, approximately 14 feet long X 6 feet wide X 8 feet deep, and a two-foot deep trench for piping to connect the tanks into the system.
- Install a single 1200-gallon septic tank south of the reconstructed Barn to service the public bathroom in that facility. Connect to existing leach field. Tank will require excavation of a pit, approximately 14 feet long X 6 feet wide X 8 feet deep. Two-foot deep trenches will be dug for piping to connect tank to plumbing lines at Barn and existing leach field connections.

LEACH FIELDS

- Disconnect all lines to the existing leach field, northwest of the residence area, and abandon in place.
- Install new dosing tank and pump tank adjacent to north side of Lighthouse Road and connect to existing force main.
- Construct a new leach field in an open area, approximately 400-500 feet north of Lighthouse Road, between the Visitor Center and the historic core. The active leach field will be approximately 30 feet X 30 feet in size; an equivalent area adjacent to the actual leach field has been designated as an alternative site, for use if expansion or replacement of the first location is needed during the field's projected lifetime. Connect the new dosing/pump tanks to delivery lines for the proposed leach field. Trenching for this line will be approximately two feet deep and 500-600 feet in length.

SEWAGE LIFT STATION

- Install sewage lift station/holding tank adjacent to the existing leach field (electrical conduit stub for pump station already exist). Connect tanks to existing sewer force main, currently used as a gravity feed line for effluent from the Visitor Center. The line is already stubbed at the proposed pump station site.

DRAINAGE AND EROSION CONTROL

Natural erosion along the Northern California coastline wears away the bluffs, and often creates "islands" or "stacks" of land separated from the coastal headlands. Erosion along the "finger" bluff areas (ocean inlets) at the Point Cabrillo Light Station has been accelerated by runoff from the roadway and sidewalks connecting the residence area with the Lighthouse. Over time, resurfacing has elevated the height of the roadway, disrupting the natural drainage flow and concentrating stormwater runoff. The bluff at the "land neck", the feature being created by two emerging finger inlets between the residences and the lighthouse building, has continued to erode, threatening the stability of the access road and historic Blacksmith Shop. Approximately one year ago, willow wattles were planted near the north side of the neck area to slow erosion and stabilize the bluffs. Elements of this project that will address drainage and erosion control issues include:

BIOTECHNICAL STABILIZATION

- Replace and/or supplement previous willow wattle installation with additional plantings. Install geotextiles, biodegradable reinforcement, and/or other drainage and slope erosion controls as necessary to stabilize and protect slipout areas on both the north and south side of the upper bluff areas.
- Modify and/or expand existing irrigation system to support additional plantings.

RESTORE NATURAL DRAINAGE PATTERNS

- Restore the existing access road from the Keeper's residence to the Lighthouse to its original elevation, alignment, and surface. Recontour shoulders and adjoining topography as necessary to restore natural sheet drainage. (See Sitework below.)

- Remove existing sidewalk and replace with an ADA-accessible sidewalk at the original elevation and along the historic alignment from the residences to the Lighthouse. Recontour adjacent topography to improve drainage.

RELOCATE HISTORIC BLACKSMITH SHOP

- Relocate the Blacksmith Shop from its existing location to an area approximately 30-40 feet to the west-northwest. Building will be placed along the original roadway, in a configuration that mimics the historic location, but places it further from the unstable, eroding edge of the bluffs. Remove current foundation materials once building has been moved, in accordance with accepted practices and guidelines.

INSTALL PROTECTIVE FENCING

- Install an unobtrusive barrier along portions of the northern bluffs to deter public access into areas containing rare or endangered plants, unstable surfaces, or sensitive species (cormorant nesting areas).

SITEWORK - ROADS, WALKWAYS, PARKING, FENCES, AND LANDSCAPING

Structures are only a portion of the historic setting; roads, walkways, and landscaping provide the context for the buildings and contribute to an understanding of the way the Light Station was used. The following project elements relate to the rehabilitation and/or reconstruction of historic landscaping and circulation patterns at PCLS:

ROADWAYS AND PARKING

The existing access road for the PCLS (Lighthouse Road) extends from Point Cabrillo Drive, through the parking area for the newly rebuilt Farmhouse/Visitor Center, then west to the residences and Lighthouse. The road splits just before the residences, providing informal access to the outbuildings behind the residences (proposed ADA-accessible lodging accommodations, public restrooms, and parking). The main road continues west, terminating in a turnaround at the front of the Lighthouse. Remnants of the historic roadbed for the Barn Road extend from the existing access road to the original barn site, beginning at the residence area and extending approximately 300 feet to the south-southwest. Temporary handicapped parking is currently available in the front of the residences, and limited short term handicapped parking (for the more limited mobility handicapped visitor) in front of the Lighthouse. PCLS and DPR employees currently park near the outbuildings behind the residences. Other visitors to the Light Station currently park in the area next to the Visitor Center and walk the remaining one-half mile to the historic Light Station area.

LIGHTHOUSE ROAD FROM VISITOR CENTER TO RESIDENCES

- Repair/resurface road, within existing footprint, on a regular schedule, as necessary to support continued use and maintenance of the road.

LIGHTHOUSE ROAD FROM RESIDENCES TO LIGHTHOUSE

- Remove existing asphalt concrete surface of Lighthouse Road, from the western edge of the residence area to the Lighthouse. Construction loaders will break up the asphalt and dump trucks will haul it to an authorized landfill or recycling center for disposal.

- Grade roadbed to restore historic road contours, elevation, and drainage patterns and reconstruct original historic road bed alignment around the Lighthouse. Grading and recontouring will be restricted to twelve feet either side of the existing and/or historic roadbed footprint(s).
- Compact historic roadbed alignment and resurface with gravel. Only the areas within the historic roadway footprint will be compacted.
- Design and construct the roadway to meet California Department of Forestry and Fire Protection (CDF) standards. Heavy equipment will be confined to the existing roadbed, except during grading and recontouring, as indicated above.

BARN ROAD

- Remove existing chipseal surface from access road to historic barn site.
- Reconstruct historic loop road to and around original barn site. Install utility service conduits and water line concurrent with road reconstruction (see Utilities and Water System above).
- Compact historic roadbed alignment and resurface with gravel. Only the areas within the historic roadway footprint will be compacted.
- Design and construct the roadway to meet California Department of Forestry and Fire Protection (CDF) standards. Heavy equipment will be confined to the existing or historic roadbed.

REAR ACCESS ROAD

- Regrade/resurface existing access road to back of residences and outbuildings, from the lower station entrance to the outbuilding behind the Western residence.
- Remove asphalt entrances to outbuildings.

PARKING AREAS

- Construct four ADA-accessible parking spaces adjacent to the public restrooms currently under construction in the outbuilding behind the Eastern residence.
- Construct one ADA-accessible parking space adjacent to each of the Middle and Western outbuildings (proposed ADA lodging accommodations).
- Cut and remove a small section of existing asphalt to delineate two ADA-accessible parking spaces in front of the Eastern Residence.

SIDEWALKS, WALKWAYS, AND TRAILS

An existing narrow sidewalk runs along the front of the Residences, extending almost to the Lighthouse. Narrow sidewalks also extend around portions of the residence perimeters, connecting front and back porches.

An existing unimproved loop path extends from Lighthouse Road, near the eastern edge of the residence area, to the historic Water Tower/Tank foundation, along the eastern and southern edges of the pond, west along the bluffs, and back to the residences via the remnants of the Barn Road.

All sidewalks and hard-surfaced walkways will be constructed, reconstructed, or altered to comply with ADA requirements.

RESIDENCE AREA

- Replace or construct walkways around Residences, with connecting walkways to outbuildings (proposed lodging accommodations), public restrooms, and parking areas, in compliance with ADA requirements for accessibility.
- Construct a ramp at the north entrance of the Eastern Residence, and to the south entrances of the Middle and Western Residences to provide ADA access to the lower floor of each structure. Design of the ramps will complement historic architecture of the buildings.

LIGHTHOUSE

- Replace existing concrete sidewalk with a wider walkway that meets ADA requirements. Construct walkway along the historic sidewalk alignment; extend walkway approximately 200 feet from the end of the existing sidewalk to provide a continuous path from the residences and lodging accommodations to the Lighthouse.
- Remove broken concrete from existing sidewalk along with asphalt from old road surface. Historic location falls within the eight-foot construction footprint designated for road repair and will be completed simultaneously with that work.
- Reconstruct historic walkways from Lighthouse access road to east door of Lighthouse and from north door of the Lighthouse to the existing flagpole foundation.
- Extend walkway from Oilhouse to west door of Lighthouse.
- All walkways will be formed by hand and chute-poured; concrete trucks will remain on the roadbed.

PRESERVE AREA (OUTSIDE HISTORIC CORE)

- Relocate trailhead for pedestrian trail west of current location, to reduce impact on wetlands.
- Relocate path of existing trail to follow eastern and southern boundaries of the Preserve, inside fence lines.

FENCES

- Remove existing fence along Lighthouse Road and reconstruct in historic footprint, appropriate to existing conditions and uses.
- Remove existing fence along Light Station perimeter and reconstruct historic fences in original footprint, appropriate for current conditions and uses.
- Remove non-historic fencing and reconstruct historic picket fencing and gates on southern side of residences. Reconstruct yard and garden fencing at sides and rear of residences, as appropriate.
- Reconstruct historic fencing along south side of Lighthouse access road, appropriate to existing conditions and uses..
- All post holes will be dug by hand or with a mobile powered auger that will remain on the roadbed.

LANDSCAPING AND REVEGETATION

- Replant exposed or disturbed ground with native coastal bluff flora. This will include areas surrounding the Lighthouse or previously covered by asphalt/concrete, but outside the historic roadbed. Specimens from undeveloped sites further to the north, along the same coastal bluff, will be harvested for transplanting on the disturbed site or propagation.
- Reconstruct historic garden and landscape plantings at the Eastern Residence, as practical, to enhance interpretive aspects of the period museum.

SIGNAGE

- Install informational and directional signs throughout PCLS; on both sides of Point Cabrillo Drive, prior to Lighthouse Road (PCLS entrance); and on both sides of Highway 1, prior to the intersection with Point Cabrillo Drive.
- Install interpretive panels or signs at various historic or natural sites throughout the historic core.

2.6 PROJECT CONSTRUCTION

This project includes repair, restoration, rehabilitation, and new construction. Work will occur in phases over a period of up to five years or more. Unfavorable conditions, such as inclement weather, and financial considerations may extend completion of the project.

Work will occur primarily during daylight hours. Weekend work may be implemented to accelerate the construction schedule or address emergencies or unforeseen circumstances. This may also require minimal use of exterior construction lights on a limited basis. Glare shields will be used on all light sources and work areas will be confined to a maximum of a few hundred feet at any one time.

Heavy equipment, such as a backhoe, excavator, grader, bulldozer, or dump truck, will be used during construction. Most equipment will be transported to the site and remain until the associated work is completed. Transport vehicles for material or equipment, delivery trucks, and crew vehicles will also be present intermittently at the site. Staging areas for the project will be on existing paved or graveled access roads only. Heavy equipment will be confined to the existing or historic roadbed, except as necessary to grade and contour roadbed shoulders, which cannot extend more than twelve feet either side of the historic roadbed.

In addition to standard building requirements and regulations, work will be conducted in accordance with the Architectural and Transportation Barriers Compliance Board 36 CFR Part 1191 (Docket No 98-2) RIN 3014-AA21; ADA Accessibility Guidelines for Buildings and Facilities; the Department of Parks and Recreation's "Access to Park's Guidelines"; Title 24; Secretary of the Interior's Standards for the Treatment of Historic Properties, and the latest edition of all Uniform Building Code Volumes, including the California Historic Building Code.

2.7 VISITATION TO POINT CABRILLO LIGHT STATION AND PRESERVE

Point Cabrillo Light Station and Preserve is a newly acquired property and annual visitation numbers have yet to be established. Interest in the Light Station has increased since its acquisition. Visitation from January to June 2003 is as follows:

Month 2003	Individuals	Groups (total # of individuals)	TOTAL
January	2,353	0	2,353
February	3,133	0	3,133
March	4,538	10 (249)	4,787
April	3,305	5 (195)	3,500
May	3,603	6 (160)	3,763
June	2,648	0	2,648

Visitation at the Light Station is expected to steadily increase as the public becomes more aware of its existence and what it has to offer. Restoration of the historic structures and an expansion of the interpretive programs will increase the attractiveness of the park as a place to visit, especially for school groups. However, availability of lodging is not expected to contribute significantly to the number of people visiting the Light Station. The number of accommodations will be small, increasing park attendance by a maximum of 15 visitors daily (assuming those staying overnight would otherwise not have visited the park and that all accommodations are full at all times).

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

As noted above, Pt Cabrillo LS is a newly acquired property and does not have a General Plan. However, work to repair, replace, or rehabilitate existing facilities (buildings or infrastructure), or to protect public health and safety (including adaptation of structures and facilities to accommodate ADA accessibility) are allowed at properties without a General Plan. In addition, agreement between DPR and PCLK at the time of acquisition stipulated that the Master Plan for Interim Management of the Pt. Cabrillo Light Station and Preserve will serve as the General Plan for this facility until DPR could develop a comprehensive General Plan for the unit. All elements of this project are addressed in this Master Plan. This project is also consistent with the Point Cabrillo Public Use Guidelines, and the Point Cabrillo Public Access Plan.

Use of the Point Cabrillo LS and Preserve for public lodging is not compatible with current zoning restrictions. However, application for a General Plan Amendment and rezoning was filed with the County of Mendocino, Department of Planning and Building Services, in April 2003, requesting changes in the current Mendocino County General Plan to accurate reflect ownership and accommodate proposed land uses. The requested changes in current zoning designations will allow up to nine Inn units (on a bed-and breakfast format), as well as on-site sale of interpretative, educational, and gift items (1C and 4C, respectively). Use of the property for these purposes will not occur before these requested changes are approved.

2.9 DISCRETIONARY APPROVALS

DPR has approval authority for implementation of projects within the boundaries of Pt. Cabrillo LS, including the proposed Buildings and Infrastructure Rehabilitation Project. However, the following permits and/or consultations may also be required before work can begin:

- A Section 404 Clean Water Act permit from the U.S. Corps of Engineers (Corps or USACE) Regulatory Branch, for portions of the project that could impact waters of the U.S., if the project is determined to be with Corps jurisdiction.
- A Streambed Alternation Agreement (Section 1601) from the California Department of Fish and Game (CDFG) for work in or around streams, pond, or drainage areas.
- Section 7 consultation with the U.S. Fish and Wildlife Service relating to Lotis blue butterfly habitat, in compliance with the federal Endangered Species Act.
- Septic System Permit from Mendocino County Department of Environmental Health and the North Coast Regional Water Quality Control Board (NCRWQCB), Region 1.
- Non-Community Water System Permit from the California Department of Health Services (DHS), Drinking Water Branch.
- Consultation with the California Department of Forestry and Fire (CDF) and State Fire Marshall.
- County Coastal Use Permit, to utilize *1C and *4C zoning designations, when approved.
- Coastal Development Permit - Mendocino County Planning Department and the California Coastal Commission.
- Storm Water Pollution Prevention Plan (SWPPP), in compliance with the National Pollutant Discharge Elimination System (NPDES) Program, with oversight by the State Water Resources Control Board.
- Notification of the Mendocino County Air Quality Management District 10 days prior to the start of renovation work.
- Mendocino County Air Quality Management District Permit to Operate a stationary onsite internal combustion engine over 50 horsepower (if necessary).

2.10 RELATED PROJECTS

DPR often has other smaller maintenance programs and rehabilitation projects planned, on-going, or recently completed in the same vicinity as the proposed project . For Pt. Cabrillo LS, these include:

- Clean-up of lead-based paint in and around the Pt. Cabrillo Lighthouse.
- Rehabilitation of the Eastern residence outbuilding to accommodate public restroom facilities.
- Reconstruction of Kearns family farmhouse and adaptation for use as a Visitor Center.
- On-going removal of exotic/invasive plants.

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CHAPTER 3
ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	Project Title:	Buildings and Infrastructure Rehabilitation Project
2.	Lead Agency Name & Address:	California Department of Parks and Recreation
3.	Contact Person & Phone Number:	Jim Kimbrell - (707) 937-6123
4.	Project Location:	Point Cabrillo Light Station and Preserve Mendocino County, California
5.	Project Sponsor Name & Address:	California Department of Parks and Recreation Acquisition and Planning Division Northern Service Center One Capital Mall - Suite 500 Sacramento, California 95814 Point Cabrillo Lightkeepers Association P.O. Box 641 Mendocino, California 95460

6. General Plan Designation: No existing General Plan; Master Plan for Interim Management of the Pt. Cabrillo Light Station and Preserve to serve as the General Plan for this facility until DPR develops a General Plan for the unit.
7. Zoning: Historic Core - Open Space (OS)/Public and Semipublic Facilities (PF) District'; Mendocino County Zoning Ordinance, Coastal Zoning Code; (Request for GP Amendment submitted for zoning change to OS/DPR and Change of Use for 30-acre historic core)

   Preserve - 5 acre Rural Residential (RR5) and Open Space (OS); Mendocino County Zoning Ordinance, Coastal Zoning Code
8. Description of Project: The Department of Parks and Recreation (California State Parks) proposes to rehabilitate the Point Cabrillo Light Station to reflect its look and feel prior to late 1930s, in accordance with historical documentation and the findings of the Historic Structures Reports for the buildings and Cultural Landscape Study. This will include:
   - Reconstruction of the remaining historic structures, landscaping, and circulation patterns to provide a faithful representation of the Light Station during the interpretive period;
   - Rehabilitation of the residences and adjacent outbuildings for adaptive use (overnight visitor facilities), providing an enhanced visitor experience and financial support for continued rehabilitation, interpretation, maintenance, and use;
   - Repair, improvement/upgrade, or replacement of inadequate or failed infrastructure elements (water, sewer, roads, etc.) essential to protect the site's natural and cultural resources, public health and safety, and continued public access and use.
9. Surrounding Land Uses & Setting: Refer to Chapter 3 of this document (Section IX, Land Use Planning)
10. Approval Required from Other Public Agencies: See Chapter 2, Section 2.9

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	☒ None

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared. ☐

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☒

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared. ☐

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents. ☐

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required. ☐

Signature on File October 10, *2003*

Shaelyn Raab Strattan — Date

Environmental Coordinator

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.

4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:

   a) Identify the earlier analysis and state where it is available for review.

   b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.

   c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.

6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.

7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.

8. Explanation(s) of each issue should identify:
   a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
   b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

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ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

The Pt. Cabrillo LS and Preserve is located approximately two miles north of the town of Mendocino, on the bluffs overlooking the Pacific Ocean. The Lighthouse stands aloof on the rocky promontory, flashing its warning light every ten seconds, just as it did for ships carrying lumber to rebuild San Francisco after the 1906 earthquake. The building resembles a small white church with an octagonal tower housing the light. It serves as the focal point for the small collection of light station buildings constructed to support its operation, including three residences, several outbuildings, and a blacksmith shop. Views of the Pacific Ocean are unrestricted all along the bluff.

As you enter the Pt. Cabrillo Light Station and Preserve, the newly reconstructed Kearns Farmhouse sets the historic tone for the property, reminding visitors (and those passing on Pt. Cabrillo Drive) of the small farmhouses that populated the area in the early 1900s. The historic portion of the Light Station Complex is obscured by trees, buildings, and topography for those driving on Point Cabrillo Drive, which skirts the eastern boundary of the property. However, it is laid out like a historic vignette, captured in time, when approached from the east, down Lighthouse Road from the parking area and Visitor Center (Kearns farmhouse). A windrow of trees defines the historic part of the Light Station to the north, with meadows stretching to the south and west, filled with color in the spring, with a small pond near the southern boundary.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

DISCUSSION

a) The project proposes to restore, reconstruct, and rehabilitate the Pt. Cabrillo Light Station buildings, infrastructure, landscaping, and roads. When completed, the Light Station will reflect, to the extent feasible, its appearance when operated by the U.S. Lighthouse

Service, prior to 1939. Reconstruction of the historic water tower, pumphouse, and barn will not obstruct any scenic vista and will support and enhance the historic recreation of the complex. However, construction activities will be visible at various locations throughout the Preserve, over the course of the project, and will intrude intermittently on the scenic vista currently seen from the upland vista point (eastern approach along Lighthouse Road). Work in any one area will be transitory and performed, whenever possible, when visitation is low. Interior work on the Residences and outbuildings will have little impact on the overall appearance of the area and the buildings will not be opened to the public until construction is completed. None of the historic structures within the complex will be blocked from view while work is in progress. There will be no long-term or permanent adverse impact to the existing scenic vista. Therefore, the impact will be less than significant.

b) The project is not within or adjacent to a state scenic highway. The project proposes to restore, reconstruct, and rehabilitate historic structures and features within the Preserve, but will not substantially damage any scenic resource. All historic resources within the project area will be protected from damage to the extent feasible and any repair or replacement to these features will be done in kind and in compliance with the Secretary of the Interior's Standards. (See Cultural Resources Section V for complete description and mitigation measures.) Less than significant impact.

c) See Discussion I(a) above. As with any construction project, there will be some temporary decrease in the visual appeal of the area immediately affected by the work being performed. However, the duration of the work in any one area will be limited and overshadowed by the aesthetic and operational improvements that will result from the proposed project. There will be no permanent or long-term degradation of the visual character of the site or its surroundings as a result of this project. Therefore, the impact from this project will be less than significant.

d) It is expected that all construction work for the proposed project will be limited to daylight hours, eliminating the need for work lights. However, unavoidable delays or emergency situations could require minimal use of exterior construction lights on a limited basis. Glare shields will be used on all light sources and work areas will be confined to a maximum of a few hundred feet at any one time. Less than significant impact.

Both interior and exterior permanent lighting are components necessary for the operation of the completed facility, but exterior lighting will be limited to fixtures and levels necessary for security and public safety and will be shielded to limit light distribution. The majority of facility use will occur during normal business (daylight) hours, reducing the amount of both interior and exterior illumination created during regular operation or after dark. Operation of the lodging facilities will result in increased interior illumination, but will remain comparable to other buildings and residences within visual range of the Light Station. The lighting associated with this project will not add significantly to the current local or overall nighttime illumination of the area or create a defining point of illumination. It also will not compete or detract from the Lighthouse beacon. Therefore, the project will have a less than significant impact.

II. AGRICULTURAL RESOURCES

ENVIRONMENTAL SETTING

The Point Cabrillo LS is located just south of the community of Caspar, in Mendocino County, California. Operational by 1909, the Light Station provided the necessary safeguard for the ships that plied the waters off the rocky Mendocino Coast. During the time of the lighthouse keepers, the agricultural use of the area was mainly limited to the personal gardens kept by the keepers and their families and grazing of livestock on adjacent properties.

The proposed project location is within the boundaries of the Point Cabrillo LS and Preserve and contains no lands zoned for agricultural use or that are in agricultural use. None of the land within the Point Cabrillo LS and Preserve, or in the area immediately surrounding the property, is included in any of the Important Farmland categories, as delineated by the California Department of Conservation, under the Farmland Mapping and Monitoring Program (FMMP).

WOULD THE PROJECT*:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

* In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model for use in assessing impacts on agricultural and farmland.

DISCUSSION

a-c) As noted in the environmental setting above, the Point Cabrillo LS and Preserve does not support any agricultural operations. No land adjoining the Light Station is used for agricultural purposes, as defined by the United States Department of Agriculture land inventory and monitoring criteria (modified for California). Therefore, this project will have no effect on any category of California Farmland, conflict with any existing zoning for agricultural use or Williamson Act contract, or result in the conversion of farmland to non-agricultural use.

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III. AIR QUALITY

ENVIRONMENTAL SETTING

Point Cabrillo Light Station and Preserve is located in Mendocino County, which is part of the North Coast Air Basin (Basin), the Mendocino County Air Quality Management District (MCAQMD), and the U.S. Environmental Protection Agency, Region IX. Ocean winds, moderate levels of highway traffic, and a small industrial base result in relatively clean air in the vicinity of the station. According to the District, the entirety of the North Coast Air Basin has been designated as "attainment" or unclassified for all criteria pollutants. An area is designated in attainment if the state standard for the specified pollutant was not violated at any site during a three-year period.

However, the Basin is in "non-attainment" of the state standard for particulate matter (PM10 or particles with an aerodynamic diameter of 10 microns or less) with no exceedance of the federal standard. An area is designated in non-attainment if there was at least one violation of a state standard for the specified pollutant within the area boundaries.

The District is currently unclassified for visibility-reducing particles (VRPs), but PM10 (which includes dust and smoke particles) is a VRP, indicating a possible reason for concern in this area. (Attainment status for both state and federal standards, per CARB 1999 & 2001.)

WOULD THE PROJECT*:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

a) Work proposed by this project will not conflict with or obstruct the implementation of any applicable air quality management plan for Mendocino County or the MCAQMD.

b,c) The proposed project will not emit air contaminants at a level that, by themselves, will violate any air quality standard, or contribute to a permanent or long-term increase in any air contaminant. However, project construction will generate short-term emissions of fugitive dust (PM10) and involve the use of equipment and materials that will emit ozone precursors (i.e., reactive organic gases [ROG] and nitrogen oxides, or NOx). As stated in the Environmental Setting above, the District is in attainment for ozone precursors. However, increased emissions of PM10 could contribute to existing non-attainment conditions, which could interfere with achieving the projected attainment standards. Consequently, construction emissions will be considered a potentially significant short-term adverse impact. Implementation of the following mitigation measures will reduce potential impacts to a less than significant level.

MITIGATION MEASURE AIR-1

- All active construction areas will be watered at least twice daily during dry, dusty conditions.
- All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.
- Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.
- Earth or other material that has been transported onto paved streets by trucking or earth-moving equipment, erosion, or any other project-related activity will be promptly removed.

d) As noted in Discussion III(b,c) above, project construction will generate dust and equipment exhaust emissions for the duration of the project. Park visitors with conditions that make them sensitive to these emissions will have the option of avoiding the area altogether or remaining in portions of the park that will be upwind or protected from blowing dust or other emissions. Excavation related to project activities is extremely limited, reducing the level of airborne dust. Strong coastal winds prevalent in the project area will disperse emissions quickly; area residences are sufficiently distant from proposed construction activities to be safe from serious exposure. These conditions, in conjunction with Mitigation Measures AIR-1 above, will reduce the potential adverse impact to a less than significant level.

e) The proposed work will not result in the long-term generation of odors. Construction-related emissions might result in a short-term generation of odors, including diesel exhaust, fuel vapors, and evaporative emissions from asphalt paving materials. These odors might be considered objectionable by some park visitors and employees. However, construction activities will be short-term; odorous emissions will dissipate rapidly in the air, with increased distance from the source; and visitor exposure to these odors will be extremely limited [see Discussion III(d) above], potential odor impacts will be considered less than significant.

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BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

The Point Cabrillo Light Station and Preserve is located on the Mendocino coast, approximately eight miles south of Ft. Bragg, at an elevation ranging from sea level to approximately 200 feet. The preserve encompasses 300 acres of native and non-native vegetation, including grasslands, scrub, forests, riparian zones, and wetlands. There are also two created ponds and four perennial streams cross the preserve. Approximately one mile of rocky shoreline and marine habitats to 1000 feet offshore exist along the coastal margin of the preserve.

Established roads and trails within the project areas include a dirt/partially-paved road leading from the parking area adjacent to the residences to the location for the proposed barn reconstruction. Visitor traffic in this area is confined to this road and a short trail connecting the road to the bluff trail. There is also a system of foot trails providing visitor access to the coastal bluffs and limited access to other areas of the unit. Much of the trail system along the coastal bluff has been relatively formalized, including the coastal terrace where the lighthouse and the blacksmith shop are located. The majority of the visitor use on this terrace is confined to the formalized trail. However, poorly defined volunteer trails have been established, resulting in moderate impacts to native vegetation and contributing to erosion on the bluff edge in the area surrounding the lighthouse

VEGETATION

The natural vegetation in the project area includes the following vegetation series as defined by Sawyer and Keeler-Wolf (1995): sedge, bulrush-cattail, yellow pond-lily, California annual grassland, introduced perennial grassland, red alder, sitka willow, and hooker willow. Coastal scrub also occurs within the project area, but none of the scrub vegetation series in Sawyer and Keeler-Wolf (1995) adequately describe the unit's coastal scrub vegetation. The Northern Coastal Bluff Scrub listed by the California Natural Diversity Data Base (CNDDB 2002) is the community type most similar in species composition to the coastal scrub in the unit. A few non-indigenous Monterey cypress are scattered in grassland areas.

WILDLIFE

Typical wildlife habitats in the area include coastal grassland, wetland, riparian forest, forest patches, and ponds. The site was altered by a variety of uses during the past century, including cattle grazing and the planting of eucalyptus, cypress, and other non-native trees for windrows. Red-shouldered hawks *(Buteo lineatus),* ravens *(Corvus corax),* and other birds nest in these groves. The grasslands and sedge wetlands provide important nesting and foraging habitat for raptors, such as northern harrier *(Circus cyaneus)* and white-tailed kite *(Elanus leucurus)*. Songbirds are abundant in all habitats, and seabirds are common on the rocky shore and islands. The spring-fed water supply pond provides habitat for many amphibians, including northwestern salamanders *(Ambystoma gracile,* with a high density of larvae and egg masses found on surveys in 2003), coastal (Pacific) giant salamanders *(Dicamptodon ensatus),* and northern red-legged frog *(Rana aurora aurora)*.

Special-Status Species[1]
Sensitive biological resources that occur or potentially occur within the proposed project site include plants and animals that have been given special recognition by federal, state, or local resource agencies and organizations. Habitats that are listed as critical for the survival of a listed species or have special value for wildlife, and plant communities that are unique or of limited distribution are also considered. The species evaluated are listed in Appendix 1. The U.S. Fish and Wildlife Service (USFWS) provided a list of sensitive species that may be present in the project area or may be affected by the project (June 2002). Sensitive species includes Threatened and Endangered plant and wildlife species and California Species of Special Concern, which are special-status species that have legal protection. All sensitive species and their habitats were evaluated for potential impacts by this project. A query of the California Department of Fish and Game's Natural Diversity Database (CNDDB 2002) was conducted for sensitive species and habitats within the Fort Bragg and Mendocino 7.5-minute USGS quadrangle maps and Mendocino County. Special-status plant species potentially occurring in the Mendocino quadrangle map were derived from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (6th edition, electronic version, 2001).

Threatened and Endangered Species and Species of Special Concern
The following special-status species were obtained from CNDDB, CNPS, USFWS queries for the quadrangle maps mentioned above, and from field observations by various plant specialists.

PLANT SPECIES[1]- The CNDDB reports occurrences of 21 species for the Mendocino and Ft. Bragg 7.5' minute quadrangles. The CNPS lists 25 special-status species for the Mendocino quadrangle, most of which appear on the CNDDB list. Two plants appear on the U.S. Fish and Wildlife Service list for the Mendocino and Ft. Bragg quadrangles, both of which are listed as federal endangered. Suitable habitat does not exist within the project area for most of the species that appear on these three lists.

Plant Species Known or Potentially Occurring Within the Project Area

Blasdale's bent grass (*Agrostis blasdalei*) **-** This CNPS list 1B species can be found in coastal grasslands and coastal bluff scrub communities of Santa Cruz, Marin, Sonoma, and Mendocino counties. The blooming period is from May through July. Within the project area, Blasdale's bent grass occupies coastal bluff edges adjacent to the light station building.

Point Reyes blennosperma (*Blennosperma nanum* var. *robustum*) - This CNPS List 1B species occurs in coastal grasslands and coastal scrub of Marin and Mendocino Counties. Blooming from February through April, this forb is not likely to be present within the project area. Previous surveys have failed to locate this species in the project area.

Swamp harebell (*Campanula californica*) - This CNPS List 1B species inhabits several different habitats, including wet areas in coastal grasslands, seeps, and freshwater marshes and swamps. Swamp harebell blooms from June through October. It occurs in areas near the

unit, and suitable habitat exists within the project area. Known locations include several sites two miles north at Jughandle State Reserve and an area approximately one mile south on private property adjacent to Russian Gulch State Park. This species may occur in wet areas adjacent to the pond that supplies water for the unit.

California sedge (*Carex californica*) - California sedge is a CNPS List 2 species that inhabits several different habitats, including coastal grasslands, seeps, and the margins of freshwater marshes and swamps. It blooms from May through August. Although possibly occurring within the project area, there are no reported occurrences in the vicinity of the unit.

Deceiving sedge (*Carex saliniformis*) - This CNPS List 1B species, which blooms in June, can be found in coastal grasslands, coastal scrub, seeps, and coastal salt marshes and swamps. The closest reported locations are a few miles south in the vicinity of the town of Mendocino and several miles north at Inglenook Fen in MacKerricher State Park. Although unlikely, this plant may occur within the project area.

Mendocino coast Indian paintbrush (*Castilleja mendocinensis*) - This CNPS List 1B, which blooms from April through August, occurs in coastal scrub, coastal grasslands, and closed-cone coniferous forests. It occupies coastal bluff areas of the unit, including locations adjacent to the project area.

Howell's spineflower (*Chorizanthe howellii*) - Howell's spineflower is a State Threatened and Federal Endangered species known from only a few locations, all within the Fort Bragg 7.5' minute quadrangle. It blooms from May through July, and inhabits sandy coastal scrub and sandy coastal grasslands. Suitable habitat does not exist within the project area for this species.

Supple daisy (*Erigeron supplex*) - The supple daisy is a CNPS List 1B species that can be found in coastal grasslands and coastal scrub. Its blooming period is from May through July. Supple daisy is known to occur in the unit, but surveys have not located this species within the project area.

Roderick's fritillary (*Fritillaria roderickii*) - This CNPS List 1B species is State Endangered and is endemic to Mendocino County. It blooms from March to May and occurs in coastal grasslands and coastal scrub. The closest reported location is more than 20 miles south of the unit in the Point Arena area. It is unlikely that this species exists within the unit. Previous surveys have failed to locate this species in the project area.

Pacific gilia (*Gilia capitata* ssp. *pacifica*) - Pacific gilia is a CNPS List 1B species that occurs in coastal grasslands and coastal scrub of Del Norte, Humboldt, and Mendocino Counties. It blooms from May through August. Previous surveys have failed to locate this species in the project area.

Short-leaved evax (*Hesperevax sparsiflora* var. *breviflora*) - This CNPS List 2 species, which blooms from March through June, can be found in sandy coastal scrub and coastal dunes of Humboldt, Mendocino, Sonoma, Marin, and Santa Cruz Counties. Within the project area, short-leaved evax occurs in areas adjacent to the light station building, primarily north of the structure.

Bolander's horkelia (*Horkelia bolanderi*) - This CNPS List 1B species blooms from June through August. It occurs in mostly moist areas in chaparral, grasslands, seeps, and coniferous forests of Lake and Mendocino Counties. Previous surveys have failed to locate this species in the project area. Based on habitat preferences, it is highly unlikely this species exists within the unit.

Point Reyes horkelia (*Horkelia marinensis*) - This CNPS List 1B species occurs in coastal dunes, coastal grasslands, and sandy coastal scrub of San Mateo, Santa Cruz, Marin, and Mendocino Counties. It blooms from May through September. The closest reported locations in Mendocino County are several miles to the north in Fort Bragg and Mackerricher State Park. Previous surveys have failed to locate this species in the project area. Based on habitat preferences, it is highly unlikely this species exists within the unit.

Baker's goldfields (*Lasthenia macrantha* ssp. *bakeri*) - Baker's goldfields is a CNPS List 1B species that inhabits coastal scrub and openings in closed-cone coniferous forests of Mendocino and Marin Counties. It blooms from April through October. Previous surveys have failed to locate this species in the project area.

Perennial goldfields (*Lasthenia macrantha* ssp. *macrantha*) - This CNPS List 1B species, which blooms from January through November, inhabits coastal dunes and coastal scrub of San Luis Obispo, San Mateo, Marin, Sonoma, and Mendocino Counties. Within the project area, perennial goldfields occur in areas adjacent to the light station building.

Coast lily (*Lilium maritimum*) - Coast lily is a CNPS List 1B species that occurs in several different habitats, including coniferous forests, coastal grasslands, coastal scrub, and freshwater marshes and swamps of Marin, Sonoma, and Mendocino Counties. It blooms from May through July. Coast lily can be found in the vicinity of the pond that supplies water for the unit. There may be other locations for this species within the project area.

Marsh microseris (*Microseris paludosa*) - This CNPS List 1B species, which blooms from April through June, inhabits closed-cone coniferous forests, coastal scrub, and coastal grasslands of San Luis Obispo, Monterey, Santa Cruz, Marin, Sonoma, and Mendocino Counties. Information for occurrences in Mendocino County is sparse.

North Coast phacelia (*Phacelia insularis* var. *continentis*) - North Coast phacelia is a CNPS List 1B species that occurs in coastal scrub and coastal dunes of Marin and Mendocino Counties. The blooming period for this plant is March to May. The closest reported locations are in Mackerricher State Park several miles to the north. Previous surveys have failed to locate this species in the project area. Based on habitat preferences, it is highly unlikely this species exists within the project area.

Seacoast ragwort (*Senecio bolanderi* var. *bolanderi*) - This CNPS List 2 species inhabits coastal scrub and coniferous forest areas of Mendocino, Humboldt, and Del Norte Counties. It blooms June through July. Information for occurrences in Mendocino County is sparse. Previous surveys have failed to locate this species in the project area.

Maple-leaved checkerbloom (*Sidalcea malachroides*) - This CNPS List 1B species inhabits coastal grasslands, coastal scrub, and coniferous forests from Monterey County north into Del Norte County. It blooms from April through August. The closest reported location is less than two miles to the east in the Doyle Creek drainage. Previous surveys have failed to locate this species in the project area.

Purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*) - This CNPS list 1B species, which blooms in May, can be found in coastal grasslands and broad-leaved forests of San Mateo, Sonoma, and Mendocino Counties. The closest reported location is near Lake Cleone in MacKerricher State Park, several miles to the north. Previous surveys have failed to locate this species in the project area.

ANIMAL SPECIES - Special-status animal species are known to occur within the project area.

Invertebrates

Lotus (Lotis) blue butterfly *(Lycaeides argyrognomon lotis) (*also *L. idas lotis)* (Federal Endangered) is known from only a few locations in Mendocino County but has not been observed in recent years. Habitat requirements are not well known, but may include large stands of perennial plants of the family Fabaceae (Pea Family). Coast trefoil (also Coast Hosackia) *(Lotus formosissimus)* is a likely host plant and is present at PCLS. Eggs are laid singly on stems of the host plant or in debris beneath it. Second-stage caterpillars overwinter and one brood is produced from July to August. Adults feed on nectar from flowers. The lotus blue butterfly may be dependent on bogs, the short-lived successional stages of former ponds. The species may have been naturally rare with low population densities. Because agriculture and human development have altered natural habitats in the region, new bog habitats may no longer be created and the host plant may have been reduced or eliminated in much of its former range.

Botanical surveys were conducted in April – May 2002. *Lotus formosissimus* was found in the area of the proposed barn reconstruction and along the road to the lighthouse. The US Fish and Wildlife Service surveyed for Lotis blue butterfly in the spring of 2003, but did not locate any populations.

Behren's silverspot butterfly *(Speyeria zerene behrensii)* (Federal Endangered) was first discovered near the town of Mendocino, within approximately five miles of PCLS. The species occurs in coastal terrace prairie habitat where violet *(Viola adunca)* is the larval food plant.

Black abalone *(Haliotis cracherodii)* (Candidate for federal listing) occur in the intertidal zone of the Pt. Cabrillo State Marine Conservation Area (MCA), off the western boundary of PCLS. It does not occur within or adjacent to the proposed project areas.

Fish

The streams within the project area are separated from the ocean by cliffs and do not support sensitive anadromous fish species, **chinook salmon** *(Oncorhynchus tshawytscha),* **coho salmon** *(O. kisutch)*, or **steelhead** *(O. mykiss)*. **Tidewater goby** *(Eucyclogobius newberryi)* requires lagoons; no suitable habitat occurs within the preserve.

Reptiles

Northwestern pond turtle *(Clemmys marmorata marmorata)* is a California Species of Special Concern. Western pond turtle occurs in lakes, ponds, rivers, and creeks, below 3000 feet elevation. There are no records of pond turtles in the Preserve. The ponds and upland sites within the Preserve may provide suitable habitat for pond turtles.

Amphibians

Northern red-legged frog *(Rana aurora aurora)* is a Federal and California Species of Special Concern. This species is found in permanent or temporary (4-6 months) fresh water bordered by dense grassy or shrubby vegetation, such as willow thickets or sedge swales. This species was found in the wetland area immediately below the water supply pond dam and may occur elsewhere in the Preserve.

California red-legged frog (*R. aurora draytonii*) is listed as a federal Threatened species and a California Species of Special Concern. This species is included in the USFWS species list for Mendocino County, and although it may occur in the coast range of southeastern Mendocino County, it does not occur in the vicinity of PCLS or in coastal Mendocino County.

Birds

California brown pelican *(Pelecanus occidentalis californicus)* is a federal and California Endangered species. This species nests on undisturbed islands off the southern California coast and is rarely seen on the northern California coast from December to May. They are commonly seen from June to November in northern California and may roost on rocks and small islands in and near PCLS.

Bald eagle *(Haliaeetus leucocephalus)* is a federal Threatened species and a California Endangered species. There are no recent records (within 25 years) of bald eagles nesting on the northern California coast. Bald eagles forage on the northern California coast during winter and may be occasional winter visitors to PCLS, but the Preserve does not contain established winter roost sites.

Northern harrier *(Circus cyaneus)* is a California Species of Special Concern. Harriers forage over grasslands and wetlands, and nest in exposed sites in open grasslands and emergent wetlands within the Preserve. The Preserve supports three or more nesting pairs.

Ospreys *(Pandion haliaetus)* (California Species of Special Concern) inhabit large territories and are regularly seen flying across the project area. Ospreys nest with approximately five miles of the project area, but no nests have been observed within the Preserve.

Pelagic Cormorants (*Phalacrocorax pelagicus*) nest in colonies between April and August on steep cliffs at Pt. Cabrillo. Cormorants dive from the water surface to feed on small fish and crustaceans, near the rocky shore. If adults are disturbed from the nest, eggs and young are vulnerable to predation by gulls. The cliff nesting areas are inaccessible to the public, although visible from the Lighthouse bluffs, and activities at PCLS have no significant effect on the cormorants.

Western snowy plover *(Charadrius alexandrinus nivosus)* is a federal Threatened species. They nest on sandy beaches and forage in sand above and below tide line. The small coves within the Preserve or adjacent MCA do not provide suitable nesting or foraging habitat.

Marbled murrelet *(Brachyramphus marmoratus)* is a federal Threatened and California Endangered species. They use mature forest habitat, which may be present within a few miles of the project area, but no suitable habitat exists in the preserve.

Northern spotted owl *(Strix occidentalis caurina)* is listed as a federal Threatened species. They use mature forest, which may be present within a few miles of the project area, but no suitable habitat exists in the preserve.

Mammals

California red tree vole *(Arborimus pomo)* is a California Species of Special Concern, found primarily in Douglas fir *(Pseudotsuga menziesii)* forest. Only individual Douglas fir trees and isolated patches of Douglas fir occur within the park. The park is unlikely to provide suitable habitat for red tree voles.

Yuma myotis *(Myotis yumanensis)* is a Federal Species of Concern and is common in central and northern California. They roost in large groups in buildings, caves, and bridges. Optimal habitats include open woodland near water. Bat surveys conducted in 2002-03 found Yuma myotis foraging over the water supply pond and around cypress trees near the park residences. Other non-sensitive bat species were also found in the park. Bats were not found roosting in the houses or other structures.

SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities are communities that are especially diverse, regionally uncommon, or of special concern to local, state and federal agencies. Four of the unit's plant communities (= vegetation series) are listed as sensitive by the CNDDB. These are Northern Coastal Bluff Scrub, Red Alder Series, Sitka Willow Series, and Hooker Willow Series.

The spring-fed water supply pond, located to the south of the historic buildings, provides important wetland habitats for amphibians, otters, and other wildlife. The pond supports a large invertebrate community and provides significant foraging habitat for bats.

WETLANDS AND WATERS OF THE UNITED STATES

The U.S. Army Corps of Engineers (USACE) defines wetlands as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The majority of USACE jurisdictional wetlands meet three wetland

delineation criteria: (1) hydrophytic vegetation, (2) hydric soil types, and (3) wetland hydrology. Two ponds and four perennial streams are among the wetlands that occur in the park. Other wetland areas within the park are seasonally inundated.

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

a) (i) The larval host plant (*Lotus formosissimus*) for the Lotis blue butterfly is within the project area. Surveys sponsored by the USFWS in 2003 failed to locate any of the butterflies at Point Cabrillo and it is possible this species does not occur at the preserve. *Lotus formosissimus* has not been identified in the proposed project area along Lighthouse Road from the Residences to the Lighthouse or within the historic footprint of the barn foundation and roadway surrounding the barn. However, host plants have been identified along the roadway between the Residences and the barn site and could be affected by the project. To avoid the possibility of incidental take, and to protect potentially suitable habitat for possible future species recovery and re-colonization, the following mitigation measures, as recommended by USFWS, will be implemented to reduce any potential impact to a less than significant level.

MITIGATION MEASURE BIO-1 LOTIS BLUE BUTTERFLY PROTECTION
• Prior to any vegetation or ground disturbing activities (including excavation, trenching, vegetation removal, parking equipment in vegetated areas, etc.), and during the spring prior to construction, surveys will be conducted by a DPR-qualified resource ecologist for *Lotus formosissimus* within 50 feet of areas where plants may occur. All occurrences of the plant will be mapped on project maps. A fenced buffer area of 10 feet will be established around all plants, except where buffer will overlap the road shoulder, prior to the start of construction. No ground or vegetation disturbing activities will take place within the 10 foot buffer area. The temporary protective fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed. • In the areas where plants are within five feet of the road shoulder, a DPR-qualified resource ecologist will monitor construction activities to divert activity away from plants within or immediately adjacent to the road shoulder, outside the fenced buffer areas. • The project manager, contractor, and/or State Representative will meet with the assigned resource ecologist, to define details relating to the construction zone, access points, and avoidance of impacts along the Barn road, prior to the start of construction. The Service Center or District Natural Resource Section will be contacted a minimum of three weeks prior to the start of construction to schedule the on-site meeting, unless other arrangements are made in advance.

(ii) Behren's silverspot butterfly (Federal Endangered species). Botanical surveys conducted in April and May 2002 did not locate the host plant (*Viola adunca*) in or near the project areas. As a result, USFWS determined that the project, as proposed, is unlikely to result in take of Behren's silverspot butterfly. No significant impact.

(iii) Animal burrows may provide wintering or burrowing sites for badger, northern red-legged frog, western pond turtle, or other wildlife. Ground-disturbing activities related to the proposed project could significantly impact one or more of these species. Implementation of Mitigation Measure BIO-2 will reduce any potential impact to a less than significant level.

MITIGATION MEASURE BIO-2 WILDLIFE PROTECTION - BURROWING ANIMALS
• Under the supervision of a DPR-qualified resource ecologist, burrows within 300 feet of the water supply pond will be hand excavated and collapsed within one week prior to the start of construction. If animals are found, they will be removed and released in a suitable location.

iv) Construction of the leach field, reconstruction of fences and structures, and proposed roadwork and pond maintenance will disturb areas of annual grassland, scrub, and other natural habitats. These areas may be used by nesting raptors; Northern harriers, a California Species of Special Concern, nest in grasslands. The following mitigation measures will reduce any potential impact to nesting raptors to a less than significant level.

MITIGATION MEASURE BIO-3 NESTING RAPTOR PROTECTION
• Work in grasslands, scrub, and other areas that could support nesting raptors will occur from August to February (outside the normal breeding season), to the extent feasible. • If work must occur during the breeding season, a survey to locate nests in the project area will be conducted within 30 days prior to the start of work. A buffer zone of up to 500 feet will be established around any active nest found during this survey or during construction, based on variables such as season, topography, or the nature of the construction activity, as determined by a DPR-qualified resource ecologist. All operations will be excluded from the buffer area until young have fledged from the nest.

(v) Although California brown pelicans (federal and California endangered) may roost within PCLS boundaries, no project activities will cause significant impacts to this species.

(vi) Immediately below the concrete water supply dam are mats of emergent vegetation, established in a wetland area caused by constant dam over-spillage. This provides excellent habitat for amphibian larvae, including the northern red-legged frog. Construction activities, such as walking, vehicle staging or parking, and storage of materials could result in a significant impact to this habitat. Implementation of Mitigation Measure BIO-4 will reduce any potential impact to northern red-legged frogs to a less than significant level.

MITIGATION MEASURE BIO-4 NORTHERN RED-LEGGED FROGS
• A DPR-qualified resource ecologist will identify an appropriate buffer zone around the wetland at the base of the dam, prior to the start of any work in the pond area. Temporary protective fencing will be installed and all construction operations will be excluded from this area. Fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed.

(vii) Roderick's fritillary is a CNPS List 1B species that is State Endangered and endemic to Mendocino County. Although previous surveys have failed to locate this species in the project area, marginal habitat exists there, and construction activities proposed as part of this project could cause a significant impact to this plant species if present. Implementation of the following mitigations will reduce any potential impacts to Roderick's fritillary to a less than significant level.

MITIGATION MEASURE BIO-5 RODERICK'S FRITILLARY
• A survey of the proposed project site will be conducted March through May, within one year prior to the start of construction. • If Roderick's fritillary is found within the project area, the perimeter of the species occurrence will be flagged on the ground and mapped on project maps. Protective fencing will be erected around the occurrence and will include a 10-foot buffer zone. No construction-related activities will occur within the exclusion area. Fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed. • DFG will be advised if any plant is found in the project area.

(ix) There are nineteen CNPS List 1B or List 2 species that occur, or have the potential to occur, within the vicinity of the proposed project. These are: Blasdales's bent grass, Point Reyes blennosperma, swamp harebell, California sedge, deceiving sedge, Mendocino coast Indian paintbrush, supple daisy, Pacific gilia, short-leaved evax, Bolander's horkelia, Point Reyes horkelia, Baker's goldfields, perennial goldfields, coast lily, marsh microseris, North Coast phacelia, seacoast ragwort, maple-leaved checkerbloom, and purple-stemmed checkerbloom. Proposed ground-disturbing activities associated with this project have the potential to significantly impact one or more of these species, if present during construction. Implementation of the following mitigation measures will reduce any potential impact to a less than significant level.

MITIGATION MEASURE BIO-6 CNPS LIST 1B AND 2 PLANT SPECIES
• Surveys will be conducted during the appropriate blooming months (or when species can be unmistakably identified), in the year immediately preceding work at a specific site, for all CNPS List 1B and List 2 plant species that could potentially occur within the project area. • All occurrences of CNPS List 1B and List 2 species found within the project area will be mapped on project maps, flagged on the ground, and avoided to the extent feasible. • Construction-related damage to individual plants or habitat will be mitigated at a ratio of 3:1 through habitat enhancement for these species within the PCLS (or as negotiated with DFG).

(xi) Northern Bluff Scrub, Sitka Willow Series, and Hooker Willow Series are sensitive natural plant communities that occur within the project areas. Activities proposed as part of this project could partially or completely eliminate one or more of these plant communities. Removal of 25% or more of the total acreage currently occupied by any single plant community will be considered a significant impact. Implementation of the following mitigation measures will reduce any potential impact to a less than significant level.

MITIGATION MEASURE BIO-7 SENSITIVE NATURAL PLANT COMMUNITIES
• Prior to ground disturbing activities, a DPR-qualified resource ecologist will determine the amount of acreage occupied by each plant community and the amount of acreage that will be eliminated by the proposed construction. All Northern Bluff Scrub, Sitka Willow Series and Hooker Willow Series vegetation removed by project-related activities will be replaced, at the minimum ratio stipulated by DFG or the appropriate regulatory or permitting agencies, within PCLS or other approved habitat areas. Replacement plants will be grown from local seed sources, to result in no net loss of native plant communities. • The revegetated areas will be monitored and invasive plant species controlled, as part of the on-going PCLS vegetation management program.

b. No work proposed as part of this project will occur with a riparian area. No impact.

c. (i) Wetlands, as defined by the USACE, occur within the footprint of the project. Additionally, many of the locations within the project could qualify as wetlands, as defined by the California Coastal Commission (CCC). Some of these areas could be impacted by proposed work, including the addition of fill material and removal of wetland soils and vegetation in conjunction with proposed roadwork. Implementation of the following mitigations will reduce wetland impacts to a less than significant level.

MITIGATION MEASURE BIO-8 WETLANDS
• Consultation with CCC, USACE, DFG, and other appropriate regulatory or permitting agencies will occur prior to the start of construction. Mitigation measures recommended or required by the regulatory agencies will be implemented, as appropriate, in addition to project mitigation measures indicated below. • Directional drilling will be used to minimize impacts to wetlands and sensitive plants, to the extent feasible; pipes will be installed at a depth of three feet or more below wetlands. • All equipment and pedestrian access pathways that cross native vegetation or wetlands between the barn site and the water supply pond, or between Lighthouse Road and the water supply pond, will be protected with plywood, protective matting, or other appropriate material to prevent soil compaction and destruction of vegetation. The number of access points to the pond will be limited to protect bank soil and vegetation. Directional drilling equipment will use only paved roads and avoid vegetated areas except between the barn site and the pond (Figure 1). Location of access pathways will be reviewed and approved by a DPR-approved resource ecologist prior to use; equipment and pedestrian access along these routes will be monitored by the project resource ecologist during all phases of work. • Work will be conducted during the driest period of the year to protect wetlands (generally August-September).

(ii) The water source for PCLS is a pond (1.3 acre feet), supplied by underground springs and seepages; a pumphouse and filtering system is located at the pond. The wetland habitats at the water supply pond will be protected from long term or permanent damage by limiting impacts to the pond banks and surrounding natural habitat. However, regular pond maintenance and upgrades to the water distribution system, needed to support proposed uses, have the potential to significantly impact drainage habitat and bank stability. Implementation of the following mitigations, in conjunction with Bio-8 above, will reduce any potential impacts to a less than significant level.

MITIGATION MEASURE BIO-9 WATER SUPPLY POND

- The outflow area below the dam will not be disturbed by dredging or other project activities; the outflow area includes the outflow stream and a buffer area around the wetland. (See Figure 1 and BIO-4)
- Vegetation removal, excavation, and other project activities will be conducted during the driest period of the year (August – September). Vegetation removal and dredging within the pond will be conducted by hand; mechanized equipment may be used to transport spoils from the pond to drying areas or for disposal. Removal of vegetation and placement of equipment will be subject to consultation and approval of a DPR-qualified resource ecologist.
- Vegetation and spoils removed from the pond will be disposed of within PCLS boundaries. Vegetation will be dried on-site prior to burning, composting, or other use. Location for drying and disposal will be subject to consultation and approval of a DPR-qualified resource ecologist.
- If the water level is lowered to perform dredging and plant removal, the period of lowering will be minimized and will not exceed five days. A minimum water level of three feet will be maintained in the south section of the pond and, at no time, will the pond be allowed to dry out.

d) Native wildlife nursery sites are likely to occur within the project area. Songbirds, small mammals, amphibians, and other species are also likely to inhabit the project sites. A total of one to five acres of annual grassland habitat will be removed or temporarily impacted during construction. Although suitable habitat for birds, mammals, and other wildlife will be removed, the impact of losing one to five acres of annual grassland habitat within approximately 300 acres will be less than significant. Native habitats will be restored or enhanced elsewhere on the unit through control of invasive exotic plants, as part of the on-going vegetation management program at PCLS, further reducing long-term impacts to habitat. (See additional mitigation measures for special status species in BIO 1-8 above.) The project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. No significant impact.

e,f) The project will not conflict with any adopted Habitat Conservation Plan or other approved local, regional, or state habitat conservation plan. No impact.

[1] For the purposes of this document, special-status species are defined as plants and animals that are legally protected or that are considered sensitive by federal, state, or local resource conservation agencies and organizations. Specifically, this includes species listed as state or federally Threatened or Endangered, those considered as candidates for listing as Threatened or Endangered, species identified by the USFWS and/or CDFG as Species of Concern, animals identified by CDFG as Fully Protected or Protected, and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (i.e., plants on CNPS lists 1 and 2).

V. CULTURAL RESOURCES.

ENVIRONMENTAL SETTING

The site of Point Cabrillo Light Station is predominantly located in the NE ¼ of the NW ¼ of the SW ¼ of Section 12, T17N R18W Mt Diablo BM, Mendocino 7.5" USGS 1960 Quad, Photo Revised 1978. PCLS contains approximately three hundred acres, with a 30.5-acre historic core on the western edge of the property.

The preserve is situated on a grassy coastal strip comprised of ancient marine terraces carved by spring-fed drainages. Vegetation includes indigenous and introduced grasses, poison oak, forbs, berries, ferns, and thistles mixed with Monterey Cypress groves, occasional eucalyptus, and Bishop pine. The coves and inlets that border the coastal side of the parcel are rich in shellfish, fish, kelp, seaweed, and other marine resources long sought after by the native populations and the rocky headlands provided ideal haul-outs for sea mammals. Deer were also plentiful in the area (Hylkema & Sickler, 1990).

Currently, there are two main categories of cultural resources, the historic environment and the archaeological environment. The historic environment includes the buildings and the cultural landscape that are part of the National Register District. The archaeological environment is comprised of prehistoric and historic sites, known historic archaeological features, and site CA-MEN-792 that was accepted for the National Register of Historic Places (NRHP) in 1975.

Numerous cultural resource inventories/studies have been conducted at PCLS since the 1980s. Bramlette in 1986, and Hylkema & Sickler in 1990, focused their studies on the Native American Resources. Archaeological Resource Services of Petaluma closely examined the historic resources in the core of the Light Station complex (Roop 1998; Chattan, et al., 2001a & 2001b; Roop 2003-Personal Communication). Bardley (2003) prepared a Cultural Landscape Report of the Point Cabrillo Light Station that will guide the restoration planning process. Currently, twenty-two archaeological sites have been recorded in the preserve (17 prehistoric and 5 historic sites).

ETHNOGRAPHY

The ethnographic inhabitants of the Point Cabrillo area were Pomo. The Pomo, who spoke seven different linked languages, occupied the California coast from about Fort Bragg south to the mouth of the Russian River and inland to the headwaters of the Eel and Russian Rivers, including Clear Lake (McLendon & Oswalt, 1978). The Point Cabrillo coastal area was probably used by several Northern Pomo subgroups until about 1851, when pressure from white settlers drove a group known as the Me-tum'-mah into permanent occupation of the area. This group drove the Bo'-yah from Point Arena out of the area and began to develop villages. Whether some or all of the seventeen Native American sites in the 300 acre preserve were developed recently with the arrival of Me-tum'-mah or reflect a series of occupations over a range of time is unknown (Hylkema & Sickler, 1990). Ultimately, the Pomo were driven out of this area by white incursion.

ARCHAEOLOGY

Seventeen Native American Archaeological sites have been recorded in the 300 acres of PCLS. All of the identified prehistoric sites are shell middens that contain predominately marine shell refuse. In addition to shell, some of the sites contain mammal bones (sea), fire affected rock, and debitage (chert and obsidian). These constituents indicate the procurement and processing of marine resources. Density of the midden deposits from site to site range from very sparse to very dense. Site size varies as well, and range from 15 to 40 meters in diameter. Most of the sites are situated along the two main drainages that transect the Preserve. One of the drainages is located in the northern section of the Preserve and the other near the southern boundary.

To date, none of the seventeen prehistoric sites recorded in the 300-acre DPR acquisition have been excavated. Dr. Thomas Layton and crews from San Jose State University conducted excavations at five Native American archaeological sites about six miles south of Point Cabrillo between 1980 and 1985 (Hylkema & Sickler, 1990). The artifacts recovered from these excavations spanned more than 3,000 years. A large fluted projectile point, of a type associated within big game hunting context, known to be more than 10,000 years old, was found near Caspar by a member of the San Jose State group during the survey. Several other excavations have been conducted along the Mendocino coast, generally resulting in proto-historic artifact yields. Proto-historic contexts include both the standard array of Native American tools and historic artifacts, such as glass trade beads. At least one site yielded artifacts chipped from ceramic fragments and unmodified fragments apparently salvaged from the sailing ship Frolic that wrecked at Point Cabrillo in 1850. The wreck (CA-MEN-1974H) is located off shore in the northern-most cove in the Preserve.

Five historic archaeological sites have been recorded at PCLS. Two of these sites are the Point Cabrillo Light House Complex (CA-MEN-2061H) and the Dick Kearns Ranch (CA-MEN-2059H). The other three sites consist of artifacts and features that suggest the location of former structures associated with habitation, and domestic and work related activities.

LIGHTHOUSE

The Lighthouse complex itself once consisted of twelve structures, of which nine remain. The Area of Potential Effect (APE) for the proposed project encompasses the entire lighthouse complex and a fair amount of the surrounding Preserve. These include the Lighthouse area, Residence complex, Blacksmith shop, and foundations for the barn, water tower, and pumphouse.

REGISTER ELIGIBILITY

As part of a project evaluation, the area contained within the project APE must be assessed for National Register or California Register eligibility. The National Register is the nation's inventory of historic places and the national repository of documentation on the variety of historic property types, significance, abundance, condition, ownership, needs, and other information. It is the start of a national census of historic properties. The California Register recognizes properties that are significant to the local area or to California.

The Native American site CA-MEN-792 was nominated for and accepted for the National Register of Historic Places in 1975 under Criterion D, the potential to yield, information important in prehistory or history.

The Point Cabrillo Lighthouse and associated buildings and structures were nominated for the National Register and were listed as part of the National Register Point Cabrillo Historic District in 1990. According to the National Register description, "the Point Cabrillo Light Station is an excellent example of a historically intact early 20th Century light station." The text goes on to note that the barn is the only missing structure. This incorrect since both the pump house and water tower are missing. It also goes on to describe the water tower/tank as an extant metal sided cylindrical tank approximately 15" tall which is incorrect. There is photographic documentation showing both the first and second water tower/tanks and they are both wooden tanks supported on wooden towers. The intent of the project is to reconstruct the first water tank based on graphic and photographic evidence.

Since the entire facility is already on the National Register, and the proposed work will occur on structures that are all contributors to the known National Register district, the potential impacts were carefully considered.

ARCHAEOLOGICAL RESOURCES

Prehistoric Archaeological Resources: The only formally recorded prehistoric archaeological site located in the APE is CA-MEN-792. CA-MEN-792 is one of seventeen Native American sites known to exist within the 300-acre parcel, but the only one known to exist within the 30-acre Lighthouse area (historic core). The site is situated on top of an eroding coastal bluff, approximately 200 meters south of the Point Cabrillo Light Station. Originally, the site was recorded by W.E. Pritchard in 1970, and was accorded NRHP status in 1972. The site is marked by very dense shell midden deposit, consisting of mussel, abalone, barnacle, chiton, and limpet, as well as fire affected rock and debitage. Evident in the eroding ocean bluff is a midden deposit at a depth of at least 75 centimeters in some places. While located in the APE, it is unlikely that ground disruption associated with the myriad of restoration activities planned for the 30 plus acres will impact the site.

Historic Archaeological Resources: Five historic archaeological sites and four isolated features have been recorded within PCLS. These historic archaeological resources vary in type and location throughout the APE and include areas adjacent to the historic barn and water tower locations, proposed site for relocation of the Blacksmith shop, road reconstruction locations, and locations for utility trenching.

HISTORIC RESOURCES

Buildings: The primary extant historic resources consist of the Lighthouse; Keepers and Assistant Keepers Quarters, and associated outbuildings; Oil house; and Blacksmith Shop. The site of the Barn and the foundations of the Pump House and Water Tank also remain.

Cultural Landscape: Cultural landscapes are geographic areas that have been shaped by human activity. They can result from either a conscious design or plan or may have evolved, without a plan or design, as a result of people's activities. Cultural landscapes have been accepted as cultural resources, along with buildings and structures and archaeological resources (Bradley 2003). The Point Cabrillo Light Station is primarily a historic designed cultural landscape with vernacular elements.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

DISCUSSION

a) As noted in the Environmental Setting above, all elements of the proposed project will occur partially or completely within the boundaries of a known National Register site, the Point Cabrillo Light Station. The proposed activities that could impact historic resources include the rehabilitation and/or adaptive re-use of the Residences and outbuildings, and the relocation of the Blacksmith building. Implementation of Mitigation Measure CULT-1 below will reduce any potential impact to a less than significant level.

MITIGATION MEASURE CULT-1

- The proposed restoration and rehabilitation of the three residences and two outbuildings will be fully supported by Historic Structure Reports.
- A DPR-qualified historian and architect will oversee reconstruction design and implementation. Prior to the start of work in any new area, the project manager, contractor, and/or State Representative will consult with the project historian to determine the extent of monitoring necessary for each specific phase of the project. A monitoring schedule will be set at that time.
- The project site, structures, and adjacent features will be photodocumented before, during, and after construction. Photos will be added to the PCLS and District historical records (archives).

MITIGATION MEASURE CULT-1 (CONT)
• All work impacting the historic fabric or significance of the historic resource and its surroundings will adhere to the restrictions and requirements set forth in the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer.

In addition to the restoration and rehabilitation of the residential complex, the reconstructions of the barn, pump house and water tower; tank and construction work on buildings; and various site work has the potential to impact the cultural landscape and/or the historic setting. This site work includes changes to Lighthouse Road from the residences to the Lighthouse; altering of the road to the barn; re-grading and resurfacing of the road that accesses the rear (north) end of the residences; removal of existing asphalt from the surface of Lighthouse Road from the western edge of the residences to the Lighthouse; removal and/or reconstruction of various concrete sidewalks; removal non historic fencing; reconstruction of historic fencing; and restoration of the historic garden and landscape plantings at the eastern residence. **I**mplementation of the following mitigation measures, in conjunction with CULT-1 above, will reduce any potential impact to a less than significant level.

MITIGATION MEASURE CULT-2
• All site work will conform to the recommendations of the Cultural Landscape Analysis and Report (Bradley, 2003)and Setting sections of the Secretary of Interior's Standards for Reconstruction and Restoration.

Bradley (2003) prepared a Cultural Landscape analysis and report of the Point Cabrillo Light Station. All cultural landscape features that were built as part of the operations of the Light Station or associated with the lives of the keepers and their families, and that were in place by the end of the period of significance (1909-1940), are considered to be contributing cultural landscape features. All are considered as contributing to the historic district's ability to convey its significance, and their presence enhances the historic district's integrity. All should be preserved and protected (Bradley, 2003). This report will act as a guide for the restoration planning process for PCLS. Recommendations provided in this report follow *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (U.S. Department of Interior 1996). Following Mitigation Measure CULT-3 will reduce impacts to the cultural landscape to a less than significant level.

MITIGATION MEASURE CULT-3
• All work will incorporate recommendations for both general and specific treatment strategies for the contributing individual cultural landscape features, as referenced in the Cultural Landscape Study.

b) The APE has a high degree of archaeological sensitivity, because it is located in the historic district of PCLS. Additionally, seventeen prehistoric sites have been recorded in the Preserve. Because of the natural ambiguity of archaeological resources (often located below the surface) and the heavy vegetation covering most of the 300 acres, the full extent of the cultural resources may not be known. Ground-disturbing activities proposed as part of this project could significantly impact both known and unknown archaeological sites in the project areas. However, implementation of the following mitigation measures will reduce any potential impacts to a less than significant level.

MITIGATION MEASURE CULT-4

- Prior to the start of work in any new area, the project manager, contractor(s), and/or State Representative will consult with the project archaeologist to determine the extent of pre-construction testing and/or monitoring necessary for each specific phase of the project. A monitoring schedule will be set at that time.
- Ground-disturbing work will be monitored by and at the discretion of a DPR-qualified archaeologist familiar with the historic landscape and cultural resources within the APE. If potentially significant resources are unearthed, work in the immediate area of the find will be temporarily halted or diverted until identification and proper treatment are determined and implemented. The DPR Service Center or District Cultural Resource Section will be notified a minimum of three weeks prior to the start of ground-disturbing work to schedule monitoring, unless other arrangements are made in advance.
- A report of the findings from the monitoring and any resulting excavations will be completed and copies distributed to the Cultural Resource Division, California State Park Headquarters; the DPR Northern Service Center; and Mendocino District Headquarters.

Dense, tall grasses obscure ground visibility at the Point Cabrillo Light Station and Preserve. As a consequence, the identification and inventory of important archaeological sites and features, such as shell middens, trash filled privies and wells, root cellars, and basements may not be comprehensive in the APE. The following mitigation measures, combined with CULT-4 above, will reduce impacts to previously unidentified archaeological sites and features to a less than significant level.

MITIGATION MEASURE CULT-5

- In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil contain shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find will be temporarily halted or diverted until a DPR-qualified cultural resource specialist has been contacted to evaluate the find and implement appropriate treatment measures and disposition of the artifact(s).
- Once any significant cultural resources are found in a project location, a qualified historian, archaeologist, and/or Native American representative (if appropriate) will monitor any ground-disturbing work in that area from that point forward.

CA-MEN-792 was accorded NRHP status in 1972 and is listed by DPR as a historic resource. The site is located within the APE of the Point Cabrillo Light Station and Preserve Rehabilitation Project. Construction activities associated with this project, including but not limited to ground disturbance and staging of equipment, could significantly impact this site. Mitigation Measure CULT-6 will be implemented to reduce potential impacts to CA-MEN-792 to a less than significant level.

MITIGATION MEASURE CULT-6

- The archaeological site CA-MEN-792 and surrounding perimeter boundary of 25 meters will be designated as an Environmentally Sensitive Area (ESA). If necessary, the area will be delineated with flagging during construction activities to direct construction activities away from the site.
- Vehicle access and staging areas or operation of heavy equipment will not take place in the immediate vicinity of CA-MEN-792 or the perimeter boundary.

c) No human remains or burial sites have been documented in the immediate vicinity of the project area. However, there is documentation of Native American burials in the region, so there is a potential of inadvertently discovering previously unknown burials.

If any human remains or burial artifacts are identified during construction activities, implementation of Mitigation Measure CULT-7 will reduce the impact to a less than significant level.

MITIGATION MEASURE CULT-7

- In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR State Representative, District or Sector Superintendent, or authorized representative will notify the County Coroner, in accordance with 7050.5 of the California Health and Safety Code, and the Native American monitor is on-site at the time of the discovery will be responsible for notifying the appropriate Native American authorities.

  If the coroner or tribal representative determines the remains represent Native American internment, the Native American Heritage Commission in Sacramento and/or tribe will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete (PRC 5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination.

MITIGATION MEASURE CULT-7 (CONT)
If it is determined the find indicates a sacred or religious site; the site will be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representative will also occur as necessary to define additional site mitigation or future restrictions.

VI. GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

Regional Geology

Point Cabrillo LS is located within the California Coast Range Geomorphic Province, a northwest trending chain of mountains that forms the central and northern California coastline (see Figure 1). At PCLS, marine terrace deposits overlie the sandstone and interbedded siltstone and shale bedrock of the Coastal Belt of the Franciscan Formation. The Coastal Belt Franciscan rocks range in age from 60 to 100 million years old. The younger marine terrace deposits are less that 1.6 million years old and consist of weakly cemented sands, gravels, and some finer-grained materials (Mendocino County, 2003a), essentially old beach deposits that have been uplifted.

Park Geology

At PCLS, a series of three marine terraces are present (Wollenberg, 2002). The terraces have been named by Kilbourne (1983), in progression from west to east (youngest to oldest) as the Caspar Point Terrace, the Jug Handle Farm Terrace, and the Railroad Terrace. The thickness of the marine deposits ranges from 0 to over ten feet (Wollenberg, 2002). During a site reconnaissance in April 2003, it was noted that in many areas the terrace surfaces are composed of weathered Franciscan rock, with no beach sand present. Shallow test drilling in the vicinity of the lighthouse was conducted by Tetra Tech in 1991 (Wollenberg, 2002). They reported that gray to black topsoil containing root fragments occupies the upper four feet. The topsoil is underlain by iron-stained silica-cemented marine terrace sandstone, similar to the "pygmy soil" of nearby Jughandle State Preserve. Below the iron-stained sandstone, a six- to nine-foot-thick zone of massive, well-sorted marine terrace sandstone overlies bedrock. Samples of this well-sorted sand were observed in the test pits dug in April 2003 for percolation testing.

Soils

The soil series present at PCLS are Biaggi loam, Cabrillo-Heeser complex, Heeser sandy loam, and Tropaquepts, according to the USDA soil map (USDA, 1988). These soils, derived from sandstone and shale bedrock or eolian[1] sands (Heeser sandy loam) are developed on marine terraces bordering the Pacific Ocean. The following table lists some of the soil properties.

Site specific soils investigations have been conducted at various times on parts if the PCLP site. Questa Engineering Corporation (1995) dug several soil test pits in the lower and middle terraces as part of a sewage disposal investigation. Soils encountered were sandy loam to gravelly sandy loam, with bedrock (or refusal) at 4.2 to 5 feet below ground surface (bgs).

[1] Deposited by the wind, such as beach sands

Table 1 - Soil Properties

Soil Series	USCS Classification	Erosion Hazard	Shrink-Swell Potential	Leach Field Suitability
Biaggi loam	ML (silt)	Moderate	Low	Severe – shallow bedrock depth
Cabrillo-Heeser	SM-SC (silty sand-clayey sand)	Slight	Low-Moderate	Severe – slow percolation, seasonally saturated
Heeser sandy loam	SM (silty sand)	Slight-Moderate	Low	Severe – poor filter
Tropaquepts	CL-SC (clay–sandy clay)	Slight-Moderate	Not rated	Severe – saturated conditions

As part of the Phase II Environmental Assessment Report, Tetra Tech (1991) drilled five borings around the location of the former underground fuel storage tank just south of the Lighthouse. The upper 3 to four feet consisted of black, organic silt and sand (topsoil). Weathered sandstone bedrock was encountered below that to the total depth drilled (15.5 feet maximum).

Topography

At PCLS, the rocky coastal bluff rises from sea level to fifty to seventy feet msl[2]. The Light Station area (Lighthouse and Lightkeeper's houses) is located on the gentle sloping surface of the first marine terrace. Elevations range from 50 to approximately 110 feet msl. The second terrace elevations range from 110 to 160 feet msl. A portion of the third terrace is present from 160 feet to the eastern boundary of the PCLS and extends beyond the park boundary. Terrace topography is relatively gentle, with several incised stream channels, the largest located in the northern half of PCLS.

Seismicity

The closest active fault, the San Andreas, lies about 12 miles offshore from the project location (Kris Mendocino, no date). About 80 miles to the northwest, the San Andreas Fault terminates at the Mendocino Triple Junction, a point where three tectonic plates (the Gorda, North American, and Pacific plates) meet (see Figure 2). This area, known as the Cascadia Subduction Zone, is the most seismically active area in the continental United States. The Cascadia Subduction Zone is capable of generating an earthquake with a Maximum Moment Magnitude of 8.3 (Petersen, et al, 1996). The North Coast segment of the San Andreas Fault is capable of generating an earthquake with a Maximum Moment Magnitude of 7.6 (Petersen, et al, 1996). Other active faults of the Maacama Fault Zone are located approximately 25 miles inland near Willits (Jennings, 1994).

[2] mean sea level – sea level elevation midway between mean high water and mean low water.

The Seismic Shaking Hazard Map (Petersen, 1999) shows that the PCLS area lies within a zone that has a 10% probability of experiencing moderate to strong shaking on the order of 0.4 g to 0.6g (acceleration due to gravity) within 50 years. The 1906 earthquake caused major damage in the town of Fort Bragg, approximately seven miles to the north of PCLS. Part of the town burned and the water supply was severed (Kris Mendocino, 2003).

No known active faults have been identified in the project area (Jennings, 1994). However, the trace of a potential fault, the Lighthouse Fault, has been noted by Olsborg (2003) and Wollenberg (2002). The Lighthouse Fault trends from the northwest (bearing 310°) through the narrow neck near the lighthouse to the southeast through the water supply pond, where the resulting springs have been tapped for water supply. It may continue southeast through a small valley near the southern rock outcrop (possible sea stack[3]). The age of the fault cannot be determined without further studies, but since it appears to truncate sandstone on the youngest marine terrace (Caspar Point), movement has occurred within the last 10,000 years (Wollenberg, 2002). The potential exists that a large earthquake on a nearby fault could trigger "sympathetic" movement on the Lighthouse Fault (Wollenberg, 2002).

Landslides & Slope Failures

No major landslides are present on the PCLC property, as most of the property has gentle topography. Small landslides or slumps are present along the steep coastal bluffs, occurring in the terrace sediments overlying Franciscan bedrock. Three areas with recent slumps are in a cove about 350 feet west of Frolic Cove (Photo 1), at the neck, near the Smithy (Photo 2) and at the southern most cove (Seal Cove) on the property. This slumping will continue to occur due to a combination of natural groundwater seepage, wave undercutting, and sea level rise due to global warming (Wollenberg, 2002). The average rate of coastal bluff retreat at Pt. Cabrillo, based on a comparison of 1907 and 2002 topographic maps, is 1.9 inches per year. Analysis of aerial photos from 1963, 1981, 1984, and 2000 yield rates of 1.2 to 2 inches per year (Olsborg, 2003). Olsborg recommends using an average of 2 inches/year for the Point Cabrillo property. Unpredictable rock slides, large storm waves, and manmade water diversions can locally accelerate this process.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area, or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☒	☐

[3] Sea stack – an isolated rocky island, detached from the headland by erosion. This sea stack has been uplifted along with the marine wave cut terrace.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☐	☐	☒

DISCUSSION

a) While the chance of the rupture of a known earthquake fault, strong seismic ground-shaking, or seismic-related ground failure are certainly possible in this area, this project will not substantially increase the exposure of people or structures to risk of loss, injury, or death as a result of these events. As part of the Historic Structures Report under preparation by Carey and Company, a structural engineer will evaluate the structures and recommend seismic retrofit work.

i) The PCLP site is not located on or near an active fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map from the California Geological Survey. The Lighthouse Fault, which probably experienced movement within the last 10,000 years (Wollenberg, 2002) is the only mapped fault on the PCLP property. Therefore, there will be a less than significant risk from surface fault rupture at the project site.

ii) The California Geological Survey has determined that the Cascadia Subduction Zone is capable of generating an earthquake with a Maximum Moment Magnitude of 8.3. Other faults in the area (San Andreas, Maacama) are also capable of generating strong earthquakes with magnitudes of 7.1 to 7.9. The expected ground acceleration at the project site is on the order of 0.4g to 0.6g (Petersen, 1999). This will result in

moderate to strong seismic shaking. However, there will be no increased risk to the public or to structures due to this project, provided the buildings are retrofitted to withstand a major earthquake without collapse. Implementation of Mitigation Measure GEO-1 below will insure a less than significant impact.

iii) Seismic-induced ground failure, such as liquefaction, usually occurs in unconsolidated granular soils that are water saturated. During seismic-induced ground shaking, pore water pressure can increase in loose soils, causing the soils to change from a solid to a liquid state (liquefaction). The upper soils in the project area may be loose and are saturated during the winter months (water has been observed flowing out of gopher/ground squirrel burrows).

The Mendocino County General Plan Map (2003) indicates unconsolidated (alluvial) sediments and potentially liquefiable deposits at the PCLS site. However, the deposits underlying the buildings at Pt. Cabrillo are predominately weathered bedrock and varying thicknesses of ancient beach sands. These deposits are less likely to liquefy than younger, unconsolidated alluvium, unless extremely saturated conditions exist. There is no known record that liquefaction occurred during past seismic events. However, the PCLS buildings did not exist at the time of the 1906 earthquake, which caused damage in Fort Bragg to the north.. Strengthening the buildings to current seismic codes will help to alleviate liquefaction concerns. Implementation of Mitigation Measure GEO-1 will reduce this impact to less than significant.

MITIGATION MEASURE GEO-1 – SEISMIC REQUIREMENTS
• The proposed rehabilitation of PCLS historic buildings, and the reconstruction of the historic barn, water tower, and pumphouse, must conform to the earthquake design requirements as indicated in the UBC/CBC Guidelines of the HSR for each building. The design criteria will be for Seismic Zone 4, with a soil type of S_B to S_D (rock to stiff soil) as indicated in Table 16-J, of the 2001 CBC/UBC. Seismic stabilization of any buildings will address potential liquefaction and loss of bearing strength and will be applicable to any structure used by or accessible to the public.

iv) No major landslides have occurred or have been mapped at the PCLS site. Several small slumps are present along the coastal bluffs, as discussed above. The most notable is the Smithy slump that threatens the historic Smithy building. As part of this project, the Smithy building will be relocated 30-40 feet to the west along the original road. The Smithy slump also may impact the underground utility lines that run along the road to the lighthouse. This slump has been accelerated due to redirected stormwater runoff. Implementation of the drainage and erosion control project described in Mitigation Measure GEO-2 below will reduce this risk to less than significant.

MITIGATION MEASURE GEO-2 DRAINAGE & EROSION CONTROL
• Implement the Drainage and Erosion Control portion of the proposed project as designed, at the location of the Smithy slump (neck area). This will include regrading the road to the Lighthouse, lowering the elevation of the roadbed, and redirecting stormwater runoff to encourage more sheet flow and less water concentration at the neck. Additional bioengineering techniques, including installation of more willow wattles, will be used to provide additional stabilization of the slump area on the north side of the neck. The south side of the neck will also receive biotechnical stabilization to prevent erosion from redirected stormwater runoff. (See Chapter 2, page 17)

b) A temporary increase in erosion may occur during the phases of this project where grading and trenching is required. This will include installation of the septic system leach field, trenching for installation of utility lines, grading for the barn reconstruction, regrading of the road to and around the Lighthouse, and removal of vegetation and sediment from the pond. With implementation of Mitigation Measure GEO-3 below, any contribution to substantial soil erosion or loss of topsoil by the proposed project will be reduced to a less than significant level.

MITIGATION MEASURE GEO-3 EROSION CONTROL
• DPR, Mendocino County, NPDES, and/or North Coast Regional Water Quality Control Board (NCRWQCB) approved Best Management Practices (BMPs) will be used in all areas to control soil and surface water runoff during excavation, trenching, and grading. If ground disturbing operations must occur during the rainy season (October 31 to May 1), or if unseasonable storms are anticipated during construction, "winterizing" will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods to protect disturbed soil. • Temporary erosion control measures will be used during all soil disturbing activities and until all disturbed soil has been stabilized (re-compacted, revegetated, etc.) This will include, but not be limited to, the use of silt fences, straw bales, or straw or rice coir rolls to prevent soil loss and siltation into nearby water bodies. • Permanent erosion controls will be implemented, including proper compaction and revegetation of disturbed soil areas, as soon as feasible following construction. • The project will adhere to all applicable local building and engineering regulations/ordinances set forth by Mendocino County.

c) The project is not located within a geologic unit or soil that is known to be unstable, based on available data. However, any construction along the coastal margin of California must take into account the potential for coastal bluff erosion. Proper compaction of disturbed soils after construction, grading, and trenching will ensure that no subsidence or slumping occurs. Liquefaction may be a possibility as indicated in Discussion VI(a)(iii) above, but proper design and strengthening of the existing and new structures will reduce any potential effects. Implementation of GEO 1-3 will reduce any project-related potential impact to a less than significant level.

d) Expansive soils are not expected to exist in the project area, as the soil units present have low to moderate shrink-swell potential (USDA, 1988). No impact should occur from this project.

e) The project does involve the installation of a septic system and leach field. A study by Questa Engineering (1995) indicated that, depending upon the area tested, a standard system, a high line (shallow) system, or a mound system will be required. Questa's Area 2, closest to the latest anticipated location, was suitable for a standard system.

According to the Mendocino County Soils Report (USDA, 1988), all the soils present at the site were rated severe for leach fields (see table 1). However, a recent soils investigation, conducted by Carl Rittman and Associates, Inc. (2003), found the soils in the proposed primary leach field area to be well-drained sandy loam and gravelly sandy loam. According to Mendocino County (and the Regional Water Quality Control Board Basin Plan), the site soils fall within Zone 2A (sandy loam), which is acceptable for a leach field. The results from groundwater piezometers[4], installed by Carl Rittman and Associates, showed no measurable groundwater from mid-February to mid-April of 2003, to a depth of 70 to 72 inches below grade.

Based on these studies, it appears that, provided the proposed leach field is construction in the currently proposed site, the site soils the designated area are capable of supporting a standard leach field. Construction and operation of the leach field system will be in compliance with all Mendocino County Environmental Health and RWQCB permitting and operational requirements. Less than significant impact.

f) No known unique paleontological resource or geologic features are present at the project site. Therefore, there is no impact from this project.

[4] Piezometer: a nonpumping well, usually of small diameter, that is used to measure the elevation of the water table or potentiometric surface.

VII. HAZARDS AND HAZARDOUS MATERIALS.

ENVIRONMENTAL SETTING

Point Cabrillo Light Station and Preserve encompasses just over 300 acres on the northern California coast, approximately two miles north of the village of Mendocino. Substantial amounts of hazardous materials are neither used nor stored on-site; however, investigations have determined that lead contaminated soil exists surrounding the lighthouse and is potentially present around the residences.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	☐	☐	☐	☒
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

DISCUSSION

a) Construction activities will require the use of potentially hazardous materials, such as fuels, oils, and solvents. The project will also involve the routine transportation of small amounts of diesel fuel to the work site. However, large quantities of these materials will not be stored at the construction site. These materials are generally used for generators, excavation equipment, and other vehicles, and will be contained in vessels engineered for safe storage. Spills, upsets, or other construction-related accidents could result in a release of fuels or other hazardous substances into the environment. The following mitigations will reduce the potential for adverse impacts from these incidents to a less than significant level.

MITIGATION MEASURE HAZMAT 1
• All equipment will be inspected for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises. • An emergency spill response plan (Spill Prevention, Control, and Countermeasure Plan) will be prepared prior to the start of construction and a spill kit maintained on-site throughout the duration of the project. This plan will include a map delineating construction staging or storage areas and areas where refueling, lubrication, and maintenance of equipment may occur. In the event of any spill or release of any chemical in any physical form on or immediately adjacent to Point Cabrillo Light Station and Preserve during construction, appropriate DPR staff (e.g., project manager or supervisor) will be immediately notified to initiate appropriate containment and cleanup actions. • Equipment will be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, soil, sludge, spill residue, or other hazardous compounds will be disposed of outside park boundaries, at a lawfully permitted or authorized site.

Recent Hazardous Material Testing around the Lighthouse resulted in the identification of lead contaminated soil. Workers could be at risk from exposure to these hazardous materials if removal and remediation is not completed prior to the start of work on this project. In addition, rehabilitation of the structures may require repair/replacement of historic wall and wood finishes, paint, or plaster. Old pipes and conduit may also be encountered. Due to the age of the buildings and materials traditionally used in many of these finishes and products, it is reasonable to assume that hazardous substances, such as lead and/or asbestos, may be encountered. Implementation of HAZMAT-2 will reduce any potential risks to a less than significant level.

MITIGATION MEASURE HAZMAT 2
• A Hazardous Material Survey (HMS) will be performed in and around buildings that will impacted by this project, prior to the start of construction, and based on the results, materials containing hazardous substances will either be removed or encapsulated as necessary to protect public health and safety.

MITIGATION MEASURE HAZMAT 2 (CONT)
• All hazardous materials will be removed by trained and authorized personnel and disposed of at a licensed facility (generally a Class II or III landfill, as appropriate), in compliance with local, state, and federal regulations and guidelines. • All areas undergoing hazardous material removal or remediation will be restricted to essential personnel only. Non-essential DPR and PCLK employees, contractors, and the general public will be kept at a safe distance, in compliance with California Department of Health and Safety and California Division of Occupational Safety and Health requirements.

b) See VII (a) discussion above. Mitigation Measure HAZMAT-1 will reduce the potential for adverse impacts to a less than significant level.

c) There are no schools or proposed schools within one-quarter mile of the project site. Therefore, no impact.

d) Although recent testing for hazardous materials around the Lighthouse identified the presence of lead contaminated soil, the Point Cabrillo Light Station and Preserve is not included on a list of hazardous materials sites compiled by the California Department of Toxic Substances Control pursuant to Government Code §65962.5. Therefore, no impact.

e,f) Point Cabrillo LS is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private air strip. Therefore, no impact will occur as a result of this project.

g) All construction and restoration activities associated with the project will occur within the boundaries of Point Cabrillo LS and will not restrict access to or block any public road. All areas within the park will remain open to the public during construction, although access to the immediate construction areas will be restricted to authorized personnel only. Areas within Pt. Cabrillo LS are not part of any adopted emergency response or evacuation plan. Therefore, no impact.

h) Most project areas are located adjacent to grassy meadows that become highly flammable during the dry season (June-October). Heavy equipment can get very hot with extended use; this equipment will sometimes be in close proximity to this vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. In addition, restoration work on or in the buildings may involve the use of volatile, flammable substances. Improper use, storage, or disposal of these materials could also result in a fire. Implementation of the mitigation measures listed below will reduce the potential for fire-related adverse impacts from this project to a less than significant level.

MITIGATION MEASURE HAZMAT-3 CONSTRUCTION FIRE MANAGEMENT

- A fire safety plan will be in place prior to the start of any construction, including identified fire suppression equipment and completion of any required employee training.
- Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment.
- Construction crews will be required to park vehicles away from flammable material, such as dry grass and brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete to reduce the chance of fire.
- A Hazardous Materials Abatement Plan and Specifications for the proper use, storage, and disposal of any flammable materials used inside and outside the buildings will be prepared prior to start of work and implemented during all phases of the project.
- Park staff will be required to have a State Park radio on site, which will allow direct contact with Mendocino County Fire Department and centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire. Fire suppression equipment will also be available on park grounds.

Conversion of the historic residences and outbuildings to lodging accommodations, including rehabilitation of the kitchen areas to allow the preparation of food, increases the potential for fire due to visitor activities or equipment malfunction. Proposed upgrades to fire detection and suppression equipment and increased water storage will reduce the potential damage from fire. These improvements, in addition to enforcement of the planned non-smoking policy within the buildings and implementation of HAZMAT-3 below will reduce any potential impacts to a less than significant level.

MITIGATION MEASURE HAZMAT- 4 OPERATIONAL FIRE MANAGEMENT

- Areas surrounding any structures will be cleared of flammable materials to a minimum distance of 30 feet, to the extent feasible, in compliance with the California Fire Plan, Pre-Fire Management guidelines.
- The existing wharf hydrant system will be repaired, replaced, and/or upgraded as indicated under proposed project activities (see Water System, Chapter 2, page 15).
- Fire detection and suppression equipment will be installed and/or available, as required by the California Building Code Standards 9-1, 9-2, and 9-3; and the State Fire Marshall, with variances as allowed by the California Historic Building Code. System will be approved and operational prior to use of the buildings for public lodging.

VIII. HYDROLOGY AND WATER QUALITY.

ENVIRONMENTAL SETTING

Watershed

The Pt. Cabrillo LS (PCLS) watershed is designated several different ways by different agencies. The Department of Water Resources (DWR, 1982) describes the area as the Fort Bragg Groundwater Subunit of the North Coastal Groundwater Basin, while the North Coast Regional Water Quality Control Board (NCRWQCB) designates the area as the Mendocino Coast Hydrologic Unit of the North Coastal Groundwater Basin. The small creeks on the PCLS property are not part of a larger watershed, but instead drain directly to the Pacific Ocean. The PCLS watershed area is bounded by the larger watersheds of Caspar Creek to the north and the Big River to the south.

The northern half of the PCLS (north of Lighthouse Road) contains several larger creeks, with some incised drainages, with watersheds that extend to the east off the PCLS property. The southern half of the PCLS has smaller streams that appear to originate from numerous springs and seeps on the middle and lower terrace areas (Questa Engineering Corporation, 1995).

Flooding

None of the small creeks and streams on the PCLP property have FEMA-designated flood zones. Flooding, if it occurs, will be localized during large storm events. Large waves generated during storms may also cause damage. In the 1960's, a large wave actually washed over the lighthouse and caused some damage to the structure.

The Mendocino coastal area is also subject to potential flooding from a tsunami[5], an earthquake or landslide-generated ocean wave. According to the Mendocino County General Plan (Mendocino County, 1991) a tsunami height of 23 feet occurring every 100 years has been predicted for the Mendocino Coast. Since the elevation of the coastal terrace portion of the PCLP ranges from 50 feet to approximately 110 feet msl, tsunami inundation is not expected to affect the bluff or terrace areas. However, the beaches and rocky active wave-cut terraces below the bluffs could be affected.

Water Quality & Water Supply

Water quality in the Mendocino Coast Hydrologic Unit (MCHU) of the North Coastal Basin is regulated by the NCRWQCB and is discussed in the Water Quality Control Plan, or Basin Plan (1993). At present, the water quality within the North Coast Region meets or exceeds the water quality objectives of the Basin Plan (NCRWQCB, 1993). However, the potential for groundwater contamination in the terrace areas, such as at PCLS, is increased due to the shallow groundwater depth. Contamination could occur due to surface spills (fuels, pesticides, etc), agricultural runoff, and septic systems.

[5] Tsunami: an ocean wave generated by submarine earthquakes, volcanic eruptions, or large landslides. The waves usually occur in groups with very long wavelengths (several to 100 miles) and small heights (several feet). The wave is not very noticeable until it reaches the coastline and shallow waters. Once the wave encounters the seafloor at the coast, the wave velocity diminishes, therefore the wave height increases.

The Basin Plan identifies the beneficial uses and water quality objectives for the North Coast Region. The NCRWQCB Basin Plan has a category for Minor Coastal Streams that will apply to the small creeks on the PCLS property. The Minor Coastal Stream existing beneficial uses are: municipal supply; commercial & sport fishing; and estuarine habitat. Proposed beneficial uses include: agricultural supply; industrial supply; groundwater recharge; recreational use; cold freshwater habitat; wildlife habitat; aquatic organism migration; spawning, reproduction and/or early development; and aquaculture. Obviously, all of these uses will not be applicable to the creeks and streams on PCLS. At present, the water bodies at PCLC provide water supply for staff and visitors, groundwater recharge, and habitat for aquatic and terrestrial organisms.

Groundwater supply for the Mendocino coast area is derived from either groundwater (terrace and bedrock deposits) or surface water diversions, including springs. Groundwater resources are limited within the thin coastal marine terrace deposits. The water supply for most towns and major developments in the area comes from surface water diversions. At PCLS, the existing water source, developed in the 1960s by the Coast Guard, is a series of springs or seeps located southeast of the Light Station residences (Resource Planning & Management, 1986). The flow from the springs is impounded behind a small concrete and earthen dam, forming a pond. Flow rates measured at the pond overflow have ranged from 9 (dry year) to 13 gallons per minute (Questa, 1995).

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	☐	☒	☐	☐

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	☐	☐	☐	☒
h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam?	☐	☐	☐	☒
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion

a) A release of sediment to surface waters and, ultimately, to the ocean could occur during the grading, trenching, drilling, and excavation associated with various elements of this project. Other potential impacts to water quality could result from releases of fuels or other fluids from vehicles and equipment during the construction process. The directional drilling rigs generally have a reservoir to contain the bentonite mud, not a mud pit as in conventional drilling. The entrance and exit holes for the reservoir are the obvious places for drilling fluid loss to occur. These activities could result in a violation of water quality standards and waste discharge requirements. Implementation of Mitigation Measure HYDRO-1, in combination with Geo-3 and HAZMAT-1 above, will control releases of pollutants in storm (or other) water runoff and reduce potential impacts to a less than significant level.

MITIGATION MEASURE HYDRO-1

- The directional drilling rig operator will be responsible for detecting and controlling drilling fluid seepage. Drilling fluid will be contained within the reservoir at the rig, with supplemental containment methods, such as straw bales, silt fencing, or straw/rice wattles (coir rolls) in place or immediately available to control drilling fluid seepage or spills.

MITIGATION MEASURE HYDRO-1 (CONT)
• The project will comply with all applicable water quality standards and waste discharge requirements as specified in the NCRWQCB Basin Plan. A Stormwater Pollution Prevention Plan, if required by the NCRWQCB, will be implemented to reduce impacts from runoff and sediment releases.

Removal of vegetation in or along the bank of the pond or dredging of the pond bottom will result in a short-term increase in suspended sediment in the pond water. This will settle out fairly rapidly once work ceased. However, during and immediately following the disturbance, silt could enter the stream below the pond. Implementation of Hydro-2 below will reduce this potential impact to a less than significant level.

MITIGATION MEASURE HYDRO-2
• Temporary erosion control measures will be used during all soil disturbing activities and until all disturbed soil has been stabilized (re-compacted, revegetated, etc.) as indicated in GEO-3, and to specifically contain any release of silt to the stream channel during dredging of the pond or soil-disturbing vegetation removal and to filter sediment from the water before it enters the stream below the pond dam.

b) The project does not involve the extraction of groundwater or activities that will significantly alter groundwater recharge or lower the existing groundwater table levels. The removal of excess vegetation and limited dredging of the pond bottom will cause little if any change to the quantity of water or the flow rate of the existing springs that supply the pond. No impact.

The project also proposes to remove much of the existing asphalt road surface within the historic core and replace it with compacted gravel, increasing the permeability of the road surfaces. There will be no significant increase in hard surfaces as a result of this project. Less than significant impact.

c) This project contains elements that will significantly alter the existing drainage patterns in several areas within the historic core. The existing stream courses will not be altered. The purpose of the Drainage and Erosion element of this project is to alter the existing drainage patterns along the road from the Residences to the Lighthouse to restore the natural sheet drainage patterns, redirect stormwater runoff away from severely impacted bluffs, and stabilize bluffs. Erosion along the “finger” bluff areas (ocean inlets) at PCLS has been accelerated by runoff from the roadway and sidewalks connecting the residence area with the Lighthouse. Over time, resurfacing has elevated the height of the roadway, disrupting the natural drainage flow and concentrating stormwater runoff. The bluff at the "land neck", the feature being created by two emerging finger inlets between the residences and the lighthouse building, has continued to erode, threatening the stability of the access road and historic Blacksmith Shop. Willow wattles planted near the

north side of the neck area have slowed erosion to some extent, but are not yet sufficient to stabilize the bluffs. Work will include restoration of the original road base, surface, elevation, and alignment. It will also include maintenance and supplemental planting of willow wattles and installation of additional drainage and erosion controls on both sides the bluffs. Although none of the proposed work will result in substantial on- or off-site erosion or siltation, there is the potential for transitory, construction-related erosion or siltation during sitework, especially along Lighthouse Road. Implementation of GEO-2 and GEO-3 will reduce potential adverse impacts to a less than significant level.

d) Stream courses at PCLS will not be altered. As noted in Discussion VII(c) above, a portion of the project is specifically designed to improve drainage conditions at the Light Station. In addition to the Drainage and Erosion component of the project, intermittent flooding of the Eastern Residence basement will be corrected by recontouring the landscape to direct runoff away from the building, once the basement wall has been waterproofed. The potential for flooding will be significantly reduced once the project is completed. Although it is unlikely that any of the construction activities for the proposed project will result in substantial on- or off-site flooding, implementation of GEO-2, GEO-3, HYDRO-1, and HYDRO-3 will reduce potential adverse impacts to a less than significant level.

e) This project will not create or contribute runoff water that will exceed the capacity of existing or planned stormwater drainage systems, provided properly engineered drainage is implemented. As noted in Discussion VII(b) above, the project will remove much of the existing asphalt road surface within the historic core and replace it with compacted gravel, increasing the permeability of the road surfaces. There will be no significant increase in hard surfaces as a result of this project. No substantial additional sources of polluted runoff are expected from this project, provided a spill prevention plan is in place. Implementation the following mitigation measures, combined with GEO-2, GEO-3, HAZMAT-1, and HYDRO-1 will reduce any potential impact to a less than significant level.

MITIGATION MEASURE HYDRO-3
• A site-specific and appropriated sized stormwater drainage plan will be designed and implemented, in compliance with the NCRWQCB and National Pollutant Discharge Elimination System (NPDES) Permitting Program requirements and guidelines. • Drainage and erosion control designs will re-establish natural sheetflow patterns and redirect stormwater drainage away from severely eroded bluff locations and building foundations.

f) See Discussion VII(a,b,c,e) above. Implementation of GEO-2, GEO-3, HAZMAT-1, HYDRO-1, and HYDRO-3 will reduce any potential impact to a less than significant level.

g,h) This project is not located within the 100-year flood plain of any surface stream and no new housing is planned. Buildings proposed for reconstruction will not be placed in a

location that could impede or redirect flood flows within a 100-Year flood plain, according to existing FEMA maps (FEMA, 2003). Therefore, no impact.

i) As noted in Discussion VII(d) above, flooding on or adjacent to the project sites is unlikely, either during or following completion of construction. Any flooding that might occur will be minor in nature and will not pose a risk of loss, injury, death, or even serious inconvenience. PCLS is not located in an area that will be at risk from any dam or levee failure. No impact.

j) While tsunami is a possibility along any coastline, nothing in the project will increase the risk of inundation, should such an event occur. A tsunami height of 23 feet occurring every 100 years has been predicted for the Mendocino Coast (Mendocino County, 1991). The bluff and terraces are above 23 feet in elevation. The beach at Frolic Cove and any other small pocket beaches could be affected by a tsunami; however, these areas are not included in any of the proposed project elements and public visitation to these areas will not be significantly increased by any aspect of this project. Placement of informational tsunami warning signs on the beach or on the bluff above Frolic Cove may be part of the Light Station's interpretive plans, but are not required to reduce any potential impacts from this project. No significant impact.

IX. LAND USE AND PLANNING.

ENVIRONMENTAL SETTING

Pt. Cabrillo LS is located on the Pacific coast, in an unincorporated area of Mendocino County, approximately two miles north of the town of Mendocino and eight miles south of the city of Fort Bragg. The Preserve contains about three hundred acres, with a 30.5-acre historic core on the western edge of the property. The property is bounded on the south and north by small subdivisions, private residences, and a recreational vehicle park; on the east by Point Cabrillo Drive; and on the west by the Pacific Ocean.

The Light Station (historic core) includes three residences and outbuildings, the historic Smithy building, utility structures, and the Lighthouse. Foundations for three other historic buildings also remain. The existing buildings are set on the bluffs, with the water supply pond to the southwest, surrounded by wetlands, and meadows extending to the southern fence line and western bluffs. The Point Cabrillo Lighthouse (and associated buildings and structures) is listed as part of the National Register Point Cabrillo Historic District. The Light Station property is currently zoned as "Open Space - Public and Semi-Public Facilities" (OS-PF) in the Mendocino County General Plan and Coastal Element (Coastal Zoning Code) and is currently open to the public as a historic landmark and recreational day use facility. A limited number of staff reside at the facility for operational and security purposes. Various elements of the project will occur throughout the historic core.

The Preserve is the approximately 270 acres of undeveloped property surrounding the historic Light Station complex, extending from Point Cabrillo Road to the east to the high tide mark of the Pacific Ocean on the western shoreline. This portion of PCLS includes the newly reconstructed Kearns farmhouse/Visitor Center, visitor parking area, the Light Station entrance off Point Cabrillo Road, remnants of a historic road, and Lighthouse Road (leading to the historic core). Part of the Preserve property is zone OS-PF, with the remainder zoned Rural Residential, five acres – Planned Development (RR-5-PD) in the Mendocino County GP/Coastal Element. The Preserve is currently open to the public as a recreational day use area and parking/trailhead for walking access to the Light Station and coastal access. Project elements proposed for the Preserve include installation of the septic tanks adjacent to the Visitor Center and connections to the sewer force main, new leach field and dosing/pump tanks in the field west of the Visitor Center and visitor parking area, historic fence reconstruction along Lighthouse Road, repair and continued maintenance of Lighthouse Road, and relocation of the public trailhead adjacent to the Residence area, just outside the historic core.

Point Cabrillo State Marine Conservation Area (MCA), formerly Point Cabrillo Reserve, begins at the Pacific Ocean high tide mark and extends 1,000 feet out into the ocean, bounded by lines extending due west (magnetic) 2,500 feet north and 1,600 feet south of the Lighthouse. Diving is not restricted within the MCA, but no fishing or hunting is allowed.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION

a) Point Cabrillo is a self-contained historic community complex, located in rural Mendocino county, between the towns of Mendocino to the south and Casper to the north. The Light Station has existed since 1909 in substantially the same form as currently exists, with the buildings (or remaining foundations) occupying permanent locations. The proposed project will add no barriers or elements that will divide or interfere with the established surrounding community. No impact.

b) The Mendocino County GP currently designates the property containing the Light Station project area as Open Space Public and Semi-Public Facilities (OSPF) and zones the area Open Space (OS). PCLK, with concurrence from DPR, has requested a General Plan amendment to change both the designation and zoning to Open Space Recreation (OSDPR) to update the County General Plan and Coastal Element with the correct information regarding ownership, land use, and zoning, and to allow one previously occupied residence and two outbuildings to be used as public lodging accommodations (Bed and Breakfast). The amendment application also requests the allowance of on-site sale of interpretive, educational, and other gift items in the Lighthouse, and/or museum, inn, and reconstructed historic Barn.

The Point Cabrillo Nature Preserve property is designated/zoned a combination of OSPF and Rural Residential - 5 acres – Planned Development (RR-5-PD). No General Plan amendment to this designation/zoning has been requested. This project is consistent with the Point Cabrillo Public Use Guidelines, Point Cabrillo Public Access Plan, and the Master Plan for Interim Management of Point Cabrillo Light Station and Preserve. This is a new acquisition to DPR; no park general plan exists. Less than significant impact.

c) There are no applicable habitat conservation or natural community conservation plans that will be in conflict with any aspect of the proposed project. No impact.

X. MINERALS

ENVIRONMENTAL SETTING

The main mineral resource in Mendocino County is aggregate, primarily sand and gravels mined from alluvial deposits (Mendocino County, 2003). No significant mineral resources have been identified within the area of potential effect (APE) for the proposed project. A small 'quarry' or borrow pit exists in the east central portion of the property and was most likely used to mine sand from the marine terrace materials or greywacke sandstone for building purposes. It is not currently in operation. Gravel was also obtained from the south cove at the neck area. Old photos show a conveyor belt that was used to lift the gravels to the bluff top.

Since mineral resource extraction is not permitted under the DPR Resource Management Directives, no future mining will be permitted on PCLS property..

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Result in the loss of availability of a known mineral resource that is or would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

DISCUSSION

a) The project will not result in the loss of availability of a known mineral resource because no known mineral resources exist within the project boundaries. No impact.

b) The project will not result in the loss of availability of a locally important mineral resource recovery site because none exist within the project boundaries. No impact.

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XI. NOISE.

ENVIRONMENTAL SETTING

Pt. Cabrillo LS is located on a rocky point along the rugged coastline of rural Mendocino county. The Light Station is bounded on the east by Point Cabrillo Road, a two-lane rural highway with low volumes of traffic and few trucks; it is not a designated truck route. While some traffic noise is evident immediately adjacent to the Kearns farmhouse/Visitor Center, located immediately adjacent to Point Cabrillo Road, a sloping topography, berming between the road and the Light Station, and wave noise completely obliterates the sound of any traffic. Low density residential areas bound the property to the north and south, along with a small recreational vehicle park on the southeast border. Residences are primarily located along Point Cabrillo Road, approximately one-half mile east of the historic core. There is no industrial activity in the vicinity of the Light Station. Wave action on the bluffs adjacent to the Light Station are the primary source of ambient noise.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☒	☐	☐
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	☐	☐	☒	☐
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	☐	☐	☐	☒
d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?	☐	☒	☐	☐
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION

a) There are no known regulations governing noise levels for the project site; exterior noise standards for rural residential areas [MCGP, Noise Element - Section IV(A)] is 60 dBA from 7am-10pm. This is comparable with existing uses at PCLS, as well as proposed uses following completion of the project.

Construction noise levels at and near the project area will fluctuate, depending on the type and number of construction equipment operating at any given time, and will exceed ambient noise standards in the immediate vicinity of the work for brief periods of time. The distance from residences and small commercial ventures adjacent to the property boundaries to the proposed work sites are sufficient to prevent an objectionable level of noise. However, depending on the specific construction activities being performed, short-term increases in ambient noise levels could result in speech interference at the work site and a potential increase in annoyance to visitors and staff. As a result, construction-generated noise will be considered to have a potentially significant short-term impact to these people. Implementation of the following mitigation measures will reduce those potential impacts to a less than significant level.

MITIGATION MEASURE NOISE 1

- Construction activities will generally be limited to the daylight hours, Monday - Friday. If work during weekends or holidays is required, no work will occur on those days before 7:30 am or after 8 p.m.
- Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- Stationary noise sources and staging areas will be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources will be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

b) Construction activity will not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant ground vibration or noise. Minor vibration immediately adjacent to excavating and paving equipment will only be generated on a short-term basis. Therefore, groundborne vibration or noise generated by the project will have a less than significant impact.

c) Once the proposed project is completed, all related construction noise will disappear. Nothing within the scope of the proposed project will result in a substantial permanent increase in ambient noise levels. Therefore, no impact.

d) See Discussion XI(a) above. Mitigated to a less than significant impact.

e,f) This project is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private air strip. Therefore, no impact will occur as a result of these project activities.

XII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

Point Cabrillo LS is located in a rural residential area along the Pacific coastline in Mendocino County. The largest towns close to the facility are Fort Bragg, approximately eight miles to the north, and Mendocino, approximately two miles to the south. The small town of Casper is within a mile of the Light Station to the north. Housing within the park boundaries is limited and restricted to the existing Residence buildings. As a recreational facility, the development of permanent housing is not a planned use of the park. The permanent population of the park is relatively static, based on DPR and PCLK staffing requirements, and no significant growth is anticipated in the foreseeable future. The park is both a local recreational resource and a destination attraction, used by locals and out-of-town visitors alike, but does not offer business or residential opportunities within its boundaries.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a,b,c) The project will not have a housing component and all work will take place within the confines of the park boundaries, with no additions or changes to the existing local infrastructure. It will neither modify nor displace any existing housing and will displace no one, either temporarily or permanently. Any jobs generated as a result of the project will be short-term, with no permanent connection to the park location. Therefore, it will have no impact on population growth or housing.

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XIII. PUBLIC SERVICES.

ENVIRONMENTAL SETTING

Pt. Cabrillo LS is located approximately one mile west of Highway 1, on Point Cabrillo Road in rural Mendocino county. Emergency access is along Lighthouse Road, which extends from the intersection with Point Cabrillo Road to the east, to the turnaround in front of the Point Cabrillo Lighthouse.

A State Park Ranger (posted at the Light Station after October 2003) provides immediate police protection within the park boundaries, with backup provided by the Jug Handle State Reserve Ranger (located approximately one mile south of PCLS). Additional police support is also available from the Mendocino County Sheriff's Department Substation in the town of Mendocino, approximately two miles south of the project location.

The California Shock Trauma Air Rescue (CALSTAR 4) service helicopters (Bell 222), based at Ukiah Municipal Airport, provide air ambulance service for Mendocino, Lake, Humboldt, and Sonoma counties, and is available for medical emergencies, search and rescue, and fire support 24 hours a day, 7 days a week. Response time is generally under 30 minutes. The Mendocino Coast District Hospital, located in Fort Bragg, approximately eight miles north of PCLS, is the closest full-service medical facility to the project site. Response time to PCLS is approximately 15 minutes.

Fire protection is provided by the California Department of Forestry and Fire Protection (CDF), supported by the Mendocino Fire Protection Department and the Fort Bragg Fire Department, as necessary. The CDF Fort Bragg Fire Station is approximately eight miles from the project site. Additional manpower is available from the Parlin Fork Conservation Camp (California Department of Corrections), about 12 miles away. CDF also maintains an Air Attack Base at the Ukiah Municipal Airport (approximately 65 miles and 15-20 minutes flight time away). The CDF Helitack Base is located in Willits, about 45 miles to the east of Mendocino.

Pt. Cabrillo LS is located within the Mendocino Unified School District. There are no existing or proposed schools within one-quarter mile of the proposed project site.

The Pt. Cabrillo Light Station and Preserve is a historic lighthouse complex and nature preserve that abuts the Pt. Cabrillo State MCA. The Lighthouse and grounds are open to visitors daily; there are currently no overnight accommodations at the Light Station. There are three State-owned recreational properties within two miles of PCLS: Jug Handle State Reserve, Russian Gulch State Park, and Casper Headlands State Beach. Point Cabrillo LS is owned by California State Parks and operated by joint agreement with the Point Cabrillo Lightkeepers Association.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	☐	☐	☒	☐
Fire protection?	☐	☒	☐	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

DISCUSSION

a) The project proposes to rehabilitate PCLS to reflect its look and feel prior to late 1930s, including reconstruction of the remaining historic structures, landscaping, and circulation patterns; rehabilitation of the residences and adjacent outbuildings for adaptive use (overnight visitor facilities) and to provide an enhanced visitor experience and financial support for continued operation; and repair, improvement/upgrade, or replacement of inadequate or failed infrastructure elements (water, sewer, roads, etc.) essential to protect the site's natural and cultural resources, public health and safety, and continued public access and use. Approximately 5-10 staff members and/or volunteers will work at the Light Station on a daily basis, once the project is completed, an increase of only 2-5 people. Because staff already work at the facility and reside in Mendocino County, relocation to the area immediately adjacent to the project site will not be necessary. Likewise, any jobs generated as a result of the project will be short-term, with no permanent connection to the park location, although most construction workers will probably reside within commuting distance of the project. No significant increase in public service requirements.

Use of construction equipment around flammable annual vegetation presents an increased fire risk that could result in additional demands on CDF and local fire response teams. Any impact on services will be temporary and nothing in the project scope will contribute to the need for an increase in the existing level of public service. Implementation of Mitigation Measures HAZMAT 3-4, combined with the availability of on-site fire suppression equipment and support from State Park Rangers, will reduce the potential impact on Fire Protection services to a less than significant level.

State Park Rangers with law enforcement authority patrol the park boundaries, police the public use areas and grounds, enforce the public resource code, and guard against misuse of park property and resources. The Mendocino County Sheriff's Department responds to emergency calls and assists with criminal investigations. The presence of a few overnight guests (generally less than 20) is not expected to result in any need for increased police services. Less than significant impact.

Work related to this project could cause minor delays and inconveniences around the historic core, especially during periods of road and sidewalk construction. The Smithy building will be temporarily closed during and immediately following its relocation and access to the Lighthouse may be limited for short periods of time. However, no facilities within the PCLS will be closed or reduced in capacity as a result of this project. The proposed project will not result in any significant adverse impact to park facilities or increased use at other parks in the area

No schools exist within two miles of the project area and there are no elements of this project that will result in an increased school enrollment in the area. No changes will occur that will require additional schools or school personnel. No impact.

Conversion of two residences and adjacent outbuildings to public lodging accommodations could result in an increase of up to 20 additional visitors daily to the park. Improvements to other Light Station components will enhance the visitor experience and encourage visitation, especially by school groups. However, this increase in visitors is expected to be slow; the level of services required within the park is expected to remain relatively static, subject only to annual fluctuations in visitor use. No additional administrative or operational facilities will be needed to accommodate the gradual rise in visitation to PCLS.

County administrative requirements will be equivalent to any other minor commercial construction project and similar to current operational requirements. The proposed project will have no significant impact on other public services.

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XIV. RECREATION

ENVIRONMENTAL SETTING

Point Cabrillo LS occupies the spectacular Point Cabrillo headland, just off Point Cabrillo Drive, about two miles north of the village of Mendocino. Visitors can park next to the reconstructed Kearns farmhouse (Visitor Center) and walk down Lighthouse Road (approximately one-half mile) to explore the restored Lighthouse and Light Station grounds. A mile and a half round trip guided walking tour is also available that takes visitors from the Visitor Center, through the meadows, along windswept bluffs within the Preserve, and throughout the Light Station complex. The Preserve is open daily for hiking and sightseeing. The Lighthouse also offers a view of California Gray whales during their annual migration along the coast in February and March.

Point Cabrillo State MCA, formerly Point Cabrillo Reserve, begins at the Pacific Ocean high tide mark below the Lighthouse bluffs and extends 1,000 feet out into the ocean, bounded by lines extending due west (magnetic) 2,500 feet north and 1,600 feet south of the Lighthouse. Divers enjoy views of abundant sea life and historic wrecks; no hunting/fishing is allowed within the MCA.

There are three other state-owned public recreational properties near the project area. Casper Headlands State Beach is just north of PCLS and offers swimming, boating, fishing, and other beach-oriented recreational activities. Jug Handle State Reserve is about one mile south of PCLS and features hiking, picnicking, and a 2.5-mile self-guided nature trail called *The Ecological Staircase,* which explores five wave-cut terraces formed by glacier, sea and tectonic activity that built the coast range. Russian Gulch State Park is just inland from PCLS and, unlike the other parks, offers overnight accommodations.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☒	☐	☐

DISCUSSION

a) Work proposed by this project will repair, restore, rehabilitate, or reconstruct, to some degree, most structures and features within the Light Station historic core. Work will be extended over a period of five years or more and will result in some limited inconvenience to the visiting public. However, the Visitor Center, Lighthouse, and most of the Light Station and Preserve grounds will remain open during the construction process, with few restrictions. Once completed, the availability of overnight accommodations and re-creation of the historic Light Station complex will result in a modest increase in visitors to the Light Station. However, lodging visitors will only account for up to 15 additional visitors per day (assuming they will not have visited the Light Station if overnight accommodations were not available). In addition, although the number of people visiting PCLS may increase, it is reasonable to assume that many will "discover" the Light Station when visiting other parks or attractions in the area. Improvements to PCLS as a result of this project are not expected to bring significant numbers of visitors to the area; only a minimal number of visitors are expected to avoid the Light Station during construction and visit other neighboring parks instead...although many will continue to visit several parks when visiting the area. Impacts to other recreational facilities as a result of proposed project activities or operation of the facilities once work is completed will be less than significant.

b) As noted in Discussion XIV(a) above, the project proposes to re-create the historic appearance and ambience of the Pt. Cabrillo Light Station during the interpretive period prior to the late 1930s. New facilities will become available once construction is complete, including a house museum in the Eastern Residence, lodging accommodations for up to 15 people, and interpretive displays and programs in the reconstructed historic barn. Construction activities associated with the proposed project could result in temporary impacts to the environment. Use of these facilities by current and future visitors could result in localized adverse impacts to the cultural and/or natural resources of the area. However, full implementation of the mitigation measures contained in this document, in conjunction with enforcement of the Point Cabrillo Public Use Guidelines, Point Cabrillo Public Access Plan, and DPR Resource Management Directives will reduce any potential impacts to a less than significant level.

XV. TRANSPORTATION/TRAFFIC.

ENVIRONMENTAL SETTING

The proposed project site is located within the boundaries of Pt. Cabrillo Light Station and Preserve, primarily within the Light Station historic core (approximately one-half mile west of the Light Station entrance). Point Cabrillo Drive is the primary access road for the park and route for delivery of materials and equipment to the project sites. It intersects Hwy. 1 about two miles north of the park and, again, approximately one mile to the south. Point Cabrillo Drive is a two-lane, county-maintained, all-weather local connector roadway, with traffic volume equivalent to LOS-A. It is not a truck route, but school buses and delivery trucks use the road. There are no turn lanes or traffic control signs at the entrance to PCLS. The Annual Average Daily Traffic (AADT) count for this roadway was approximately 885 (PCLS Traffic Review, Feb 2003, p1).

State Route 1, the Pacific Coast Highway, is a designated National Scenic Byway. It is designated as a Minor Arterial (MCGP - Circulation Element and Appendix B). Peak hour traffic operates at a level-of-service (LOS) D between Mendocino and Highway 20; average traffic conditions operate at LOS-C. (PCLS Traffic Review, 2003, p2) Traffic volumes vary seasonally, with increased traffic and congestion in the spring and summer months. Hwy. 1 is the only route that connects with Point Cabrillo Drive for north-south travelers outside the local area. The Light Station cannot be seen from Hwy. 1 and traffic from Hwy. 1 cannot be heard at the Light Station complex.

Lighthouse Road (State Road 8089) extends from the entrance to the property, intersecting with Point Cabrillo Drive, passes south through the visitor parking lot adjacent to the Kearns farmhouse/Visitor Center, then turns west and continues for approximately one-half mile. Visitor vehicles are not currently allowed beyond the visitor parking area, near the front entrance. Visitors currently park and walk the one-half mile to the historic Light Station area. The road splits just before the residences, providing informal access to the outbuildings behind the residences (proposed ADA-accessible lodging accommodations, public restrooms, and parking). The main road continues west, terminating in a turnaround at the front of the Lighthouse. Remnants of the historic roadbed for the Barn Road extend from the existing access road to the original barn site, beginning at the residence area and extending approximately 300 feet to the south-southwest. Temporary handicapped parking is currently available in the front of the residences, and limited short term handicapped parking (for the more limited mobility handicapped visitor) in front of the Lighthouse. PCLS and DPR employees currently park near the outbuildings behind the residences. The road is wholly contained within the Light Station boundaries.

Bus service to the project site is provided by the Mendocino Transit Authority. The Coaster runs along the North Mendocino Coast and stops along Point Cabrillo Drive, near the Light Station entrance, several times daily.

Current visitation at PCLS averages between 2,500-4,500 people per months, accounting for up 2,500 vehicles in the monthly traffic count for Point Cabrillo Drive.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

DISCUSSION

a) All construction activities associated with the project will occur within the boundaries of PCLS. Construction vehicles turning into the project site will not have a significant impact on the limited traffic on Point Cabrillo Drive. The addition of 10-12 additional vehicles (crew pickups, delivery trucks, and equipment haulers) making 1-2 trips daily will not constitute a substantial increase in traffic volume for this road or result in additional congestion. Minimal delays may occur when vehicles arriving from the south on Highway 1 wait to turn left onto Point Cabrillo Drive (there is no left turn lane), but no more than with the regular daily traffic flow. In addition, work crews and equipment will typically arrive or leave the site outside the normal periods of congestion. Less than significant impact.

   As noted in Discussion XIV(b) above, the availability of overnight accommodations and re-creation of the historic Light Station complex will result in a modest increase in visitors to the Light Station. However, current visitation averages between 2,500-4,500 people per month. An increase of 4-6 additional vehicles daily constitute less than a 10% increase and will be insignificant in terms of traffic congestion or delays. Less than significant impact.

b) As noted in Discussion XV(a) above, the proposed project will add approximately 24 vehicle trips daily to Point Cabrillo Drive and State Hwy. 1. Hwy. 1 is rated LOS-C and

Point Cabrillo Drive, if rated, will be approximately LOS-A. The addition of this limited number of vehicle trips will not exceed, individually or cumulatively, the LOS standards for either roadway. No significant impact.

c) The project site is not located within an airport land use plan, within two miles of a public airport, in the vicinity of a private air strip, and does not serve as a normal reporting point for air traffic in the area. Nothing in the proposed project will in any way affect or change existing air traffic patterns in the area. Therefore, no impact will occur as a result of this project.

d) This project proposes to reconstruct historic roads and walkways, restoring natural drainage patterns, and re-creating, to the extent feasible, the circulation patterns present at the Light Station during the interpretive period for the facility. Areas that will receive regular use by overnight guests or staff will generally retain the existing alignment, although parking areas, including designated ADA parking spaces, will be better defined. Restored historic roadbeds will primarily receive foot traffic and an occasional maintenance vehicle. Neither the existing or proposed road design contains elements that will substantially increase hazards to authorized users. Less than significant impact.

e) All construction activities associated with the proposed project will occur within the boundaries of PCLS and work will not restrict access to or block any road outside the immediate construction area. Minimum access requirements for emergency vehicles and access to all areas of the Light Station will be maintained at all times. Less than significant impact.

f) Existing parking spaces adjacent to the Visitor Center are more than sufficient to accommodate current levels of visitation, including special events (PCLS Traffic Review, p5). The proposed project will rehabilitate two of the existing Residences and outbuildings for use as public lodging accommodations; a total of eight ADA-complaint parking spaces will be constructed adjacent to the buildings. This will be sufficient to accommodate overnight guests and staff. Less than significant impact.

g) There are no policies, plans, or programs supporting alternative transportation that apply to this project. However, as noted in the Environmental Setting above, bus service is available to the project site. Bicycle racks are also available at the Visitor Center parking area. No impact.

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XVI. UTILITIES AND SERVICE SYSTEMS.

ENVIRONMENTAL SETTING

Located near Highway 1 and approximately two miles north of the town of Mendocino, Point Cabrillo LS is comprised of the 30.5 acre historic Light Station complex and the 270 acre nature preserve.

Water service to PCLS is provided exclusively by a DPR-owned spring-fed pond and treatment facility within and adjacent to the Light Station. The existing water supply system at PCLS includes a pond (1.3 acre feet), supplied by underground springs and seepages, and a pumphouse and filtering system that delivers water to a concrete storage tank behind the residences. Adjacent to the storage tank, the Utility Building houses a new filtering system. Distribution lines extend from the tank, through the filtration system, to the light station buildings, irrigation system, and fire suppression lines.

Sewage treatment is provided via an existing septic system, also constructed within the historic core. The force main for the proposed sewer system improvements is already in place, along Lighthouse Road. The existing sewer system serves the Residences. Two portable restrooms (porta-potties) are available for visitor use in the Light Station area.

Mendocino County Solid Waste Division provides refuse collection and disposal; Pacific Gas and Electric supplies electricity; and SBC/Pacific Bell provides phone service.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	☒ Yes	☐ No		
Would the construction of these facilities cause significant environmental effects?	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	☒ Yes	☐ No		
Would the construction of these facilities cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	☐	☐	☒	☐

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations as they relate to solid waste?	☐	☐	☐	☒

DISCUSSION

a) PCLS is within the jurisdiction of the North Coast Regional Water Quality Control District. The project will be in compliance with all applicable water quality standards and waste discharge requirements. (See Mitigation Measure HAZMAT-1 regarding potential impacts from accidents, spills, or upset.) No impact.

b) This project will upgrade and expand the existing sewage collection and treatment system, as necessary, to support current and projected levels of use. The system will be constructed and operated in strict compliance with all applicable federal, state, and local statutes and regulations. Work will include installation of additional septic/holding tanks, a lift station, and new leach field system. The existing leach field will be disconnected and abandoned in place. Portions of the existing system will be re-used and the force main for the project is already in place, along Lighthouse Road. Primary resource concerns regarding wastewater treatment system installation and operation include water quality issues [see Discussion VI(e)] and temporary potential impacts related to construction [Discussion VIII(a) above)].

The project also proposes to upgrade the existing water supply and treatment system to provide an integrated system for treatment and distribution of potable water to the Light Station facilities, visitor accommodations, and visitor center. It will also provide water with sufficient pressure and flow to meet fire protection requirements and irrigation demands and improve and maintain the existing water supply, including replacement of supply lines, pond maintenance to improve water quality and effectiveness of the filtration system. Concerns regarding implementation of this work include damage to vegetation, wetlands, and wildlife habitat during construction (see Section IV - Biological Resources), as well as water quality and construction impacts similar to those indicated for the sewer system above. In addition, bentonite clay is used in the directional drilling process, a substance that is toxic in an aquatic environment or potable water supply [see Discussion VIII(a)]. However, implementation of Geo-3, Hazmat-1, and Hydro-1, combined with

appropriate design, installation, and operation in accordance with all state and local health and safety requirements, will reduce any potential impacts to a less than significant level.

c) The project proposes to reconstruct Lighthouse Road, from the Residence area to the Lighthouse, restoring historic road contours, elevation, and drainage patterns and reconstructing the original historic roadbed alignment around the Lighthouse. The existing roadway to the barn. The historic loop road to and around original barn site will also be reconstructed. Both roadways will be surfaced with gravel, in place of the existing asphalt, improving permeability and sheet drainage An adjacent sidewalk will also be removed and replaced with an ADA-compliance walkway at the original grade. Areas around the residences will be recontoured to direct water away from the foundations, as part of the proposed landscaping work. Additional drainage and erosion work at the land neck is also included in the scope of the project. This work will, in effect, upgrade existing stormwater drainage patterns in the historic Light Station core. Construction work associated with these upgrades has the potential to significantly impact the natural and cultural resources of the project area (see Sections III, IV, V, VI, VII, and VIII). However, full implementation of the mitigation measures in these sections addressing construction activities in these areas will reduce an potential adverse environmental impacts to a less than significant level.

d) The park's water is supplied exclusively from a DPR-owned and operated spring/seep-fed pond. The current quantity of water supplied by the pond is adequate for existing and future demands. As an additional margin of safety, the project proposes to increase storage capacity for human consumption, irrigation, and fire suppression uses. Existing filtration and distribution systems will be upgraded and proposed pond maintenance will also enhance the efficiency of the filtration systems. Less than significant impact.

e) Wastewater treatment at PCLS is provided by a DPR-owned and maintained septic and leach field system. The system is adequate for existing needs and the upgrades to the system proposed as part of this project will provide adequate wastewater treatment for the proposed change in use (lodging accommodations) and future service commitments. There are no outside wastewater treatment providers for PCLS. Less than significant

f) Solid waste disposal requirements include disposal of asphalt removed from existing roadbeds and a slight increase in household garbage related to the "bed and breakfast" accommodations. Household solid waste will be processed at the Caspar Landfill; this landfill has an estimate life of at least 10-15 years and the minimal increase from the Light Station will not cause the facility to exceed capacity. (MCGP - Land Use Element) Asphalt removed from the project site will be disposed of through an authorized recycling contractor or reused by the construction contractor or within the State Park system. Less than significant.

g) The proposed project will comply with all federal, state, and local statutes and regulations as they relate to solid waste. No impact.

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CHAPTER 4
MANDATORY FINDINGS OF SIGNIFICANCE

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	☐	☒	☐	☐
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	☐	☐	☒	☐
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION

a) The proposed project was evaluated for potential significant adverse impacts to the natural environment. It has been determined that the project will have the potential to:
- Degrade the quality of the environment (disrupt established drainage patterns; degrade water quality; increase siltation, directional runoff, and erosion);
- Substantially reduce the habitat of a fish or wildlife species (nesting raptors, northern red-legged frog, western pond turtle, and other burrowing animals);
- Threaten to eliminate a plant community (CNPS List 1B and 2 plant species; Northern Bluff Scrub, Sitka Willow Series, and Hooker Willow Series plant communities);
- Reduce the number or restrict the range of a rare or endangered plant or animal, (Roderick's fritillary, CNPS List 1B/State Endangered Plant Species; Northern red-legged frog, Federal and California Species of Special Concern; Lotis blue butterfly, Federal Endangered Species), The project also has the potential to interfere with normal migratory paths, although the impact will not be significant.

However, full implementation of all mitigation measures incorporated into this project will avoid or reduce these potential impacts to a less than significant level.

b) The proposed project will have the potential to eliminate important examples of major periods of California history or prehistory by disturbing the historical fabric, integrity, and/or significance of buildings and landscape elements included on the Point Cabrillo Light Station National Register site. Additionally, although unlikely, disturbance of archaeological features or artifacts, or a human burial site, is possible within one or more of the project areas. However, full implementation of all mitigation measures incorporated into this project will reduce any potential impact to a less than significant level.

c) DPR often has other smaller maintenance programs and rehabilitation projects planned for a park unit. For PCLS, these include:

- Clean-up of lead-based paint in and around the Pt. Cabrillo Lighthouse.
- Rehabilitation of the Eastern residence outbuilding to accommodate public restroom facilities.
- Reconstruction of Kearns family farmhouse and adaptation for use as a Visitor Center.
- On-going removal of exotic/invasive plants.

However, impacts from environmental issues addressed in this evaluation do not overlap with these additional projects in such a way as to result in cumulative impacts that are greater than the sum of the parts or that result in a significant adverse impact that cannot be mitigated. Full implementation of all mitigation measures associated with this and other projects will reduce any potential cumulative impact to a less than significant level.

d) Most project-related environmental effects have been determined to pose a less than significant impact on humans. However, possible impacts from construction emissions (Air Quality), construction accidents, seismic events, and fire (Hazards and Hazardous Wastes), and noise, though temporary in nature, have the potential to result in significant adverse effects on humans. These potentially significant adverse impacts will be reduced to a less than significant level if all mitigation measures incorporated into this project are fully implemented.

CHAPTER 5
SUMMARY OF MITIGATION MEASURES

The following mitigation measures will be implemented by DPR as part of the Buildings and Infrastructure Project at Point Cabrillo Light Station and Preserve.

AIR QUALITY

MITIGATION MEASURES AIR-1

- All active construction areas will be watered at least twice daily during dry, dusty conditions.
- All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.
- Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.
- Earth or other material that has been transported onto paved streets by trucking or earth-moving equipment, erosion, or any other project-related activity will be promptly removed.

BIOLOGICAL RESOURCES

MITIGATION MEASURE BIO-1 LOTIS BLUE BUTTERFLY PROTECTION

- Prior to any vegetation or ground disturbing activities (including excavation, trenching, vegetation removal, parking equipment in vegetated areas, etc.), and within one year prior to construction, surveys will be conducted by a DPR-qualified resource ecologist for *Lotus formosissimus* within 50 feet of areas where plants may occur. All occurrences of the plant will be mapped on project maps. A fenced buffer area of 10 feet will be established around all plants, except where buffer will overlap the road shoulder, prior to the start of construction. No ground or vegetation disturbing activities will take place within the 10 foot buffer area. The temporary protective fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed.
- In the areas where plants are within five feet of the road shoulder, a DPR-qualified resource ecologist will monitor construction activities to divert activity away from plants within or immediately adjacent to the road shoulder, outside the fenced buffer areas.
- The project manager, contractor, and/or State Representative will meet with the assigned resource ecologist, to define details relating to the construction zone, access points, and avoidance of impacts along the Barn road, prior to the start of construction. The Service Center or District Natural Resource Section will be contacted a minimum of three weeks prior to the start of construction to schedule the on-site meeting, unless other arrangements are made in advance.

MITIGATION MEASURE BIO-2 WILDLIFE PROTECTION - BURROWING ANIMALS

- Under the supervision of a DPR-qualified resource ecologist, burrows within 300 feet of the water supply pond will be hand excavated and collapsed within one week prior to the start of construction. If animals are found, they will be removed and released in a suitable location.

MITIGATION MEASURE BIO-3 NESTING RAPTOR PROTECTION

- Work in grasslands, scrub, and other areas that could support nesting raptors will occur from August to February (outside the normal breeding season), to the extent feasible.
- If work must occur during the breeding season, a survey to locate nests in the project area will be conducted within 30 days prior to the start of work. A buffer zone of up to 500 feet will be established around any active nest found during this survey or during construction, based on variables such as season, topography, or the nature of the construction activity, as determined by a DPR-qualified resource ecologist. All operations will be excluded from the buffer area until young have fledged from the nest.

MITIGATION MEASURE BIO-4 NORTHERN RED-LEGGED FROGS

- A DPR-qualified resource ecologist will identify an appropriate buffer zone around the wetland at the base of the dam, prior to the start of any work in the pond area. Temporary protective fencing will be installed and all construction operations will be excluded from this area. Fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed.

MITIGATION MEASURE BIO-5 RODERICK'S FRITILLARY

- A survey of the proposed project site will be conducted March through May, within one year prior to the start of construction.
- If Roderick's fritillary is found within the project area, the perimeter of the species occurrence will be flagged on the ground and mapped on project maps. Protective fencing will be erected around the occurrence and will include a 10-foot buffer zone. No construction-related activities will occur within the exclusion area. Fencing will remain in place until all construction activities with the potential to impact the buffered areas are completed.
- DFG will be advised if any plant is found in the project area.

MITIGATION MEASURE BIO-6 CNPS LIST 1B AND 2 PLANT SPECIES

- Surveys will be conducted during the appropriate blooming months (or when species can be unmistakably identified), in the year immediately preceding work at a specific site, for all CNPS List 1B and List 2 plant species that could potentially occur within the project area.
- All occurrences of CNPS List 1B and List 2 species found within the project area will be mapped on project maps, flagged on the ground, and avoided to the extent feasible.
- Construction-related damage to individual plants or habitat will be mitigated at a ratio of 3:1 through habitat enhancement for these species within the PCLS (or as negotiated with DFG).

MITIGATION MEASURE BIO-7 SENSITIVE NATURAL PLANT COMMUNITIES

- Prior to ground disturbing activities, a DPR-qualified resource ecologist will determine the amount of acreage occupied by each plant community and the amount of acreage that will be eliminated by the proposed construction. All Northern Bluff Scrub, Sitka Willow Series and Hooker Willow Series vegetation removed by project-related activities will be replaced, at the minimum ratio stipulated by DFG or the appropriate regulatory or permitting agencies, within PCLS or other approved habitat areas. Replacement plants will be grown from local seed sources, to result in no net loss of native plant communities.
- The revegetated areas will be monitored and invasive plant species controlled, as part of the on-going PCLS vegetation management program.

MITIGATION MEASURE BIO-8 WETLANDS

- Consultation with CCC, USACE, DFG, and other appropriate regulatory or permitting agencies will occur prior to the start of construction. Mitigation measures recommended or required by the regulatory agencies will be implemented, as appropriate, in addition to project mitigation measures indicated below.
- Directional drilling will be used to minimize impacts to wetlands and sensitive plants, to the extent feasible; pipes will be installed at a depth of three feet or more below wetlands.
- All equipment and pedestrian access pathways that cross native vegetation or wetlands between the barn site and the water supply pond, or between Lighthouse Road and the water supply pond, will be protected with plywood, protective matting, or other appropriate material to prevent soil compaction and destruction of vegetation. The number of access points to the pond will be limited to protect bank soil and vegetation. Directional drilling equipment will use only paved roads and avoid vegetated areas except between the barn site and the pond (Figure 1). Location of access pathways will be reviewed and approved by a DPR-approved resource ecologist prior to use; equipment and pedestrian access along these routes will be monitored by the project resource ecologist during all phases of work.
- Work will be conducted during the driest period of the year to protect wetlands (generally August-September)..

MITIGATION MEASURE BIO-9 WATER SUPPLY POND

- The outflow area below the dam will not be disturbed by dredging or other project activities; the outflow area includes the outflow stream and a buffer area around the wetland. (See Figure 1 and BIO-4)
- Vegetation removal, excavation, and other project activities will be conducted during the driest period of the year (August – September). Vegetation removal and dredging within the pond will be conducted by hand; mechanized equipment may be used to transport spoils from the pond to drying areas or for disposal. Removal of vegetation and placement of equipment will be subject to consultation and approval of a DPR-qualified resource ecologist.

- Vegetation and spoils removed from the pond will be disposed of within PCLS boundaries. Vegetation will be dried on-site prior to burning, composting, or other use. Location for drying and disposal will be subject to consultation and approval of a DPR-qualified resource ecologist.
- If the water level is lowered to perform dredging and plant removal, the period of lowering will be minimized and will not exceed five days. A minimum water level of three feet will be maintained in the south section of the pond and, at no time, will the pond be allowed to dry out.

CULTURAL RESOURCES

MITIGATION MEASURES CULT-1

- The proposed restoration and rehabilitation of the three residences and two outbuildings will be fully supported by Historic Structure Reports.
- A DPR-qualified historian and architect will oversee reconstruction design and implementation. Prior to the start of work in any new area, the project manager, contractor, and/or State Representative will consult with the project historian to determine the extent of monitoring necessary for each specific phase of the project. A monitoring schedule will be set at that time.
- The project site, structures, and adjacent features will be photodocumented before, during, and after construction. Photos will be added to the PCLS and District historical records (archives).
- All work impacting the historic fabric or significance of the historic resource and its surroundings will adhere to the restrictions and requirements set forth in the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer.

MITIGATION MEASURE CULT-2

- All site work will conform to the recommendations of the Cultural Landscape Analysis and Report (Bradley, 2003)and Setting sections of the Secretary of Interior's Standards for Reconstruction and Restoration.

MITIGATION MEASURE CULT-3

- All work will incorporate recommendations for both general and specific treatment strategies for the contributing individual cultural landscape features, as referenced in the Cultural Landscape Study.

MITIGATION MEASURE CULT-4

- Prior to the start of work in any new area, the project manager, contractor(s), and/or State Representative will consult with the project archaeologist to determine the extent of pre-construction testing and/or monitoring necessary for each specific phase of the project. A monitoring schedule will be set at that time.

- Ground-disturbing work will be monitored by and at the discretion of a DPR-qualified archaeologist familiar with the historic landscape and cultural resources within the APE. If potentially significant resources are unearthed, work in the immediate area of the find will be temporarily halted or diverted until identification and proper treatment are determined and implemented. The DPR Service Center or District Cultural Resource Section will be notified a minimum of three weeks prior to the start of ground-disturbing work to schedule monitoring, unless other arrangements are made in advance.
- A report of the findings from the monitoring and any resulting excavations will be completed and copies distributed to the Cultural Resource Division, California State Park Headquarters; the DPR Northern Service Center; and Mendocino District Headquarters.

MITIGATION MEASURE CULT-5

- In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil contain shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find will be temporarily halted or diverted until a DPR-qualified cultural resource specialist has been contacted to evaluate the find and implement appropriate treatment measures and disposition of the artifact(s).
- Once any significant cultural resources are found in a project location, a qualified historian, archaeologist, and/or Native American representative (if appropriate) will monitor any ground-disturbing work in that area from that point forward.

MITIGATION MEASURE CULT-6

- The archaeological site CA-MEN-792 and surrounding perimeter boundary of 25 meters will be designated as an Environmentally Sensitive Area (ESA). If necessary, the area will be delineated with flagging during construction activities to direct construction activities away from the site.
- Vehicle access and staging areas or operation of heavy equipment will not take place in the immediate vicinity of CA-MEN-792 or the perimeter boundary.

MITIGATION MEASURE CULT-7

- In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative). If a Native American monitor is on-site at the time of the discovery, the monitor will be responsible for notifying the appropriate Native American authorities.

  If the coroner or tribal representative determines the remains represent Native American interment, the NAHC in Sacramento and/or tribe will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area

of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination.

If it is determined the find indicates a sacred or religious site, the site will be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives will also occur as necessary to define additional site mitigation or future restrictions.

GEOLOGY AND SOILS

MITIGATION MEASURES GEO-1 SEISMIC REQUIREMENTS

- The proposed rehabilitation of PCLS historic buildings, and the reconstruction of the historic barn, water tower, and pumphouse, must conform to the earthquake design requirements as indicated in the UBC/CBC Guidelines of the HSR for each building. The design criteria will be for Seismic Zone 4, with a soil type of S_B to S_D (rock to stiff soil) as indicated in Table 16-J, of the 2001 CBC/UBC. Seismic stabilization of any buildings will address potential liquefaction and loss of bearing strength and will be applicable to any structure used by or accessible to the public.

MITIGATION MEASURE GEO-2 DRAINAGE AND EROSION CONTROL

- Implement the Drainage and Erosion Control portion of the proposed project as designed, at the location of the Smithy slump (neck area). This will include regrading the road to the Lighthouse, lowering the elevation of the roadbed, and redirecting stormwater runoff to encourage more sheetflow and less water concentration at the neck. Additional bioengineering techniques, including installation of more willow wattles, will be used to provide additional stabilization of the slump area on the north side of the neck. The south side of the neck will also receive biotechnical stabilization to prevent erosion from redirected stormwater runoff. (See Chapter 2, page 17)

MITIGATION MEASURE GEO-3 EROSION CONTROL

- DPR, Mendocino County, NPDES, and/or North Coast Regional Water Quality Control Board (NCRWQCB) approved Best Management Practices (BMPs) will be used in all areas to control soil and surface water runoff during excavation, trenching, and grading. If ground disturbing operations must occur during the rainy season (October 31 to May 1), or if unseasonable storms are anticipated during construction, “winterizing” will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods to protect disturbed soil.
- Temporary erosion control measures will be used during all soil disturbing activities and until all disturbed soil has been stabilized (re-compacted, revegetated, etc.) This will include, but not be limited to, the use of silt fences, straw bales, or straw or rice coir rolls to prevent soil loss and siltation into nearby water bodies.
- Permanent erosion controls will be implemented, including proper compaction and revegetation of disturbed soil areas, as soon as feasible following construction.

- The project will adhere to all applicable local building and engineering regulations/ordinances set forth by Mendocino County.

HAZARDS AND HAZARDOUS MATERIALS

MITIGATION MEASURES HAZMAT-1

- All equipment will be inspected for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises.
- An emergency spill response plan (Spill Prevention, Control, and Countermeasure Plan) will be prepared prior to the start of construction and a spill kit maintained on-site throughout the duration of the project. This plan will include a map delineating construction staging or storage areas and areas where refueling, lubrication, and maintenance of equipment may occur. In the event of any spill or release of any chemical in any physical form on or immediately adjacent to Point Cabrillo Light Station and Preserve during construction, appropriate DPR staff (e.g., project manager or supervisor) will be immediately notified to initiate appropriate containment and cleanup actions.
- Equipment will be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, soil, sludge, spill residue, or other hazardous compounds will be disposed of outside park boundaries, at a lawfully permitted or authorized site.

MITIGATION MEASURE HAZMAT- 2 HAZARDOUS MATERIALS

- A Hazardous Material Survey (HMS) will be performed in and around buildings that will impacted by this project, prior to the start of construction, and based on the results, materials containing hazardous substances will either be removed or encapsulated as necessary to protect public health and safety.
- All hazardous materials will be removed by trained and authorized personnel and disposed of at a licensed facility (generally a Class III landfill), in compliance with local, state, and federal regulations and guidelines.
- All areas undergoing hazardous material removal or remediation will be restricted to essential personnel only. Non-essential DPR and PCLK employees, contractors, and the general public will be kept at a safe distance, in compliance with California Department of Health and Safety and California Division of Occupational Safety and Health requirements.

MITIGATION MEASURE HAZMAT- 3 CONSTRUCTION FIRE MANAGEMENT

- A fire safety plan will be in place prior to the start of any construction, including identified fire suppression equipment and completion of any required employee training.
- Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment.
- Construction crews will be required to park vehicles away from flammable material, such as dry grass and brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete to reduce the chance of fire.

- A Hazardous Materials Abatement Plan and Specifications for the proper use, storage, and disposal of any flammable materials used inside and outside the buildings will be prepared prior to start of work and implemented during all phases of the project.
- Park staff will be required to have a State Park radio on site, which will allow direct contact with Mendocino County Fire Department and centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire. Fire suppression equipment will also be available on park grounds.

MITIGATION MEASURE HAZMAT- 4 OPERATIONAL FIRE MANAGEMENT

- Areas surrounding any structures will be cleared of flammable materials to a minimum distance of 30 feet, to the extent feasible, in compliance with the California Fire Plan, Pre-Fire Management guidelines.
- The existing wharf hydrant system will be repaired, replaced, and/or upgraded as indicated under proposed project activities (see Water System, Chapter 2, page 15).
- Fire detection and suppression equipment will be installed and/or available, as required by the California Building Code Standards 9-1, 9-2, and 9-3; and the State Fire Marshall, with variances as allowed by the California Historic Building Code. System will be approved and operational prior to use of the buildings for public lodging.

HYDROLOGY AND WATER QUALITY

MITIGATION MEASURES HYDRO-1

- The directional drilling rig operator will be responsible for detecting and controlling drilling fluid seepage. Drilling fluid will be contained within the reservoir at the rig, with supplemental containment methods, such as straw bales, silt fencing, or straw/rice wattles (coir rolls) in place or immediately available to control drilling fluid seepage or spills.
- The project will comply with all applicable water quality standards and waste discharge requirements as specified in the NCRWQCB Basin Plan. A Stormwater Pollution Prevention Plan, if required by the NCRWQCB, will be implemented to reduce impacts from runoff and sediment releases.

MITIGATION MEASURES HYDRO-2

- Temporary erosion control measures will be used during all soil disturbing activities and until all disturbed soil has been stabilized (re-compacted, revegetated, etc.) as indicated in GEO-3, and to specifically contain any release of silt to the stream channel during dredging of the pond or soil-disturbing vegetation removal and to filter sediment from the water before it enters the stream below the pond dam.

MITIGATION MEASURES HYDRO-3

- A site-specific and appropriated sized stormwater drainage plan will be designed and implemented, in compliance with the NCRWQCB and National Pollutant Discharge Elimination System (NPDES) Permitting Program requirements and guidelines.

- Drainage and erosion control designs will re-establish natural sheetflow patterns and redirect stormwater drainage away from severely eroded bluff locations and building foundations.

NOISE

MITIGATION MEASURES NOISE-1

- Construction activities will generally be limited to the daylight hours, Monday - Friday. If work during weekends or holidays is required, no work will occur on those days before 7:30 am or after 8 p.m.
- Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- Stationary noise sources and staging areas will be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources will be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

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CHAPTER 6
REFERENCES

GENERAL REFERENCES

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Report Preparation

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

Carrie Bemis
Assistant Resource Ecologist
Northern Service Center - Sacramento, California

Kathleen Considine, CED
Associate Engineering Geologist
Northern Service Center - Sacramento, California

Patti Du Mont
Environmental Coordinator
Northern Service Center - Sacramento, California

Dionne Gruver
Associate State Archaeologist
Northern Service Center - Sacramento, California

John Kelly
State Historian III
Northern Service Center - Sacramento, California

Roy Martin
Associate State Park Resource Ecologist
Northern Service Center - Sacramento, California

William Orme
Senior State Park Resource Ecologist
Northern Service Center - Sacramento, California

Daniel Osanna
State Historian II
Northern Service Center - Sacramento, California

Shaelyn Raab Strattan
Environmental Coordinator
Northern Service Center - Sacramento, California

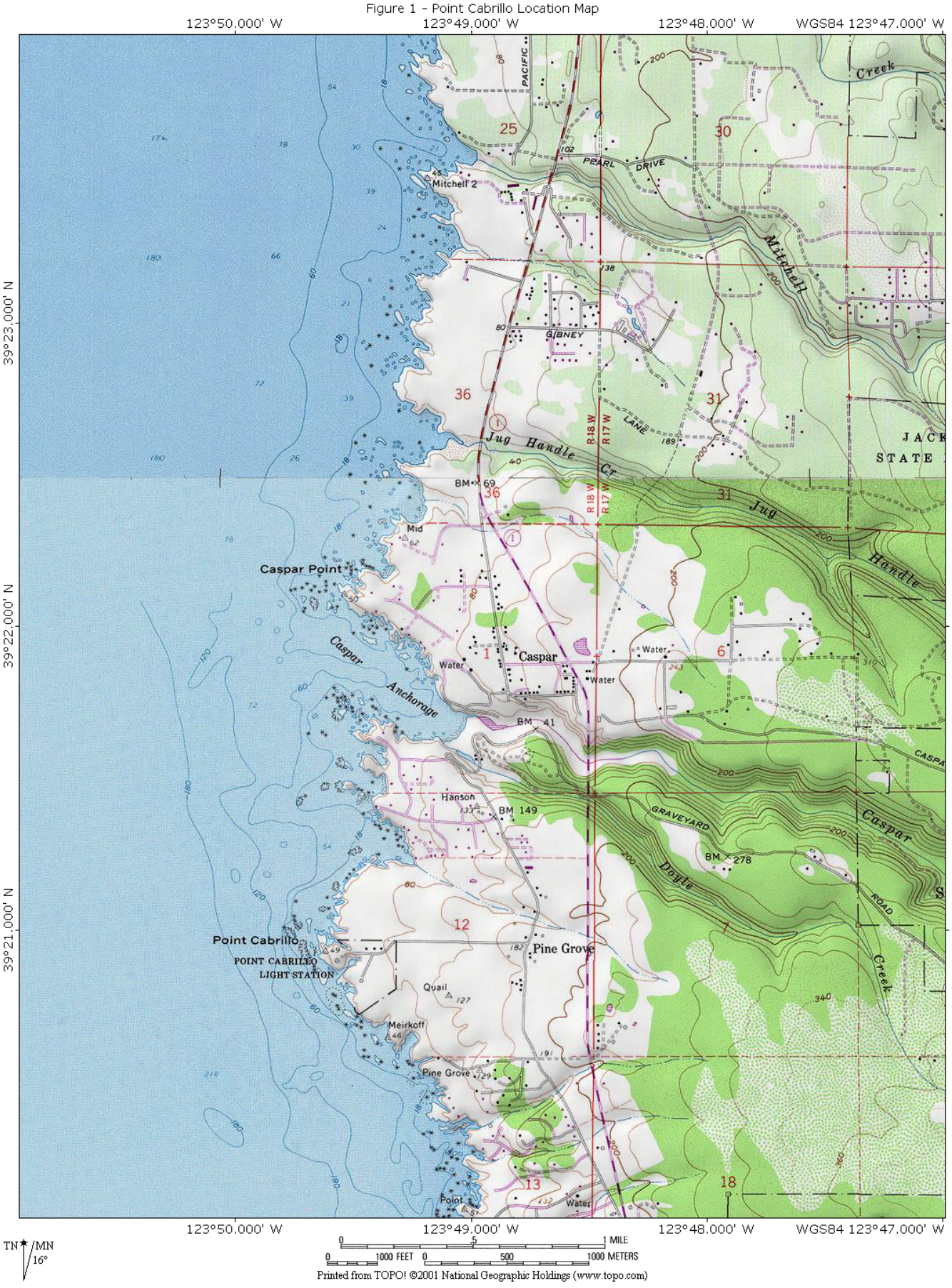
POINT CABRILLO LIGHTKEEPERS ASSOCIATION

Jim Kimbrell
Executive Director
Point Cabrillo Lightkeepers Association - Mendocino, California

APPENDIX A

MAPS, FIGURES, AND GRAPHICS

Figure 1 - Point Cabrillo Location Map



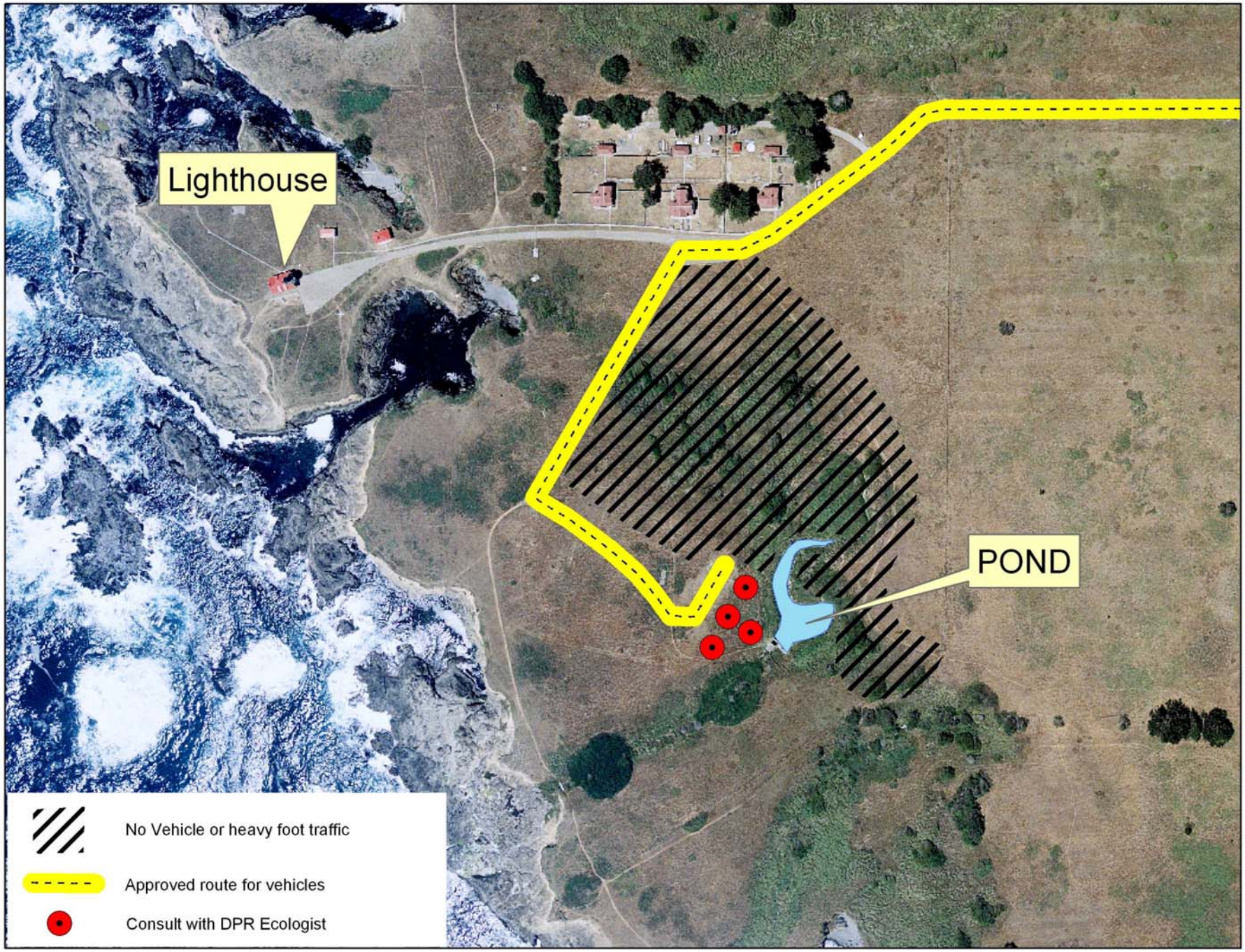
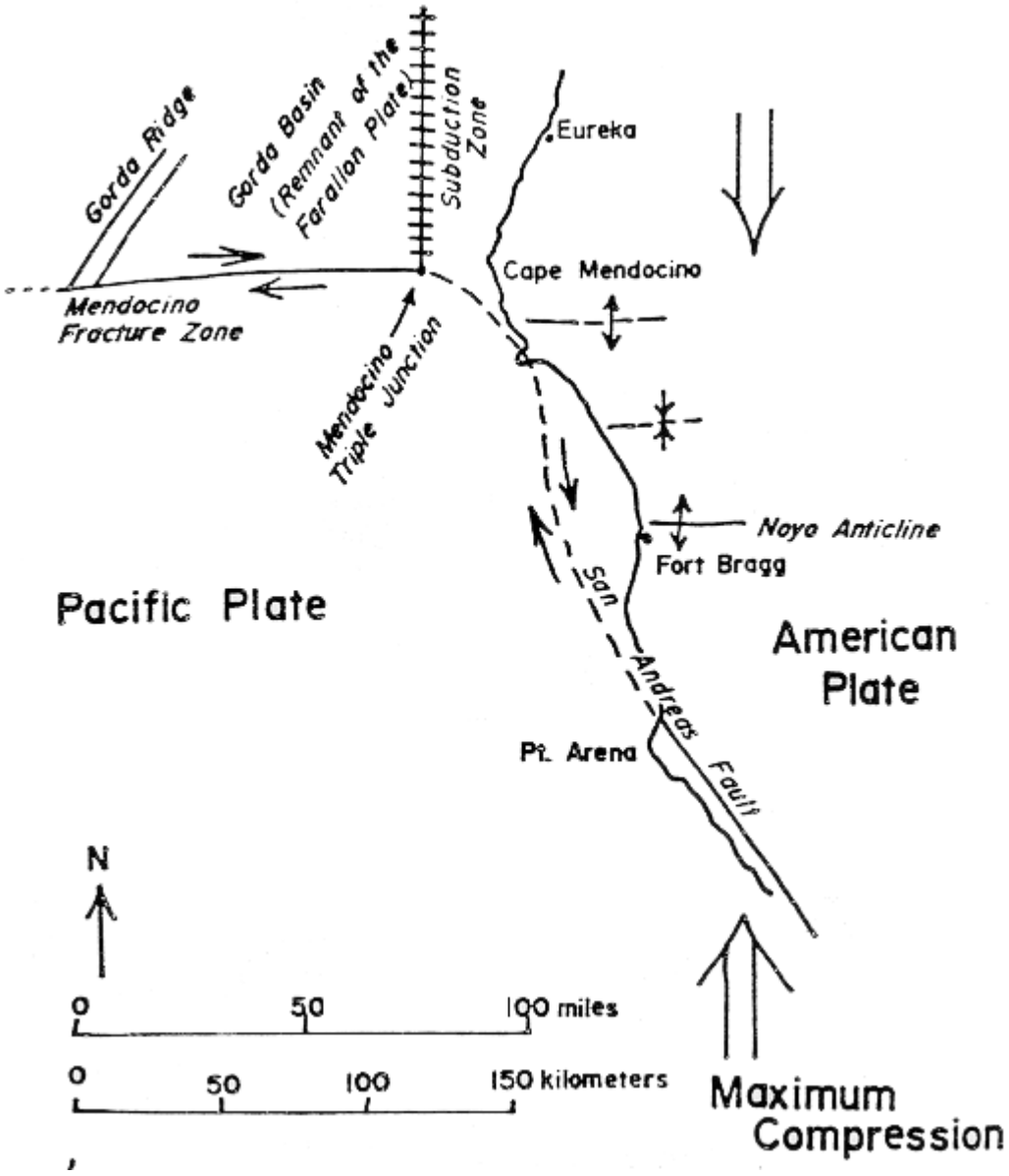

Lighthouse
POND
No Vehicle or heavy foot traffic
Approved route for vehicles
Consult with DPR Ecologist

Photo 1 : Slumps west of Frolic Cove

Photo 2 – Smithy Slump

Photo 3 – Willow wattles at Smithy slump

The Smithy slump threatens the historic Smithy building, as well as an underground electrical line that runs along the road to the lighthouse. The Smithy slump has been partially stabilized using willow wattles (Photo 3). Channelizing of surface water runoff along the road and over the bluff edge accelerated the slumping at the Smithy. Part of this project involves regrading the roadway and lowering the elevation of the roadbed, improving runoff so that less water is concentrated at the neck and more runoff occurs as sheetflow. Additional bioengineering techniques, including more willow wattles, will be used to provide additional stabilization.



From: http://www.krisweb.com/hydrol/plates100.gif

Figure 2 _ Location of Nearby Faults

APPENDIX B

ACRONYMS

APPENDIX B
ACRONYMS

ADA	Americans with Disabilities Act
agl	above ground level
APE	area of potential effect
APEFZ	Alquist-Priolo Earthquake Fault Zoning
ARB/CARB	California Air Resources Board
asl	above sea level
NCAQMD	North Coast Air Quality Management District
BMP	Best Management Practices
CALSTAR	California Shock Trauma Air Rescue
Caltrans	California Department of Transportation
CBC/UBC	California Uniform Building Code
CCC	California Coastal Commission
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database (Calif. Dept. of Fish and Game)
CNEL	Community Noise Exposure Level
CNPS	California Native Plant Society
CRHR	California Register of Historic Resources
dB	decibel
DFG/CDFG	California Department of Fish and Game
DPR	California Department of Parks and Recreation (California State Parks)
EIR	Environmental Impact Report
ESRI	Environmental Systems Research Institute, Inc.
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
GP	General Plan
HAER	Historic American Engineering Record
HMS	Hazardous Material Survey
HS Plan	Health and Safety Plan
IS	Initial Study
kV	kilovolt
LCP	Local Coastal Plan
LOS	level of service
LS	Light Station
MCA	Marine Conservation Area
MCGP	Mendocino County General Plan
MCHU	Mendocino Coast Hydrologic Unit
msl	mean sea level
MND	Mitigated Negative Declaration

ACRONYMS (CONT.)

mph	miles per hour
MVA	megavolt ampere
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NCRWQCB	North Coast Regional Water Quality Control Board
NOx	nitrogen oxide
NSC	Northern Service Center
OS	Open Space
PCLK	Point Cabrillo Lightkeepers Association
PCLS	Point Cabrillo Light Station
PD	Planned Development
PF	Semi-Public Facilities
PG&E	Pacific Gas and Electric Company
PM10	particulate matter (particles) with an aerodynamic diameter of 10 microns or less
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board
ROG	reactive organic gases
RR	Rural Residential
SP	State Park
SHP	State Historic Park
SHPO	California State Historic Preservation Officer
SMP	Stormwater Management Plan
SPCC Plan	Spill Prevention, Control, and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan
ULC	Union Lumber Company
US	United States
USACE	United State Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Service
VMT	visibility-reducing particle