DRAFT

INITIAL STUDY
MITIGATED NEGATIVE DECLARATION

Manchester State Park
Point Arena Mountain Beaver Habitat Protection Project

August 2005

State of California
DEPARTMENT OF PARKS AND RECREATION

Northern Service Center
Acquisition and Development
One Capitol Mall
Sacramento, California 95814

This page left intentionally blank

MITIGATED NEGATIVE DECLARATION

PROJECT: **Point Arena Mountain Beaver Habitat Protection Project**

LEAD AGENCY: California Department of Parks and Recreation

AVAILABILITY OF DOCUMENTS: The Initial Study for this Mitigated Negative Declaration is available for review at:

- Northern Service Center
  California Department of Parks & Recreation
  One Capitol Mall - Suite 500
  Sacramento, California 95814

- Mendocino District Headquarters
  California Department of Parks & Recreation
  Russian Gulch State Park
  Highway 1
  Mendocino, CA 95460

- Manchester State Park
  Highway 1
  Manchester, CA 95459

- Coast Community Library
  225 Main Street
  Point Arena, California 95468

PROJECT DESCRIPTION:
The Department of Parks and Recreation proposes to relocate a campground and improve trails within Manchester State Park to improve Point Arena mountain beaver (PAMB) habitat. The following is a summary of the proposed work:

- Permanently close campsites 10 through 30 and 40 through 46.
- Remove asphalt surfaces from all campground roads within 100 feet of PAMB habitat.
- Re-orient campsites 9 and 39 to allow for the new loop road connector.
- Remove the interpretive sign between campsites 15 & 20.
- Remove pit toilets 5, 6, 7, and 8 from PAMB habitat within the existing campground.
- Remove water outlets and cap supply lines.
- Construct new campground road segments, one to link the two closed camp road spurs, the other to complete the west side campground loop from the existing road back to the campground entrance road.
- Construct 28 new campsites, including 4 Americans with Disabilities compliant sites.

- Upgrade the existing campground host site to increase parking space and improve utilities service.
- Provide new water lines to supply the newly constructed campground areas.
- Grade and surface with asphalt concrete a gravel parking lot between the maintenance yard and the existing loop road to provide access to the walk-in campsites, the environmental campsites, and day-use areas.
- Construct four new toilet buildings in the campground.
- Install animal-proof trash and recycling containers throughout the campground, day-use areas, and trailheads.
- Close and eliminate the South Beach Trail from the Kinney day use parking lot that passes through occupied PAMB burrowing areas.
- Close the potentially hazardous primary beach access trail from the Kinney day use parking lot.
- Install informational signs along the North Beach Trail to reduce potential impacts to PAMB
- Informally close the Beach Trail from the campground (near site 25) to the beach by removing signs designating this as an official trail to and from the campground and the beach.
- Designate with signs the existing KOA Trail as the preferred beach access route from the campground to the beach.
- Install new interpretive panels in the park.
- Remove non-native, invasive plants to include iceplant, Monterey pine, European beachgrass, Monterey cypress, Monterey pines, Himalayan blackberry, wild radish, and Australian fireweed from designated areas to improve habitat for native plant and animal species.
- Conduct or manage the collection of on-site native seeds or vegetative plant propagules for species needed for re-vegetation.
- Remove asphalt surfaces, campsite bollards, Monterey cypresses, and de-compact soil in closed campground areas to recover and restore vegetation and provide improved PAMB habitat.
- Re-vegetate newer campground areas and those affected by construction with native plants
- Construct a fence between the campground and day use areas and PAMB habitat.
- Install signs as necessary and re-vegetate at critical access points along closed trails to formalize the closure of trails and campground areas
- Improve the existing KOA Trail from the campground to the beach to provide complete access, in accordance with the Americans with Disabilities Act.
- Establish long-term program to monitor PAMB populations, including burrow surveys, and monitoring closed trails and replanted areas.
- Implement maintenance parameters on existing trails designed to avoid impacts to habitat and burrowing areas.
- Coordinate a training session, at the direction of USFWS, for park personnel on

identification of habitat and occupied burrow areas, to be conducted by qualified, USFWS-approved personnel.

A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Mitigated Negative Declaration may be addressed to:

Patricia DuMont
Environmental Coordinator
California Department of Parks & Recreation
Northern Service Center
One Capitol Mall, Suite 500
Sacramento, California 95814

E-mail Address:
CEQANSC@parks.ca.gov

Fax Number:
916-445-8883

Submissions must be in writing and postmarked, or received by fax or e-mail, no later than September 15, 2005. The originals of any faxed document must be received by regular mail within ten working days following the deadline for comments, along with proof of successful fax transmission.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR) has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR. DPR, as lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Mitigated Negative Declaration.

_____ _____
Mike Wells Date
Mendocino District Superintendent

_____ _____
Patricia DuMont Date
Environmental Coordinator
Northern Service Center

This page left intentionally blank

TABLE of CONTENTS

Chapter/Section **Page**

Appendices

This page left intentionally blank

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 Point Arena Mountain Beaver Habitat Protection Project at Manchester, 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 would 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 the lead agency is:

Peter Brauderick
State Park Maintenance Chief
P. O. Box 440,
Mendocino, CA 95460
(707) 937-3118

All inquiries regarding environmental compliance for this project, including comments on this environmental document should be addressed to:

Patricia DuMont
Environmental Coordinator
California Department of Parks & Recreation
Northern Service Center
One Capitol Mall, Suite 500
Sacramento, California 95814

E-mail Address:
CEQANSC@parks.ca.gov

Fax Number:
916-445-8883

Submissions must be in writing and postmarked, or received by fax or e-mail, no later than September 15, 2005. The originals of any faxed document must be received by regular mail within ten working days following the deadline for comments, along with proof of successful fax transmission.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Point Arena Mountain Beaver Habitat Protection Project at Manchester State Park. Conditions and mitigation measures have been incorporated into the project to eliminate any potentially significant impacts or to 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 identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Mitigation measures are incorporated, where appropriate, to reduce potentially significant impacts 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 Conditions and Mitigation Measures.
  This chapter summarizes the mitigation measures incorporated into the project as a result of the Initial Study.

- Chapter 6 - References.
  This chapter identifies the references and sources used in the preparation of this IS/MND. It also provides a list of those involved in the preparation of this document.

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

1.4 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 Arena Mountain Beaver Habitat Protection 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 would have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with the CEQA Guidelines.

This page left intentionally blank

CHAPTER 2
PROJECT DESCRIPTION

2.1 INTRODUCTION

This 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 Point Arena Mountain Beaver habitat Protection project at Manchester State Park, located near the village of Manchester, Mendocino County, California. The proposed project relocates park facilities, including campsites and trails; constructs new campsites, toilets, road segments, and parking areas, improves trails; and installs new park interpretive panels and signs to facilitate recovery of the Point Arena mountain beaver and its de-listing as endangered under the federal Endangered Species Act (ESA).

2.2 PROJECT LOCATION

Manchester State Park is situated along the Mendocino County coast near the village of Manchester, about 17 miles south of the junction of State Highways 1 and 128, and about 5 miles north of the village of Point Arena. Access to the park is primarily from State Highway 1 along Alder Creek, Kinney, and Stoneboro Roads.

The park covers approximately 1,500 acres on-shore, with another 3,700 acres of marine environments leased from the State Lands Commission.

All project components of the proposed project are situated entirely within the boundaries of Manchester State Park. Most project activities will be located in the campground and visitor-use facilities portion of the park, along the proposed environmental campsite trail corridor, and in day-use access areas – all accessible from Kinney Road. Future project components may be located partially outside the park boundaries, along Alder Creek Road and will require additional environmental documentation as well as negotiation with public agencies or private landowners.

2.3 BACKGROUND AND NEED FOR THE PROJECT

In 1995, the Mendocino District of State Parks closed 4 campsites within Point Arena mountain beaver (PAMB; *Aplodontia rufa nigra*) habitat. In July 2004, State Parks closed 16 additional sites where PAMB burrowing activity was verified within fifty feet of any of those sites. Another 8 campsites were proposed as low priority camping sites for the remainder of the 2004 camping season; these were not opened in 2005. This project proposes to close 28 campsites and to permanently move park-related activities outside the PAMB burrowing zone to comply with provisions of the ESA for PAMB.

Currently, PAMB is restricted to suitable habitat covering approximately 24 square miles (62 km^2) in the Pt. Arena-Manchester area of coastal Mendocino County and is listed as endangered under the Endangered Species Act of 1973. When listing a species under the ESA, the goal is species recovery, leading to eventual de-listing.

Without this project, human-related activities as well as other noises, ground vibrations, odors, and the presence of predators within the habitat area will potentially continue to

disrupt burrowing, foraging, and mating activities leading to continued listing on the PAMB on the Endangered Species list and potentially, eventual extinction.

2.4 PROJECT OBJECTIVES

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

This project is consistent with several goals and objectives stipulated in the Manchester State Park General Plan (1992), including relocation of campsites that negatively affect PAMB, removal of unnecessary paved roads, increasing the appearance of existing facilities, and assuring protection of the park's resources. Further information can be found in the following documents:

- Point Arena Mountain Beaver Recovery Plan (1998), U. S. Fish and Wildlife Service;
- Point Arena Mountain Beaver – Habitat Protection and Restoration Plan (2002) Fitts, et al.
- Manchester State Park General Plan (1992) State Park and Recreation Commission California
- Department of Parks and Recreation, Natural Resources Management Directives and Department Operations Manual, Natural Resources chapter.

The proposed campground relocation and trail improvement project and all its components will allow the department to meet not only its mission to protect one of its most valued natural resources, PAMB, but also allows the state to offer high quality camping, hiking and recreational opportunities.

2.5 PROJECT DESCRIPTION

The Department of Parks and Recreation proposes to relocate a campground and improve trails within Manchester State Park to expand Point Arena mountain beaver (PAMB) habitat. Phase 1 describes project components that will be implemented within the next two calendar years. Phase 2 includes mid- and longer term proposals for additional campground and trail enhancements to further improve PAMB habitat. The following is a summary of the proposed work:

Phase 1

- Permanently close campsites 10 through 30 and 40 through 46.
- Remove asphalt surfaces from all campground roads within 100 feet of PAMB habitat.
- Re-orient campsites 9 and 39 to allow for the new loop road connector.
- Remove the interpretive sign between campsites 15 & 20.
- Remove pit toilets 5, 6, 7, and 8 from PAMB habitat within the existing campground. Wooden structures and pit cribbing will be dissembled and removed from the site. Existing holes will be filled with soil or crushed rock to grade. No capping is

necessary.

- Remove water outlets and cap supply lines. The supply pipes to the closed portions of the campground will be cut and capped outside the 100-foot mountain beaver buffer area. The two arms of the former water supply loop line will be rejoined through the installation of a new line along the new connector road. New risers will be installed as needed to maintain water supply to existing campsites.
- Construct a connecting campground road to link the two closed camp road spurs. This road will join the two arms of the existing campground road at its junctures with the sections to be closed to facilitate the safe movement of larger camping vehicles through the campground. The new loop segment will connect to the existing roadway at campsites 9 and 39, and will be about 16 feet wide and 300 feet long, and will consist of a crushed rock road base surface. Preparation includes soil grading, vegetation removal, and application of road base, all using heavy equipment and manual labor. This road and all construction impacts will be restricted to an area delineated outside the 100-foot buffer zone for existing PAMB burrowing areas. Approximately 4 Monterey cypress trees will be removed from the existing windrows to accommodate the construction of this road segment.
- Construct twenty-eight new campsites, a minimum of 3 of these campsites will be ADA-compliant.
    - Seven new campsites will be constructed along the south side of the interior service road between the existing campground and the maintenance area;
    - Sixteen will be added in the area north of the service road, east of the Recreational Vehicle (RV) dump station, west of the environmental camp trailhead;
    - Four campsites will be added just west of the existing campground entrance road, in the area of the KOA beach trail and the bike campsite;
    - One will be added along the east side of the new campground loop road segment.

  Campsite construction includes minor removal of surface vegetation (mostly plant litter, and annual and herbaceous perennial plants) and a thin layer of soil, followed by grading and the application and compaction of up to a 4-inch layer of road base gravel, to create a level motor vehicle parking surface. These parking spur areas are approximately 45 feet long and 12 feet wide. Campsite tables and fire rings will be placed at each campsite to minimize negative impacts on desirable native vegetation. Augment existing campground water supply lines to include surface outlets in the campground area. A water supply loop system will be required to meet California Department of Health Services regulations.
- Upgrade the existing campground host site to provide increased parking space and improved utilities service. Increase the parking pad length to at least 60 feet; methods used will be the same as those for constructing campsite parking spurs. Increase the electrical supply to 50 amperes, and add telephone and propane service to the site. Excavations will occur along existing utility services corridors to prevent impacts to sensitive cultural and natural resources.

- Provide new water lines to supply the newly constructed campground areas. The existing supply lines along the park's service road will be amended to provide lateral lines to spigots placed at regular intervals throughout the campground.
- Grade and surface with asphalt concrete a gravel parking lot between the maintenance yard and the existing loop road to provide access to the walk-in campsites, the environmental campsites, and day-use areas.
- Construct four new toilet buildings in the campground. New facilities will be pit or compost toilets only (no running water). Each building will contain 2 toilets, and will be approximately 10 feet by 20 feet in size. Two of the restrooms will be located along the south arm of the existing campground road, in order to replace previously removed toilets; one of these will replace toilet numbers 3 and 4. Two other restrooms will be constructed, one at each end of the new parking strip. The toilet located at the west end of this parking strip is anticipated to be ADA-compliant; at least one such ADA-compliant toilet will be constructed.
- Install animal-proof trash and recycling containers throughout the campground, day-use areas, and at trailheads. Installation may include the need to fix the container frames to the ground.
- Close and eliminate the South Beach Trail from the Kinney Day Use parking lot that passes through occupied PAMB burrowing areas to the beach. Signs will be placed to inform the public of the closure.
- Close the primary beach access trail from the Kinney Day Use parking lot due to potential safety hazards (an estimated 25-foot sheer drop along the trail into the outlet of Brush Creek). Install signs and barriers, as necessary, to inform the public of the safety hazard and trail closure.
- Install signs along the North Beach Trail to inform visitors of potential impacts to PAMB resulting from human foot traffic and other human-related activities. The entire area, including the parking lot, will be signed as a "no dog" zone.
- Informally close Beach Trail from the campground (near site 25) to the beach by removing signs designating this as an official trail to and from the campground and the beach. This trail passes through occupied PAMB habitat, and is not currently signed to direct visitors back towards the day-use parking lot. New signs in the campground will be erected to direct visitors to the existing KOA-beach trail, to the day-use parking lot, and the north beach trail.
- Designate with signs the existing KOA Trail as the preferred beach access route from the campground to the beach. A 100-yard section starting at the main entry road to the campground will be re-routed with mowing to accommodate space needed for four new campsites.
- Install new interpretive panels in the park. A total of 14 interpretive sign will be installed at the locations noted in the table below.

Table 2-1 Interpretive Panel Locations

Location	Theme	Size	# of Panels
ALDER CREEK • At parking area.	•PAMB and human disturbance	24” x 18”	1
KINNEY DAY USE AREA • Two panels installed at a location where visitors come closest to PAMB habitat. ▪ One panel installed at campground entrance location.	• PAMB: appearance and natural history. • Food, burrows, range map.	36” x 24” 36” x 24”	1 1
• Affixed to wooden posts at several campsites.	• Small reminders about reducing human impacts to sensitive species habitat.	10” x 4”	4
DAVIS LAKE TRAIL ▪ Along trail to Davis Lake overlook. ▪ Deck and overlook on bluff above Davis Lake. ▪ Environmental Camp.	• Natural Quiet and noise disturbance: humans, mountain beaver and other species. • PAMB: appearance and natural history. • Food, burrows, range map. • Natural Quiet and noise disturbance: humans, mountain beaver and other species. • PAMB: appearance and natural history.	24” x 18” 36” x 24” 36” x 24” 24” x 18” 36” x 24”	1 1 1 1 1
STONEBORO TRAIL • Where trail comes close to mountain beaver habitat.	• PAMB: appearance and natural history. • Food, burrows, range map.	36” x 24” 36” x 24”	1 1

- Coordinate a training session, at the direction of USFWS, for park personnel on identification of habitat and occupied burrow areas, to be conducted by qualified, USFWS-approved personnel.
- Implement maintenance parameters designed to avoid impacts to habitat and burrowing areas.
- Remove non-native, invasive plants to include iceplant, Monterey pine, European beachgrass, Monterey cypress, Himalayan blackberry, wild radish, and Australian fireweed from designated areas to improve habitat for native plant and animal species. Removal may include herbicides (glyphosate and triclopyr). Work in seasonal wetlands will not include dredge or fill of wetlands.

- Conduct or manage the collection of on-site native seeds or vegetative plant propagules for species needed for re-vegetation. The following species are among those that will be collected from within Manchester park boundaries: shore pine, bishop pine, wax myrtle, coffeeberry, angelica, cow parsnip, Douglas iris, blackberry, and coyote brush.
- Monitor closed areas for continuing visitor use impacts and recovery of native vegetation. Monitoring will include written notes, photographs, vegetation sampling, and other means needed to verify the achievement of the goals of closure, and to determine the direction and quality of site recovery.

PHASE 2 - Beyond the Phase 1 project components listed above, environmental documentation may need to be amended for the purposes of implementing components in Phase 2; however, every effort has been made to address impacts in this document.

- Remove asphalt surfaces, campsite bollards, Monterey cypresses, and de-compact soil in closed campground areas to recover and restore vegetation and provide improved PAMB habitat. This work will require consultation with USFWS and the completion of an approved recovery permit (ESA, Section 10(1)(1)(A)), to detail methods that will minimize or avoid impacts to PAMB.
- Remove from the former campground area and adjacent trails and habitat, to the extent possible under the recovery permit, non-native plants and actively re-plant native plant species.
- Plant native plants in new campground areas and those areas affected by construction to increase campground aesthetics and individual campsite privacy. These areas will be assessed for approximate numbers of plants needed once the new spurs and sites are established
- Construct an aesthetically appropriate fence between the campground and day use areas and PAMB habitat to direct campers and hikers towards the KOA beach access trail. Information will be posted at intervals along the fence to inform visitors about PAMB habitat protection.
- Install signs as necessary and re-vegetate at critical access points along closed trails to formalize the closure of trails and campground areas.
- Improve the existing KOA Trail from the campground to the beach to provide complete access, in accordance with the Americans with Disabilities Act, including construction of a hardened surface, interpretive displays, and any ramps or other facilities needed to provide full access to all park visitors.

2.6 PROJECT IMPLEMENTATION

This project will be implemented October 2005, and will extend through completion of all Phase 1 components. The overall implementation time period will extend to approximately June 2009. All work within PAMB habitat will adhere to guidelines for impact avoidance, although picnic tables, fire rings, and signs will be removed from the campground as soon as possible. All other planned construction work is situated well outside the 100-foot buffer zone and will proceed when possible, based on budget and personnel availability. All areas under construction will be closed to park visitors.

The staging areas for all construction-related activities related to the implementation of this project will be in the maintenance yard area at Manchester State Park, or on existing roads and in existing campsites. Equipment to be used for this project includes standard heavy machinery, such as motorized heavy equipment or gas-powered equipment (e.g., chainsaws, trenchers, tractors, dump trucks, backhoes).

The Best Management Practices (BMPs) discussed in this document and used in the implementation of this project are taken from the *California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook.* The Department of Parks and Recreation has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all State Park projects.

2.7 VISITATION TO MANCHESTER STATE PARK

The park unit receives an average 128,926 visitors per year.

Table 2-2 Park Visitation

Fiscal year	Day Use	Overnight Camping	Total Attendance
1995-1996	141,332	18,003	159,335
1996-1997	129,284	16,248	145,532
1997-1998	114,855	13,026	127,880
1998-1999	116,638	13,762	130,400
1999-2000	117,436	13,936	131,372
2000-2001	115,536	14,617	130,153
2001-2002	109,258	16,126	125,384
2002-2003	97,151	15,006	112,157
2003-2004	82,914	15,207	98,121
Total Attendance	1,024,402	135,931	1,160,334
Average Attendance	113,822	15,103	128,926

This project is not expected to result in a decrease or an increase in park visitation.

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

All project components will be implemented entirely within the boundaries of Manchester State Park, and are consistent with the Manchester State Park General Plan (1992). This project is also consistent with the State Parks mission, and its management directives aimed at protecting natural and cultural resources while providing for public recreational opportunities. This project does not conflict with local plans or land-use policies for the immediate area or for adjacent landowners, nor for the County of Mendocino Local Coastal Program.

2.9 DISCRETIONARY APPROVALS

The California Department of Parks and Recreation retains approval authority for the proposed Campground Relocation and Trail Improvement project at Manchester State Park. This project will require consultation with:

- U. S. Fish and Wildlife Service
- California Department of Fish and Game,
- U. S. Army Corps of Engineers,
- North Coast Regional Water Quality Control Board, and
- Mendocino County Planning Commission.

Additional internal departmental reviews include compliance with the Americans with Disabilities Act and Public Resources Code and Public Resources Code §5024. State Parks will acquire all necessary reviews and permits prior to implementing any project components requiring such regulatory review.

2.10 RELATED PROJECTS

DPR often has other smaller maintenance programs and rehabilitation projects planned for a park unit. Currently, researchers from the U. S. Department of Agriculture, Forest Service, are conducting behavioral research on PAMB at Manchester State Park, under permits acquired from the U. S. Fish and Wildlife Service and the California Department of Fish and Game. Research activities do not conflict with any existing park uses. At this time, no other projects that would conflict with or otherwise affect this project are known.

Chapter 3
Environmental Checklist

Project Information

1. Project Title: Campground Relocation and Trail Improvement Project
2. Lead Agency Name & Address: California Department of Parks and Recreation
3. Contact Person & Phone Number: Peter Brauderick (707) 937-3118
4. Project Location: Manchester State Park, Manchester, CA
5. Project Sponsor Name & Address: California Department of Parks and Recreation
   Mendocino District
   P. O, Box 440, Mendocino, CA 95456
6. General Plan Designation: State Park – December 1992
7. Zoning: Open Space (Mendocino County GP)
8. Description of Project: The following is a summary of the proposed work:
   - Permanently close campsites 10 through 30 and 40 through 46.
   - Remove asphalt surfaces from all campground roads within 100 feet of PAMB habitat.
   - Re-orient campsites 9 and 39 to allow for the new loop road connector.
   - Remove the interpretive sign between campsites 15 & 20.
   - Remove pit toilets 5, 6, 7, and 8 from PAMB habitat within the existing campground.
   - Remove water outlets and cap supply lines.
   - Construct new campground road segments, one to link the two closed camp road spurs, the other to complete the west side campground loop from the existing road back to the campground entrance road.
   - Construct 28 new campsites, including 4 Americans with Disabilities compliant sites.
   - Upgrade the existing campground host site to increase parking space and improve utilities service.
   - Provide new water lines to supply the newly constructed campground areas.
   - Grade and surface with asphalt concrete a gravel parking lot between the maintenance yard and the existing loop road to provide access to the walk-in campsites, the environmental campsites, and day-use areas.
   - Construct four new toilet buildings in the campground.
   - Install animal-proof trash and recycling containers throughout the campground, day-use areas, and trailheads.
   - Close and eliminate the South Beach Trail from the Kinney day use parking lot that passes through occupied PAMB burrowing areas.
   - Close the potentially hazardous primary beach access trail from the Kinney day use parking lot.
   - Install informational signs along the North Beach Trail to reduce potential impacts to PAMB
   - Informally close the Beach Trail from the campground (near site 25) to the beach by removing signs designating this as an official trail to and from the campground and the beach.
   - Designate with signs the existing KOA Trail as the preferred beach access route from the campground to the beach.
   - Install new interpretive panels in the park.
   - Remove non-native, invasive plants to include iceplant, Monterey pine, European beachgrass, Monterey cypress, Monterey pines, Himalayan blackberry, wild radish, and Australian fireweed from designated areas to improve habitat for native plant and animal species.
   - Conduct or manage the collection of on-site native seeds or vegetative plant propagules for species needed for re-vegetation.
   - Remove asphalt surfaces, campsite bollards, Monterey cypresses, and de-compact soil in closed campground areas to recover and restore vegetation and provide improved PAMB habitat.
   - Re-vegetate newer campground areas and those affected by construction with native plants
   - Construct a fence between the campground and day use areas and PAMB habitat.
   - Install signs as necessary and re-vegetate at critical access points along closed trails to formalize the closure of trails and campground areas
   - Improve the existing KOA Trail from the campground to the beach to provide complete access, in accordance with the Americans with Disabilities Act.
   - Establish long-term program to monitor PAMB populations, including burrow surveys, and monitoring closed trails and replanted areas.
   - Implement maintenance parameters on existing trails designed to avoid impacts to habitat and burrowing areas.
   - Coordinate a training session, at the direction of USFWS, for park personnel on identification of habitat and occupied burrow areas, to be conducted by qualified, USFWS-approved personnel.
9. Surrounding Land Uses & Setting: Refer to Chapter 3 of this document (Section IX, Land Use Planning)
10. Approval Required from Other Public Agencies: Refer to 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. ☐

_____ _____

Patricia DuMont 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.

This page left intentionally blank

ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

Lying immediately north of Point Arena on the spectacular Mendocino coast, Manchester State Park affords a diversity of aesthetic settings. The park covers approximately 3700 acres of marine environment, leased to State Parks by the State Lands Commission, and 1500 acres of beach, dunes, marshes, scrub, and grassland. The 3.5 miles of beach are backed primarily by bluffs of marine and alluvial origins, including the former outlet plain of the Garcia River. Several smaller creeks drain the rugged slopes to the east across this narrow coastal terrace. Alder Creek flows into the Pacific Ocean at the northern boundary of the park, and Brush Creek about 2 miles south, each drainage cutting its way through the coastal terrace bedrock. The prevailing climate of the Mendocino coast is marine-influenced Mediterranean, with cool, windy summers and slightly cooler, damp winters; the proximity to the Pacific Ocean accounts for the region's generally mild climate year-round. Winter storms can be fierce along the coast, causing wind damage and local flooding. Prevailing northwest winds from spring into fall are often strong.

This portion of the Mendocino coast is less populated and visited than the Mendocino-Fort Bragg area to the north. Residents of the nearby hamlet of Manchester number less than 500, and Pt. Arena, five miles to the south, is not much larger. Most of the area adjacent to the park is privately owned, primarily supporting ranching and timber harvesting. The sparse population and the openness of the landscape provide a sense of pastoral tranquility, disrupted only by the moderate traffic along State Highway 1. This portion of State Highway 1 is considered an Eligible State Scenic Highway, but is not officially designated as such.

The park's topography is relatively gentle to the east of its abrupt oceanfront bluffs and dunes. Wind-dispersed sand and alluvial deposits overlie older sedimentary rocks, creating an undulating series of northwest-southeast trending ridges. Smaller creeks and marshes occupy narrow gullies and broader swales between these low ridges, supporting small trees and numerous species of shrubs. The stabilized hind dunes and upland areas are primarily cloaked in grasses and other herbaceous plants. Pockets of shore pine and riparian vegetation are relicts of the pre-agricultural history of this area, with numerous stands of non-native trees now dominating portions of the park.

A long windrow of Monterey cypresses forms the backdrop for the Manchester State Park campground, effectively reducing the ferocity of the prevailing northwesterly winds for many of the campsites and the park's maintenance yard. These trees also effectively constrain a potential sweeping vista of the park's northern dunes and plains from the campground, while the southerly perspective is dominated by flat, open rangeland. While the campground is generally near capacity during summer weekends, it retains some semblance of a spacious rural setting juxtaposed with the raw power of the ocean.

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) Construction activities and the creation of a new camping area in the park will change the closer range scenery in those areas. However, the changes in the campground will not have an impact on any sweeping scenic vista, such as one of the ocean or surrounding hills. The existing windrow of Monterey cypresses could be considered to have an impact on campground visitors, effectively cutting off views to the north from the bulk of the campground area. However, this project does not propose to alter this existing condition. This project only proposes to remove a limited number of trees necessary to provide a link road on the west end of the campground, and eventually, those that are in the closed mountain beaver habitat portion of the campground. Less than significant impact.

b) The proposed campground relocation and trail improvement project is not within a state scenic highway easement or view shed. The campground relocation portion of this project is located in the southwest corner of the park, away from State Highway 1. The trail improvement portion is located east of the highway, but due to the nature of trails, does not damage a scenic resource within a state scenic highway. Less than significant.

c) Project elements, including the installation of new parking areas, the new loop link in the western campground road, restrooms, interpretive panels, and campsite facilities (tables, fire rings, etc.), and a shift in campground activity from the westernmost closed area to the eastern part of the campground will noticeably change the character of the campground. Up to four Monterey cypresses will be removed from the campground windrows in order to provide space for a link road to connect the two westernmost campground loop roads and as part of native plant restoration, three Monterey pines will be removed and replaced with locally native species such as shore pine, bishop pine, and Pacific wax myrtle. As with any construction project, work being performed will temporarily decrease the visual appeal of the area immediately affected by the proposed work, however; the work will be temporary and limited and will remove impacts to Point Arena mountain beaver habitat. Some areas will lose vegetation permanently, although other than a few Monterey cypresses and pines (item b. above) losses will consist of low-growing herbs and shrubs. Less than significant impact.

d) Removal and relocation of the same number of campsites will contribute to local decreases and associated increases in light levels in the campground, in effect moving this light source from the western-most sites to be closed to the new campsites in the eastern-most part of the campground. No impact.

This page left intentionally blank

II. AGRICULTURAL RESOURCES.

ENVIRONMENTAL SETTING

Much of what is now Manchester State Park was once agricultural land primarily used for grazing livestock. Today, many of the adjacent properties are either used for grazing or for the production of silage to supply local dairies. Most of the park is zoned by Mendocino County as "open space" not suited for development or most valuable in an undeveloped condition. The campground is zoned for visitor accommodation and services. While most adjoining parcels are zoned as rangeland or agricultural use, or rural residential, no portions of the park are zoned for agricultural or rangeland use.

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, no portion of Manchester SP is zoned for agricultural or rangeland use. Prime Farmland, Unique Farmland and Farmland of Statewide Importance will not be converted to non-agricultural use and no conflicts with existing zoning for agricultural use or a Williamson Act contract will occur as a result of the proposed work. Additionally, no farmland will be converted to non-agricultural use as a result of procedures necessary to implement this project. No impact.

This page left intentionally blank

III. AIR QUALITY.

ENVIRONMENTAL SETTING

Manchester State Park is located in the North Coast Air Basin (NCAB), which is composed of Mendocino, Humboldt, Trinity, Del Norte counties and the northern portion of Sonoma County under the jurisdiction of the United States Environmental Protection Agency (USEPA) Region IX. Stretching along the northern California coastline through rugged heavily forested mountains, the basin is home to giant coast redwoods found no where else in the world. Mendocino County also falls under the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD).

In general, air quality in Mendocino County is good, the District being in "attainment" of state and federal air quality standards, at least in part due to its proximity to the Pacific Ocean and robust prevailing northwest winds. However, the District is in "non-attainment" of the state standard for particulate matter (PM_{10} or particles with an aerodynamic diameter of 10 microns or less and $PM_{2.5}$, particles with an aerodynamic diameter of 5 microns or less.) with no exceedance of the federal standard. A pollutant is designated non-attainment if there was at least one violation of a State standard for the specified pollutant within the area boundaries; a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a three-year period.

Over the previous 5-year period (1999-2003), Fort Bragg exceeded the PM_{10} standard a total of 14 days; at least several of these occurrences were related to wildland fires to the north or east of Fort Bragg. Particles less than 10 microns in diameter (PM_{10}) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 microns in diameter ($PM_{2.5}$) are referred to as "fine" particles and are believed to pose the largest health risk. Because of their small size, fine particles can lodge deeply into the lungs

At a local and regional level, air quality along the southern Mendocino coast is considered very good. Very little industry, light traffic, and the low population density, along with the prevailing ocean-borne winds, contribute to the cleanliness of the air.

Scientists have established specific levels of each of 6 common air pollutants which are dangerous to our health and welfare. The California Air resources Board makes State area designations for ten criteria pollutants: ozone, suspended particulate matter (PM_{10}), fine suspended particulate matter ($PM_{2.5}$), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particles. In contrast, the U.S. Environmental Protection Agency (U.S. EPA) makes national area designations for five criteria pollutants: ozone (1-hour and 8-hour standards), PM10, carbon monoxide, nitrogen dioxide, and sulfur dioxide. The following table identifies the 2003 levels of criteria pollutants in Mendocino County.

Mendocino County Air Quality Designations

	2003 State Levels	2003 Federal Levels
Ozone (2004 Designation)	Attainment	Attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Particulate Matter (PM_{10})	Non-Attainment	Non-Attainment
Particulate Matter ($PM_{2.5}$)	Non-Attainment	Non-Attainment
Sulfates	Attainment	Attainment
Lead	Attainment	Attainment
Hydrogen Sulfide	Attainment	Attainment
Visibility Reducing Particles	Attainment	Attainment

The 2003 designations for all pollutants but ozone will remain in effect until the 2004 designations are approved through the State administrative process -- approval is expected in Summer 2005. The 2004 designation change for ozone occurred by operation of law and is already effective. (California Air Resources Board)

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) This proposed project will not conflict with or obstruct implementation of the Mendocino County Air Quality Management District plan or regulations. No impact.

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 implementation 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 **conditions** will reduce potential impacts to a less than significant level.

Air Condition 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, improper 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 trucks, construction equipment, erosion, or 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 and area residences are sufficiently distant from proposed construction activities to be safe from serious exposure. These conditions, in conjunction with **Air Conditions 1** above, will reduce the potential adverse impact to a less than significant level.

e) 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 and 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 unauthorized personnel will not be allowed into construction areas. Potential odor impacts will be considered less than significant.

This page left intentionally blank

IV. BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

Manchester State Park's 5,200 acres support a diversity of biotic environments: marine, beach, dunes, coastal prairie grassland, scrubland, riparian corridors, marshes, and pine woodlands. Each of these in turn provides habitat for an array of wildlife, plants, and other organisms, many of which play vital roles in the regional ecology. The park's ecological environments and organisms collectively contribute to the park's aesthetic appeal.

Vegetation

The beach at Manchester covers approximately 200 acres of mostly open sand and driftwood, with very sparse vegetative cover. Species here include yellow sand-verbena (*Abronia latifolia*) and beach bur-sage (*Ambrosia chamissonis*). Likewise, the bluff faces are largely devoid of vegetation, although ledges and gullies often support mosses and smaller vascular plants. Foredunes are dominated by the introduced European beachgrass (*Ammophila arenaria*), an invasive plant that displaces many native plant species and significantly decreases habitat and species diversity. In the hind dunes, *Ammophila* is not as dominant; here a richer diversity of species grows, including the invasive non-native Hottentot-fig (*Carpobrotus edulis*) and yellow bush lupine (*Lupinus arboreus*), and native dune sage (*Artemisia pycnocephala*), yellow sand-verbena (*Abronia latifolia*), and beach morning-glory (*Calystegia soldanella*). Coastal terraces are covered in scrub and grassland vegetation. Common shrubs include coyote brush (*Baccharis pilularis*), coffeeberry (*Rhamnus californica*), poison-oak (*Toxicodendron diversilobum*), blue huckleberry (*Vaccinium ovatum*), California blackberry (*Rubus ursinus*), and California lilac (*Ceanothus griseus*). In more moist scrub, common species include twinberry (*Lonicera involucrata*), California wax myrtle (*Myrica californica*), and cow parsnip (*Heracleum lanatum*). The adjacent grassland is mostly dominated by non-native species such as sweet vernal grass (*Anthoxanthum odoratum*), purple velvet grass (*Holcus lanatus*), and redtop bentgrass (*Agrostis stolonifera*), with significant populations of native California oatgrass (*Danthonia californica*) and native forbs. Wetter areas in grassland feature rushes, sedges, and hydrophytic forbs. Perennial riparian corridors support woody plants including willows (*Salix hookeriana*, *S. lasiolepis*), red alder (*Alnus rubra*), Pacific wax myrtle (*Myrica californica*), and twinberry (*Lonicera involucrata*), as well as numerous species of perennial forbs.

Special-Status Species

Sensitive biological resources that occur or potentially occur on the proposed project site are discussed in this section. Sensitive biological resources include the plants and animals that have been given special recognition by federal, state, or local resource agencies and organizations. Also considered are 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.

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) was conducted for sensitive species and habitats within the Point Arena and Mallow Pass Creek 7.5-minute USGS quadrangles. Special-status plant species potentially occurring in the two quadrangle maps were derived from the California Native Plant Society's (CNPS) Inventory

of Rare and Endangered Plants of California (6th edition, electronic version, 2001).

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).

Special Plants

Special-status plant species that are known or that could potentially occur within or near the project area are based on the CNDDB (2003), the CNPS (6th edition, electronic version, 2001), and field observations by the California Department of Parks and Recreation natural resource staff. Manchester State Park supports several rare plants in a diversity of habitats. These are listed in the following table:

Latin binomial	Common name	CNPS Inventory status
Abronia umbellata ssp. *breviflora*	pink sand-verbena	1B
Agrostis blasdalei	Blasdale's bentgrass	1B
Campanula californica	swamp harebell	1B
Calystegia purpurata ssp. *saxicola*	coastal bluff morning-glory	1B
Carex saliniformis	Deceiving sedge	1B
Castilleja mendocinensis	Mendocino coast paintbrush	1B
Hesperevax sparsiflora var. *brevifolia*	Short-leaved evax	1B
Lilium maritimum	coast lily	1B
Sidalcea malachroides	maple-leaved checkerbloom	1B

In April 2003, May 2004, and May and June 2005, ecologists with DPR, Mendocino District, conducted CNPS protocol-level plant surveys in areas potentially affected by proposed project activities. A plant list compiled during these surveys is available in Appendix A, Bio 1. District ecologists located none of the sensitive plant taxa listed above within the proposed project area during these surveys.

In addition to the sensitive plants listed, three additional plant species are recognized for protection. Harlequin lotus (*Lotus formosissimus*) and cow clover (trifolium wormskioldi) are considered primary host plants for the federally endangered lotis blue butterfly (*Lycaeides argyrognomon lotis*), and western dog violet (*Viola adunca*) is the primary host for the federally endangered Behren's silverspot butterfly (*Speyeria zerene* behrensi)i. These perennial plant species grow along the existing route to the environmental campsites.

Marine Life

The marine environment encompasses the near-shore and the underwater areas adjacent to the terrestrial boundaries and generally runs seaward 8,000-11,000 feet to include the boundary of the submerged lands leased from the State Lands Commission. The invertebrate and fish fauna of this area are typical of the northern California coast. A sand bottom fauna dominates as indicated by the presence of Dungeness crab, California halibut a, and redtail subperch. Invertebrates are primarily sessile, colonial forms, obtaining nutrients by filter and suspension-feeding. Fishes occur in huge schools of mixes of blue and black rockfishes, other rockfishes include the China, Copper, and Yelloweye. Large lingcod are also common. Grey and humpback whales and California brown pelican have also been sighted from the park.

Sensitive Wildlife

Manchester State Park is home to a diverse wildlife population. There is an especially diverse avifauna found in the park, including bird species from raptors to waterfowl. California Department of Fish and Game's Natural Diversity Data base (Rarefind 2003) identifies 7 sensitive wildlife species from the Point Arena and Mallow Pass Creek U.S.G.S 7.5′ minute quadrangle maps**.** Five Federally listed threatened and endangered wildlife species are known to occur at Manchester State Park.

Mammals

Point Arena mountain beaver (*Aplodontia rufa nigra*)-A Federal Endangered species and a California Species of Concern, that lives in underground burrow systems in moist areas with well-drained soil. They are found in a variety of habitat types including coastal scrub, coastal strand, conifer forest, and riparian plant communities. At Manchester State Park, Point Arena mountain beavers are found in stabilized dunes dominated by coastal strand species including coyote brush (*Baccharis pilularis*), cow parsnip (*Heracleum lanatum),* dune grasses, and non-native ice plant (*Carpobrotus* spp.). Human disturbance, predatory domestic cats and dogs, natural predators, and habitat destruction are threats to the small isolated mountain beaver populations.

Point Arena mountain beavers presently occupy coastal scrub habitat in and around the existing campground and some access trails in Manchester State Park. In 1995, 4 campsites located within occupied habitat were closed because people had wandered off designated trails and crushed burrows and trampled vegetation. Since closure, there has been an increase in mountain beaver activity and evidence of fresh burrows.

The Point Arena Mountain Beaver Habitat Protection and Restoration Plan found that nearly half of the campground campsites and four of the pit toilets were located within occupied mountain beaver habitat. This project proposes to implement some of the recommendations in both the Recovery Plan for the Point Arena Mountain Beaver and the Point Arena Mountain Beaver Habitat Protection and Restoration Plan.

In May and June of 2005, presences surveys were conducted in suitable habitat within 250 feet of the campground by U. S. Fish and Wildlife Service-approved individuals. All areas were visually inspected for the presence of Point Arena mountain burrow openings or other signs of activity following the Draft Guidelines for Project-Related Habitat Assessments And Surveys for Point Arena Mountain Beaver (*Aplodontia rufa nigra)* (U. S. Fish and Wildlife Service). There

were no signs that Mountain beavers has expanded further into the campground.

Red tree vole (*Arborimus pomo*) - A California Species of Concern that inhabits conifer forests containing Douglas-fir (*Pseudotsuga menziesii)*, grand fir (*Abies grandis*), Sitka spruce (*Picea sitchensis*), and western hemlock (*Tsuga heterophylla*). Red tree voles have been documented in Manchester State Park; however, the habitat of the red tree vole is outside the project area and will not likely be impacted.

Special Status Marine Mammals The Gray Whale (*Eschrichtius robustus)* and Humpback whale (*Megaptera novaengliae*) have been seen offshore, however the marine environment within the park's boundaries is completely outside the project area.

Birds

Western snowy plover (*Charadrius alexandrinus nivosus*) - A Federally Threatened species and a California Species of Concern. The Pacific coast population extends from Washington to Baja California, Mexico, with the majority of breeding birds found in central and southern California. The decline and loss of western snowy plovers along the Pacific coast have been attributed to habitat loss throughout their range and disturbance caused by urbanization. Snowy plovers are known to nest along the beaches of Manchester State Park. Habitat for the snowy plover does not occur within the project area.

Peregrine falcon (*Falco peregrinus anatum*)-Nesting peregrines were
State and Federally listed as Endangered. Although currently their Federal status is delisted, nesting peregrines are still fully protected and monitored by the California Department of Fish and Game. A peregrine falcon has been observed on Manchester beach feeding on a shorebird; however, there is no available nesting habitat within the project area.

Northern harrier (*Circus cyaneus*)-Nesting northern harriers are a California Species of Concern. Harriers have been observed foraging in the project area, however, during field visits no nests were observed within the project area.

Bald eagle (*Haliaeetus leucocephalus)* - Nesting and wintering bald eagles are Federally listed as Threatened and State listed as Endangered. Previously close to extinction the bald eagle has made a comeback. Although the bald eagle has been observed around Manchester State Park, they are not known to nest or over-winter in the park. Bald eagles typically build their large stick nests in the upper canopy of the tallest trees. There are no potential nesting trees within the project area.

Other special-status bird species – Many wildlife species of special concern occur or may occur in Manchester State Park. Osprey, (*Pandion haliaetus),* Sharp-shinned hawk, (*Accipiter striatus),* Coopers hawk (*Accipiter cooperii),* California brown pelican (*Pelecanus occidentalis californicus*), and white-tailed kite (*Elanus lecurus*), have been observed at Manchester State Park, but will not likely be impacted by this project because nesting habitat does not occur within the project area.

Amphibians

Red-legged frog - Manchester State Park is in a zone of overlap for two subspecies of the

red-legged frog (*Rana aurora*); the California red-legged frog (*Rana aurora draytonii*) and the northern red-legged frog (*Rana aurora aurora*) (Fish and Wildlife Service 2002). Although the California red-legged frog is federally listed as threatened in many areas throughout California, in Mendocino County it is a California Special Concern species.

Red-legged frogs inhabit a variety of aquatic areas (streams, lakes, ponds) within a watershed. Many coastal watersheds have sustained significant alteration related to timber harvest and urban development. In addition, exotic (non-native) predators such as bullfrogs and exotic fishes now occur in a significant number of northwest coastal drainages. Red-legged frogs have been collected from all drainages in Manchester State Park (CDPR 1992); however do not occur in the project area.

Foothill Yellow-legged frog (*Rana boylii*) – A California Species of Concern, the yellow-legged frog is found in or near streams in a variety of habitats. Yellow-legged frogs are known to occur in Manchester State Park; however not in the project area.

Southern torrent salamander (*Rhyacotriton variegates*) - A California Species of Concern occurs in cold permanent seeps and small streams with a rocky substrate. These salamanders are found in seep habitats in coastal old-growth forests in California. Habitat for this species occurs outside the project area.

Fish

Tidewater goby (*Eucyclogobius newberryi*) - A Federal Endangered species occupying brackish shallow lagoons and lower stream reaches where the water is calm but not stagnant. The tidewater goby is vulnerable throughout its range because of the loss of coastal marsh due to coastal development activities, including road widening, bridge replacement projects, and water diversions. Tidewater gobies have been documented in Lake Davis. Tidewater gobies were also detected in Davis Pond in 2003 (Goldsmith, pers. comm.). Habitat for the tidewater goby does not occur within the project area.

Steelhead - There are 15 distinct groups, or evolutionarily significant units (ESU), of steelhead (*Oncorhynchus mykiss*) from southern California to the Canadian border. The northern California coastal steelhead ESU occupies river basins from Redwood Creek to the Gualala River. Steelheads have varying degrees of anadromy and differences in reproductive biology. Some of the larger rivers in this area have migrating steelhead year-round. Dramatic declines are attributed to hydropower development, water withdrawal, and land use activities such as logging, road construction, urban development, and agriculture. Within Manchester State Park, both Brush Creek and Alder Creek stream systems support steelhead. Brush Creek and Alder Creek are not located within the project area.

Invertebrates

Lotis blue butterfly (*Lycaeides anna lotis)*- A Federal Endangered subspecies of the anna blue butterfly (*Lycaeides anna lotis*) is now known from only one locality, a sphagnum bog in Mendocino County, California. Little is known about its range and habitat. The population may have declined because of natural factors, climatic factors, or a change in land management practices; however, the reason for a decline is unknown. Historically, the lotis blue has been found in wet meadows and sphagnum-willow bogs. It is thought that the harlequin lotus (*Lotus formosissimus*), cow clover (Trifoliu, wormskioldii), and Bolanders' sweet pea (*Lathyrus vestitus* subsp. *Bolanderi)* are larval foodplants. Three sites, outside the project area, but close to the existing environmental trail within Manchester State Park were surveyed for Lotis butterfly presence since they had extensive stands of *Lotus formosissimus* and/or *Trifolium wormskioldii.* Although the Lotis blue butterfly has not been documented from any habitat within Manchester State Park or in adjacent areas, host plants occur along portions of the environmental trail; therefore, the potential for species presence is possible.

Behren's silverspot butterfly (*Speyeria zerene)* - A Federal Endangered butterfly that occupies coastal terrace prairie habitat. Declining numbers are likely due to the degradation and loss of habitat as a result of human activities, including residential and commercial development, trampling, and agricultural pressures. The larval foodplant, western dog violet (*Viola adunca)* occurs throughout the park, and was found growing during plant surveys. Behren's silverspots were observed well outside the area of potential effect for this project during the 2003 and 2004 surveys for the Lotis blues. However, host plants for Behren's silverspot butterfly occur along portions of the environmental trail, therefore, the potential for species presence is possible.

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.

According to California Coastal Act Secction 30121, "Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. Similar to USACE, the Coastal Commission also relies on the presence of hydrophtes and/or the presence of hydric soils. The rationale for this in general is that wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. For this reason, the single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water, and this is the feature used to describe, wetlands in the Coastal Act

In May 1993, DPR staff assessed the entire proposed project area for potential wetland impacts. The survey included considerations for wetlands as defined under both the federal Clean Water Act (U. S. Army Corps of Engineers jurisdiction) and California Coastal Act (Mendocino County Planning Commission jurisdiction). Staff inspected the following areas: existing and proposed campsites, parking spaces, roads, and toilet facilities, the day-use parking lot and adjacent trails, and the existing KOA Trail corridor from the campground to the

day-use parking lot. Following this preliminary inspection, staff determined that no areas that meet these criteria occur within the project footprint.

	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) Although the proposed project has been designed to primarily improve Point Arena mountain beaver habitat by relocating campgrounds and closing or improving trails, construction has the potential to significantly impact the species through noise generation, ground vibrations, odors and the presence of predators within the habitat area. Additionally, some campsites are proposed for a location with 100 feet of unoccupied PAMB habitat; this area could potentially become occupied during the next phase of this project. However, implementation of **Mitigation Measure Bio 1** will reduce impacts to a less than significant level. USFWS has determined that mowing with gas mowers with rubber tires does not constitute ground vibration disturbance but does still constitute noise disturbance. In

addition, trail maintenance parameters have been adopted for the environmental trail and the Kinney Day Use Trail (See Appendix C).

Mitigation Measure Bio 1 – Point Arena mountain beaver (PAMB)

- DPR staff will supervise all construction/demolition activities for all phases of this project to ensure that all vehicles and equipment avoid PAMB habitat.
- Demolition and removal of pit toilets, and filling the holes with crushed rock or sand; construction activities for the proposed connecting road between campsites 9 and 39; and all noise related construction and ground disturbing activities (including manipulation of vegetation, construction of fences, digging, and excavation) between 25 and 100 feet of occupied habitat will occur between July 1 and December 14 to avoid the PAMB breeding season.
- Excavation and removal of bollards in campsites 12 through 30 and campsites 2 through 46 will be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- All ground disturbing activities (including manipulation of vegetation, construction of fences, digging, and excavation) within occupied habitat or within a 25 foot buffer of occupied habitat will be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- Removal of asphalt and de-compaction of soil within the existing campground shall be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- No trees or other potential predator perching structures will be added to the project area to protect PAMB from aerial predation.
- DPR staff will install animal-proof trash and recycling containers throughout the campground and day-use areas to minimized attracting predators to sensitive wildlife areas.
- DPR staff will strictly enforce a “no dogs allowed” restriction within PAMB habitat at all times to reduce harassment of PAMB.
- In the event that unoccupied PAMB habitat within 100 feet of campsites becomes occupied, these campsite(s) will be relocated to an alternate location within the park.
- DPR staff will perform annual surveys along 100 feet of trails that approach within 100 feet from suitable PAMB habitat to assess project impacts.

Additionally, in order to prevent incidental hazards to any wildlife species during construction activities, in accordance with DPR Policies, implementation of the following condition will reduce impacts to a less than significant level.

Bio Condition 1 - Wildlife

- To prevent trapping wildlife all holes and trenches will be covered at the close of each working day with plywood or similar materials, or will include escape ramps constructed of earth fill or wooden planks; all pipes will be capped. A DPR Resource Ecologist, or other staff trained by a DPR Resource Ecologist will inspect trenches and pipes for these species at the beginning of each workday. If a trapped animal is discovered, they will be released in suitable habitat outside the project area.

b) The project could potentially have a substantial adverse effect on the larval foodplant, western dog violet (*Viola adunca)* found growing throughout the park. In addition, three areas with extensive stands of *Lotus formosissimus* and/or *Trifolium wormskioldii* within Manchester SP have recently been surveyed for Lotis blue butterfly presence; one site with potential presence is close to the existing environmental trail proposed for improvements. In addition, habitat for both butterflies occurs along the environmental trail. Maintenance (mowing) and improvements to the environmental trail could potentially impact the egg, larva, etc of these butterfly species. Implementation of **Mitigation Measure Bio 2** will reduce impacts to a less than significant level.

Mitigation Measure 2 – Behren's Silverspot and Lotis Blue Butterflies
• Trail mowing, brush pruning, and trail maintenance activities that could potentially impact the butterflies will be minimized during larval development. • DPR staff will annually monitor the populations of these plants to determine the extent of potential impacts, positive or negative, this project has on these host plants.

c) This project will not have a substantial adverse effect on federally protected wetlands, through direct removal, filling, hydrological interruption, or other means. No impact.

d) The proposed project could potentially interfere with the movement of Pt. Arena mountain beaver migratory corridors; however, protection and improvement of habitat is the primary goal of this project. Implementation of **Mitigation Measure Bio 1** above will reduce this impact to a less than significant level.

e) This project does not conflict with any local policies or ordinances protecting biological resources. No impact.

f) This project does not conflict with any Habitat Conservation Plans, Natural Communities Conservation Plans, or other approved habitat conservation plan. No impact.

This page left intentionally blank

V. CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Manchester State Beach is located on the rugged Mendocino coast approximately seventeen miles south of the juncture of Highways 1 and 128. The Park unit sits one mile north of the town of Manchester and five miles north of the town of Point Arena and consists of about 1,500 terrestrial acres, which includes a four-and-one-half-mile-long beach that fronts the entire shoreline of the park. In addition, approximately 3700 acres of offshore submerged lands extend and add important marine ecosystems to the park.

Dunes and beach cover about half of the unit; the balance is scrub and grasslands, with some forest and riparian vegetation. The dunes are covered with a heavy growth of European dune grass and blue lupine and sagebrush are found on some sections on the dunes. Native grasses and coastal wildflowers are returning as the effects of decades of cattle grazing wane. Four creeks flow into the unit; Alder Creek, Brush Creek, Lagoon Creek, and an unnamed creek that flows into Lake Davis, one of the park's several wetland areas (California State Parks 1992).

The park is ecologically diverse, composed of marine and tidal environments, as well as coastal dunes, wetlands and riparian areas, and marine terraces. This diversity in topography and natural resources throughout the park provided and ideal setting for both prehistoric and historic occupation and resource procurement, evidenced by the archaeological remains recorded in the park unit. These cultural resources consist of a prehistoric lithic scatter (CA-MEN-852, now -2329) and homesteading features including fence lines and roads, the Davis House and the archaeological remains of other homesites, a corral, and domesticated plants. Most of these resources are located outside of the project area, except for remnant fence lines and a road grade. The General Plan (California State Parks 1992) has defined four areas in the northern section of Manchester State Park as having a high degree of cultural resource sensitivity. One of these areas, located adjacent to the campground relocation area is situated adjacent to the southwestern section of the project area. Two other areas in the section of the park have been designated as holding a "moderate sensitivity" for cultural resources but are well out of the Area of Potential Effect (APE).

The park has been divided into three primary use areas: the Kinney Area, Stoneboro Area, and the Davis Area. A fourth use Area, the Davis Area, is reached only by walking. These areas include camp sites and various campground facilities. The APE is located in the Kinney Area and adjacent to the Davis Area.

To date, none of the sites located in the park have been officially nominated for inclusion into the National Register of Historic Places (NRHP) or the California Register of Historic Places (CRHP). Until an official determination of significance is made in consultation with the California State Historic Preservation Officer, all cultural resources in the park will be considered eligible for nomination into the NRHP and CRHP and will be treated as such.

Historic Resources

In 1844, Rafael Garcia filed a claim with the provincial Mexican government for land that included the area now called Manchester State Park. According to the Unit History, the Shoemake Family bought land from Garcia and Kugon, two individuals that served under General Mariano Vallejo. Garcia's land claim was invalidated in 1860, probably as a result of

the federal government's formal granting of the property to the Shoemake family in the 1850s. How this affected the transaction between Garcia, Lugon, and the Shoemake Family is unknown. During this time other euro-American settlers began moving to the surrounding area. This settlement activity is the beginning of a rich farming history in the area that is now Manchester State Park (California State Parks n.d.: 1850-1; 1860-1 to 1860-10; 1870-6; California State Parks 1992: 42-44).

Although only one historic structure, the Davis House, survives in the Park, the Unit History and General Plan mention many families, farms, farm structures, and ranch houses that once occupied land that is now park property. For example, the Cornelius-Pease family built the first house on land that would eventually be called the Oswald Place, now the central 123 acres of Manchester State Park, this same land was once also owned by Bessie Halliday and then Reed Farnsworth. Farnsworth also owned additional acreage adjoining the Halliday property. At one time, the Hepworth Family also owned and farmed the Pease-Halliday-Farnsworth property. Sylvanus Hoyt, a Vermonter, arrived in 1859 and began a dairy business. He was still in business as late as 1885. The farming and dairy industries dominated the Manchester area throughout the late 19th century (California State Parks n.d.: 1870-8; 1910-9; 1920-4; California State Parks 1992: 43).

Other early settler-farmers included Hart B. Scott, (ca 1870), Charles Reinking, Lewis Morse, Samuel C. Hunter, James C. Stewart, Clark Fairbanks, David Clanton, and John Bowen, and Irving Wright. The Dickenson homestead sat approximately 2200 feet north of Kinney lane and 2500 feet west of Highway 1. By 1875, William Barns Davis, the namesake of the only house that survives in the Park, arrived in the area. In the late 19th century, Italian dairy farmers began to play a major role in the local dairy economy that exists to the present day. The Biaggi's, who would eventually play a role in the expansion of the Park with the sale of 398 acres to the State in 1961, settled in the Manchester area in 1896 (California State Parks n.d.: 1890-7; California State Parks 1992: 43-44).

Of note is the destruction of potentially significant historic resources that once existed within the park's boundaries. The Halliday House, built on land in the park known today as the "Oswald Place," was "burnt [sic] for fire training" and the outbuildings were razed or burned as well (California State Parks n.d. 1900-3). According to the unit history the Oswald residence was "East of the park offices, north of Kinney lane, west of Highway 1, where the park water supply is now" (1900-9). This location is away from the new campground, which will be located west of the offices. A 1981 unit history entry states that the Eligah Bishop House, built near the Garcia River, was "took down years ago," and the old barn was "burnt [sic] down in winter, 1981" (1900-12). The southern end of Manchester State park once was the Hunter Ranch. The Pease homestead, the Dickenson home site, and the Scott-Kinney home site are listed in the General Plan as having existed within the Park's boundaries. The Alder Creek House, just east of the mouth of Alder Creek, was built right after the turn of the century. With the exception of the Davis House and some fences and corrals, physical evidence of the farmsteads that once occupied land that is now Manchester State park is archaeological in nature (California State Parks n.d.: 1900-2 through 1900-9; 1890-7; California State Parks 1992: 43-44).

State Park's history at Manchester begins in 1930 when the State Park Commission set aside 295 acres for "recreational purposes." According to the General Plan, the land was earlier claimed by others, but none of these individuals "perfected their titles" to the property (California State Parks 1992: 45). The federal government deeded 363 acres to the State of California in 1955. Major parcels of land were added in 1959, 1961, 1962, and in the early and

late 1970s. The campground that is the subject of this report was constructed in 1966 on 398 acres acquired from James P. Biaggi (California State Parks n.d.: 1950-1through 1950-6; 1960-1; 1970-1; California State Parks 1992: 45).

While the historic record mentions several historic houses, farms, and associated out-buildings that once existed within present park boundaries, none appear to have been located in the area of the current campground or in the area of the proposed new campground. The closest homestead was the Oswald (Pease-Halliday-Farnsworth-Hepworth) "place" mentioned above.

Archaeological Resources

Prehistoric

Human presence on the Mendocino Coast extends back approximately 12, 000 years; however only the last 3,000 years are relatively well defined in the archaeological record. The record suggests that during the late period, earlier inhabitants were gradually replaced by the Pomo. In the 19th century, the Manchester area was in the territory of the Bokeya Pomo. Prior to broad changes brought about by the influx of Euro-American movement into the area, subsistence practices of the Pomo were based on hunting and gathering of wild foods that included a wide variety of plant and animal species. Although the Pomo had trading links with inland people, the primary focus for resource procurement was the coastal area and the marine economy. The presence of coastal lagoons and freshwater ponds at Manchester State Park attracted passing birds which were also desired and hunted by Native Californians (California State Parks 1992: 42-45).

The information compiled from the record search/literature indicates prehistoric land use patterns at Manchester State Park and the surrounding area are consistent with other findings along the Mendocino Coast. Pda'hau (river mouth) was a large village community, originally situated about a mile from the sea near the mouth of the Garcia River. Following return from interment at Fort Brag, the village was relocated approximately four miles up the Garcia River. During an archaeological survey of the unit in 1989-90 only one previously recorded prehistoric site was located (California State Parks 1992: 45). This site (CA-MEN-852, now -2329) consists of a small lithic scatter situated in the dunes. Over the years this site has been intermittently exposed and obscured by the shifting sand dunes. Though this site is located well out of the project area, the natural movement of the dunes suggests that other such archaeological sites may exist in the park unit, but have been covered by dune movement.

Historic

Historic records and archives indicate that at least four 19th century homesites are present at Manchester State Park. Such sites are not always identifiable from surface features, although they frequently contain subsurface features and other remains. The Pease homestead is marked only by remnant corrals and fences, and the Dickenson and Scott-Kinney homesites are evidenced only by changes in vegetation (California State Parks 1992: 71). These cultural resources are located outside of the APE and will not be impacted by this project; however, other such resources could exist in the project area.

	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) The new campground is located over one-half mile from the Davis House, the one historic resource in Manchester State Park. The existing environmental trail, comprising of a mowed-strip, will be located at least one-thousand feet from the Davis House. Neither the trail nor the relocated campground will impact the Davis House.

b) The project area was surveyed for cultural resources by a DPR archaeologist and a record search was conducted. During this terrestrial survey and pre-field research no new archaeological resources were discovered in the project area. However, because of the natural ambiguity of archaeological resources (often located below the surface) and the obscured ground visibility due to vegetation, the full extent of the cultural resources may not be known. Ground disturbing activities proposed as part of this project could significantly impact unknown archaeological deposits (both prehistoric and historic) in the APE. The following conditions will reduce impacts to previously unidentified archaeological sites and features to a less than significant level if encountered:

Cultural Condition 1 – Previously Unknown Cultural Resources

- In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flakes stone, ground stone, or deposits of historic trash) were encountered during project construction by anyone, the state representative will put work on hold at that specific location and contractors will be redirected to other tasks. A DPR-qualified archaeologist will record and evaluate the find and work with state representative to implement avoidance, preservation, and recovery measures as appropriate prior to any work resuming at that specific location.
- In the event that significant cultural resources were found in a project location, a qualified historian, archaeologist and/or Native American representative (if appropriate) will monitor all subsurface work including trenching, grading and excavation in that area.

The General Plan (California State Parks1992) designates historical/cultural zones in the park unit consisting of lands that will be managed for preservation, protection, and interpretation of cultural resources and their settings. It specifies that development in these culturally sensitive zones will be kept to the minimum needed to preserve, protect, and interpret historical and

cultural values. Ground disturbing work in or close to these zones could significantly impact archaeological or historic resources. The implementation of the following conditions will reduce the possibility of significantly impacting those cultural resource zones identified in the General Plan:

Cultural Condition 2 – Culturally Sensitive Areas

- "Culturally sensitive" areas designated in the General Plan (Map 4 in GP) will be protected with a 20 meter "buffer zone". No ground disturbing activities including but not limited to staging areas, trail and facilities construction, trenching, and grading will be allowed in these protected areas.
- Prior to the start of construction, flagging will be placed around restricted areas to redirect and insure that ground disturbing activities do not inadvertently stray into those zones designated as "culturally sensitive."

The dune area (where the removal of ice-plant is proposed) is more sensitive archaeologically, then other areas in the APE. The only recorded prehistoric site in the park is located in a dune setting. As a consequence, the amount of ground disruption associated with the removal of invasive plant species (ice-plant) could significantly impact previously undocumented archaeological deposits in the dunes. The implementation of the following condition will reduce possible impacts to a less than significant level:

Cultural Condition 3 – Plant Removal in Culturally Sensitive Areas

- Hand pulling to remove the ice plant or other invasive plant species will only be allowed in those areas that have received recent archaeological survey coverage for this project. Refer to the archaeological survey report associated with this project for those areas that have received archaeological clearance for hand removal methods of invasive plant species.
- Ground disturbing methods (hand pulling) to remove invasive plant species in those areas lacking appropriate archaeological survey coverage will not be allowed in the APE. Only chemical treatments will be allowed in those areas lacking appropriate archaeological survey. If chemical treatments are not suitable then plant removal will not be allowed until an archaeological survey has been conducted in the area.
- The method to remove invasive conifer species from the project area will be limited to cutting trees down to ground level. Removal of the roots will not be allowed because of the invasiveness of this technique and the ambiguity of archaeological deposits which most often are contained in subsurface deposits.
- A DPR-qualified archaeologist will monitor all plant removal activities in the sand dunes when determined appropriate in more culturally sensitive areas of the park. 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 archaeologist assigned to the project will be notified a minimum of three weeks prior to the start of this phase of the project to schedule monitoring, unless other arrangements are made in advance.

c) Burials have not been documented or recorded in the APE; however, because Native American burials have been identified in other state parks along the Mendocino coast and since pre-contact use of the region was extensive, there is the potential of discovering undocumented human remains. Ground disturbing activities associated with this project could inadvertently expose previously undiscovered human remains which could causes significant impacts. The implementation of the following condition would reduce impacts to a less than significant level:

Cultural Condition 4 – Human Remains

- In the event that human remains are discovered, work in will cease immediately in the area of the find and the project manger/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 District 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 were 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 Native American Heritage Commission in the Sacramento and/or tribe would be consulted to identify the most likely descendants and appropriate disposition of the remains. Work would 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 for 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 Officer and review by the Native American Heritage Commission/Tribal Cultural representatives will also occur as necessary to define mitigation measures or future restrictions.

VI. GEOLOGY AND SOILS.

ENVIRONMENTAL SETTING

Manchester State Park is located within the California Coast Range Geomorphic Province, a northwest-trending chain of mountains forming the outer northern and central California Coast Range. The formation of the Coast Range is a direct result of movement along the San Andreas Fault and associated faults. The San Andreas Fault Zone (SAFZ) passes through the project area and then heads permanently out to sea at Alder Creek (see Appendix A, Figure G-2). The predominant geologic materials in the Manchester area are sedimentary rocks consisting primarily of shale, sandstone, conglomerates, and mudstone that comprise a narrow band along the west side of the San Andreas Fault, referred to as the Gualala Block (Merrits, et al, 2003). The Gualala Block (northern portion of the Salinian Block) stretches from Alder Creek south to Fort Ross in Sonoma County. To the east of the SAFZ are rocks of the Cretaceous age Franciscan Formation, dating from 70 to 20 million years old. Franciscan rocks consist of sedimentary to meta-sedimentary rocks such as greywacke sandstone, shale, conglomerate, and with minor greenstone and chert.

In some areas, the Gualala Block and the Franciscan Formation is overlain by more recent (<1.6 million years old) alluvial deposits (DPR, 1992). The recent surficial deposits consist of terrace deposits, alluvium, and sand dunes. These deposits are loosely consolidated marine clay, silt, sand, and gravel. Wave action and surf erosion laid down these marine terrace deposits these areas were submerged as part of the active wave platform. Younger alluvial deposits consist of discontinuous clay, silt, sand, and gravel beds that were, and continue to be laid down, from recent or ongoing erosion/deposition processes in creeks and by wind action along the coast (sand dunes).

Soils

The park's soil types reflect the synergism of many environmental influences, including substrate geology, long-term climate, topography, and vegetative cover. Soils at Manchester, are derived from sedimentary substrates, alluvial deposits, and aeolian deposits, and are mapped as the Ferncreek-Quinliven-Shinglemill Complex (DPR, 1992).

In the campground area, the dominant soil series is Crispin loam, which is a moderately deep, well drained soil formed from a mixed rock source alluvium and is common on marine terraces. Permeability is slow in Crispin loam, and available water capacity is rated as low. The effective rooting depth is limited by a hardpan at a depth of 20 to 40 inches. Surface runoff is very slow or slow, and the hazard of water erosion is slight. The shrink-swell potential is low.

Two other soil types are present in the project area: Duneland and Tropaquepts. Dunelands are loose, unconsolidated sand dune deposits with no developed soil profile. The permeability of sand is very rapid, available water capacity is low, and effective rooting depth is 60 inches or greater. Erosion due to wind can be high, especially if no anchoring vegetation is present. The Tropaquepts are very deep, very poorly drained soils that form on marine terraces along drainages or in shallow depressions. Permeability and available water capacity are variable, surface runoff ranges from ponded to medium, and the erosion hazard is slight or moderate if the soil is bare. These soils are moist to saturated throughout the year and are continually saturated from December to April (USDA, 2001).

Table G-1– Soils of Manchester State Park

SOIL SERIES NAME
Cabrillo-Heeser complex, 0 to 5 percent slopes
Crispin loam, 0 to 5 percent slopes
Duneland
Dystropepts, 30 to 75 percent slopes
Flumeville clay loams, 0 to 5 percent slopes
Heeser sandy loam, 2 to 15 percent slopes
Mallopass loam, 0 to 5 percent slopes
Stornetta fine sandy loams, 0 to 2 percent slopes
Tropaquepts, 0 to 15 percent slopes
Windyhollow loam, 0 to 5 percent slopes

Seismicity

The San Andreas Fault Zone (SAFZ) is the transform boundary between the North American tectonic plate to the east and the Pacific tectonic plate to the west. The SAFZ formed approximately 26-28 million years ago when part of the offshore ancestral spreading center was subducted beneath the North American plate. The subduction boundary changed to a side by side movement (transform), resulting in the SAFZ. The rocks to the west of the SAFZ continue to move northward at a rate of approximately 0.9 in/yr. The most recently active trace associated with the San Andreas Fault leaves the mainland in Manchester State Park at Alder Creek. About 110 miles northwest, the San Andreas terminates at the Mendocino Triple Junction, where the North American, Pacific, and Gorda Plates meet. This area, known as the Cascadia Subduction Zone, is among the most seismically active areas in or near North America, capable of generating an earthquake of magnitude of 8.3 on the Richter Scale (Petersen, et al. 1996).

Slope Stability

Within and near Manchester State Park, a few notable slope failures have occurred over the past several hundred years (Warner, personal observation). Most of these have occurred along the relatively steep escarpment associated with the San Andreas Fault and Alder Creek. The coastal bluff face at the junction of Alder Creek and the beach has clearly failed within the past century, and other slope failures are evident along Alder Creek Road, narrowed to one lane due to recent slope failure. Slope failures are also evident along Brush Creek, especially at its outlet into the Pacific. The sedimentary composition of the coastal bluffs at Manchester has also been damaged by erosion resulting from human related impacts, including trails to the beach. There are no known slope failure areas located within the project footprint.

Topography

The topography of the project area in the existing Manchester State Park campground slopes gently from sea level (0 feet msl) through low coastal bluffs up to an elevation of approximately 80 feet msl on the marine terrace (see Figure G-1). Sand dunes occur within the campground area that is slated for closure.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT				
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.)	☐	☐	☒	☐
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) The project site is located within the seismically active Northern California coastal region, within the San Andreas Fault Zone. The chance of the rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure is certainly possible in this area. This project will not increase the exposure of people or structures to damage, as all facilities are either existing or will only be replaced or relocated.

i. The project site is located within an Alquist-Priolo Earthquake Fault Zone (APEFZ) (see Appendix A, Figure Geo 2), as designated by the California Geological Survey (CGS). The APEFZ Act (California Public Resources Code, Division 2, Chapter 7.5, Section 2621-2630) requires the CGS to identify and

delineate earthquake fault zones within which development is limited to reduce seismic risks. The APEFZ Act also requires the seismic retrofitting to strengthen existing buildings, including historic structures, to resist ground shaking. At Manchester State Park, the delineated fault zone (see Figure G-2) within the Park ranges between 980 feet for the concealed trace to over a mile (5,570 feet) in width for the active, confirmed traces. The confirmed active mapped fault traces are located to the north of the campground and pass through the new trail alignment to the remote campsite. The concealed fault trace passes through the existing campground and the campground relocation area. Because of the location within the APEFZ, portions of the project area could be susceptible to surface rupture during an earthquake. There is no increased risk to the public or to property from this project, because it is an existing condition. The only new structures will be prefabricated restroom facilities utilizing pit toilets. No new structures for human occupancy are planned. Implementation of **Geo Condition 1** would result in a less than significant impact due to this project.

ii. The California Geological Survey has determined that this segment of the San Andreas Fault is capable of generating an earthquake with a Maximum Moment Magnitude of M7.6 (Petersen, et al, 1996). The Cascadia Subduction Zone, located 110 miles to the northwest, is capable of generating an earthquake of magnitude 8.3. The expected ground acceleration at the project site is on the order of 0.5g to 0.7g (CGS, 2003). If a major earthquake occurred on the SAFZ in the north coast area, the project area would be affected by strong to violent ground shaking that could result in considerable damage and permanent ground displacement. Implementation of **Geo Condition 1** will result in a less than significant impact due to this project.

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 certain areas may be saturated during the winter months. The Tropaquepts soils that occur on the marine terraces are moist to saturated throughout the year and are continually saturated from December to April. Implementation of **Geo Condition 1** will result in a less than significant impact due to this project.

Geo Condition 1 - Seismic Hazards
• The new prefabricated restroom buildings will conform to earthquake design requirements for Seismic Zone 4 and a Type A Fault source, as specified in the current edition of the California Building Code. Foundations will be designed to accommodate string ground shaking and possible differential settlement. • State Park staff will inspect the campground facilities, including utility corridors, for damage as soon as feasible after a large earthquake.

iv. Some portions of the Park have been subject to landslides, especially along the relatively steep escarpment associated with the San Andreas Fault and Alder

Creek. These areas could be susceptible to additional failures in the event of an earthquake. However, this area is outside the current project footprint. No impact.

b) A temporary increase in erosion may occur during the phases of this project that include grading for new restrooms, new roadways, and trail alignments, excavation of pit toilets, trenching for utility lines, and any other ground disturbing activities. Implementation of **Geo Condition 2** below will reduce project impacts from soil erosion or loss of topsoil to a less than significant level.

Geo Condition 2 - Erosion Control
• BMPs will be used in all areas to control soil and surface water runoff during excavation, grading, and trenching. Grading and excavation activities will not be planned during the rainy season (October 31 to May 1), but if storms are anticipated during construction or if construction must occur during winter months, "winterizing" will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods (BMPs) to protect disturbed soil. DPR-approved BMPs, such as silt fences, fiber rolls, mulch or other applicable techniques will be utilized. Information on approved BMPs can be found in the Stormwater Best Management Practice Handbook for Construction, available on-line at www.cabmphandbooks.com. • Permanent BMPs for erosion control will consist of properly compacting disturbed areas and re-vegetation of appropriate disturbed soil areas with native species using seed collected locally. Final design plans will include BMPs incorporated into the project.

c) The project is not located within a geologic unit or soil that is known to be unstable, based upon available data. As discussed on section a) iii above, a potential for liquefaction may exist at the project location. Implementation of **Geo Condition 1** above will reduce this risk to less than significant.

d) Expansive soils are not known to exist in the project area, as the majority of the soil units present have moderate to high shrink-swell potential (USDA, 1972).

e) The project does not involve the installation of a septic system or leach field. There will be no impact from this project.

f) No known unique paleontological resource exists within the project site. The geologic formation present does not include any fossils. The San Andreas Fault is present at the project site, but will not be impacted by the project. No impact.

This page left intentionally blank

VII. HAZARDS AND HAZARDOUS MATERIALS.

ENVIRONMENTAL SETTING

Much of Manchester SP was formerly agricultural land that was used for farming and dairy production. There has been no industrial use in the project area that could have been a source of hazardous materials. The four pit toilet buildings that are proposed for demolition are unfinished wood, and they are not expected to contain any hazardous materials. There is no known hazardous contamination of the project site, and it is not suspected of containing any hazardous wastes, debris, or soil contamination.
The project site is not located within an airport land use zone, or within 2 miles of an airport. There are no schools within a quarter mile of the project site. The nearest school is Manchester Elementary School, which is located approximately 1 mile southeast of the project site.

	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 certain potentially hazardous materials such as fuels, oils, or other fluids associated with the operation and maintenance of vehicles and equipment. These materials generally are contained within vessels engineered for safe storage. Large quantities of these materials will not be stored at or transported to the construction site. Spills, upsets, or other construction-related accidents could result in a release of fuel or other hazardous substances into the environment. The implementation of **Hazmat Condition 1** will reduce the potential impacts to a less than significant level.

Hazmat Condition 1
▪ Staging and stockpile areas will be designated and/or located within the existing maintenance yard area or existing roads and campsites to prevent leakage of oil, hydraulic fluids, etc. into native vegetation or sensitive wildlife areas. ▪ All equipment will be inspected for leaks prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises. ▪ The contractor(s) and/or DPR will prepare an emergency Spill Prevention and Response Plan prior to the start of construction and maintain a spill kit on-site during project construction. The plan will include a map that delineates construction staging 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 at the project site or within the boundaries of Manchester SP during construction, the contractor will immediately notify the appropriate DPR staff (e.g., project manager, supervisor, or State Representative). ▪ Equipment will be cleaned and repaired (other than emergency repairs) outside of the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be disposed of outside of park boundaries, at a lawfully permitted or authorized destination.

b) See Discussion VII (a) above.

c) There are no schools located within one quarter mile of the proposed project site. Therefore there will be no impact from this project.

d) The proposed project site is not included on the list of hazardous materials sites compiled pursuant to Government Code §65962.5. No area within the project site is currently restricted or known to have hazardous materials present. Therefore, there will be no impact from this project.

e,f) Manchester SP 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) Construction activities will take place within the boundaries of Manchester SP and work would not restrict access to, cause delays, or block any public road. Therefore, no impact will occur as a result of this project.

h) Portions of the proposed project are located in grassy areas that become flammable during the dry season (June-October). Heavy equipment that can get very hot with extended use would sometimes be in close proximity to flammable vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. Implementation of **Hazmat Condition 2** will reduce potential impacts to a less than significant level.

Hazmat Condition 2
▪ Prior to the start of construction, the contractor will develop a DPR-approved fire safety plan. ▪ Spark arrestors or turbo-charging, which eliminates sparks in exhaust, and fire extinguishers will be required for all heavy equipment. ▪ Vehicles and heavy equipment will be parked away from flammable material, such as dry grass or brush. ▪ Fire suppression equipment will be available within Manchester SP.

This page left intentionally blank

VIII. HYDROLOGY AND WATER QUALITY.

ENVIRONMENTAL SETTING

Manchester State Park is mapped by the California Water Information Technical System (CWITS) within the Mendocino Coast Hydrologic Unit, and is entirely situated within the lower portions of the Point Arena – Alder Creek and Point Arena – Brush Creek watersheds. Less than 5% of either of these watersheds lies within the state park yet upstream management practices are critically influential on the health of downstream areas. Chief land uses of the watersheds upslope from the park include agriculture, timber harvesting, and a rock quarry. A levee constructed on the north side of Alder Creek, just upstream from its outlet, may have contributed to the considerable erosion and slope failure on the south side of the creek, due to the force of the diverted stream flow. Runoff from the pavement of state and county highways, and from private properties and roads, contribute sediment and pollutants to both groundwater and surface waters. Other potential sources of contamination of ground or surface waters include septic systems and agricultural chemicals. Overland discharge of sediments into creeks pulses with seasonal rainfall accumulations, and can be locally significant in the event of slope failures or surface erosion.

Along the Mendocino County coast, alluvial deposits are important as groundwater sources. The area's groundwater quality is considered as good to excellent, with low quantities of dissolved solids (DPR, 1992). Surface water quality is also considered good. For this document, no data was located on the quality of surface or ground water within the park. Manchester State Park is designated in the Mendocino County Land Use Plan as a "critical ground water area" where development is contingent upon proof of public water service or a positive hydrological study (DPR, 1992).

This park features extensive wetland areas, including those associated with Alder, Brush, and Lagoon Creeks, as well as the unnamed creek that flows into Lake Davis. A few other small creeks flow into the Lake Davis watershed just east of its seasonal outlet into the Pacific Ocean. Seasonally, the lower reaches of these watersheds may experience flooding, at least prior to seasonal breaches of the outlets into the Pacific Ocean. The wetlands associated with these watersheds – creeks, marshes, seeps, lagoons, and ponds – comprise dynamic ecosystems that provide good quality water and provide habitat for numerous sensitive species. Many of these plant and animal communities are considered rare and are included in the California Natural Diversity Database at the California Department of Fish and Game, Natural Heritage Division.

The Clean Water Act and the Environmental Protection Act provide federal protection for wetlands and waters of the United States. Responsibility for enforcing provisions of these acts lies with the federal Environmental Protection Agency, and is delegated to the U. S. Army Corps of Engineers for enforcement. Regionally, the North Coast Regional Water Quality Control Board (NCRWQCB) is responsible for surface and groundwater quality oversight. The NCRWQCB Basin Plan (NCRWQCB, 1994) has a category for Minor Coastal Streams that would apply to the small creeks at Manchester State Park. 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 would not be applicable to all the creeks and streams at Manchester State Park.

Stream channels are further protected under Section 1600 of the California Fish and Game Code. Wetlands, in general, are also afforded protection under Section 10 of the River and Harbors Act, under the California Environmental Quality Act, and the California Coastal Act. Protection provided through the latter measure is enforced through the California Coastal Commission, delegated in Mendocino County to the county's Planning Commission.

	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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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) During any planned grading or excavation activities, a release of sediment to surface waters could occur. Other impacts to water quality could result from releases of fuels or other fluids from vehicles and equipment during the construction process. These activities could result in a violation of water quality standards and waste discharge requirements. The implementation of **Hydro Condition 1** will reduce these impacts to a less than significant level.

Hydro Condition 1
• Best management Practices (BMPs) will be used to control erosion and runoff during project construction and post-construction. All storm water inlets in the project vicinity will be protected during ground disturbing activities with silt fences, straw bales, or rice straw wattles as necessary (Refer to **Geo Condition 2**). • The project will comply with all applicable water quality standards as specified in the NCRWQCB Basin Plan. • Implementation of **Hazmat Condition 1** will mitigate for impacts to water quality from possible pollutants (fuels and other vehicle fluids) released from vehicles and heavy equipment during construction.

b) The proposed project is not expected to deplete groundwater supplies or to interfere with groundwater recharge. No impact.

c) The project area's existing drainage patterns will not be altered in a manner that will significantly increase on or off-site erosion or siltation. Impacts will be less than significant.

d) The drainage pattern will not be altered in a manner that will significantly increase the rate or amount of surface runoff to result in on- or off-site flooding. No impact.

e) This project will not create or contribute runoff water that will exceed the capacity of existing or planned stormwater drainage systems. Provided that soil erosion BMPs are followed and a Spill Prevention and Response Plan is in place, no substantial additional sources of polluted runoff will be expected from this project. Implementation of **Hydro Condition 1** will reduce this impact to less than significant.

f) See Discussion VIII (e) above. Implementation of **Hydro Condition 1** will reduce potential impacts to a less than significant level.

g) Housing is not an aspect of this project. No impact.

h) The project area is not located within a 100-year flood hazard area (FEMA, 2003). No impact.

i) There are no dams or levees in any location to threaten the health and safety of people or structures within the project area, and none would be added as a part of this project. Although seasonal wetlands that flood periodically are located within the project area. The flooding of these areas is gradual and will not expose people to risk of loss, injury or death. However, any structures that are placed within a seasonal wetland will be subject to water damage. Less than significant impact.

j) Manchester SP is a coastal park that is bordered by the Pacific Ocean. All locations along the coastline are at risk of inundation by a tsunami, including the proposed project location. Historic tsunamis (CGS, 2005) have produced waves at Arena cove ranging in height from 6 feet (1964 magnitude 902 Gulf of Alaska earthquake) to 8 feet (1946 magnitude 7.3 Aleutian Islands earthquake). While inundation is possible, this project will not increase the potential. Therefore, no impact from tsunami.
The project area will not be susceptible to a seiche (generated in an enclosed water body) and there is no reasonable expectation that the area is subject to a mudflow. No impact.

IX. LAND USE AND PLANNING.

ENVIRONMENTAL SETTING

Located about seventeen miles south of the juncture of Highways 1 and 128 and the Navarro River mouth, Manchester State Park is located one mile north of the town of Manchester, and five miles north of the town of Point Arena (DPR 1992: 9). The predominant land use in the Park is unimproved open space, generally sandy beach, dunes, grassland, and scrub. Wetland areas, found along the coast and in conjunction with the lagoons and streams, occupy less than 150 acres, or 10% of the park's acreage. Access to the park is primarily from State Highway 1 along Alder Creek, Kinney, and Stoneboro Roads.

Most of Manchester State Park is zoned according to Mendocino County ordinances, created by the Board of Supervisors, as "open space" not suited for development or most valuable in an undeveloped condition. The campground is zoned for visitor accommodation and services. No part of the park is zoned for use as residential or commercial space. The park is entirely situated within the coastal zone. Portions of the county's General Plan Coastal Element are applicable to park planning and operations, including protection of the park's natural resources. Additionally, the California Coastal Commission maintains development permitting authority.

	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) The proposed project is within the boundaries of Manchester State Park property. The project would add no barriers or elements that would divide or interfere with the established surrounding community. No impact.

b,c) As noted in the Environmental Setting and Discussion IX(a) above, the proposed project site is located within Manchester State Park and is subject to land use restrictions contained in the Manchester State Park GP and the Mendocino County GP and Coastal Element. No project elements are in conflict with the zoning, regulatory policies, land use plans, conservation plans, or ordinances for this area. All appropriate consultation and permits would be acquired, in compliance with all applicable local, state, and federal requirements. No impact.

This page left intentionally blank

X. MINERAL RESOURCES.

ENVIRONMENTAL SETTING

The primary mineral resources in Mendocino County are sand and gravel (Mendocino County, 2003). While a portion of the project area contains sand dune deposits, no significant mineral resources have been identified from the project area. No mining of note has occurred within the boundaries of Manchester State Park.

Mineral extraction is not allowed under Department of Parks and Recreation management directives, so mining will not occur at Manchester State Park.

	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 would not result in the loss of availability of a known mineral resource because no known mineral resources exist within the project boundary. No impact.

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

This page left intentionally blank

XI. NOISE.

ENVIRONMENTAL SETTING

Manchester SP is a 1,500 acre on-shore and 3,700 off-shore park, located along the sparsely populated Mendocino Coast. Most of the area adjacent to the park is privately owned, primarily supporting ranching and timber harvesting. The sparse population and the openness of the landscape provide a sense of pastoral tranquility, disrupted only by the moderate traffic along State Highway 1. There is no industrial activity in the vicinity of the park; wave action on the beach and bluffs is the primary source of ambient noise. In Mendocino County, transportation is also a major noise source but, as yet, few people are drastically affected since the County is mainly rural.

The project site is relatively undeveloped and no noise sensitive land uses are located in the immediate vicinity of any of the proposed construction. All construction activities associated with the project would occur within the park boundaries.

	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) 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 is sufficient (approximately 500 feet) 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 **Noise Condition 1** will reduce potential impacts to a less than significant level.

Noise Condition 1
▪ Construction activities will generally be limited to the daylight hours, Monday – Friday. No work will occur on holidays or weekends. ▪ 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 away 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 backhoes and paving equipment will only be generated on a short-term basis. Therefore, ground-borne 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. Project conditions reduce impacts 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

Manchester State Park, sits one mile north of the town of Manchester, and five miles north of the town of Point Arena (DPR 1992: 9) in the southern portion of Mendocino County. The large, environmentally diverse County contains a rugged and dramatic coastline, redwood forests, and agricultural valleys. At one time, the resource and extraction industries, agriculture, and tourism were the largest employers in the County. Increasingly, however, the County has become a destination for persons looking to move away from urban environments such as the San Francisco Bay Area and the Sacramento Valley. Between 1970 and 2000, the County's population increased by 70 percent and the population is expected to grow from 86,000 in 2000 to almost 120,000 by 2020. The population increase and the desirability of the County, particularly along the coast, as a retirement and second-home destination have led to dramatic increases in housing prices.

The development of permanent housing is not a planned use of the park, a recreational facility. The permanent population of the park is relatively static, based on DPR and Manchester SP staffing requirements, and no significant growth is anticipated in the foreseeable future. Although the park is both a local recreational resource and a destination attraction, used by locals and out-of-town visitors alike, it 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) This project proposes to relocate campgrounds and improve trails to facilitate recovery of the Point Arena mountain beaver and its de-listing as endangered under the federal Endangered Species Act. This project will not have a housing component and all work will take place within the confines of the park boundaries. The project will neither modify nor displace any existing housing and will displace no one, either temporarily or permanently. Therefore, it will have no impact on population growth or housing in the area.

This page left intentionally blank

XIII. PUBLIC SERVICES

ENVIRONMENTAL SETTING

Manchester State Park is located in the rural southern portion of Mendocino County, approximately 5 miles north of Point Arena and 1 mile north of the Town of Manchester.

Mendocino County's land area is predominantly inland and coastal wildland. The large expanses of grasslands and adjacent private grazing lands present potential fire hazard. Fire prevention and suppression in land areas of Mendocino County outside of incorporated cities and federal lands is the responsibility of the California Department of Forestry and Fire Protection (CDF), supported by the Mendocino Fire Protection Department as necessary. The CDF Point Arena Fire Station is approximately 8 miles from the project site. Additional manpower is available from the Parlin Fork Conservation Camp (California Department of Corrections), approximately bout 50 miles away. CDF also maintains an Air Attack Base at the Ukiah Municipal Airport (also approximately 50 miles away). The CDF Helitack Base is located in Willits, approximately 33 miles to the east of Mendocino.

The State Park Rangers are trained in Law Enforcement and are responsible for watching over the park. The Mendocino County Sheriff's Department responds to emergency calls and assists with criminal investigations.

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 40 miles north of Manchester SP, is the closest full-service medical facility to the project site.

Manchester SP is located within the Manchester Union Elementary School District . There are no existing or proposed schools within one-quarter mile of the proposed project site.

	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 relocate campgrounds and improve trails within Manchester State Park. While the plan proposes to relocate campsites, these will be within the existing campground area; the relocation and construction of campsites will not result in a significant impact to acceptable service ratios, response times of other performance objectives for public services. 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. Any jobs generated as a result of the project will be short-term, with no permanent connection to the park location. No significant increase in public service requirements.

Fire Protection: 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 **Hazmat Conditions 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.

Police Protection: 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 proposed project is not expected to result in any need for increased police services. No impact.

Schools: 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.

Parks or Other Public Facilities: Work related to this project could cause minor delays and inconveniences at park access points and around the staging areas, especially during campground and trail re-vegetation, new road loop work and trail closure. All areas under construction will be closed to park visitors; however, due to the seasonal use of these facilities and the timing of construction, the proposed project will not result in any significant adverse impact to park facilities or increased use at other parks in the area

XIV. RECREATION.

ENVIRONMENTAL SETTING

According to the 1992 General Plan, Manchester SP has two purposes: first, is preservation of the resources that contribute to Manchester's uniqueness and attractiveness; the second is to make the varied resources of the park available to people for their individual enjoyment, education, and recreation, now and in the future.

The Park provides recreational activities concentrated near the ocean, and include surfing, sport fishing, nature study, bird watching, camping, picnicking, and whale watching, Manchester Beach is considered one of the best driftwood beaches in the state park system, and beach combing is an especially popular activity. Arena Rock provides opportunities for scuba diving.

Day Use / Beach Access Areas

Easy access and wide appeal have resulted in intensive use of the beach area at Manchester SP. Alder Creek Road provides the shortest and most direct access to the beach, but the turnaround at the end of the road accommodates only three to four parked cars.

Kinney Lane serves as the primary park entry point; its use areas consist of the park entry, beach access, the park maintenance yard, and staff residences. An unpaved 50-car parking area, four portable picnic tables, and two pit toilets are provided in the beach access area. Trails through the dunes from both the northwestern and northwestern corners of the parking area provide pedestrian access to the beach.

The Mendocino County Coastal Access Program has designated Stoneboro Road a coastal access point; however, no services are provided by the county. Visitors park in a privately owned area. From this parking area, visitors enter park property and follow a half-mile trail over sand dunes to the beach. Due to the length and difficulty of the walk, this is the lightest used trail to the beach.

Camping

Prior to 1995, the park maintained a 47-unit primitive campground in the Kinney Area east of the day-use parking area, and west of the maintenance/employee residence area. In 1995, the Mendocino District of State Parks closed 4 campsites within Point Arena mountain beaver (PAMB; *Aplodontia rufa nigra*) habitat. In July 2004, State Parks closed 16 additional sites where PAMB burrowing activity was verified within fifty feet of any of those sites. Another 8 campsites were proposed as low priority camping sites for the remainder of the 2004 camping season; these were not opened in 2005. The primitive campground area provides fire pits, drinking water, tables, and stoves. Sanitary facilities, eight pump-out toilets, are housed in low-key, wooden structures with shed roofs.

A group camp is located on the north side of Kinney lane. The camp can accommodate up to 40 people and has one pump-out toilet, drinking water, a fire pit, and a large BBQ.

Environmental campsite area located north of Lake Davis and south of the Alder Creek houses, behind the frontal coastal dunes. The ten walk-in sites are intended or use by backpackers or by tent campers who carry their equipment from the parking area along the environmental campsite trail. The mile long trail travels along the coastal terrace and detours around the Lake Davis wetlands and up along the dunes. Facilities include tables, fire pits, and two pit toilets.

Campground use at this park is light compared to other Mendocino District campgrounds. The

group camp is on the statewide reservation system, but the family campground and environmental campsites are not. Campers are referred to Manchester SP when the other Mendocino District campgrounds are full. The visitor use pattern for camping during the peak use months of July and August is moderate weekend use, 65 percent capacity and light weekday use, 30 percent capacity. Use is very light September through June.

	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) This proposed project relocates park facilities, including campsites and trails, and constructs new campsites, toilets, road segments, and parking areas, improves trails, and installs new park interpretive panels and signs to facilitate recovery of the Point Arena mountain beaver habitat. All work for this project is scheduled to begin October 2005 and extend to approximately June 2009 (work will not occur during the PAMB breeding season from October 1-December 14) and will occur completely within the park boundaries. Only areas under construction will be closed to park visitors and may result in some limited inconvenience to visitors.
As stated in the Environmental Setting above, campers are referred to Manchester SP when the other Mendocino District campgrounds are full and the visitor use pattern for camping during the peak use months of July and August is moderate weekend use, 65 percent capacity and light weekday use, 30 percent capacity. Use is very light September through June.
The South Beach Access and Primary Beach Access from the family campground to the beach will be closed permanently; however the North Beach Access Trail to the beach from the Kinney Day-Use parking lot will remain open. The trail from the campground to the day-use parking lot will be routed along the existing KOA trail and will be upgraded to provide complete access to all park visitors, in accordance with the Americans with Disabilities Act. The park will continue to provide substantial beach access.
Therefore, this project will not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated. Less than significant impact.

b) Campsite relocation and trail improvement activities associated with the proposed project could result in temporary impacts to the environment. In addition, use of the campsite and trails could result in localized adverse impacts to PAMB habitat. However, full

implementation of the mitigation measures contained in this document will reduce any potential impacts to a less than significant level.

This page left intentionally blank

XV. TRANSPORTATION/TRAFFIC.

ENVIRONMENTAL SETTING

Manchester State Park is located along the rural Mendocino County coast. Traffic on the area's primary thoroughfare, State Highway 1, a 2-lane road, is generally light, with increases in flow seasonally from spring into autumn, peaking on holiday weekends, such as Memorial Day, Fourth of July, and Labor Day. Most traffic is local, although Highway 1 provides through passage to the Mendocino coast from points north and south, and is used by commercial vehicles for local deliveries. Heavy trucks, recreational vehicles, and other large vehicles are common, especially during the spring, summer, and fall.

Access to the park is afforded from State Highway 1 along three secondary rural roads: Stoneboro Road, Kinney Lane, and Alder Creek Road. Parking facilities and entrances to the park are provided at the western terminus of each of these three county-maintained dead-end roads. While access to the park is possible directly from Highway 1, no access point directly along the highway is marked or publicized, and no parking directly along the highway is provided.

The three secondary roads all provide access to the beach and adjacent park areas. Kinney Lane also provides access to the campground and the environmental campsite trail (both existing and proposed). Kinney Lane also affords access to private parcels, including the KOA campground east of the park's campground and maintenance area. Stoneboro Road provides access to several private properties, and Alder Creek Road to a single ranch and home near the junction with Highway 1.

Highway 1 is the major existing or potential route serving most trips made along the Mendocino coast by residents, visitors, and local commerce and industry. All three access junctions with Highway 1 are controlled with stop signs for traffic exiting the secondary roads onto Highway 1. No turn lanes exist for traffic exiting Highway 1, northbound or southbound, for any of the three secondary roads.

Public transportation is very limited, with one Mendocino Coast Transit bus stop in each direction in Manchester each weekday.

	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 Manchester State Park. Construction vehicles turning into the project site will not have a significant impact on the limited traffic on Highway 1, Alder Creek, Kinney, and Stoneboro Roads. 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 these roads nor result in additional congestion. Minimal delays may occur when vehicles arriving from Highway 1 wait to turn left onto existing park roads, 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. Current visitation averages approximately 350 people per day. An increase of 4-6 additional vehicles daily constitutes a negligible increase and will be insignificant in terms of traffic congestion or delays. No significant impact.

b) As noted in Discussion XV(a) above, the proposed project will add approximately 24 vehicle trips daily to State Hwy. 1 and park access roads. The addition of this limited number of vehicle trips will not exceed, individually or cumulatively, the Level of Service 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 relocate existing campgrounds and improve a trail system. Areas that will receive regular use by day-users, campers, and staff will generally retain the existing alignment, although parking areas, including designated ADA parking spaces, will be better defined. No aspect of this project contains design features 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 Manchester State Park; 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 park will be maintained at all times. Less than significant impact.

f) The campsite element of this project includes grading and the application and compaction of up to a 4-inch layer of road base gravel to create level motor vehicle parking at each new campsite. In addition, the host campsite will be upgraded to provide increased parking space, increasing the parking pad length to at least 60 feet. The project also proposes to grade and surface a gravel parking strip along the interior road between the existing campground and the maintenance yard to provide access to the walk-in campsites, the environmental campsites and the day-use area. Proposed parking components of this project will be adequate to accommodate current levels of visitation. 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. No impact.

This page left intentionally blank

XVI. UTILITIES AND SERVICE SYSTEMS.

ENVIRONMENTAL SETTING

Manchester State Park is located approximately seventeen miles south of the juncture of Highways 1 and 128 and the Navarro River mouth, one mile north of the town of Manchester, and five miles north of the town of Point Arena (DPR 1992: 9). The Park provides recreational activities concentrated near the ocean, and include surfing, sport fishing, nature study, bird watching, camping, picnicking, whale watching, scuba-diving and beach-combing (DPR 1992: 9).

No utilities or services, except sewage and garbage disposal, are available in day-use areas of Manchester State Park. Pit-type toilets and garbage cans are provided at the day-use parking areas at the end of Stoneboro Road and Kinney Lane. During the busy camping season between June 1st and September 1st, the garbage is picked up by a contractor twice a week and during the off-season the same contractor picks up the garbage once a week. There are more bins in the park for garbage disposal during the on-season than during the off-season. Sewage disposal is currently handled by a combination of leachfields, septic tanks, and pit toilets (DPR 1992: 134).

In the campground, waste and garbage facilities are provided, along with running cold water at faucets located throughout the campground. Water is drawn from a well with a pressure system system and stored in a 10,000 gallon holding tank. The well, pump, and tank are located approximately 300ft. to the North of Kinney road and 1,000-1,200ft west of the campground (Braudrick, 2005).

Power and telephone service is provided to the park's maintenance yard and employee homes located in the park. Power and telephone service are also provided to the campground host site (#1). Electricity for power is provided by the Pacific Gas and Electric Company over conventional lines. Telephone services, from SBC, are provided for by conventional lines as well. Propane gas for utilities is provided by tank service (Braudrick, 2005).

	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 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?	☐	☐	☐	☒
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) Manchester SP falls within the Mendocino Regional Water Quality Control Board. The proposed project relocates park facilities, including campsites and trails, and constructs new campsites, pit toilets, road segments, and parking areas; improves trails; and installs new park interpretive panels and signs to facilitate recovery of Point Arena mountain beaver habitat. The project will be in compliance with all applicable water quality standards and waste discharge requirements. No impact.

b) As noted in the environmental setting above, water for the park is supplied from DPR-owned private water supplies. The proposed project contains no elements that will have an impact on public water or wastewater treatment facilities. No impact.

c) Project will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. No impact.

d) As indicated in the environmental setting above, potable water is supplied for both the construction site and the park in general, from DPR-controlled water supplies. Current supplies are adequate for existing demands and the minimal additional demands associated with the proposed construction. The project contains no elements that will increase water use. No impact.

e) DPR personnel provide wastewater treatment services with DPR-owned facilities. In addition, the proposed project does not propose a net increase of camp sites therefore, usage will not exceed supply. No impact.

f) The proposed project will not increase the park's solid waste disposal needs: therefore, this project will have no impact

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

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 and its plant and animal communities. It has been determined that the project could have the potential to degrade the quality of existing and potential Point Arena mountain beaver habitat and reduce the number or restrict the range of a rare or endangered plant (Lotus sp.). However, full implementation of all conditions and mitigation measures incorporated into this project would reduce those impacts, both individually and cumulatively, to a less than significant level.

b) The proposed project was evaluated for potential significant adverse impacts to the cultural resources of Manchester State Park and its immediate environment. It has been determined that the project is located over one-half mile from the Davis House, the park's one historic resource. However, due to the natural ambiguity of archaeological resources, conditions were placed on the project; full implementation of the conditions incorporated into this document will reduce impacts to previously unidentified archaeological sites and features to a less than significant level.

c) DPR often has smaller maintenance programs and rehabilitation projects planned for a park unit. Due to the condition and nature of a coastal park with high visitation numbers and presence of endangered species, there are numerous maintenance projects in progress at any given time. No other DPR projects, other than routine maintenance, are planned for

the proposed project area in the foreseeable future. Additionally, impacts from other environmental issues addressed in this evaluation do not overlap in such a way as to result in cumulative impacts that are greater than the sum of the parts. Less than significant impact.

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); seismic events (Geology and Soils); construction accidents and fire (Hazards and Hazardous Wastes), water runoff (Hydrology and Water Quality), 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 conditions incorporated into this project are fully implemented.

CHAPTER 5
SUMMARY OF CONDITIONS AND MITIGATION MEASURES

The following conditions and mitigation measures will be implemented by DPR as part of the Point Arena Mountain Beaver Habitat Protection Project.

Aesthetics

No conditions or mitigation measures necessary.

Agricultural Resources

No conditions or mitigation measures necessary.

Air Quality

Air Condition 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, improper 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 trucks, construction equipment, erosion, or other project-related activity will be promptly removed.

Biological Resources

Mitigation Measure Bio 1 Point Arena Mountain Beaver (PAMB)

- DPR staff will supervise all construction/demolition activities for all phases of this project to ensure that all vehicles and equipment avoid PAMB habitat.
- Demolition and removal of pit toilets, and filling the holes with crushed rock or sand; construction activities for the proposed connecting road between campsites 9 and 39; and all noise related construction and ground disturbing activities (including manipulation of vegetation, construction of fences, digging, and excavation) between 25 and 100 feet of occupied habitat will occur between July 1 and December 14 to avoid the PAMB breeding season.
- Excavation and removal of bollards in campsites 12 through 30 and campsites 2 through 46 will be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- All ground disturbing activities (including manipulation of vegetation, construction of fences, digging, and excavation) within occupied habitat or within a 25 foot buffer of occupied habitat will be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- Removal of asphalt and de-compaction of soil within the existing campground shall be conducted under the guidelines of a Section 10(a)(1)(A) Recovery Permit.
- No trees or other potential predator perching structures will be added to the project area to protect PAMB from aerial predation.
- DPR staff will install animal-proof trash and recycling containers throughout the campground and day-use areas to minimized attracting predators to sensitive wildlife areas.

- DPR staff will strictly enforce a “no dogs allowed” restriction within PAMB habitat at all times to reduce harassment of PAMB.
- In the event that unoccupied PAMB habitat within 100 feet of campsites becomes occupied, these campsite(s) will be relocated to an alternate location within the park.
- DPR staff will perform annual surveys along 100 feet of trails that approach within 100 feet from suitable PAMB habitat to assess project impacts.

Bio Condition 1 – Wildlife

- To prevent trapping wildlife all holes and trenches will be covered at the close of each working day with plywood or similar materials, or will include escape ramps constructed of earth fill or wooden planks; all pipes will be capped. A DPR Resource Ecologist, or other staff trained by a DPR Resource Ecologist will inspect trenches and pipes for these species at the beginning of each workday. If a trapped animal is discovered, they will be released in suitable habitat outside the project area.

Mitigation Measure Bio 2 – Behren’s Silverspot and Lotis Blue Butterflies

- Trail mowing, brush pruning, and trail maintenance activities that could potentially impact the butterflies will be minimized during larval development.
- DPR staff will annually monitor the populations of these plants to determine the extent of potential impacts, positive or negative, this project has on these host plants.

Cultural Resources

Cultural Condition 1 – Previously Unknown Cultural Resources

- In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flakes stone, ground stone, or deposits of historic trash) were encountered during project construction by anyone, the state representative will put work on hold at that specific location and contractors will be redirected to other tasks. A DPR-qualified archaeologist will record and evaluate the find and work with state representative to implement avoidance, preservation, and recovery measures as appropriate prior to any work resuming at that specific location.
- In the event that significant cultural resources were found in a project location, a qualified historian, archaeologist and/or Native American representative (if appropriate) will monitor all subsurface work including trenching, grading and excavation in that area.

Cultural Condition 2 – Culturally Sensitive Areas

- “Culturally sensitive” areas designated in the General Plan (Map 4 in GP) will be protected with a 20 meter “buffer zone”. No ground disturbing activities including but not limited to staging areas, trail and facilities construction, trenching, and grading will be allowed in these protected areas.
- Prior to the start of construction, flagging will be placed around restricted areas to redirect and insure that ground disturbing activities do not inadvertently stray into those zones designated as “culturally sensitive.”

Cultural Condition 3 – Plant Removal in Culturally Sensitive Areas

- Hand pulling to remove the ice plant or other invasive plant species will only be allowed in those areas that have received recent archaeological survey coverage for this project. Refer to the archaeological survey report associated with this project for those areas that have received archaeological clearance for hand removal methods of invasive plant species.

- Ground disturbing methods (hand pulling) to remove invasive plant species in those areas lacking appropriate archaeological survey coverage will not be allowed in the APE. Only chemical treatments will be allowed in those areas lacking appropriate archaeological survey. If chemical treatments are not suitable then plant removal will not be allowed until an archaeological survey has been conducted in the area.
- The method to remove invasive conifer species from the project area will be limited to cutting trees down to ground level. Removal of the roots will not be allowed because of the invasiveness of this technique and the ambiguity of archaeological deposits which most often are contained in subsurface deposits.
- A DPR-qualified archaeologist will monitor all plant removal activities in the sand dunes when determined appropriate in more culturally sensitive areas of the park. 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 archaeologist assigned to the project will be notified a minimum of three weeks prior to the start of this phase of the project to schedule monitoring, unless other arrangements are made in advance.

Cultural Condition 4 – Human Remains

- In the event that human remains are discovered, work in will cease immediately in the area of the find and the project manger/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 District 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 were 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 Native American Heritage Commission in the Sacramento and/or tribe would be consulted to identify the most likely descendants and appropriate disposition of the remains. Work would 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 for 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 Officer and review by the Native American Heritage Commission/Tribal Cultural representatives will also occur as necessary to define mitigation measures or future restrictions.

Geology and Soils

Geo Condition 1 – Seismic Hazards

- The new prefabricated restroom buildings will conform to earthquake design requirements for Seismic Zone 4 and a Type A Fault source, as specified in the current edition of the California Building Code. Foundations will be designed to accommodate string ground shaking and possible differential settlement.
- State Park staff will inspect the campground facilities, including utility corridors, for damage as soon as feasible after a large earthquake.

Geo Condition 2 – Erosion Control

- BMPs will be used in all areas to control soil and surface water runoff during excavation, grading, and trenching. Grading and excavation activities will not be planned during the rainy season (October 31 to May 1), but if storms are anticipated during construction or if construction must occur during winter months, "winterizing" will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods (BMPs) to protect disturbed soil. DPR-approved BMPs, such as silt fences, fiber rolls, mulch or other applicable techniques will be utilized. Information on approved BMPs can be found in the Stormwater Best Management Practice Handbook for Construction, available on-line at www.cabmphandbooks.com.
- Permanent BMPs for erosion control will consist of properly compacting disturbed areas and re-vegetation of appropriate disturbed soil areas with native species using seed collected locally. Final design plans will include BMPs incorporated into the project.

Hazards and Hazardous Materials

Hazmat Condition 1

- Staging and stockpile areas will be designated and/or located within the existing maintenance yard area or existing roads and campsites to prevent leakage of oil, hydraulic fluids, etc. into native vegetation or sensitive wildlife areas.
- All equipment will be inspected for leaks prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises.
- The contractor(s) and/or DPR will prepare an emergency Spill Prevention and Response Plan prior to the start of construction and maintain a spill kit on-site during project construction. The plan will include a map that delineates construction staging 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 at the project site or within the boundaries of Manchester SP during construction, the contractor will immediately notify the appropriate DPR staff (e.g., project manager, supervisor, or State Representative).
- Equipment will be cleaned and repaired (other than emergency repairs) outside of the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be disposed of outside of park boundaries, at a lawfully permitted or authorized destination.

Hazmat Condition 2

- Prior to the start of construction, the contractor will develop a DPR-approved fire safety plan.
- Spark arrestors or turbo-charging, which eliminates sparks in exhaust, and fire extinguishers will be required for all heavy equipment.
- Vehicles and heavy equipment will be parked away from flammable material, such as dry grass or brush.
- Fire suppression equipment will be available within Manchester SP.

Hydrology and Water Quality

Hydro Condition 1

- Best management Practices (BMPs) will be used to control erosion and runoff during project construction and post-construction. All storm water inlets in the project vicinity will be protected during ground disturbing activities with silt fences, straw bales, or rice straw wattles as necessary (Refer to **Geo Condition 2**).
- The project will comply with all applicable water quality standards as specified in the NCRWQCB Basin Plan.
- Implementation of **Hazmat Condition 1** will mitigate for impacts to water quality from possible pollutants (fuels and other vehicle fluids) released from vehicles and heavy equipment during construction.

Land Use and Planning

No conditions or mitigation measures necessary.

Mineral Resources

No conditions or mitigation measures necessary

Noise

Noise Condition 1

- Construction activities will generally be limited to the daylight hours, Monday – Friday. No work will occur on holidays or weekends.
- 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 away 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.

Population and Housing

No conditions or mitigation measures necessary.

Public Services

No conditions or mitigation measures necessary

Recreation

No conditions or mitigation measures necessary

Transportation/Traffic

No conditions or mitigation measures necessary.

Utilities and Service Systems

No conditions or mitigation measures necessary

This page left intentionally blank

CHAPTER 6
REFERENCES

General

Communication #1-14-2003-1638; Brown, USFWS-Arcata.

Aesthetics

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

California Department of Transportation (CalTrans), Scenic Highway Program, web address: http://www.dot.ca.gov/hq/LandArch/scenic/scpr.htm

Agricultural Resources

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

Air Quality

Environmental Protection Agency (EPA) Air Data
www.epa.gov/air/data/repsco.html?co~06045~Mendocino%20Co%2C%20California

Air Resources Board, California Air Basins, North Coast Air Basin
www.arb.ca.gov/knowzone/basin/basin.swf

Mendocino County Air Quality Management District
www.co.mendocino.ca.us/aqmd/pages/monitoring%20program.htm

Biological Resources

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

U.S. Fish and Wildlife Service. 2001.

Rarefind. 2003. Electronic version of California Department of Fish and Game Natural Diversity Data Base. Calif. Dept. of Fish and Game, Wildlife Conservation Division, Wildlife and Habitat Data Analysis Branch, Sacramento, CA.

Pratt, Gordon F. 2004. 2004 Survey for the Lotis Blue. Report to U. S. Fish and Wildlife Service, Arcata Fish and Wildlife Office.

U.S. Fish and Wildlife Service. 1985. Recovery Plan for the Lotis Blue Butterfly. U. S. Fish and Wildlife Service, Portland, Oregon. 46 pp.

Arnold, R. A. 1991. Biological Studies of the Endangered Lotis Blue Butterfly for PG&E's Elk-Fort Bragg 60-kV Transmission Line. Prepared for Sally deBecker, Biologist, Pacific Gas and Electric Company Technical and Ecological Services, 3400 Crow Canyon, San Ramon, CA 94583

Pratt, G. F. 2003. 2003 Survey for the Lotis Blue. University of California, Riverside, CA 92521.

U.S. Fish and Wildlife Service. 2003. Draft recovery plan for Behren's silverspot butterfly

(Speyeria zerene behrensii). U. S. Fish and Wildlife Service, Portland, Oregon. vii + 55 pp

U.S. Fish and Wildlife Service. 1998. Point Arena Mountain Beaver (Aplodontia rufa nigra (Rafinesque)) Recovery Plan. Region 1, Portland, OR. 71 pp.

Fitts, K. et al 2002. Point Arena Mountain Beaver, Aplodontia rufa nigra (Rafinesque) -Habitat Protection and Restoration Plan.

Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton-Mifflin Company, Boston, Massachusetts. 336pp.

Jennings, M. R. and M. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Prepared for the California Department of Fish and Game.

U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California Red-legged Frog (Rana auroro draytonii). U. S. Fish and Wildlife Service, Portland, Oregon. vii + 173 pp.

Ingles, L.G. 1965. Mammals of the Pacific States. Stanford University Press, Stanford, California. 506pp.

CNPS. 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society, Sacramento, CA + 388 pp.

Sawyer, J.O and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, California.

Hickman, J.C. 1993. The Jepson Manual, Higher Plants of California, J.C. Hickman, edit., University of California Press, Berkeley, California.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California. The Resources Agency, Department of Fish and Game, Sacramento. 156 pp.

Cultural Resources

n.d. Manchester State Park Unit History. Ms. on file. California State Parks Northern Service Center, Sacramento.

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

Geology and Soils

CGS, 2003, Seismic Shaking Hazards in California, Interactive Maps, website: http://www.consrv.ca.gov/cgs/rghm/pshamap/pshamain.html

California Department of Parks and Recreation, 1992, Manchester State Park General Plan.

Merrits, D. J., Gradner, T. W., and Prouge, K., 2003, Paleoseismicity and Crustal Deformation Along the Northern San Andreas Fault, Fort Ross to Point Arena, California, website: edisk.fandm.edu/dorothy.merrits/research-ptarena.html

Petersen, M. D., Bryant, W. A., Cramer, C. H., Cao, T., Reichle, M.S., Frankel, A. D., Lienkaemper, J. J., McCrory, P. A., and Schwartz, D. P., 1996, Probabilistic Seismic Hazard

Assessment for the State of California, Division of Mines and Geology Open File Report 96-08; fault parameters on-line at: www.consrv.ca.gov/cgs/rghm/psha/ofr9608/

USDA, 2001, Soil Survey of Mendocino County, California, Western Part, website: www.ca.nrcs.usda.gov/mlra/wmendo/

Hazards and Hazardous Materials
CGS, 2005, California Geological Survey, Tsunami Webpage, Historic Tsunamis in California, website: http://www.consrv.ca.gov/cgs/geologic_hazards/Tsunami/About_Tsunamis.htm

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

FEMA, 2003, Flood Hazard Maps on line at: http://www.esri.com/hazards

Mendocino County, 1981, Mendocino County General Plan, Part V., Seismic Safety Element, website address: http://www.co.mendocino.ca.us/planning/GenPlan/Seismic/Contents.htm

North Coast Regional Water Quality Control Board (NCRWQCB), 1994, Water Quality Control Plan for the North Coast Region (Basin Plan).

Hydrology and Water Quality
North Coast Regional Water Quality Control Board, 1993, Water Quality Control Plan for the North Coast Region, website address: http://www.swrcb.ca.gov/rwqcb1/down/032202basin-plan.pdf

ESRI-FEMA (Federal Emergency Management Agency), 2004, on-line flood hazard maps at website: http://www.esri.com/hazards/

Land Use and Planning
1992 California Department of Parks and Recreation, Manchester State Park General Plan.

2002 Mendocino County General Plan, Land Use Element. Internet Address: www.co.mendocino.ca.us/planning/GenPlan/LandUse/B04.htm

Mineral Resources
Mendocino County, 2003, Mendocino County General Plan Update, Background Report for the County of Mendocino General Plan Update, Chapter 8, Natural Environment, Section 8F, Mineral Resources, website address: http://www.co.mendocino.ca.us/planning/gpupdate/bkrpt/report.htm

Noise
2002 Mendocino County General Plan, Noise Element
http://www.co.mendocino.ca.us/planning/GenPlan/Noise/01intro.pdf

Population and Housing
1992 California Department of Parks and Recreation, Manchester State Park General Plan.

2002 Mendocino County General Plan, Housing Element
http://www.co.mendocino.ca.us/planning/GenPlan/Housing/1-Introduction%2012142004.pdf

Public Services
Mendocino County Office of Education, internet, web Address:
http://www.mcoe.us/cgi-bin/Internal/Webedit/page_display.mp?dept=facts&page=dist_map

1992 California Department of Parks and Recreation, Manchester State Park General Plan.

Recreation
1992 California Department of Parks and Recreation, Manchester State Park General Plan.

2005 Peter Braudrick. Personal Communication, May 19th.

Transportation/Traffic
1992 California Department of Parks and Recreation, Manchester State Park General Plan.

Utilities and Service Systems
1992 California Department of Parks and Recreation, Manchester State Park General Plan.

2002 Mendocino County General Plan, The Permit Place Internet address:
www.co.mendocino.ca.us/planning/PermitPlace/PermitPlace66.htm

2005 Peter Braudrick. Personal Communication, May 19th.

Report Preparation

California Department of Parks and Recreation

NORTHERN SERVICE CENTER STAFF

Amy Palkovic
Associate Resource Ecologist

Dionne Gruver
Associate Archaeologist

Monica Aleman
Historian II

Patricia DuMont
Environmental Coordinator

Curtis Gray
Research Analyst (GIS)

Jay Correia
Historian II

Kathleen Considine
Engineering Geologist

MENDOCINO DISTRICT STAFF

Renee Pasquinelli
Associate Resource Ecologist

Peter Warner
Associate Resource Ecologist

Diona Roja
Associate Resource Ecologist

Peter Brauderick
Maintenance Chief

Bill Maslach
Research Analyst (GIS)

This page left intentionally blank

APPENDIX A

MAPS AND TABLES

This page left intentionally blank

APPENDIX A, BIO 1

List of Plant Species observed within Project Area of Potential Effect

Vascular Plant List (* denotes non-native)

A. Campground - Relocated (new) campsite area

Latin Binomial

*Agrostis stolonifera**
*Aira caryophyllea**
*Anagallis arvensis**
*Anthoxanthum odoratum**
Artemisia douglasiana
*Avena barbata**
Baccharis pilularis
*Briza maxima**
Bromus carinatus
*Bromus diandrus**
*Bromus hordeaceus**
*Carduus pycnocephalus**
Castilleja ambigua
*Cirsium vulgare**
Clarkia davyi
Crassula sp.
*Cupressus macrocarpa**
Danthonia californica
*Danthonia pilosa**
Daucus pusillus
Elymus glaucus
*Erechtites glomerata**
*Erodium botrys**
*Erodium cicutarium**
Eschscholzia californica
Fragaria chiloensis
*Geranium dissectum**
Gnaphalium purpureum
Gnaphalium stramineum
*Holcus lanatus**
*Hypochaeris radicata**
*Leontodon taraxacoides**
*Leucanthemum vulgare**
Linum bienne
Lotus sp.
*Lupinus arboreus**
Luzula comosa
*Medicago polymorpha**
*Myoporum laetum**
*Oxalis corniculata**
Pinus contorta ssp. *contorta*
Pinus muricata
*Pinus radiata**
*Plantago coronopus**
*Plantago lanceolata**
Polystichum munitum
Pseudotsuga menziesii
Pteridium aquilinum var. *pubescens*
*Raphanus sativus**
Rhamnus californica
Rubus ursinus
*Rumex acetosella**
Sambucus racemosa
*Sherardia arvensis**
*Soliva sessilis**
Sonchus asper ssp. *asper**
*Sonchus oleraceus**
*Spergula arvensis**
*Spergularia rubra**
*Stellaria media**
*Trifolium dubium**
*Trifolium glomeratum**
*Trifolium subterraneum**
Triphysaria pusilla
*Vicia sativa**
Vulpia bromoides

B. Closed Campground Area - within 3 feet of pavement

Latin Binomial

Abronia latifolia
Achillea millefolium
*Agrostis stolonifera**
*Aira caryophyllea**
*Aira praecox**
Ambrosia chamissonis
*Ammophila arenaria**
Amsinckia spectabilis
*Anagallis arvensis**
Artemisia pycnocephala
Artemisia suksdorfii
*Avena barbata**
Baccharis pilularis
*Brassica nigra**
*Briza maxima**
Bromus carinatus
*Bromus diandrus**
*Bromus hordeaceus**
Calystegia purpurata ssp. *purpurata*
Camissonia cheiranthifolia
Cardionema ramosissima
*Carduus pycnocephalus**
*Centaurea melitensis**
Cerastium arvensis
*Chamomilla suaveolens**
*Cirsium vulgare**
*Coronopus didymus**
Crassula sp.

*Cupressus macrocarpa**
*Cynosurus echinatus**
*Danthonia pilosa**
Daucus pusillus
*Erechtites glomerata**
Erigeron glaucus
*Erodium cicutarium**
*Erodium moschatum**
Eschscholzia californica
Fragaria chiloensis
Galium aparine
*Geranium dissectum**
*Geranium retrorsum**
*Gnaphalium luteo-album**
Gnaphalium purpureum
Gnaphalium stramineum
Grindelia stricta ssp. *platyphylla*
*Hedypnois cretica**
Heracleum lanatum
Hesperevax sparsiflora ssp. *brevifolia*
*Holcus lanatus**
Hordeum brachyantherum
Hordeum murinum ssp. *leporinum**
*Hypochaeris glabra**
*Hypochaeris radicata**
Iris douglasiana
*Leontodon taraxacoides**
Lessingia filaginifolia
Leymus mollis
*Linum bienne**
*Lolium multiflorum**
*Lolium perenne**
*Lotus corniculatu**
*Lupinus arboreus**
Lupinus bicolor
Marah oreganus
*Medicago polymorpha**
Pinus contorta ssp. *contorta*
*Plantago coronopus**
*Plantago lanceolata**
*Poa annua**
*Polycarpon tetraphyllum**
Psilocarphus tenellus
Pteridium aquilinum
*Raphanus sativus**
Rhamnus californica
Rubus ursinus
*Rumex acetosella**
*Silybum marianum**
*Soliva sessilis**
Sonchus asper ssp. *asper**
*Spergularia rubra**
Stachys ajugoides
*Trifolium dubium**
*Trifolium glomeratum**
Vicia sativa ssp. *sativa**
*Vulpia bromoides**

C. Existing Environmental Campsites Trail

Abies grandis
Abronia latifolia
Achillea milefolium
*Agrostis stolonifera**
*Aira caryophyllea**
*Aira praecox**
Ambrosia chamissonia
*Ammophila arenaria**
*Anagallis arvensis**
Anaphalis margaritacea
Angelica hendersonii
*Anthoxanthum odoratum**
Arctostaphylos uva-ursi
Armeria maritima ssp. *californica*
Artemisia douglasiana
Aster chilensis
*Avena barbata**
Baccharis pilularis
*Bellis perennis**
*Brassica nigra**
*Briza maxima**
*Briza minor**
Bromus carinatus
*Bromus diandrus**
*Bromus hordeaceus**
*Cakile maritima**
Calamagrostis nutkaensis
Calandrinia ciliata
Calystegia purpurata ssp. *purpurata*
Calystegia soldanella
Camissonia cheiranthifolia
Camissonia ovata
Cardamine oligosperma
*Carduus pycnocephalus**
Carex obnupta
Carex subbracteata
*Carpobrotus chilensis**
*Carpobrotus edulis**
Castilleja ambigua ssp. *ambigua*
Ceanothus griseus
Cerastium arvense
*Cerastium glomeratum**
*Chamomilla suaveolens**
Cicendia quadrangularis
Cirsium quercetorum
*Cirsium vulgare**
Clarkia davyi
*Conium maculatum**
*Coronopus didymus**
*Cotula coronopifolia**
Crassula aquatica
Crassula connata
Cryptantha clevelandii var. *clevelandii*
Cryptantha leiocarpa
*Cupressus macrocarpa**
Cuscuta salina

*Cynosurus echinatus**
*Dactylis glomerata**
Danthonia californica
*Danthonia pilosa**
Daucus pusillus
Elymus glaucus
Epilobium ciliatum
Equisetum arvense
*Erechtites glomerata**
Erigeron glaucus
Eriogonum latifolium
*Erodium cicutarium**
Eschscholzia californica
*Festuca arundinacea**
Fragaria chiloensis
Galium trifidum
Gaultheria shallon
Gentiana affinis var. *ovata*
*Geranium dissectum**
*Geranium molle**
*Geranium retrorsum**
*Gnaphalium luteo-album**
Gnaphalium purpureum
Gnaphalium stramineum
Grindelia stricta var. *platyphylla*
Heliotropum curassavicum
Heracleum lanatum
Heterotheca sessiliflora ssp. *bolanderi*
*Holcus lanatus**
Hordeum marinum ssp. *gussoneanum**
Hordeum murinum ssp. *leporinum**
Horkelia californica ssp. *californica*
*Hypochaeris glabra**
*Hypochaeris radicata**
Iris douglasiana
Juncus breweri
Juncus bufonius
Juncus effusus
Juncus patens
Lasthenia californica
Lasthenia glaberrima
*Leontodon taraxacoides**
Lessingia filaginifolia var. *californica*
Leymus mollis
Limosella acaulis
*Linum bienne**
*Lolium multiflorum**
Lonicera involucrata
*Lotus corniculatus**
Lotus formosissimus
Lotus micranthus
Lotus purshianus var. *purshianus*
Lotus wrangelianus
Lupinus arboreus
Lupinus bicolor
Lupinus littoralis
Luzula comosa
*Lythrum hyssopifolium**
Madia sativa
Marah oreganus
*Medicago polymorpha**
*Mentha pulegium**
Mimulus guttatus
Myrica californica
Navarretia squarrosa
Nemophila menziesii
Oenanthe sarmentosa
Oxalis albicans ssp. *pilosa*
*Oxalis pes-caprae**
Pinus contorta ssp. *contorta*
Pinus muricata
*Pinus radiata**
Plagiobothrys stipitatus var. *micranthus*
*Plantago coronopus**
Plantago elongata
Plantago erecta
*Plantago lanceolata**
Plantago subnuda
Platystemon californicus
*Poa annua**
*Polycarpon tetraphyllum**
Polygala californica
*Polygonum arenastrum**
Polygonum paronychia
Potentilla anserina ssp. *pacifica*
Prunella vulgaris var. *lanceolata*
Pseudotsuga menziesii
Psilocarphus tenellus var. *tenellus*
Pteridium aquilinum var. *pubescens*
Ranunculus californicus
*Raphanus sativus**
Rhamnus californica
Rorippa nasturtium-aquaticum
Rubus ursinus
*Rumex acetosella**
Rumex salicifolius var. *crassus*
Sagina decumbens ssp. *occidentalis*
Salix hookeriana
Sanicula arctopoides
Satureja douglasii
Scirpus acutus
Scirpus pungens
Scrophularia californica
*Senecio vulgaris**
Sherardia arvensis
Sidalcea malviflora ssp. *malviflora*
*Silene gallica**
Sisyrinchium bellum
Solidago sp.
*Soliva sessilis**
Sonchus asper ssp. *asper**
Spergula arvensis ssp. *arvensis**
*Spergularia rubra**
Stachys ajugoides var. *rigida*
*Stellaria media**
*Stellaria pallida**
Tanacetum camphoratum
*Taraxacum officinale**
Toxicodendron diversilobum
Trifolium barbigerum var. *barbigerum*

*Trifolium dubium**
*Trifolium glomeratum**
Trifolium microcephalum
Trifolium microdon
*Trifolium repens**
*Trifolium subterraneum**
Trifolium willdenovii
Trifolium wormskioldii
Triphysaria pusilla
Triteleia laxa
Vaccinium ovatum
Vicia americana var. *americana*
Vicia sativa ssp. *nigra**
Vicia sativa ssp. *sativa**
Viola adunca
*Vulpia myuros**

APPENDIX A -6: SENSITIVE PLANT INFORMATION

The following plants are those 1) documented to occur within the boundaries of Manchester State Park (denoted with a superscript [M]); 2) documented to occur within the 9-topographic quad map search for documented occurrences of sensitive plants in the Manchester State Park area; or 3) for which potentially suitable habitat or elements thereof exist within Manchester State Park. Only those species documented to occur within the project's Area of Potential Effect (APE; species information in bold type below) are discussed in the Initial Study checklist regarding potential project impacts.

Latin Binomial	Common Name	Habitat Type[1]/ Elevation	Listing[2]	Within APE
Abronia umbellata ssp. *breviflora* [M]	Pink sand-verbena	CoD; 0-10 m	1B	No
Agrostis blasdalei [M]	Blasdale's bentgrass	CBScr, CoD, CoPr; 5-150m	1B	No
Arctostaphylos mendocinensis	Pygmy manzanita	CCFrs (acidic sandy clay); 90-200m	1B	No
Astragalus agnicidus	Humboldt milk-vetch	BUFrs, NCFrs, disturbed areas; 195-750m	1B	No
Blennosperma nanum var. *robustum*	Pt. Reyes blennosperma	CoPr, CoScr; 10-145m	1B; CA Rare	No
Boschniakia hookeri	Small groundcone	NCFrs; 90-885m	2	No
Calamagrostis crassiglumis	Thurber's reed grass	CoScr, MshSw(fw); 10-45m	2	No
Calystegia purpurata ssp. *saxicola* [M]	Coastal bluff morning-glory	CoD, CBScr; 10-105m	1B	No
Campanula californica [M]	Swamp harebell	BgFns, CCFrs, CoPr, Mdw, MshSw, NCFrs; 1-405m	1B	No
Carex californica	California sedge	BgFns, CCFrs, CoPr, Mdw/Seep, MshSw; 90-250m	2	No
Carex lenticularis var. *limnophila*	Lakeshore sedge	BgFns, MshSw, NCFrs; 0-6m	2	No
Carex lyngbyei	Lyngbye's sedge	MshSw; 0-10m	2	No
Carex saliniformis [M]	Deceiving sedge	CoPr, CoScr, Mdw, MshSw; 3-230m	1B	
Carex viridula var. *viridula*	Green sedge	BgFns, MshSw, NCFrs; 0-1600m	2	No
Castilleja affinis var. *litoralis*	Oregon coast Indian paintbrush	CoBScr, CoD, CScr; 15-100m	2	No

Castilleja ambigua ssp. *humboldtiensis*	Humboldt Bay owl's-clover	MshSw; 0-3m	1B	No
Castilleja mendocinensis [M]	Mendocino coast Indian paintbrush	CBScr, CCFrs, CoD, CoPr, CoScr; 0-160m	1B	No
Chorizanthe howellii	Howell's spineflower	CoD, CBScr, CoPr; 0-35m	1B, ST, FE	No
Clarkia amoena ssp. *whitneyi*	Whitney's farewell-to-spring	CoBScr, CScr; 10-100m	1B	No
Collinsia corymbosa	Round-headed Chinese houses	CoD; 1-10m	1B	No
Cupressus goveniana ssp. *pigmaea*	Pygmy cypress	CCFrs (podzols)	1B	No
Erigeron supplex	Supple daisy	CoBScr, CoPr; 10-50m	1B	No
Erysimum menziesii ssp. *menziesii*	Menzies's wallflower	CoD; 0-35m	1B, SE, FE	No
Erythronium revolutum	Coast fawn lily	BgFns, BUFrs, NCFrs; 0-1325m	2	No
Fritillaria roderickii	Roderick's fritillary	CBScr, CoPr, VFGrs; 15-400m	1B	No
Gilia capitata ssp. *pacifica*	Pacific gilia	SBScr, CoPr; 5-610m	1B	No
Gilia millefoliata	Dark-eyed gilia	CoD; 2-30m	1B	No
Glyceria grandis	American manna grass	BgFns, Medws, MshSw; 15-1980m	2	No
Hemizonia congesta ssp. *leucocephala*	Hayfield tarplant	CoScr, VFGrs; 25-455m	3	No
Hesperevax sparsiflora ssp. *brevifolia*	Short-leaved evax	CoBScr, CoD; 0-215m	2	Yes
Horkelia marinensis	Pt. Reyes horkelia	Cod, CoPr, CoScr; 5-350m	1B	No
Horkelia tenuiloba	Thin-lobed horkelia	BUFrs, VFGrs; 50-500m	1B	No
Lasthenia macrantha ssp. *bakeri*	Baker's goldfields	CCFrs, CoScr; 60-520m	1B	No
Lasthenia macrantha ssp. *macrantha*	Perennial goldfields	CBScr, CoD, CoBScr	1B	No
Lilium maritimum [M]	Coast lily	BUFrs, CCFrs, CoPr, CoScr, MshSw, NCFrs; 5-335m	1B	No
Lycopodium clavatum	Running-pine	MshSw, NCFrs; 45-790m	2	No
Phacelia insularis var.	North Coast	CBScr, CoD; 10-	1B	No

continentis	phacelia	170m		
Pinus contorta ssp. *bolanderi*	Bolander's shore pine	CCFrs (podzols); 75-250m	1B	No
Pleuropogon hooverianus	Hoover's semaphore grass	NCFrs, Mdws; 10-635m	1B	No
Puccinellia pumila	Dwarf alkali grass	MshSw; 0-10m	2	No
Rhynchospora alba	White beaked-rush	BgFns, MshSw, Medws; 60-2040m	2	No
Sanguisorba officinal	Great burnet	BgFns, BUFrs, Medws, MshSw, NCFrs; 60-1400m	2	No
Senecio bolanderi	Seacoast ragwort	CoScr, NCFrs; 30-650M	2	No
Sidalcea calycosa ssp. *rhizomata*	Pt. Reyes checkerbloom	MshSw (fw); 3-75m	1B	No
Sidalcea malachroides [M]	Maple-leaved checkerbloom	BUFrs, CoPr, CBScr, NCFrs; 2-730m	1B	No
Sidalcea malviflora ssp. *purpurea*	Purple-stemmed checkerbloom	BUFrs, CoPr; 15-65m	1B	No
Triquetrella californica	Coastal triquetrella	CBScr, CoScr; 10-100m	1B	No
Viola palustris	Marsh violet	CoScr, BgFns; 0-150m	1B	No

[1] Abbreviations correspond to the following habitat types:

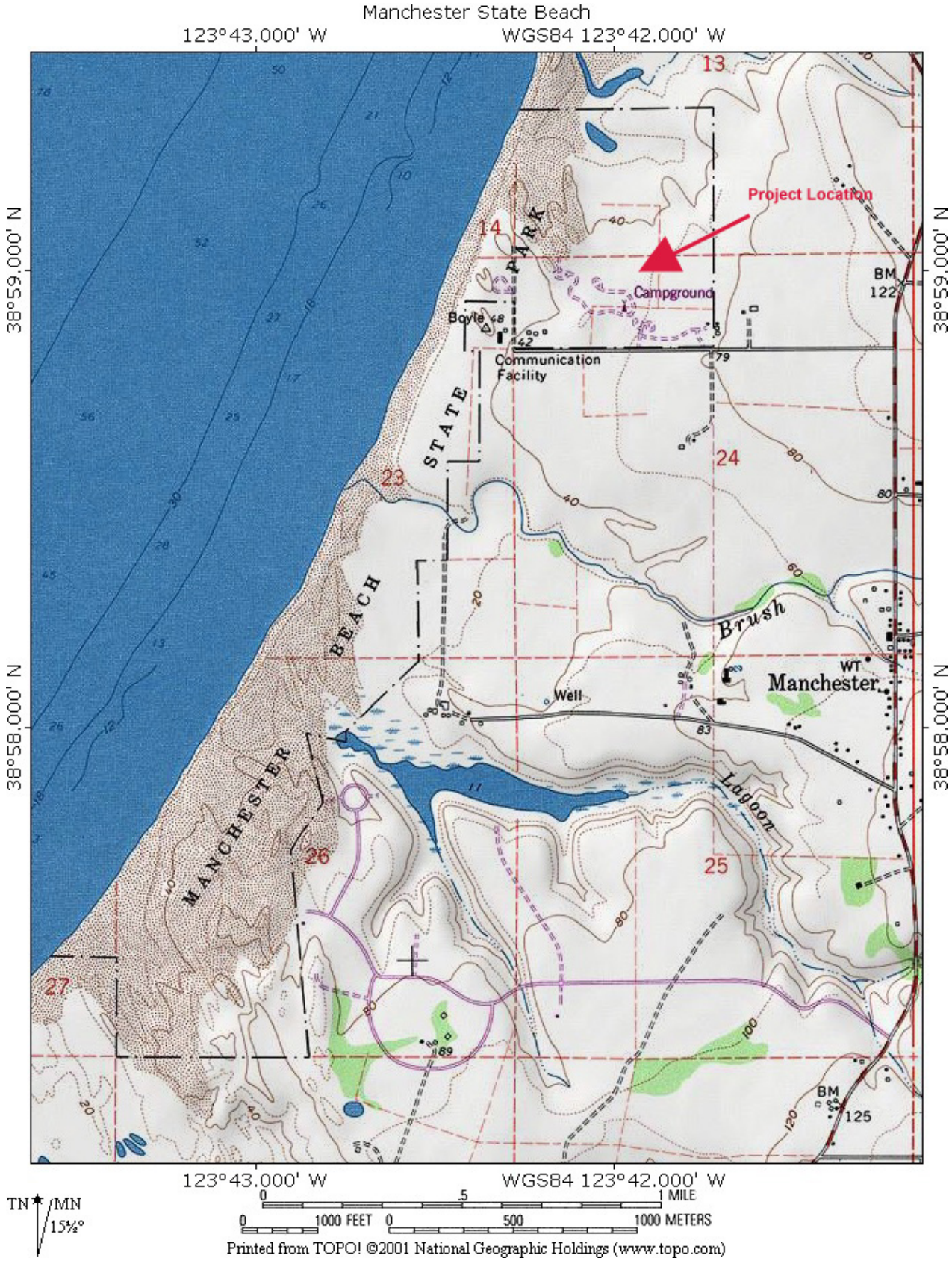
BgFns = Bogs and fens
BUFrs = Broad-leaved upland forest
CoD = Coastal dunes
CBScr = Coastal bluff scrub
CoScr = Coastal scrub
CoPr = Coastal prairie
CCFrs = Closed-cone pine forest
MshSw = Marshes and swamps
NCFrs = North coast coniferous forest
VFGrs = Valley and foothill grassland

[2] Listings refer to sensitive plant regulatory designations, as follows:

1B = California Native Plant Society's Inventory of Rare and Endangered Plants of California, plants rare or endangered in California and elsewhere
2 = CNPS, plants rare or endangered in California, more common elsewhere
3 = CNPS, need more information

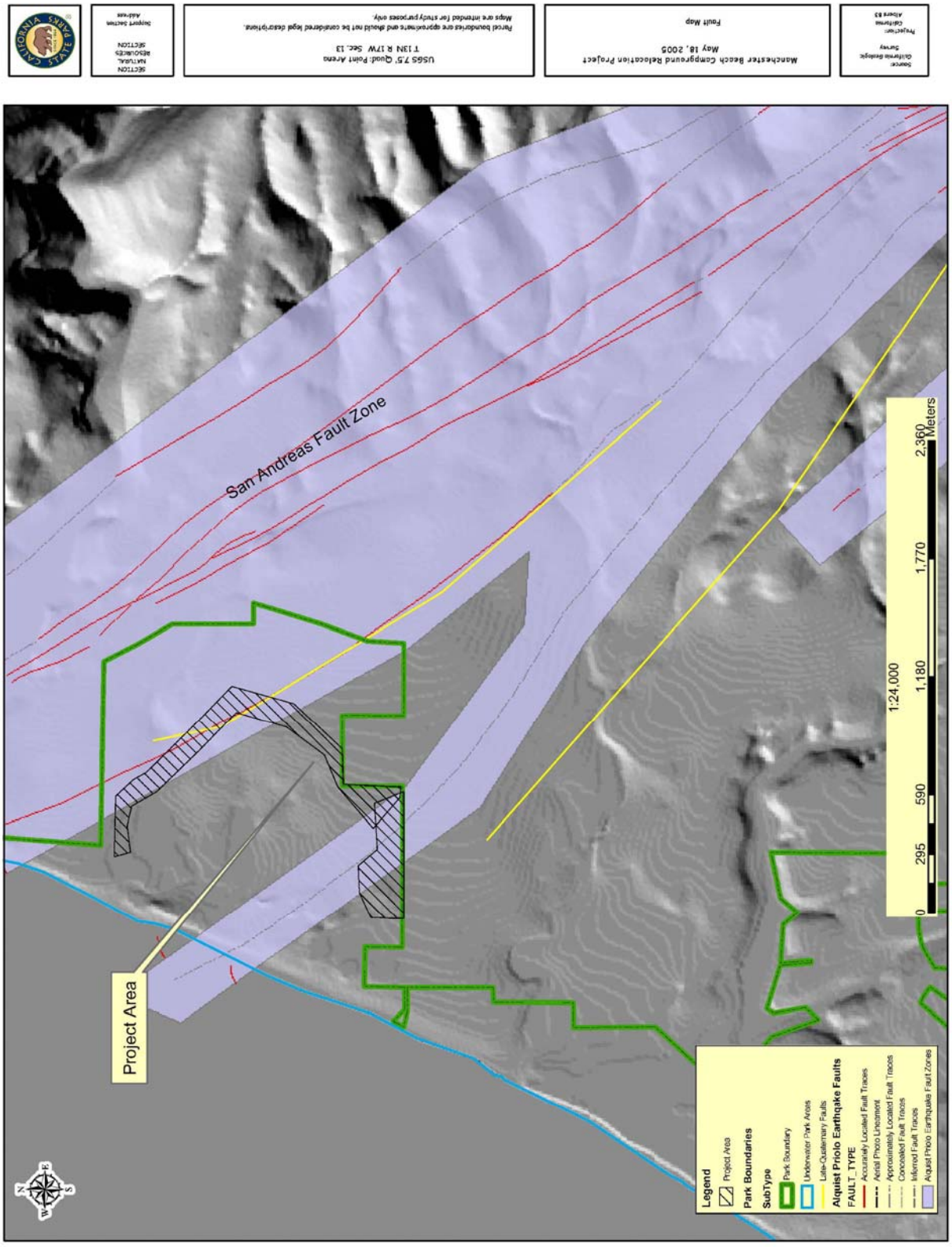
This page left intentionally blank

Appendix A – Geo 1
Topographic Map



This page left intentionally blank

Appendix A – Geo 2
Fault Zone



This page left intentionally blank.

APPENDIX B

PROJECT AREA GRAPHIC

This page left intentionally blank.

APPENDIX C

MAINTENANCE PARAMETERS TO AVOID "TAKE"

This page left intentionally blank.

Appendix C

Manchester State Park

Maintenance Parameters to Avoid "TAKE" of Federally Listed Species

Existing Environmental Camp Trail

Active Point Arena mountain beaver burrows have been documented within 25 feet of the trail corridor along an approximate 2,000 linear feet section. Host plants for the Behren's silverspot butterfly and lotis blue butterfly occur adjacent to sections of the compacted trail surface.

1. During the breeding season (December 15 to June 30), all gasoline-powered mowing (only with rubber tires), brush trimming, and weed whipping will be avoided within 100 feet of active Point Arena mountain beaver burrow openings. Outside of the breeding season, these gasoline-powered tools can be used within 100 feet of active Point Arena mountain beaver openings. Electric or hand powered equipment may be used at any time within 100 feet of active Point Arena mountain beaver burrow openings.

2. Prior to mowing, all areas of the trail proposed for maintenance shall be surveyed for host plants of Behren's silverspot and lotis blue butterflies. No maintenance shall occur within ten feet of identified host plants. Where host plants are not located, the grassland sections of the trail surface shall be maintained by mowing to a width of 4 feet. Sections of the trail that are outside of the grassland area and that do not contain host plants may be maintained by pruning an adjacent strip of vegetation (on both sides of the trail) to width of 2 feet. Vegetation within Point Arena mountain beaver habitat shall not be cut lower than 2 feet in height. Cutting more than 2 feet wide and lower than 2 feet in height would constitute "take". Rooted vegetation shall not be removed from the trail surface.

Existing Kinney Day-Use Beach Access Trail, Parking, and Pit Toilets

Active Point Arena mountain beaver burrows have been documented within 25 feet of the trail between the pit toilets and the sand dunes, adjacent to the loop road and parking areas, within the loop road island, and adjacent to the pit toilets.

1. Since the trail surface consists of low-growing vegetation that is maintained by foot traffic, mowing shall not occur at any time along the trail.

2. Mowing or vegetation trimming with gasoline powered equipment around the pit toilets and road edge shall only occur outside of the breeding season, which is December 15 to June 30. Mowing or vegetation trimming with electric powered equipment may occur during the breeding season within these areas. The mowing width around the pit toilets and adjacent to the road shall not exceed 2 feet.

This page left intentionally blank.

Appendix D

ACRONYMS

This page left intentionally blank.

Appendix D

Acronyms

ADA - Americans with Disabilities Act
AGR - Agricultural Supply
APE - Area of Potential Effect
APEFZ - Alquist-Priolo Earthquake Fault Zoning
ARB/CARB - California Air Resources Board
BMP - Best Management Practices
CA - California
Caltrans - California Department of Transportation
CALSTAR – California Shock Trauma Air Rescue
CBC/UBC - California Uniform Building Code
CCR - California Code of Regulations
CDF - California Department of Forestry and Fire
CDFG - California Department of Fish and Game
CEQA - California Environmental Quality Act
CGS - California Geological Survey
CNDDB - California Natural Diversity Database (Calif. Dept. of Fish and Game)
CNPS - California Native Plant Society
CRHP - California Register of Historic Places
CSQA - California Storm Water Quality Association
CWITS - California Water Information Technical System
DPR - California Department of Parks and Recreation (California State Parks)
EIR - Environmental Impact Report
ESA - Endangered Species Act
ESU - Evolutionary Significant Units
FEMA - Federal Emergency Management Agency
FMMP - Farmland Mapping and Monitoring Program
GP - General Plan
IS/MND - Initial Study / Mitigated Negative Declaration
LOS - level of service
KOA® – Kampgrounds of America
MCAQMD – Mendocino County Air Quality Management District
MSL - mean sea level
MND - Mitigated Negative Declaration
mph - miles per hour
NAHC - Native American Heritage Commission
NCAB – North Coast Air Basin
NCRWQCB – North Coast Regional Water Quality Control Board
NPDES - National Pollutant Discharge Elimination System
NOx - nitrogen oxide
NRHP - National Register of Historic Places
NSC - Northern Service Center
PAMB – Point Arena mountain beaver
PM_{10} - particulate matter (particles with an aerodynamic diameter of 10 Microns or less)
$PM_{2.5}$ - particulate matter (particles with an aerodynamic diameter of 2.5 Microns or less)
PRC - Public Resources Code
RWQCB - Regional Water Quality Control Board
RV - Recreational Vehicle

ROG - reactive organic gases
SAFZ - San Andreas Fault Zone
SMP - Storm Water Management Plan
SWPPP - Storm Water Pollution Prevention Plan
SWRCB - State Water Resource Control Board
U.S. - United States
USACOE - United States Army Corps of Engineers
USEPA - United States Environmental Protection Agency
USFWS - United States Fish and Wildlife Service
USGS - United States Geological Service
VRP – Visibility Reducing Particle

Appendix E

GLOSSARY OF TECHNICAL TERMS

This page left intentionally blank.

Appendix E
GLOSSARY OF TECHNICAL TERMS

Definitions in this glossary are predominately excerpted from the American Geology Institute (AGI) Dictionary of Geological Terms and Dictionary of Dictionary of Mining, Mineral, and Related Terms with some definitions supplemented from the USGS Geologic Glossary webpage and the Lake and Water Word Glossary at http://www.nalms.org/glossary/lkword_s.htm

Active Fault - A fault that has undergone movement in recent geologic time (the last 10,000 years) and may be subject to future movement. Also see *Fault*

Aeolian Soil - Soil transported from one area to another by the wind.

Alluvium – sand, gravel, silt, and clay deposited by rivers and streams in valley bottoms.

Alquist-Priolo Act - Zoning act passed in 1972 -- in response to the 1971 San Fernando earthquake to prevent building across the traces of active faults. More information about the Alquist-Priolo Act and Earthquake Fault Zone Maps is available from the California Geological Survey.

Cascadia Subduction Zone - Plate boundary located off the coast of Northern California (north of the Mendocino Triple Junction), Oregon and Washington. The western Gorda Plate is being subducted underneath the eastern North American Plate, resulting in earthquakes (potentially up to magnitude 9) and the volcanic activity in the Cascade Range.

Cenozoic – the latest of the four eras into which geologic time is divided; it extends from the close of the Mesozoic Era, about 65 million years ago, to the present. It is subdivided into the Tertiary and Quaternary periods.

Chert – a hard, dense microcrystalline or cryptocrystalline sedimentary rock, consisting mainly of interlocking crystals of quartz less than 30 μm in diameter; it may contain amorphous silica (opal). It has conchoidal fracture, and may be white or variously colored. Chert occurs principally as nodular or concretionary segregations, or nodules, in limestone and dolomite, and less commonly as layered deposits, or bedded chert. Bedded chert is common in the Franciscan Formation of California.

Clay – A particle of sediment less than 1/256 of a millimeter in diameter. Also, a family of platy silicate minerals that commonly from as a product of weathering.

Conglomerate – a coarse-grained clastic (composed of fragments) sedimentary rock , composed of rounded to sub-angular fragments larger than 2 mm diameter set in a fine-grained matrix of sand and/or silt and commonly cemented with calcium carbonate, iron oxide, silica, or hardened clay.

Cretaceous – the earliest period of the Mesozoic era, after the Jurassic period and before the Tertiary period of the Cenozoic era. The Cretaceous covers the time period of 135 to 65 million years before present.

Fault - A fracture or zone of fractures along which there has been displacement of the sides relative to one another, parallel to the fracture.

Fault Line - A commonly-used term that is synonymous with the surface trace of a fault. It should never be used to describe the fault itself; faults are planar, not linear, features.

Fault Strand - An individual fault of a set of closely-spaced parallel or subparallel faults of a fault system.

Franciscan Complex - An assemblage of rocks found in the Coast Range province of California, Jurassic to Cretaceous in age. Lithologically, the Franciscan is dominated by greywacke (lithic sandstone) formed by rapid erosion of a volcanic highland and then deposition of the sediments in a deep marine basin by turbidity currents. These rocks were buried quickly in a trench and subjected to low temperature and high pressure metamorphism, then were uplifted. Other associated rock types are shales, radiolarian cherts, limestone, blueschists, volcanic rocks (basalt), and ultrabasic igneous rocks; some now altered to serpentinite. This rock assemblage has been strongly sheared, folded, and faulted into lenses and blocks referred to as mélange.

G or g - the force of gravity (an acceleration of 9.78 meters/second^2). When there is an earthquake, the forces caused by the shaking can be measured as a percentage of the force of gravity, or percent g.

Geomorphology - the study of the classification, description, nature, origin, and development of landforms and their relationships to the underlying geologic structures, and the history of geologic changes as recorded by these surface features.

Gravel – all sedimentary particles (rock or mineral) larger than 2 millimeters and smaller than 64 millimeters in diameter.

Graywacke – a type of sandstone consisting of large detrital quartz and feldspar (silicate mineral), and rock fragments, in a clay matrix.

Holocene – An epoch of the Quaternary Period, from the end of the Pleistocene, approximately 8,000 years ago to the present time (see geologic time scale at end of glossary).

Liquefaction - In cohensionless (sand and silt) soil, the transformation from solid to a liquid state due to increased pore water pressure and resulting reduction of effective stress (loss of soil strength). Often induced by earthquake shaking.

Loam – a rich, permeable soil composed of a mixture of clay, silt, sand, and organic matter.

Magnitude - A general term for a measure of the strength or energy of an earthquake as determined from seismographic information.

M_w (Moment Magnitude) - The seismic moment of an earthquake, converted to a magnitude scale that roughly parallels the original Richter magnitude scale. It is an estimate of the size of a characteristic earthquake capable of occurring on a particular fault. Moment magnitude is related to the physical size of a fault surface and movement along that surface. Because it relates directly to the energy released by an earthquake, it has become the standard in modern seismology.

Marine Terrace – 1) a narrow coastal strip, formed of deposited material, sloping gently seaward. 2) A wavecut platform that has been exposed by uplift along a seacoast or by lowering of sea level; an elevated marine-cut bench.

Maximum Credible Earthquake - The MCE is the largest reasonable earthquake at a fault without regard or consideration of how often the earthquake might occur (the return period).

Mendocino Triple Junction - The Mendocino Triple Junction (MTJ) is formed where the Pacific, North American, and Juan de Fuca/Gorda plates interact, presently just to the south of Eureka in California. It has migrated northwards by about 1,000 kilometers (620 miles) over the past 29 Ma (million years), so that MTJ processes have modified the structure of the entire California margin. Also, see Cascadia Subduction Zone.

Metamorphic Rock -- Any rock derived from pre-existing rocks by chemical, mineralogical, chemical and/or structural changes, essentially in the solid state, resulting from changes in pressure, temperature, chemical environment, and shearing stress, generally at depth in the earth's crust.

Plate Tectonics - The unifying theory of geology, which hypothesizes that the Earth is broken into a mosaic of rigid lithospheric plates which move across the Earth's surface. The theory has helped to explain much in global-scale geology, including the formation of mountains and the distribution of earthquakes and volcanoes

Quaternary – The period of geologic time starting 1.6 million years ago and continuing to the present day. It is divided into two epochs: the Pleistocene and the Holocene, with the division between these two falling at about 10,000 years before the present. Late Quaternary refers to the time between 700,000 years ago and the present day. It does not necessarily exclude the Holocene epoch. Pre-Quaternary refers to any time before 1.6 million years ago.

Richter Scale- introduced in 1935 by Charles F. Richter, the Richter scale is a numerical scale for quantifying earthquake magnitude -- typically it refers to local magnitude, but for larger quakes, it often refers to surface-wave magnitude. (Currently, large quakes are generally assigned a moment magnitude, which is scaled to be similar, but is based on seismic moment, and a better measure of the *energy* of an earthquake.) Since the Richter scale is logarithmic, *very small* earthquakes (microearthquakes) can have a negative magnitude. While the scale has no theoretical upper limit, the practical upper limit, given the strength of materials in the crust, is just below 9 for local or surface-wave magnitudes (and just below 10 for moment magnitudes).

San Andreas Fault - The San Andreas Fault is a right-lateral strike-slip fault that runs roughly northwest to southeast along the western coast of North America. This is a transform boundary between the Pacific Plate and the North American tectonic plates. Many major earthquakes have been caused by slipping and ruptures of this fault. The San Andreas fault system is part of a complex system of faults, isolated segments of the East Pacific Rise, and scraps of plates lying east of the East Pacific Rise that collectively separate the North American plate from the Pacific plate. On a more generalized or global scale, the North American plate can be thought of as lying across and partly covering the northern part of the Pacific system of plates. In simplified terms, the Pacific system of plates includes three elements: a westward expanding plate (the Pacific plate), an eastward-expanding plate (the Juan de Fuca plate), and a spreading center (the East Pacific Rise) from which the plates expand as new material is added. To the north, the Pacific plate is underriding, or being subducted under, the North American plate along the Aleutian thrust.

Sand – loose particles of rock or mineral that range from 0.0625-2.0 millimeters in diameter.

Sandstone – a clastic sedimentary rock composed of grains of sand-sized particles in a matrix of silt or clay, and more or less firmly united by a cementing material (commonly silica, iron oxide, or calcium carbonate). The sand-sized particles usually consist of quartz, but other minerals or rock fragments may also be present.

Scarp - A roughly linear, cliff-like slope or face that breaks the continuity of a surface into distinct levels. Scarps are often produced by faulting, especially that which involves a significant amount of dip slip.

Sedimentary Rock: A layered rock formed by the accumulation and cementation of mineral grains transported by wind, water, or ice to the site of deposition or chemically precipitated at the depositional site.

Seiche – an oscillation of a body of water in an enclosed or semi-enclosed basin that varies in period, depending upon the physical dimensions of the basin, from a few minutes to several hours, and in height from several centimeters to a few meters.

Shale – A fine-grained detrital sedimentary rock, formed by the deposition and compaction of clay, silt, or mud. It has finely laminated (layered) structure, which gives it a fissility along which the rock splits readily, especially on weathered surfaces. Shale is well indurated, but not as hard as argillite or slate. It may be red, brown, black, or gray.

Silt - loose particles of rock or mineral that range from 0.002-0.0625 millimeters in diameter.

Slip Rate - The relative speed with which the two sides of a fault move past each other. Typically, slip rates are measured in millimeters per year. This figure applies to the motion of a fault over an extended period of time, since most faults slip only during earthquakes; in between earthquakes, the two sides are "locked." Thus, a slip rate of 6 mm/yr does not mean that two structures built directly across from each other on either side of a fault will move past each other at 0.5 millimeters per month, 6 millimeters per year, or 60 millimeters per decade. They may, for example, remain relatively "fixed" for many years until they are suddenly offset several meters in a large earthquake.

Strike-Slip Fault - A fault along which the slip motion is parallel to the strike of the fault (See diagram at end of glossary.)

Subduction Zone – an elongate region along which a crustal block descends relative to another crustal block, such as the descent of the Pacific plate beneath the Andean plate along the Andean trench.

Surface Rupture - The breakage of ground along the surface trace of a fault caused by the intersection of the fault surface area ruptured in an earthquake with the Earth's surface.

Surface Trace - The intersection of a fault plane with the surface of the Earth. It is sometimes, but not always, expressed at the surface by geomorphic evidence (ridges, valleys, saddles, etc.).

Tertiary – The older of the two geologic periods comprising the Cenozoic era, from 66.4 to 1.6 million years ago. See geologic time scale at end of glossary.

Tsunami – a tsunami is a series of sea waves generated by large earthquakes (or volcanic activity) that create vertical movement on the ocean floor. Tsunamis, once they reach the shallow coastal shelf, can reach more than 50 feet in height, move inland several hundred feet

and threaten life and property. Often, the first wave of a tsunami is not the largest. Tsunamis can travel from one side of the Pacific to the other in a day, at a velocity of 600 miles an hour in deep water. A locally generated tsunami may reach the shore within minutes.

Watershed - (1) All lands enclosed by a continuous hydrologic drainage divide and lying upslope from a specified point on a stream. Also referred to as *Water Basin* or *Drainage Basin*. (2) A ridge of relatively high land dividing two areas that are drained by different river systems.