

DRAFT

**INITIAL STUDY
NEGATIVE DECLARATION**

**Wastewater System Rehabilitation
Mendocino Woodlands State Park**



May 2016



State of California
DEPARTMENT OF PARKS AND RECREATION

Department Mission Statement: *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.*

NEGATIVE DECLARATION

PROJECT: Wastewater System Rehabilitation

LEAD AGENCY: California Department of Parks and Recreation

AVAILABILITY OF DOCUMENTS: This Initial Study/Negative Declaration is available for review at:

California Department of Parks and Recreation
Northern Service Center
One Capitol Mall – Suite 410
Sacramento, CA 95814

California Department of Parks and Recreation
Sonoma-Mendocino Coast District
25381 Steelhead Blvd.
Duncans Mills, CA 95430

Mendocino Community Library
10591 Williams Street
Mendocino, CA 95460

California Department of Parks and Recreation Internet Website.
[CEQA Notices -- Northern California Parks](#)

PROJECT DESCRIPTION:

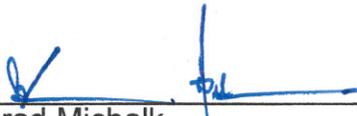
The Department of Parks and Recreation proposes to rehabilitate the antiquated, failing wastewater system at Mendocino Woodlands to comply with current Health and Safety standards and improve visitor services. An expanded Project description can be found in Chapter 2, Project Description).

A copy of the Initial Study is incorporated into this Negative Declaration. Questions or comments regarding this Initial Study/ Negative Declaration should be addressed to:

Brad Michalk
Staff Park and Recreation Specialist
California Department of Parks and Recreation
Northern Service Center
One Capitol Mall, Suite 410
Sacramento, California 95814
Fax: 916-445-8883
Email: CEQANSC@parks.ca.gov Subject: Mendocino Woodlands Wastewater

Submissions must be in writing and postmarked or received by fax or email no later than June 20, 2016. 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. Email or fax submissions must include full name and address. All comments will be included in the final environmental document for this project and become part of the public record.

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 Draft Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR. DPR, as lead agency, also confirms the project measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.


Brad Michalk
Staff Park and Recreation Specialist
Northern Service Center

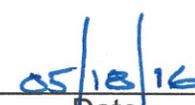

Date

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CHAPTER 1. INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Initial Study/ Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Wastewater Rehabilitation Project at Mendocino Woodlands State Park, 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 (MND) may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. Furthermore, if revisions are made to a project such that would avoid the effects and there is no substantial evidence that that the project as revised may have a significant effect on the environment, a Negative Declaration (ND) can be filed. 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/ND 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 the DPR. The contact person for the lead agency is:

Sri Rao
Project Manager
California Department of Parks and Recreation
Northern Service Center
One Capitol Mall, Suite 410
Sacramento, California 95814
Phone: 916-445-8870

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Wastewater Rehabilitation Project. Project Requirements (See Ch. 2, Project

Description) have been incorporated into the project to eliminate any potentially significant adverse impacts or reduce them to a less-than-significant level.

This document is organized as follows:

Chapter 1 - Introduction

This chapter is 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 Project Requirements

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. Project requirements 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 the natural and cultural resources, cumulative impacts and impacts to humans, as identified in the Initial Study.

Chapter 5 - Summary of Monitoring

This chapter describes the monitoring that will be used to ensure that Project Requirements are implemented as planned during project construction.

Chapter 6 - References

This chapter identifies the references and sources used in the preparation of this IS/ND.

Chapter 7 - Report Preparation

This chapter includes a list of report preparers.

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 Environmental Checklist and the supporting environmental analysis provided in this document, the proposed Wastewater Rehabilitation Project would 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, and cumulative impacts.

In accordance with §15064(f) of the CEQA Guidelines, a ND shall be prepared if the proposed project would not have a significant effect on the environment after the inclusion of project requirements 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 Project Requirements, the proposed project would have a significant effect on the environment. It is proposed that a Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2. PROJECT DESCRIPTION

2.1 INTRODUCTION

This IS/ND has been prepared by the California Department of Parks and Recreation (DPR, California State Parks or Department) to evaluate the potential environmental effects of the proposed Wastewater System Rehabilitation Project (Project) at Camps 2 & 3 in Mendocino Woodlands State Park (MWSP), located in Mendocino County, California. The proposed project would rehabilitate the existing failing wastewater system to comply with Health and Safety standards and improve visitor services.

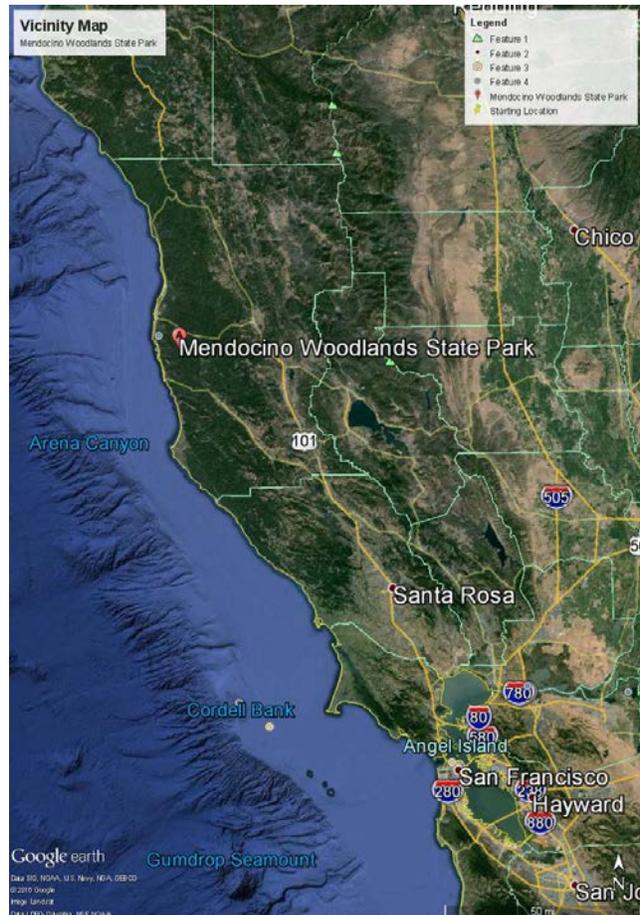
2.2 PROJECT LOCATION

Mendocino Woodlands State Park is a National Historic Landmark with its buildings constructed in the 1930s located within 720 acres of redwood trees, ferns, and glades along both sides of the Little North Fork Big River in Northern California, a few miles inland from the coastal village of Mendocino. The Mendocino Woodlands Camp is comprised of three reservation only campgrounds used for many different kinds of groups. Each camp is a separate, self-contained area with its own cabins, kitchen/dining/recreation hall, shower/toilet facilities, and campfire circle.

2.3 BACKGROUND AND NEED FOR THE PROJECT

Mendocino Woodlands State Park is operated by the Mendocino Woodlands Camp Association under a concession agreement with DPR, and is open seasonally from April to November for group camping only. The park is comprised of three campground sites (commonly referred to as Camp 1, Camp 2 and Camp 3). Each campground site has its own independent sewage collection and disposal system. The sewage system at each campground consists of gravity fed wastewater pipes and tanks that collect and carry raw sewage from restroom facilities located throughout the campground to a mainline pipe that feeds a leach field disposal system.

Camp 2 has 8 two-bed cabins and 24 four-bed cabins. These are wood structures with screened windows and a closet in each cabin. There is also the “gate house”, which has



five beds, electricity, glass windows and a fireplace; the “hill house”, which has six beds, electricity, water and a full bathroom; and 2 four-bed tent cabins. The kitchen adjoins a dining hall and the hot water shower/bathroom building is near the dining hall. The cabins are clustered in four groups with a cold water toilet facility (wash house) in each group. The maximum capacity of the camp is 130 persons.

Camp 3 has 16 four-bed tent cabins, each with a wooden floor and canvas tent over a wooden frame. The kitchen adjoins a dining hall with a large fireplace. There is a central shower/restroom. The tent cabins are clustered in two groups with a cold water toilet facility (wash house) in each group. The maximum capacity for Camp Three is 84 persons.

The wastewater collection and disposal systems at Camps 2 and 3 are antiquated and failing. Moreover, the existing sewage systems are, in some areas, located adjacent to creeks and wetlands. This project would replace the existing wastewater collection and treatment system with a new system that would no longer be subject to immediate failure, relocate them away from environmentally sensitive areas and s compliant with current codes and standards.

Without the proposed project the failing septic systems will continue to threaten environmentally sensitive areas with raw sewage. Currently the concessionaire performs routine minor maintenance and upkeep of the wastewater system.

2.4 PROJECT OBJECTIVES

The proposed Project would eliminate the existing, antiquated and failing sewage collection systems at each of these camps, and construct smaller septic systems to improve water quality in the adjacent rivers and streams and enhance public safety.

The proposed project is consistent with the mission of DPR “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.”

2.5 Project Description

DPR proposes to rehabilitate the failing wastewater systems at Camps 2 & 3 in Mendocino Woodlands State Park to comply with current Health and Safety standards and improve visitor services. Specific work would consist of the following:

Construction Access and Staging:

Access to the Project Area will be via the campground road, which extends for approximately 3 miles from Camp 1 to its terminus at Camp 2. Project construction will necessarily be restricted to the winter season to avoid nesting birds and disruption to visitors of the campground, as peak visitation occurs between Memorial Day and the Labor Day weekend. As winter is the wet season for Mendocino County, the dirt roads within the park can quickly become muddy, rutted and slippery. As such, the first phase of this

Project will entail importing and installing 12' wide x 4" deep x approximately 8765 linear feet of new compacted aggregate road base. Additionally, routine maintenance of the existing roadside ditches along each side of the road will be performed to ensure its proper drainage function. Contractor will be required to perform work in accordance with SWPPP requirements and DPR BMPs to prevent erosion and soil loss.

Access for 2 locations in Camp 2 requires crossing the Little North Fork of the Big River in separate locations. To facilitate moving construction equipment into these areas, two temporary crossings will be installed. The crossings will span from road surface to road surface and all components will be outside the mean high water mark, as defined by the U.S. Army Corps of Engineers (USACE); no construction access will be permitted during storm events.

Four separate construction staging areas totaling 4655 square feet will be provided in Camp 2, while Camp 3 will have two construction staging areas comprising a total of 4200 square feet. All staging areas will be located on previously disturbed, hardened soil.

Demolition and Tree Removal

Many of the existing facilities (e.g. pipelines, septic tanks, etc.) will be abandoned in place so as to minimize disturbance to tree roots and subsurface cultural resources. This entails removing and flushing contents of the tanks and pipes and backfilling tanks with sand.

There are several exceptions, however, where the existing facilities will have to be removed. They include locations where the new facilities will be installed in the location of the existing facilities. In Camp 2, disposal area 4, the existing leach field and PVC risers will be removed as will the existing septic tanks adjacent to Wash Houses #s 2 and 4.

The existing wastewater pipeline in Camp 2 that crosses the Little North Fork of the Big River near Wash House #3 will be flushed with water, removed by hand above the stream bed and bank, filled with material approved by the State's Representative, and then capped. No heavy equipment will be allowed in the stream channel.

The project was designed to replace leach fields within the existing leach field footprints if possible, so as to minimize tree removal. In some instances however, the existing leach field sites are located adjacent to a wetland area or creek, and thus relocation is necessary. To facilitate this, seven redwood trees between 9" and 36" dbh (diameter at breast height) and three Douglas-fir trees between 12" and 17" dbh will be removed at Camp 2, and four redwoods between 15" and 36" dbh will be removed from Camp 3. A faerie ring or cluster of approximately 10 trees will be avoided at Camp 3 to install a leach field. The new leach field sites will be designed to avoid impacts to wetland and stream areas.

Tank Installation:

Septic, pump and overflow tanks will be installed in both campground sites. Tanks generally range in size from 1500 to 5000 gallons in capacity depending on usage and engineering requirements. There are several restroom facility accommodations located

throughout the network of buildings and large campground area. It is anticipated six tanks (four 1500 gallon concrete septic tanks and two 8000 gallon fiberglass anaerobic baffled tanks for 16000 gallon capacity, will be installed at Camp 2 and five tanks (one 3000 gallon concrete graywater septic tank, two 4000 gallon fiberglass anaerobic baffled reactor tanks for 8000 gallon tank capacity, one 5000 gallon concrete pump tank and one 5000 gallon concrete septic tank) will be installed at Camp 3. One grease interceptor tank (2000 gallons) and one grey water tank will be installed at Camp 2 and one grey water septic tank (3,000 gallons) and one grease interceptor tank (3000 gallons) will be installed at Camp 3.

Tanks will be installed below grade and require excavation with maximum dimensions of 8 feet wide x 18 feet long x 10 feet deep for most of the septic tanks. The anaerobic Baffled Reactor consisting of 2 septic tanks at Camp 2 will require excavation with maximum dimensions of 12 feet wide by 30 feet long by 12 feet deep. The anaerobic Baffled Reactor consisting of 2 septic tanks at Camp 3 and will require excavation with maximum dimensions of 10 feet wide by 20 feet long by 10 feet deep. A new pump tank at Camp 3 will require excavation with maximum dimensions of 10 feet wide by 20 feet long by 10 feet deep.

Manhole lid openings approximately 24 inches in diameter will be visible at ground level. It is anticipated that a small excavator will be used in excavating the holes where the tanks are to be situated. Existing abandoned tanks will be flushed and filled with sand.

Pipe Network Installation:

A network of pipes will be installed throughout each campground site. Typically SDR (Standard Dimension Ratio) 35 PVC Sewer Pipe will be used for gravity fed lines. The pipe will range in diameter from 4 to 6 inches. Schedule 40 PVC pipe will be used for the force main pipe and will typically vary in size from 1.5 to 3 inches in diameter. In both cases, the typical trench width will be 2 feet with a varying maximum depth of approximately 5 feet. While dependent on engineering feasibility, pipe installation will generally be located in or adjacent to the previously disturbed existing sanitary sewer pipe and in established roadways within the campground. The pipe alignment will be designed to avoid as much as is feasible natural obstructions such as roots in gravity feeding to the force main lines. New pipe will be placed in the same location as the existing failing pipe after the failing pipe has been removed. It is anticipated a trenching machine will be used to excavate for placement of the pipe. Hand digging will need to take place in areas with sensitive resources, as identified in Table 2.2 Project Requirements and where there are natural obstructions that also interfere with the use of heavy equipment. Some trenches could be dug by a mini excavator if practical.

Approximately 225 feet of existing potable water distribution lines will need to be relocated at Camp3 to make way for the new sewer lines. The new location of the water lines will be near the existing lines but avoid the trench of the sewer line and avoid any tree cutting. The installation trench for the new water line will be approximately 2 feet wide and a maximum of 5 feet deep.

Lift Stations:

Lift stations are pumps situated within pump tanks and are located as necessary to move raw water sewage through the collection and distribution system to the leach field facility. One lift station will be necessary at both Camp 2 and Camp 3. For dimensions on ground disturbance, see preceding section relating to tank installation.

Electrical Power:

Each of the lift stations will require electrical power service. Electrical conduit will be installed from the PG&E metered power source to the corresponding electrical panel that will be above ground and located adjacent to the lift station and the corresponding tank housing the pump. At Camp 2, lines will run from the existing office building area to the pump in the anaerobic baffled reactor approximately 150 feet and replace the conduit between (e) panel 13A to (e) panel 13C. At Camp 3 lines will run from the dining hall to the anaerobic baffled reactor, approximately 100 feet. Trenching for placement of electrical conduit and cable will be approximately 36 inches deep and 24 inches wide.

The electrical panels will be housed in a small wooden enclosure. The wooden structures contemplated for housing the electrical panels for the lift station will be approximately four feet wide by four feet deep and a height of 8 feet. The intent of the wood enclosure is to protect the electrical panel from inclement weather and also to protect the existing view shed. The aesthetic look of the wooden enclosures is intended to be consistent with the general theme and culture of Mendocino Woodlands State Park without any potential for confusion as historic structures.

Leach Field Installation:

Leach fields will be installed as necessary to dispose of the collected raw sewage from the campgrounds. Leach fields involve the installation of 1.5 inch diameter perforated pipe sections in trenches filled with drain rock. The trenches are approximately 4 feet deep and 3 feet wide, and approximately 1200 linear feet will be constructed at Camp 2 and approximately 720 linear feet at Camp 3.

Grading Manly Gulch Project:

There are several leach fields servicing the collections and disposal system for Camp 3. One of the leach fields is susceptible to flooding. The flooding is a result of past road improvements that rerouted an adjacent creek. The design of the Manly Gulch project is underway and serves to perform re-grading at and around the creek and around the leach field to divert the water away and eliminate flooding. The project also calls for a small bridge structure to allow the creek to flow underneath and past the road.

Diversion of the creek will return the waterway alignment back to its natural course, prior to the installation of the road. It will also prevent future flooding of the leach field.

2.6 PROJECT REQUIREMENTS

Under CEQA, DPR has the distinction of being considered a lead agency, a Responsible agency, and a Trustee agency. A lead agency is a public agency that has the primary responsibility for carrying out or approving a project and for implementing CEQA, and a Responsible agency is a public agency other than the lead agency that has responsibility for carrying out or approving a project and for complying with CEQA. A Trustee agency is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. With this distinction comes the responsibility to ensure actions that protect sensitive resources are always implemented on every project. Therefore, DPR maintains a list of Standard Project Requirements and a list of Specific Project Requirements that are included in project design to reduce impacts to sensitive resources.

Standard Project Requirements are actions that have been standardized statewide for the purpose of avoiding significant project-related impacts to the environment in park units. From this list, standard project requirements are assigned, as appropriate, to all projects (Table 1 below). For example, projects that include ground-disturbing activities, such as trenching, would always include standard project requirements addressing the inadvertent discovery of archaeological artifacts. However, for a project that replaces a roof on an historic structure, ground disturbance would not be necessary; therefore standard project requirements for ground disturbance would not be applicable and would not be assigned to that type of project.

Specific Project Requirements are written for, and applied to, projects based on specific actions unique to a project and/or area that are necessary to complete the project while protecting resources. For example, Morro shoulderband snail (*Helminthoglypta walkeriana*) is endemic to San Luis Obispo County so could only occur in projects within this geographic area. Therefore, the project requirement would be included in the project description that would address this specific species and would not be included in a project located in Mendocino County.

The following list of Project Requirements would be implemented during the Wastewater System Rehabilitation Project:

Table 2.1 Project Requirements

Air Quality	
SPR AIR 1:	Clean Air
	<p>All active construction areas will be watered at least twice daily during, dry, dusty conditions.</p> <ul style="list-style-type: none"> • All trucks hauling soil, sand or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements. • Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.
Biological Resources	
SPR BIO 1:	Anadromous Fish, Foothill Yellow-legged Frog, Northern Red-legged Frog, Coastal Tailed Frog, and Southern Torrent Salamander
	<ul style="list-style-type: none"> • Prior to the start of construction a DPR Environmental Scientist will conduct a training session for all construction personnel involved with the project. Training shall include sensitive resource identification information and specific measures required to protect and avoid sensitive resources. At a minimum, the training will include: (1) species description, general behavior, and ecology of listed species in or near the project area; (2) distribution and occurrence near project sites; (3) species' sensitivity to human activities; (4) legal protection; (5) penalties for violation of State and or Federal laws; (6) reporting requirements; and (7) project conservation measures. Handouts with photos of all species will be provided to construction personnel. • For northern red-legged frog only, a DPR-approved biological monitor will conduct a visual inspection of the construction zone for northern red-legged frog prior to the start of work each morning or as directed by a DPR Environmental Scientist. • If a northern red-legged frog is found, then start of work at this location will be delayed until the frog moves out of the site on its own accord, or is relocated to a suitable location outside of the project area by the DPR-approved biological monitor, as directed by a DPR Environmental Scientist. • Temporary bridges required for site access will either be installed in one piece or will be constructed onsite and must span the top of stream banks so as to avoid disturbing the banks and/or streambeds. No material will be allowed to fall or otherwise contact the stream channel. • No machinery will be allowed in the stream channel for removal of pipes. Only the minimum of construction personnel and hand tools necessary to accomplish this task will be allowed.
SPR BIO 2:	Raptors and Migratory Birds
	<p>If construction-related activities are conducted between February 1 and August 31 then focused surveys for nesting migratory birds and raptor species conducted by a DPR-approved biologist before construction activities occur in these months to identify any active nests.</p>

	<ul style="list-style-type: none"> ▪ Surveys for active raptor nests will be conducted within a 500-foot radius of the project area no more than 7 days prior to the beginning of construction. If nesting raptors are found, no construction activities will occur within up to a 500-foot radius of the nest tree until the young have fledged and the young will no longer be impacted by project activities, as determined by the DPR-approved biologist. Surveys for active migratory bird nests will be conducted within a 150-foot radius of the project no more than 7 days prior to the beginning of construction. If active nests are located, no construction activities will occur within up to a 150-foot radius of the nest tree until the young have fledged and the young will no longer be impacted by project activities, as determined by the DPR-approved biologist.
SPR BIO 3:	Sensitive Bat Species
	<ul style="list-style-type: none"> ▪ Humane one-way exclusion that would allow bats to exit but not return to the structure will be installed on the pipes extending from the dam spillway in mid-September prior to the year of dam demolition. After allowing enough time (approximately one week) for any bats to escape, permanent exclusion will be installed in the pipes.
BIO 4:	Tree Removal and Root Protection (Sensitive Natural Plant Communities)
	<ul style="list-style-type: none"> • No tree removal will occur between February 1 and September 31 to avoid the bat maternity and bird breeding seasons. Any additional trees proposed for removal (other than those identified in the construction plans) will be subject to approval by a DPR Environmental Scientist. Periodic monitoring of construction activities (e.g. tree removal) may be conducted at the discretion of a DPR Environmental Scientist. • Staging of construction equipment and project materials will occur on paved surfaces or previously hardened surfaces to minimize soil and duff compaction of native habitat. • Where possible all ground disturbing activities will occur outside of the Root Health Zone (RHZ = 5 times the Diameter at Breast Height (dbh)) of all trees with a dbh of 18 inches or greater. If construction activities that could potentially damage trees (as determined by a DPR Environmental Scientist) are approved within the RHZ of tree trunks, then trees not scheduled for removal will be protected prior to the start of construction using the tree trunk protection measure as identified in Section 015639 of the Project Manual). Tree trunk and root protection will consist of a wood guard that is constructed from rough sawn 2"x6"x8' pieces of lumber that are placed at 12" on center and then attached vertically around the trunk of the tree using 3" wide nylon straps. Lumber shall extend to the natural base of the tree and must protect any exposed roots. A DPR Environmental Scientist will check this during construction, at their discretion. Wood guards will be removed when construction is complete. • At his/her discretion a DPR Environmental Scientist will monitor all excavations for proposed new underground storage tanks and lift stations.

	<ul style="list-style-type: none"> • In work locations where trenching is scheduled within the RHZ zone of trees with a dbh of 18 inches or greater then hand excavation will be required to avoid severing roots that are larger than 1 inch in diameter. It is permissible to tunnel under the RHZ at a depth greater than 2 feet. It is also permissible to remove soil by hand from roots. • In work locations where excavation for new tanks/lift stations is scheduled to occur within the RHZ zone of trees with a dbh of 18 inches or greater than the final tank location will be subject to approval of State's Representative, following consultation with a DPR Environmental Scientist so as to avoid root damage or injury. If avoidance is not possible than no roots 1 inch or greater in diameter will be severed until approval is given by a DPR Environmental Scientist. • Any roots that need to be severed will be subject to the following specifications: <ol style="list-style-type: none"> 1. Cut roots manually by cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots. 2. Temporarily support and protect roots from damage until they are permanently covered with soil. 3. Cover exposed roots with burlap and water regularly. 4. Backfill as soon as possible according to requirements in Section 312000 of the contract. • The contractor shall provide a biological monitor to observe construction activities in the RHZ of trees (as identified on construction plans) to insure that all root protection measures identified above are followed. The contractor shall submit names and credentials of qualified individuals to the State's Representative for review and approval by a DPR Environmental Scientist at least 14 days prior to the start of project operations. Contractor will not commence surface disturbing activities until a biological monitor has been selected. • No construction-related activities will be allowed outside of delineated work areas unless authorized in advance by a DPR Environmental Scientist. • Periodic monitoring of construction activities (e.g. tree removal) may be conducted at the discretion of a DPR Environmental Scientist.
SPR BIO 5:	Sudden Oak Death
	<ul style="list-style-type: none"> • All project/maintenance activities that could spread the pathogen <i>Phytophthora ramorum</i> to new locations will be subject to Best Management Practices (BMPs) developed by the California Oak Mortality Task Force and available online at http://www.suddenoakdeath.org. • Sudden Oak Death BMPs include but are not limited to: <ol style="list-style-type: none"> 1. Inform personnel that they are working in a Sudden Oak Death (SOD)-infested area, unauthorized movement of plant material is prohibited, and the intent of these prevention measures is to prevent spread of SOD. 2. Before leaving project area, remove or wash-off accumulations of plant debris, soil, and mud from shoes, boots, vehicles, and heavy equipment, etc. Clean with denatured alcohol or similar

	materials.
Cultural Resources	
PSR CULT 1:	Project Changes
	Changes in the project design including but not limited to addition of land, changes in location (trenches/pipes, tanks, leach fields, etc.) or changes in construction will require prior approval by the DPR-Archeologist.
PSR CULT 2:	Preconstruction Meeting
	<ul style="list-style-type: none"> • All staging areas will be limited to the hardened surfaces of roads and established parking areas unless reviewed and approved by a DPR-qualified archaeologist. • The use of large mechanized equipment shall be restricted to existing road alignments and parking areas. Where use of mechanized equipment is necessary within the vicinity of historic structures, temporary orange barrier fencing shall be installed with T-posts around the buildings/structures. The fencing must have a buffer of approximately 18 – 24 inches between the building/structure and the fencing. • Equipment use off the hardened surfaces of roads and parking areas shall be avoided to avoid features associated with CCC development. Ingress/Egress Into specific work locations off the main park road will be approved by a DPR-qualified archaeologist. • Ground disturbance will not expand beyond the existing footprint of the path (trail). Suitable equipment will be employed to accomplish this. Once trenching is complete, the paths (trails) will be rehabilitated to their existing conditions prior to construction. • Improvements to historic roads and paths of travel (grading, widening, tree removal, etc.) will not be allowed to access work areas.
SPR CULT 3:	Archaeological Monitoring
	A DPR-archeologist familiar with the project site's cultural/historic resources will monitor all construction activities at his/her discretion.
SPR CULT 4:	Inadvertent Discovery of Cultural Material
	In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flake stone, groundstone, or deposits of historic trash) are encountered during project work by anyone, the state's representative will put work on hold at that specific location and contractors will be redirected to other areas (tasks). A DPR-qualified archaeologist will record and evaluate the find, and work with the state's representative to implement avoidance, preservation, or recovery measures as appropriate to any work resuming at that specific location.
SPR CULT 5:	Archaeological Monitoring
	A DPR archaeologist may monitor ground-disturbing activities in areas identified with a moderate to high degree of archaeological sensitivity. These locations will be coordinated with the project and construction managers. Other archaeological monitoring needs are at the discretion of the DPR archaeologist
SPR CULT 14:	Human Remains

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

SPR HAZ 1:	Spill Prevention
	<ul style="list-style-type: none"> • Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination. • Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site. • Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but will not be limited to the following: <ul style="list-style-type: none"> ✓ A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur. ✓ A list of items required in an on-site spill kit that will be maintained throughout the life of the project. ✓ Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project. Identification of lawfully permitted or authorized disposal destinations.
SPR HAZ 2:	Rubbish
	The project area shall be kept clear of trash to avoid attracting predators. All food and garbage will be placed in sealed containers and regularly removed from the site. Following construction, any trash, debris, or rubbish remaining within the work limits shall be collected and hauled off to an appropriate facility.
SPR HAZ 3:	Fire Safety
	<ul style="list-style-type: none"> • A Fire Safety Plan will be developed by a DPR approved forester, prior to the start of construction. • Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. • Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked over asphalt, or concrete to reduce the chance of fire.

Hydrology and Water Quality

SPR HYDRO 1:	Erosion and Sediment Control and Pollution Prevention
	<ul style="list-style-type: none"> • Prior to the start of construction, DPR and/or its Contractor will prepare a Stormwater Pollution Prevention Plan (SWPPP) to cover soil loss resulting from storm water run-off and/or wind erosion, sedimentation and/or dust/particulate matter and air pollution during clearing, grading, excavation, stockpiling and reconstruction of existing facilities (e.g. involving removal and replacement). BMPs include, but are not limited to: construction activity scheduling, erosion and sediment control to protect slopes and drainage courses, mulching or hydro-seeding to stabilize disturbed soils, dust control, stockpile management and management of washout areas.
Noise	
SPR NOISE 1:	Noise Reduction
	<ul style="list-style-type: none"> • Construction activities will generally be limited to the daylight hours, Monday – Friday; however, weekend work may be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur on those days before 8:00 a.m. or after 6 p.m. • Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g. engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.

2.6 PROJECT IMPLEMENTATION

The proposed project would be implemented by a private contractor. The work would require both mechanized and manual equipment, including, but not limited to: skid steers, backhoe loaders, toters, rollers, assorted trail building hand tools and vibra-plates. Designers estimate the project will require a bifurcated construction process that will occur from late August to the end of January, over a period of two years. Equipment and material staging is proposed at parking areas and/or on hardened surfaces. During construction, partial closures of the active construction areas would be required.

Best Management Practices (BMPs) would be incorporated into this project design to ensure the natural and cultural resources in and around the project area are adequately protected during and after construction. The BMPs discussed in this document and used in the implementation of this project were obtained from the *California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook*. Temporary BMPs would be used to keep sediment on-site throughout the duration of the project; during construction, BMPs would be checked daily, maintained, and modified as needed. BMPs would be used after construction to stabilize the site and minimize erosion. The Department of Parks and Recreation has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all State Parks.

2.7 VISITATION

This project would improve the antiquated, failing wastewater system at Camps 2 & 3 in Mendocino Woodlands State Park to comply with Health and Safety standards and improve visitor services; it is not expected to increase visitation.

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

The project is consistent with the DPR mission and its management directives aimed at preserving the state's extraordinary biological diversity and protecting valued natural and cultural resources. The proposed project is consistent with local plans and policies currently in effect.

2.9 DISCRETIONARY APPROVALS

DPR performs all necessary reviews and acquires all permits necessary prior to implementing any project component that may require regulatory review. Internal document reviews include compliance with Public Resources Code § 5024.

California State Parks retains approval authority for the proposed Wastewater System Rehabilitation at Mendocino Woodlands SP and requires no additional approval or permits from any other government agencies.

2.10 RELATED PROJECTS

DPR often has other smaller maintenance programs, minor restoration, and interpretive projects planned for a park unit. Any projects proposed in areas that have not been previously discussed would occur under a separate CEQA document.

CHAPTER 3. – ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION	
1. Project Title:	Wastewater System Rehabilitation Project
2. Lead Agency Name & Address:	California Department of Parks & Recreation
3. Contact Person & Phone Number	Sri Rao, 916.445.8665
4. Project Location:	Mendocino Woodlands State Park
5. Project Sponsor & Address:	California Department of Parks & Recreation Northern Service Center One Capitol Mall, Suite 410 Sacramento, California 95814
6. General Plan Designation:	State Park
7. Description of Project:	The Department of Parks and Recreation proposes to rehabilitate the antiquated, failing wastewater systems at Mendocino Woodlands' Camps 2 and 3 to comply with current Health and Safety standards and improve visitor services.
8. Surrounding Land Use & Setting:	Refer to Chapter 3 of this Document (Section IX, Land Use Planning)
9. Approval Required from Other Public Agencies	Refer to Chapter 2 of this document (Section 2.9 Discretionary Approvals)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

If implemented as written, this project could result in a "Potentially Significant Impact" involving at least one area of the environmental factors checked below, as indicated in the Initial Study on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None |

DETERMINATION

On the basis of this initial evaluation:

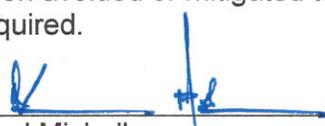
I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

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 will analyze only the impacts not sufficiently addressed in previous documents.

I find although the proposed project could have had a significant effect on the environment, 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. Therefore, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required.


Brad Michalk
Staff Park and Recreation Specialist

05/18/16
Date

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 fall 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 IER (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). References to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
 - a) The criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question and
 - b) The mitigation measures, if any, prescribed to reduce the impact below the level of significance.

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I. AESTHETICS

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park is a National Historic Landmark located approximately 7 miles east of the town of Mendocino (Department of Landscape Architecture, 2011) set in a second growth redwood forest. The park is only one of two remaining Recreational Demonstration Areas (RDA) established by the Civilian Conservation Corps during the New Deal Era. The purpose of the RDAs was to retire submarginal agricultural lands and develop them for recreational use. Mendocino Woodlands, established on the abandoned town site of Boyles was originally planned as a youth summer camp site where youth from the more urban and industrial cities could experience nature.

Construction of Camp 1 began in 1936, and by 1943, all three camps were completed. Today, Mendocino Woodlands remains virtually unaltered from the day of its completion. The redwoods in the park are primarily second and third-growth with a lush understory of Madrone, Rhododendron, ferns and orchids (Carr & James, 1997).

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Aesthetics is based on criteria **I a – d**, described in the environmental checklist above.

DISCUSSION

- a) With the exception of structures built to enclose electrical panels needed to power the new lift stations, new manhole covers for the new tanks and lift stations, and the 18

trees 6” or greater in diameter at breast height that will need to be removed to accommodate the new leach fields, the remaining proposed work will be underground and not visible to park visitors. While the new structures will be built to be compatible with the surrounding structures, weathering will allow for greater compatibility as time passes. Less than Significant Impact.

- b) As stated above the majority of the work, once completed, will be underground and not visible to park visitors. There will be no substantial damage to scenic resources and the project area is not located along, or near, a state scenic highway. No Impact.
- c) The project, upon completion, will improve the character of the site by eliminating the chances for effluent to spill into the parks’ waterways.
- d) There are no new sources of light proposed as part of this project. No Impact.

II. AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL SETTING

MWSP consists of 720 acres of second and third-growth redwoods, located in the Jackson State Forest, nine miles inland from the town of Mendocino. Approximately 46 percent of Mendocino County is in National Forest land managed by the U.S. Forest Service or in Timber Protection Zones (County, 2009). Timber harvest in the county in 2007 was 103,031,000 board feet with a market value of \$74,594,400. Mendocino County was ranked fifth among California counties in 2006 in timber harvest yet it ranked second in total timber value, due to the high value of redwood (County, 2009). The California Department of Forestry and Fire Protection is not allowed to harvest timber from the Jackson Demonstration State Forest, in which the park is located (County, 2009). The forests of Mendocino County have other uses and values, including recreation, tourism, watershed protection, habitat conservation, special status species recovery areas, harvesting of non-timber resources and carbon sequestration (County, 2009).

The park is zoned "Recreation" by Mendocino County and does not support any agricultural operations or farmland (California, State of, 2015). DPR lands cannot be used for commercial agricultural or forestry purposes. The project area encompasses no land under a Williamson Act contract and no Williamson Act land is located in the vicinity of the project.

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 by the state of California in response to a critical need for assessing the location, quality, and quantity of agricultural lands and conversion of these lands over time. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources (California Department of Conservation, 2007).

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965. This voluntary program provides a tax incentive to owners of agricultural properties who agree to maintain their land in agricultural preserves for agricultural use. The purpose of the Williamson Act is to encourage participating property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses. The Williamson Act applies to both prime and non-prime agricultural lands.

The Legislature declared "forest resources and timberlands of the state are among the most valuable of the natural resources of the state and that such resources furnish high-quality timber, recreational opportunities, and aesthetic enjoyment while providing watershed protection and maintaining fisheries and wildlife." Forest resources also act to sequester greenhouse gas emissions.

Commercial timber lands are afforded protection through the state's Forest Taxation Reform Act of 1976, which mandates the creation of timberland preserve zones (TPZ) to restrict and protect commercial timber resources. A TPZ is a 10-year restriction on the use of land, and will replace the use of agricultural preserves (Williamson Act contracts) on timberland.

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 Calif. Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*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.

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Aesthetics is based on criteria **II a – d**, described in the environmental checklist above.

DISCUSSION

a) As stated in the Environmental Setting above, Mendocino woodlands SP does not support any agricultural operations. All land within Mendocino Woodlands SP is zoned as non-agricultural and natural vegetation as defined by the California Department of Conservation (CDC 2015). The nearest prime agricultural land is located north of Comptche adjacent to the north fork of the Albion River, approximately 4 ¼ miles from the eastern boundary of the park. This project would have no impact on any category of California Farmland, conflict with any existing zoning for agricultural use or Williamson Act contract. No Impact.

- b) Mendocino Woodlands SP does not support and is not zoned for timber production. The project would take place entirely within Mendocino Woodlands and would have no impact on any timber zoning or cause rezoning of any land. No Impact.
- c) This is a wastewater upgrade project and will not result in the loss of or conversion of any forest land. No Impact.
- d) As the project involves upgrades to an existing wastewater system there would be no conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact.

III. AIR QUALITY

ENVIRONMENTAL SETTING

MWSP is located along the north coast of California in approximately 720 acres of second and third-growth redwoods. The proposed project site, located at Camps 2 & 3, is located in the North Coast Air Basin which consists of three air districts, the North Coast Unified Air Quality Management District (NCUAQMD), the Mendocino County Air Quality Management District (MCAQMD), and the Northern Sonoma County Air Pollution Control District. The proposed Project occurs in the MCAQMD.

The entire North Coast Air Basin is currently designated as nonattainment for the State 24-hour PM10 standard. The MCAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate (PM10) standard (NCUAQMD, 2013). PM10 is defined as coarse particulate matter measuring 10 microns or less in diameter.

The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere, for example reactive organic gasses (ROG) and nitrogen oxides (NOX) combine to form ground level ozone, or smog.

The Federal Clean Air Act of 1977 established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS).

The MCAQMD administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The MCAQMD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations.

Climate

Mendocino County, California, on average gets 46 inches of rain per year. The number of days with any measurable precipitation is 89. On average, there are 216 sunny days per year. The July high temperature is around 81 degrees while the January low is 36.

EPA Region IX: Serves Arizona, California, Hawaii, Nevada, Pacific Islands and 148 Tribal Nations. The EPA sets national standards that states and tribes enforce through their own regulations.

Air Basin: The North Coast Air Basin is comprised of three air districts, the NCUAQMD, the MCAQMD, and the NSCAPCD. (North Coast Air Basin)

Clean Air Act requires the EPA to set Ambient Air Quality Standards¹ for six common air pollutants. These commonly found air pollutants are found all over the United States. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These pollutants can harm your health and the environment, and cause property damage. Of these six pollutants, particle pollution and ground-level ozone are the most widespread health threats. The EPA calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels.

Health-based ambient air quality standards set by the California Air Resources Board (CARB) identify outdoor pollutant levels that are considered safe for the public, including those most at risk of adverse effects with exposure to air pollution, such as children, the elderly, and people who are active outdoors. The ARB has set standards for eight "traditional" pollutants, such as ozone and particulate matter. In addition to setting standards, the ARB identifies other air pollutants as toxic air contaminants (toxics) - pollutants that may cause serious effects with long-term exposure, such as cancer, when exposure level is low. Both traditional pollutants and toxic air contaminants are measured statewide to assess programs for cleaning the air. The ARB works with local air pollution control districts to reduce air pollution from all sources.

Mendocino County Air Quality Management District

Criteria Pollutants

Criteria air pollutants include the six most common air pollutants in the U.S.: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. Congress has focused regulatory attention on these six pollutants because they endanger public health and the environment, are widespread throughout the U.S., and come from a variety of sources. Criteria air pollutants are responsible for many adverse effects on human health, causing thousands of cases of premature mortality and tens of thousands of emergency room visits annually. These pollutants also cause acid rain and can significantly harm ecosystems and the built environment.

The EPA's criteria air pollutant emissions inventory indicates releases of all criteria air pollutants except nitrogen oxides have been in decline since the passage of the 1970 Clean Air Act. Overall air quality across the country has improved significantly since the 1980s. These improvements, however, have not eliminated air quality problems, and major

¹ Ambient air quality standards (AAQS) define clean air, and are established to protect even the most sensitive individuals in our communities. An air quality standard defines the maximum amount of a pollutant that can be present in outdoor air without harm to the public's health. Both the Air Resources Board (ARB) and the U.S. Environmental Protection Agency (U.S. EPA) are authorized to set ambient air quality standards

efforts to control pollution sources are still required to better ensure everyone breathes air that meets Clean Air Act standards.

Health Effects

Exposure to criteria pollutants is associated with numerous effects on human health, including increased respiratory symptoms, hospitalization for heart or lung disease, and death.

State Area Designations

CARB has established State ambient air quality standards (State standards) for ozone, suspended particulate matter (PM10 and PM2.5), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particles to identify outdoor pollutant levels considered safe for the public. After State standards are established, State law requires ARB to designate each area as attainment, nonattainment, or unclassified for each State standard. The area designations, which are based on the most recent available data, indicate the healthfulness of air quality throughout the State.

There are three basic designation categories and one sub-category for State Area Designations.

- **Attainment:** the category given to an area with no violations in the last three years.
- **Nonattainment:** the category for an area has one or more violations within the last three years.
- **Nonattainment-Transitional:** a subcategory of nonattainment. For ozone, there must be three or fewer exceedances in the last year.
- **Unclassified:** the category given to an area with insufficient data.

National Designation Categories

In addition to State standards, the Federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set national ambient air quality standards for: Ozone, Particulate Matter, Carbon Monoxide, Nitrogen Oxides, Sulfur Dioxide and Lead.

There are four basic designation categories for Federal Clean Air Act:

- **Attainment:** status of any area that meets the national primary or secondary ambient air quality standard for the pollutant.
- **Nonattainment:** status of any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
- **Unclassifiable:** status of any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Table 3.1 Mendocino County Air Attainment Status

Criteria Pollutant	State	Federal
Ozone	Attainment	Unclassified / Attainment
Suspended Particulates (PM10)	Attainment	Unclassified
Fine Particulates (PM2.5)	Unclassified	Unclassified / Attainment
Carbon Monoxide	Unclassified	Unclassified / Attainment
Nitrogen Dioxide	Attainment	Unclassified / Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Standard
Lead (particulate)	Attainment	No Federal Standard
Hydrogen Sulfate	Unclassified	No Federal Standard
Visibility reducing particles	Unclassified	No Federal Standard

Criteria Pollutants Classified as Non-Attainment

Particulate matter (PM10) pollution consists of very small liquid and solid particles floating in the air. Of greatest concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. These particles are less than 10 microns in diameter and include fine particulate matter known as PM2.5. Sources of PM10 include motor vehicles, wood-burning stoves and fireplaces, dust from construction, landfills and agriculture, wildfires and brush/waste burning, and windblown dust from open lands.

There are two types of Ozone (O3): 1) ground-level or “bad” ozone, a pollutant produced close to the ground where people work and play, and 2) stratospheric or “good” ozone, a layer high up in the atmosphere where it forms a protective layer that shields the earth from ultraviolet light. Ground-level ozone is formed when pollutants emitted by motor vehicles, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant and can trigger coughing, throat irritation and congestion, in turn worsening asthma, bronchitis and emphysema.

Air Quality Monitoring

The monitoring stations in the state are operated by the CARB, by local Air Pollution Control Districts (APCD) or AQMDs, by private contractors, and by the National Park Service (NPS). Collectively, these entities operate more than 250 air monitoring stations in California. The CARB operates air monitoring stations throughout the State. Most of the local districts operate air monitoring stations within their jurisdictions. In some portions of the State, private contractors operate monitoring stations under contract with businesses that are required by permit conditions to conduct monitoring. The NPS also operates a number of air monitoring stations in the National Parks and National Monuments throughout California (California Air Resources Board). Four active monitoring stations are located in Mendocino County: Ukiah - Gobbi Street O₃; Ukiah – Library BAMP_{PM2.5}; Willits - Justice Center BAMP_{PM2.5} and Fort Bragg - 300 Dana Street, BAMP_{PM10} (California Air Resources Board, 2014);

Sensitive Receptors

Sensitive receptors include individuals as well as groups relating to specific land uses; some receptors are considered more sensitive than others to air pollutants. Greater than average sensitivity results from pre-existing health problems, developmental age, proximity to emissions source, and/or duration of exposure to air pollutants. The ARB has identified the following groups who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that could contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, long-term care facilities, schools, and parks.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations (e.g. children, the elderly, individuals with compromised respiratory or immune systems)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Air Quality is based on criteria **III a – e**, described in the environmental checklist above.

DISCUSSION

- a) The MCAQMD has not been required by (USEPA) to develop a regional air quality plan. There is no State Implementation Plan or Clean Air Plan for the District. Therefore, the Project would not conflict with the implementation of any applicable air quality management plans. Less than significant impact.
- b) The air emissions potentially associated with the Project would be temporary emission of fugitive dust and exhaust from equipment and vehicles used during Project construction. No long-term sources of emissions from the project would result.

As stated above, the Project is located within the NSCAPCD, which is currently designated as in attainment for state and federal ambient air quality standards, except the state standard for ozone. Exhaust emissions generated during Project construction would incrementally increase the release of air pollutants, which could contribute to the formation of ozone. In addition, Project activities would result in temporary emissions of PM10, PM2.5, oxides of nitrogen (NOX) and sulfur (SOX), and diesel exhaust. To reduce the impact of these emissions during construction and operations, the Project will implement feasible and standard emission control measures as recommended by the MCAQMD. Less than significant impact.

- c) Although the Project would result in the emission of ozone-precursor compounds, the emissions would be from mobile sources (i.e., construction equipment and vehicles). Due to the expected construction duration and the expected small number of internal combustion engines, it is unlikely project construction would exceed the thresholds set by the MCAQMD. Less than significant impact.
- d) Sensitive receptors relative to air quality conditions are generally considered groups that have a greater-than-average sensitivity to adverse health effects related to air pollutants. Typical sensitive receptors include schools, hospitals, and nursing care facilities. Residences or residential areas can also be considered sensitive receptors if subjected to relatively long duration of exposure to emissions from specific sources.

The Project Site is located within a sparsely populated area of west-central Mendocino County. In general, Project activities would not be located adjacent to any known sensitive receptors. The closest existing residence is in excess of one mile to the Project Site boundary.

Due to their distance from site operations, it is unlikely on-site construction activities would adversely affect sensitive receptors. However, emissions related to vehicle trips transporting people, equipment and products to and from the site (i.e., fugitive dust, vehicle emissions, and diesel particulates) could adversely affect the health of sensitive receptors along the site access roads and those living or recreating in the vicinity of the site. Implementation of **Standard Project Requirement AIR 1: Clean Air** will ensure that impacts on air quality will remain less than significant.

SPR AIR 1: Clean Air

All active construction areas will be watered at least twice daily during, dry, dusty conditions.

- **All trucks hauling soil, sand or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.**
- **All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements.**
- **Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.**

e) Construction activities involve the use of construction equipment, which have distinctive odors. Odors are considered less than significant because of the limited number of the public affected in the rural area of the project and the short-term nature of the emissions. Less Than Significant Impact.

IV. BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

MWSP is a 720-acre park unit in Mendocino County that includes an approximately 3.5-mile reach of the Little North Fork Big River, an anadromous fish-bearing stream. The closest community is the town of Mendocino approximately 5 miles west of the park unit.

Vegetation/Habitat

More than 95% of MWSP and the project areas support a second growth *Sequoia sempervirens* Forest Alliance vegetation type, as defined in Sawyer et al (2009), which conforms to The U.S. National Vegetation Classification Standard adopted by the federal government (USNVC 2015). This dense conifer-dominated forest developed following clear-cutting of the area in the early 1900's. Following logging, portions of what is now park property were maintained as open space into the 1930's to support agricultural use.

Redwood (*Sequoia sempervirens*) dominates the canopy of the *Sequoia sempervirens* Forest Alliance, which also includes Douglas-fir (*Pseudotsuga menziesii*), tanbark oak (*Notholithocarpus densiflorus*), and Pacific madrone (*Arbutus menziesii*). The shrub and herbaceous layer consists of California huckleberry (*Vaccinium ovatum*), western sword fern (*Polystichum munitum*), California blackberry (*Rubus ursinus*), California hazelnut (*Corylus cornuta* var. *californica*), redwood sorrel (*Oxalis oregona*), trail plant (*Adenocaulon bicolor*), thimbleberry (*Rubus parviflorus*), wild ginger (*Asarum caudatum*), and poison oak (*Toxicodendron diversilobum*).

Bordering the Little North Fork of Big River and immediately adjacent to portions of the project area is a narrow band of poorly developed riparian vegetation dominated by willow (*Salix* sp.) and red alder (*Alnus rubra*). Portions of both Camps 2 and 3 project areas border or extend into this riparian community.

SPECIAL-STATUS SPECIES

Sensitive biological resources that occur or potentially occur in or near the proposed project site are discussed in this section. Special-status species (sensitive 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 US Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) as Species of Special Concern (SSC), animals identified by CDFG as Fully Protected or Protected (FP, P), and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered. Also included are habitats that are considered critical for the survival of a listed species or have special value for wildlife species and plant communities that are unique or of limited distribution.

All special-status species and their habitats were evaluated for potential impacts from the proposed Wastewater Improvements Project at Camps 2 and 3 at MWSP. Existing available data was collected and reviewed to determine the proximity of special status plants, animals, and their habitats to the project area. Queries of the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) (CDFW 2015) and the U.S. Fish and Wildlife Service (USFWS 2015) were conducted for special-status species and habitats within the Mathison Peak 7½ -minute United States Geological Society (USGS) quadrangle map.

A standard nine quad query of the CNPS's On-line Inventory, Eighth Edition (CNPS 2015) was conducted for special-status plant species within the Mathison Peak and eight surrounding 7½ -minute USGS quadrangle maps (Fort Bragg, Noyo Hill, Northspur, Mendocino, Comptche, Navarro, Elk, Albion).

Special-status plant and animal species are described below along with their potential to occur within the project area and the potential impacts to these species from project implementation.

Plant Species

Seventy special status species have been identified by the CNDDDB, CNPS, and U.S. Fish and Wildlife Service (USFWS) as occurring or having a potential to occur within the Mathison Peak and eight surrounding 7½ -minute USGS quadrangle maps, as identified above.

Within the project footprint, habitat is extremely limited for any special status plant species; however, marginally to moderately suitable habitat is available for 11 species.

Special-Status Plant Species that are known to Occur, or Could Potentially Occur within the Project Area

California pinefoot (*Pityopus californicus*) – California pinefoot is a CNPS Rare Plant Rank 4.2 perennial herb (achlorophyllous) that occurs at elevations from approximately 50 feet to 7300 feet above sea level (amsl). This species blooms from March to August. It occurs in mesic broad-leafed upland forest, lower montane coniferous forest, North Coast coniferous forest, and upper montane coniferous forest habitats of several California counties, including Mendocino, Humboldt, and Del Norte counties. Suitable habitat for this species occurs within the project area.

Fringed false-hellebore (*Veratrum fimbriatum*) - Fringed false-hellebore is a CNPS Rare Plant Rank 4.3 perennial herb that inhabits mesic locations in bogs and fens, coastal scrub, meadows and seeps, and North Coast coniferous forest habitats of Mendocino and Sonoma counties. This species occurs at elevations from approximately 10 feet to 980 feet amsl and blooms from July to September. Suitable habitat for this species occurs in wet locations adjacent to but not within the project area.

Great burnet (*Sanguisorba officinalis*) – Great burnet is a CNPS Rare Plant Rank 2B.2 perennial rhizomatous herb that inhabits bogs and fens, broadleaved upland forest, meadows and seeps, marshes and swamps, North Coast coniferous forest, and riparian forest habitats in several California counties, including Mendocino County. This species occurs at elevations from approximately 200 feet to 4600 feet amsl and blooms from July to October. Marginally to moderately suitable habitat for this species occurs within the project area.

Humboldt County milk-vetch (*Astragalus agnicidus*) – Humboldt County milk-vetch is a CNPS Rare Plant Rank 1B.2 perennial herb that blooms from April to September. It inhabits openings, disturbed areas, and sometimes roadsides in broadleaved upland forest and North Coast coniferous forest habitats of Humboldt and Mendocino counties at elevations from approximately 590 feet to 2625 feet amsl. Marginally suitable habitat occurs within the project area for this species.

Leafy-stemmed mitrewort (*Mitellastrum caulescens*) – Leafy-stemmed mitrewort is a CNPS Rare Plant Rank 4.2 perennial rhizomatous herb that inhabits mesic locations in Mendocino, Humboldt, Del Norte, Siskiyou, Tehama, and Trinity counties. It blooms from March to October and occurs in broadleaved upland forest, lower montane coniferous forest, meadows and seeps, and North Coast coniferous forest habitats from elevations of approximately 20 feet to 5600 feet amsl. Suitable habitat for this species occurs in wet locations adjacent to but not within the project area.

Maple-leaved checkerbloom (*Sidalcea malachroides*) – Maple-leaved checkerbloom is a CNPS Rare Plant Rank 4.2 perennial herb that occurs at elevations from approximately sea level to 2400 feet amsl and blooms from March to August. It inhabits broadleaved upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, and riparian woodland habitats in Del Norte, Humboldt, Mendocino, Monterey, Santa Clara, Santa Cruz, and Sonoma counties. Suitable habitat for this species occurs within the project area.

Methuselah's beard lichen (*Usnea longissima*) – Methuselah's beard lichen is a CNPS Rare Plant Rank 4.2 fructicose lichen (epiphytic) that occurs on tree branches; usually on old growth hardwoods and conifers. It is found in broadleaved upland forest and North Coast coniferous forest habitats at elevations from approximately 160 feet to 4800 feet amsl. Suitable habitat for this species occurs within the project area.

Running pine (*Lycopodium clavatum*) – Running pine is a CNPS Rare Plant Rank 4.1 perennial rhizomatous herb that inhabits lower montane coniferous forest (mesic), marshes and swamps, and North Coast coniferous forest (mesic) habitats in Sonoma, Mendocino, Humboldt and Del Norte counties. It occurs at elevations from approximately sea level to 1330 feet amsl and blooms from March to October. Suitable habitat for this species occurs in wet locations adjacent to but not in the project area.

Seacoast ragwort (*Packera bolanderi* var. *bolanderi*) – Seacoast ragwort is a CNPS Rare Plant Rank 2B.2 perennial rhizomatous herb that inhabits coastal areas of Mendocino, Humboldt and Del Norte counties. It occurs at elevations from approximately 100 feet to

2150 feet amsl and blooms from January to August. Suitable habitat for this species occurs within the project area.

Swamp harebell (*Campanula californica*) – Swamp harebell is a CNPS Rare Plant Rank 1B.2 perennial rhizomatous herb that blooms from June to October. It occurs in Santa Cruz, Sonoma, and Mendocino counties at elevations from sea level to approximately 1330 feet amsl. It inhabits several mesic habitat types, including bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps (freshwater), and North Coast coniferous forest. Marginally to moderately suitable habitat for this species occurs within the project area.

White flowered rein orchid (*Piperia candida*) – White flowered rein orchid is a CNPS Rare Plant Rank 1B.2 perennial herb that occurs at elevations from approximately 100 feet to 4300 feet amsl and blooms from March to September. It occupies broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest habitats; sometimes in locations with serpentinite. Suitable habitat for this species occurs within the project area.

Wildlife Species

Twenty-six special-status wildlife species have been identified by the CNDDDB and USFWS as occurring or having a potential to occur within the Mathison Peak and eight surrounding 7½ -minute USGS quadrangle maps. Suitable habitat is available within the park for thirty-four of these species, fifteen of which have been reported to occur in the park (Appendix 2: Special Status Wildlife Species Evaluated for Project). These thirty-four species are described below.

Special-Status Wildlife Species that are known to Occur, or Could Potentially Occur Within or Adjacent to the Project Area

FISH

Coho salmon - Central California Coast ESU (evolutionarily significant unit) (*Oncorhynchus kisutch*) – This anadromous fish species is federally listed as Endangered (NOAA Fisheries 2015a). Coho salmon spend the first part of their life cycle rearing and feeding in freshwater streams (CDFW 2015a). After one year in fresh water, the “smolts” begin migrating downstream to the ocean in late March or early April. The remainder of the life cycle is spent foraging in estuarine and marine waters of the Pacific Ocean. In the open ocean, Coho salmon do not migrate far, typically feeding within sight of the coast. Adults return to their stream of origin to spawn (breed) and die, usually at around three years of age. Coho salmon spawn in small coastal streams with gravel bottoms and deep pools (SRA 2015).

The migration from freshwater streams into a marine environment and then returning to the streams of their hatching in order to mate is known as anadromy.

The Little North Fork Big River supports populations of central California Coast Coho salmon (Pasquinelli 2015, SRA 2015).

Steelhead - northern California DPS (distinct population segment) (*Oncorhynchus mykiss irideus*) – This unique fish species consist of two forms; one called rainbow trout stays in freshwater for their entire life cycle and the other called steelhead, which is federally listed as Threatened, migrates to the ocean and returns to spawn in its natal stream (CDFW 2015b, NOAA Fisheries 2015b).

Steelhead are hatched in fresh water streams, where they spend their first 1-3 years of life. They then migrate to the ocean where most of their growth occurs. After spending between one to four growing seasons in the ocean, steelhead return to their native fresh water stream to spawn. Unlike some other anadromous fish, steelhead do not necessarily die after spawning and are able to spawn more than once.

The Little North Fork Big River supports populations of steelhead (Pasquinelli 2015, SRA 2015).

AMPHIBIANS

Foothill yellow-legged frog (*Rana boylei*) – This SSC amphibian requires shallow, flowing water in small to moderate-sized streams with at least some cobble-sized substrate (Jennings and Hayes 1994). Foothill yellow-legged frogs are usually found in or near water and reproduction is aquatic. Suitable habitat for this species occurs in the Little North Fork Big River.

Northern red-legged frog (*Rana aurora*) – Northern red-legged frog is a SSC amphibian that breeds in permanent water bodies such as ponds, lakes, slow moving streams, marshes and wetlands from Mendocino County to British Columbia, Canada (California Herps 2015, Jennings and Hayes 1994; Stebbins 2003). This species is primarily diurnal and although typically a pond frog, found in or near water, it can be wide-ranging and highly terrestrial, sometimes inhabiting damp places far from water.

Although the related California red-legged frog (*Rana draytonii*) has been reported from northern Mendocino County, biologists have determined it does not range north of Elk Creek (AmphibiaWeb 2015). Suitable habitat for this species occurs in the Little North Fork Big River.

Coastal (Pacific) tailed frog (*Ascaphus truei*) – Coastal tailed frog is a SSC amphibian that generally inhabits cold, clear, rocky streams in forested areas (California Herps 2015, Stebbins 2003). It is a small frog; adults are 1-2 inches in length. Reproduction is aquatic and a rocky streambed is necessary for cover for adults, eggs, and larvae. After heavy rains, adults may be found in bordering woods away from the stream. Threats to this species include activities that result in sedimentation of suitable stream environments. Suitable habitat for this species occurs in the Little North Fork Big River.

Southern torrent salamander (*Rhyacotriton variegatus*) – Southern torrent salamander is a SSC amphibian that inhabits cold and clear, well-shaded streams, seeps, and waterfalls (Stebbins 2003). Threats to this species include activities that result in sedimentation or water removal in suitable habitat. This species is known to occur in the park and suitable habitat occurs in the Little North Fork Big River and tributaries such as Manly Gulch.

BIRDS

All raptor species and their nests are protected under Fish and Game Code §3503.5. Migratory non-game native bird species are protected under the Migratory Bird Treaty Act (MBTA), which is described in Section 4.3.2 below. These protections prohibit the take (including disturbances which would cause abandonment of active nests containing eggs and/or young) of all birds and their active nests.

Raptors

Northern spotted owl (*Strix occidentalis caurina*) – Northern spotted owl (NSO) is a federally threatened and SSC species that typically inhabits mature coniferous forests because they contain the structural elements required for nesting, roosting, and foraging (USFWS 2015a). These characteristics include a multi-layered, multi-species canopy with moderate to high canopy closure. This owl hunts mainly at night by swooping down from a higher perch and preying primarily on small mammals like flying squirrels, wood rats, mice and voles, although some birds (smaller owls and songbirds), reptiles, amphibians, and insects are included in their diet. Nests typically consist of cavities, old stick nests, or clumps of debris located in trees, on cliffs or ledges, or inside caves.

Suitable habitat exists for, but no NSOs were detected in or adjacent to the project area on six surveys conducted in 2015, the second consecutive year of USFWS protocol-level surveys (Evens 2015).

Barred owl (*Strix varia*) – Barred owls are large, stocky owls with rounded heads, no ear tufts, and medium length, rounded tails (Cornell 2015b, National Geographic 2015). They typically live in large, mature forests made up of both deciduous trees and evergreens, often near water. They nest in tree cavities, but will also use an abandoned stick nest of another species. Barred owl is common in eastern North America, but has expanded its range north and west through Canada's boreal forest and then southward into Montana, Idaho, and California. In the Northwest, Barred Owls have moved into mature coniferous forest habitat where they compete with NSO.

Recent surveys have detected barred owls in the park unit (Evens 2015).

Migratory birds

Allen's hummingbird (*Selasphorus sasin*) – Allen's hummingbird is a small bird, with mature adults reaching only 3 to 3½ inches in length (NPS 2015). It inhabits mixed evergreen, riparian woodlands, eucalyptus and cypress groves, oak woodlands, and coastal scrub areas in the breeding season. Like all hummingbirds, this species' high rate of metabolism

requires it to feed frequently, about every hour. The Allen's hummingbird consumes nectar from flowers and feeders, as well as eating any small insects it finds crawling around the flower blossom or in the air, which provide it with needed protein.

The Allen's hummingbird constructs its nest out of plant fibers, down, and weeds stems, coating the nest with lichens to give it structure (NPS 2015). The nest is placed above ground on a tree branch or the stalk or stem of a plant. On average the female lays two dull white eggs, which are incubated for 15-18 days.

Potentially suitable habitat for Allen's hummingbird occurs in or adjacent to the project area.

Fox sparrow (*Passerella iliaca*) – Fox sparrow is a large, round-bodied sparrow with stout bill and medium-length tail (Cornell 2015a). This species breeds in coniferous forest and dense mountain scrub. Fox sparrows nest on the ground or in low crotches of bushes or trees; the clutch size is 2 to 5 eggs with an incubation period of 12 to 14 days.

Potentially suitable habitat for Fox sparrow occurs in or adjacent to the project area.

Marbled murrelet (*Brachyramphus marmoratus*) – This state Endangered and federal Threatened small, chubby seabird spends half of its life in marine environments, and ventures inland to old growth coniferous forests between March and September to breed (Audubon 2015, USFWS 2015b). A solitary nester, the female lays a single egg in a shallow depression on a large tree branch. Incubation takes about 4 weeks and fledging typically occurs in approximately 28 days. Major threats include loss of habitat, predation, and various impacts in their marine habitat.

No habitat capable of supporting breeding marbled murrelet occurs in or adjacent to the project area (Fuller 2015).

Olive-sided flycatcher (*Contopus cooperi*) – The SSC olive-sided flycatcher nests in open-canopy late successional-conifer forests near edge openings, usually at higher elevations (Shuford and Gardali 2008). This large, stocky flycatcher preys on flying insects, especially bees. Its nest consist of an open cup of twigs, rootlets, and lichens, placed out near the tip of horizontal branch of a tree.

Potentially suitable habitat for olive-sided flycatcher occurs in or adjacent to the project area.

Purple finch (*Haemorhous purpureus*) – The purple finch is a medium-sized finch that measures approximately 6 inches in length and has a 10-inch wingspan (Sterling 2011). It inhabits both forested and urban habitats, but prefers to breed within or at the edge of open coniferous or mixed coniferous-deciduous forests. The diet of purple finches consists mostly of seeds; however the diet changes seasonally to include other abundant food resources, such as insects in the spring and fruits in the summer.

Potentially suitable habitat for purple finch occurs in or adjacent to the project area.

Purple martin (*Progne subis*) – The SSC purple martin inhabits woodlands and coniferous forests at low to intermediate elevations throughout much of the state (Shuford and Gardali 2008). Conifer snags (occasionally dead-top trees and hardwood snags) are the most common nesting substrate in more than 70% of the California population. Martins are aerial insectivores (swallows) and usually feed their young dragonflies. Purple martins nest in California from March through August, with its most active period in June, and migrates to South America to spend the winter months

Potentially suitable habitat for purple martin occurs in or adjacent to the project area.

Yellow warbler (*Setophaga petechia* ssp. *breweri*) – The SSC yellow warbler is a small, evenly proportioned songbird with a medium-length tail and rounded head (Cornell 2015b). Yellow Warblers' diet consists mostly of insects that they pick from foliage or capture on short flights or while hovering to reach leaves. Typical prey includes midges, caterpillars, beetles, leafhoppers and other bugs, and wasps. It typically breeds in riparian vegetation such as willows or cottonwoods close to water, building nests in the vertical fork of a tree (e.g. willow) or bush (Cornell 2015b, Shuford and Gardali 2008).

Potentially suitable habitat for the yellow warbler occurs in or adjacent to the project area.

MAMMALS

Pacific fisher, West Coast DPS (*Pekania pennanti*) – This federal and state Candidate species is a medium-sized light brown to dark blackish-brown mammal; males weigh 7.7 to 12.1 pounds and females weigh 3.3 to 5.5 pounds (USFWS 2014). The fisher is in the family Mustelidae which also includes weasels, mink, martens, and otters. It generally inhabits mature forest habitats with high canopy closure, large trees and snags, large woody debris, large hardwood component, and a multi-story canopy tree layer or snag cavities are utilized for birthing and raising their young.

Suitable habitat for this species may be present in or near the project site.

Sonoma tree vole (*Arborimus pomo*) – This SSC small mammal, also known as the California red tree vole, is a 7 to 8-inch long arboreal rodent that inhabits mixed evergreen forests, especially mesic old-growth Douglas-fir forests of coastal northern California; this species also occurs in younger forests (Blois et al 2015).

Suitable habitat for this species occurs in the project area.

Sensitive Bat Species – The project area is within the potential range of several sensitive bat species, some of which are known to roost in tree cavities. SSC bats that might roost within the project area are the pallid bat (*Antrozous pallidus*), hoary bat (*Lasiurus cinereus*), and Townsend's big-eared bat (*Corynorhinus townsendii*). Other sensitive bat species that might roost within the project areas are the long-eared myotis (*Myotis evotis*), the long-legged myotis (*Myotis volans*), and the Yuma myotis (*Myotis yumanensis*).

SENSITIVE NATURAL COMMUNITIES

Sensitive plant communities are those that are regionally uncommon or unique, unusually diverse, or of special concern to local, state, and federal agencies. Removal or substantial degradation of these plant communities constitutes a significant adverse impact under CEQA. The CNDDDB maintains a list of the state's plant communities (also known as alliances) and identifies those of high inventory priority due to their rarity and threat. These are considered sensitive natural communities by regulatory agencies.

The CDFW classifies the Sequoia sempervirens Forest Alliance as a sensitive natural community. As described above in the vegetation/habitat section, this community comprises nearly all of the project areas. A narrow band of poorly developed riparian habitat does occur within project areas along the Little North Fork Big River. This willow and alder-dominated vegetation type is identified as sensitive in the CNDDDB.

SUDDEN OAK DEATH

Discovered in 1995, Sudden Oak Death (SOD) is caused by the pathogen *Phytophthora ramorum*, which has infected and killed thousands of tanoak, coast live oak, Shreve oak (*Quercus parvula* var. *shrevei*), and California black oak trees in coastal forests from Humboldt County to Monterey County (COMTF 2008). This water mold also infects many other species, including California bay laurel (*Umbellularia californica*), Pacific madrone, California buckeye (*Aesculus californica*), coast redwood, Douglas-fir, big leaf maple (*Acer macrophyllum*), California honeysuckle (*Lonicera hispidula* var. *vacillans*), California coffeeberry (*Rhamnus californica*), toyon (*Heteromeles arbutifolia*), rhododendron (*Rhododendron* spp.), manzanita (*Arctostaphylos* spp.) and huckleberry (*Vaccinium* spp.).

SOD may be spread when host plants, wood chips, burls, other host plant products or soils contaminated with the pathogen's spores are moved to previously uninfected areas (COMTF 2009). SOD thrives in cool, wet to moist climates, and living plants and its spores can be found in soil and water as well as plant material. The risk of SOD spread is greatest in muddy areas and during rainy weather where spore-harboring hosts are present. Detached plant leaves, organic material, and soil, which may harbor spores of the pathogen, are more likely to stick to vehicles, equipment, and humans when they are wet.

Mendocino County is one of 14 California counties to have confirmed SOD findings and is under state and federal quarantine regulations governing the movement of affected plants or plant material out of the quarantined area (COMTF 2015). The California County Agricultural Commissioners are the enforcement agents for state and federal regulations governing *Phytophthora ramorum*.

WATERS OF THE UNITED STATES

The federal Clean Water Act (CWA) is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The intent was to maintain the chemical, physical, and

biological integrity of the nation's waters [Federal Water Pollution Control Act/Clean Water Act, 33 U.S.C. 1251, §101(a), 2002]. It was also intended to provide a mechanism for regulating discharges of pollutants into the waters of the U.S and gave the U.S. Environmental Protection Agency (USEPA) authority to implement pollution control programs, such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters.

Section 404 of the CWA establishes programs to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The term "waters of the U.S." applies to the jurisdictional limits of the authority of the US Army Corps of Engineers (USACE) to regulate navigable waters under Section 404 of the CWA. Navigable waters are defined in Section 502(7) of the Act as waters of the United States (aka Other Waters), including the territorial seas. By definition, navigable waters include all wetlands and tributaries to "waters of the United States."

Under Section 404 of the Act, the USACE has authority to regulate the discharge of dredged or fill material into navigable waters. The authority for the USACE to regulate navigable waters is also provided under Section 10 of the federal Rivers and Harbors Act of 1899. Under this statute, the USACE regulates excavation or filling operations or the alteration or modification of the course, location, condition, or capacity of any navigable water of the United States. Waters are defined as all waters used in interstate or foreign commerce, waters subject to the ebb and flow of the tide, all interstate waters including interstate wetlands and all other waters such as: intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds.

For purposes of Section 404 of the CWA, the lateral limits of USACE-jurisdiction over non-tidal water bodies (e.g. streams) extend to the ordinary high water mark (OWM), in the absence of wetlands (USACE 2005).

The State Water Resources Control Board regulates the alteration of any federal water body, including streams defined above, through Section 401 of the CWA. The appropriate Regional Water Quality Control Board(s) certify water quality of the affected water body is not subject to unacceptable environmental impacts through provisions of the 401 certification program (SWRCB 2015).

Pursuant to Fish and Game Code Section 1600 et seq., the CDFW regulates any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel.

A portion of the Little North Fork Big River is within project areas and potentially subject to state and federal jurisdiction through provisions of the Clean Water Act and the Fish and Game Code, as described above.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modification, or any species identified as sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the Calif. Dept. of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 Calif. Dept. of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Biological Resources is based on criteria **IV a – f**, described in the environmental checklist above.

DISCUSSION

a) (i) Special status plant species.

Suitable to marginally suitable habitat occurs within the project area for 11 special status plant species. No occurrences of special status plant species were located within project areas during surveys conducted in early and late July of 2015.

(ii) Salmon, steelhead, foothill yellow-legged frog, northern red-legged frog, coastal tailed frog, and southern torrent salamander.

The Little North Fork Big River and its tributaries such as Manly Gulch provide suitable habitat for several special status fish and amphibian species, as stated in the Environmental Setting above. Work activities proposed within the bed and bank of the Little North Fork Big River will be limited to foot traffic to cut and remove a pipe currently suspended over the Little North Fork Big River at Camp 2. No other work activities would occur within the bed and bank of any tributaries.

With the exception of the northern red-legged frog, all of these species are restricted to water. The northern red-legged frog sometimes ventures from water and may be found in adjacent moist terrestrial habitats within project areas.

Integration of Standard Project Requirement HYDRO-1: Erosion and Sediment Control and Pollution Prevention and Specific Project Requirement BIO-1: Anadromous Fish, Foothill Yellow-legged Frog Coastal Tailed Frog, and Southern Torrent Salamander would ensure any project impacts to these species would remain at a less than significant level.

SPR HYDRO 1: Erosion and Sediment Control and Pollution Prevention

Prior to the start of construction, DPR and/or its Contractor will prepare a Stormwater Pollution Prevention Plan (SWPPP) to cover soil loss resulting from storm water run-off and/or wind erosion, sedimentation and/or dust/particulate matter and air pollution during clearing, grading, excavation, stockpiling and reconstruction of existing facilities (e.g. involving removal and replacement). BMPs include, but are not limited to: construction activity scheduling, erosion and sediment control to protect slopes and drainage courses, mulching or hydro-seeding to stabilize disturbed soils, dust control, stockpile management and management of washout areas.

SPR BIO 1: Anadromous Fish, Foothill Yellow-legged Frog, Northern Red-legged Frog, Coastal Tailed Frog, and Southern Torrent Salamander.

- **Prior to the start of construction a DPR Environmental Scientist will conduct a training session for all construction personnel involved with the project. Training shall include sensitive resource identification information and specific measures required to protect and avoid sensitive resources. At a minimum, the training will include: (1) species description,**

general behavior, and ecology of listed species in or near the project area; (2) distribution and occurrence near project sites; (3) species' sensitivity to human activities; (4) legal protection; (5) penalties for violation of State and or Federal laws; (6) reporting requirements; and (7) project conservation measures. Handouts with photos of all species will be provided to construction personnel.

- For northern red-legged frog only, a DPR-approved biological monitor will conduct a visual inspection of the construction zone for northern red-legged frog prior to the start of work each morning or as directed by a DPR Environmental Scientist.
- If a northern red-legged frog is found, then start of work at this location will be delayed until the frog moves out of the site on its own accord, or is relocated to a suitable location outside of the project area by the DPR-approved biological monitor, as directed by a DPR Environmental Scientist.
- Temporary bridges required for site access will either be installed in one piece or will be constructed onsite and must span the top of stream banks so as to avoid disturbing the banks and/or streambeds. No material will be allowed to fall or otherwise contact the stream channel.
- No machinery will be allowed in the stream channel for removal of pipes. Only the minimum of construction personnel and hand tools necessary to accomplish this task will be allowed.

(iii) Raptors and migratory birds.

As described above in the Environmental Setting, suitable nesting habitat for barred owl and various species of migratory birds such as Allen's hummingbird and purple martin exists within or adjacent to the project area. Based on two years of USFWS protocol-level surveys northern spotted owl has not been detected within or adjacent to project areas. Other avian species not identified in the Environmental Setting may also be present during the breeding season within or adjacent to the project area. Construction activities that generate noise above ambient levels could impact nesting birds if conducted during the breeding season. Integration of Standard Project Requirement BIO-2: Raptors and Migratory Birds would ensure any project impacts to these species would remain at a less than significant level.

SPR BIO 2: Raptors and Migratory Birds

If construction-related activities are conducted between February 1 and August 31 then focused surveys for nesting migratory birds and raptor species conducted by a DPR-approved biologist before construction activities occur in these months to identify any active nests.

- **Surveys for active raptor nests will be conducted within a 500-foot radius of the project area no more than 7 days prior to the beginning of construction. If nesting raptors are found, no construction activities will**

occur within up to a 500-foot radius of the nest tree until the young have fledged and the young will not will be longer be impacted by project activities, as determined by the DPR-approved biologist.

- **Surveys for active migratory bird nests will be conducted within a 150-foot radius of the project no more than 7 days prior to the beginning of construction. If active nests are located, no construction activities will occur within up to a 150-foot radius of the nest tree until the young have fledged and the young will no longer be impacted by project activities, as determined by the DPR-approved biologist.**

(vii) Pacific Fisher.

As described above in the Environmental Setting, suitable habitat for this species may be in or near project sites, however, the disturbance associated with visitor use and park maintenance activities make it unlikely fishers would utilize the area for denning or resting. The proposed project would not result in fragmentation or deterioration of suitable habitat or impede dispersal through the area. No impact.

(viii) Sonoma tree vole and sensitive bat species.

As described above in the Environmental Setting, there is suitable habitat for Sonoma tree vole and potentially several species of bats. Impacts to the Sonoma tree vole and sensitive bat species could occur from tree removal. The vole prefers old-growth Douglas-fir forest habitat, which does not occur in the park unit. The 3 Douglas-fir trees proposed to be removed are less than 18 inches dbh (Diameter at Breast Height). These trees are marginal habitat at best as the Sonoma tree vole prefers mature trees; hence this would not be a significant impact.

Potential impacts to sensitive bat species could occur from the removal of the 3 firs and 7 redwoods, some of which exceed 24-inch dbh. Integration of Standard Project Requirement BIO-2: Sensitive Bat Species would ensure any project impacts to these species would remain at a less than significant level.

SPR BIO 3: Sensitive Bat Species

Humane one-way exclusion that would allow bats to exit but not return to the structure will be installed on the pipes extending from the dam spillway in mid-September prior to the year of dam demolition. After allowing enough time (approximately one week) for any bats to escape, permanent exclusion will be installed in the pipes.

- b) As described above in the Environmental Setting, riparian vegetation dominated by willow and red alder occurs within project areas; however, project activities would not impact this habitat. The Sequoia sempervirens Alliance, which covers most of the project area, is considered a sensitive natural community and project activities, including excavation for wastewater pipes and septic, pump and overflow tanks could cause

impacts to roots of native trees that are not being removed. Implementation of **Specific Project Requirement BIO-4: Sensitive Natural Plant Communities** would reduce impacts to the Sequoia sempervirens Alliance vegetation type to a less than significant level.

SPR BIO 4: Tree Removal and Root Protection (Sensitive Natural Plant Communities)

- **No tree removal will occur between February 1 and September 31 to avoid the bat maternity and bird breeding seasons. Any additional trees proposed for removal (other than those identified in the construction plans) will be subject to approval by a DPR Environmental Scientist. Periodic monitoring of construction activities (e.g. tree removal) may be conducted at the discretion of a DPR Environmental Scientist.**
- **Staging of construction equipment and project materials will occur on paved surfaces or previously hardened surfaces to minimize soil and duff compaction of native habitat.**
- **Where possible all ground disturbing activities will occur outside of the Root Health Zone (RHZ = 5 times the Diameter at Breast Height (dbh)) of all trees with a dbh of 18 inches or greater. If construction activities that could potentially damage trees (as determined by a DPR Environmental Scientist) are approved within the RHZ of tree trunks, then trees not scheduled for removal will be protected prior to the start of construction using the tree trunk protection measure as identified in Section 015639 of the Project Manual). Tree trunk and root protection will consist of a wood guard that is constructed from rough sawn 2"x6"x8' pieces of lumber that are placed at 12" on center and then attached vertically around the trunk of the tree using 3" wide nylon straps. Lumber shall extend to the natural base of the tree and must protect any exposed roots. A DPR Environmental Scientist will check this during construction, at their discretion. Wood guards will be removed when construction is complete.**
- **At his/her discretion a DPR Environmental Scientist will monitor all excavations for proposed new underground storage tanks and lift stations.**
- **In work locations where trenching is scheduled within the RHZ zone of trees with a dbh of 18 inches or greater then hand excavation will be required to avoid severing roots that are larger than 1 inch in diameter. It is permissible to tunnel under the RHZ at a depth greater than 2 feet. It is also permissible to remove soil by hand from roots.**
- **In work locations where excavation for new tanks/lift stations is scheduled to occur within the RHZ zone of trees with a dbh of 18 inches or greater than the final tank location will be subject to approval of State's Representative, following consultation with a DPR Environmental Scientist so as to avoid root damage or injury. If avoidance is not possible than no roots 1 inch or greater in diameter will be severed until approval is given by a DPR Environmental Scientist.**

- **Any roots that need to be severed will be subject to the following specifications:**
 1. **Cut roots manually by cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.**
 2. **Temporarily support and protect roots from damage until they are permanently covered with soil.**
 3. **Cover exposed roots with burlap and water regularly.**
 4. **Backfill as soon as possible according to requirements in Section 312000 of the contract.**
- **The contractor shall provide a biological monitor to observe construction activities in the RHZ of trees (as identified on construction plans) to insure that all root protection measures identified above are followed. The contractor shall submit names and credentials of qualified individuals to the State's Representative for review and approval by a DPR Environmental Scientist at least 14 days prior to the start of project operations. Contractor will not commence surface disturbing activities until a biological monitor has been selected.**
- **No construction-related activities will be allowed outside of delineated work areas unless authorized in advance by a DPR Environmental Scientist.**
- **Periodic monitoring of construction activities (e.g. tree removal) may be conducted at the discretion of a DPR Environmental Scientist.**

c) No federally protected wetlands, as defined in Section 404 of the federal CWA, occur within the project footprint. As described in the Environmental Setting above, the Little North Fork Big River is within the project area and does constitute a Water of the U.S. It is subject to regulation by the USACE and the RWQCB under sections 404 and 401 of the CWA, respectively; however, other than foot traffic to cut and remove a pipe currently suspended over the Little North Fork Big River at Camp 2 no other work activities would occur within the bed and bank of this stream or any tributaries. No impact.

d) The proposed project would not impede fish passage or wildlife movement. No barriers will be installed and no work will occur in Little North Fork Big River or any other fish bearing stream. Potential impacts from the proposed project would have no effect on fish passage or wildlife movement. No impact.

e) As stated in the Environmental Setting above, Mendocino County is subject to state and federal quarantine regulations for the pathogen *Phytophthora ramorum*, which causes the often fatal disease known as Sudden Oak Death in numerous species of native plants, especially oaks. Project activities could inadvertently transport this disease to new uninfected locations through pathogen spores in soil or on infected plant material that stick to construction vehicles, equipment, or personnel. Implementation of Project Specific Requirement Bio-5: Sudden Oak Death would reduce any potential impacts to a less than significant level.

SPR BIO 5: Sudden Oak Death

All project/maintenance activities that could spread the pathogen *Phytophthora ramorum* to new locations will be subject to Best Management Practices (BMPs) developed by the California Oak Mortality Task Force and available online at <http://www.suddenoakdeath.org>.

Sudden Oak Death BMPs include but are not limited to:

- 1. Inform personnel that they are working in a Sudden Oak Death (SOD)-infested area, unauthorized movement of plant material is prohibited, and the intent of these prevention measures is to prevent spread of SOD.**
 - 2. Before leaving project area, remove or wash-off accumulations of plant debris, soil, and mud from shoes, boots, vehicles, and heavy equipment, etc. Clean with denatured alcohol or similar materials.**
- f) This project does not conflict with any Habitat Conservation Plans, Natural Communities Conservation Plans, or other approved habitat conservation plan. No impact.

V. CULTURAL RESOURCES

ENVIRONMENTAL SETTING

The project area is located within the 720-acre Mendocino Woodlands State Park and is situated in the Big River drainage on the Little North Fork Big River on the coastal side of the Mendocino Range. The river canyon composition of this Franciscan Coastal Belt area is sandstone bedrock interspersed with siltstone and shale. Narrow, steep gulches drain streams that rise and fall considerably with heavy rains characteristic of the climate. The park lies between 20 and 400 feet above sea level on the canyon floor on small flats and hillsides. The slopes of the hillsides are up to 50 percent in places. Soil erosion is an issue in the park during winter floods (James 1997).

Long, warm summers and mild wet winters characterize the climate of the area. The area is just beyond the range of the summer coastal fog with a daytime temperature ranging from 36 degrees in the winter to 81 degrees in the summer. Average rainfall is 50 to 60 inches per year. The moist climate and soils produce lush understory (DPR 1979).

The topography is steep and irregular. Narrow, steep, gulches drain streams to the canyon floor (flood plain of the Little North Fork), which is relatively flat, and up to 1,000 feet wide. The area is shady, comprised primarily of heavily forested second growth redwood and other vegetation typical of the coast redwood forests. In addition to second growth redwood, the forest includes alder, Douglas fir, laurel, madrone, and tanoak. The understory is dense in most areas, consisting of cascara, *Ceanothus*, elderberry, nine species of ferns, huckleberry, manzanita, myrtle, poison-oak, rhododendron, salal, wild orchids, thimbleberry, and willow.

Willow and alder trees line the creeks and river; tanoak and madrone dispersed with second growth redwood, Douglas fir, hemlock, and big leaf maple on the upper slopes. Wild rose, trillium, stream, phantom, and calypso orchids grow among the fern-filled understory.

Animal life is typical of the Coast Range and includes beaver, blacktailed deer, bobcats, grey fox, rabbits, raccoons, river otter, skunks, squirrels, and occasionally bears. Birds include hawks, owls, quail, ravens, swallows, and wrens. Coho, steelhead, and some Chinook salmon spawn in the Little North Fork River ecosystem. Riparian species in the watershed include torrent salamanders, frogs, and western pond turtles.

CULTURAL SETTING

There are two main categories of cultural resources, the archaeological environment and the historic environment, both influenced by the resources available in the area. The topography, climate, and availability of natural resources influenced settlement in the region.

Archaeological surveys in the park do not appear to support intensive utilization of the area by Native population; however, historically, the area received heavy utilization to support

the demand for lumber with the discovery of the economic value of coastal California forests, and later as a recreational resource.

The following discussion describes the cultural history of the project vicinity starting with the prehistory and following with the ethnography and history of the region. This information provides the basis for understanding the types of resources expected in the project area.

Prehistoric and Ethnographic Background

Prehistory -

Van Bueren (2011) has compiled the most recent narrative of chronological ordering of prehistoric occupation in the region. In an effort to define and understand the relationships between local sequences and broader regional patterns, Van Bueren assembled and synthesized the work of others including Fredrickson (1973, 1984), Layton (1990), Meighan, (1955), Soule (1975), and White (1989). The following discussion on the prehistoric context is from Van Bueren's (2011) compilation of work.

Van Bueren (2011) uses the chronology developed by Fredrickson (1973, 1984) for understanding the North Coast region and is the foundation for this overview. Fredrickson defined five periods and used the concepts of Pattern, Aspect, and Phase to understand localized archaeological expressions. Patterns are defined as generalized adaptive modes or traditions prevalent throughout a broad geographic region, while Aspects and Phases are local manifestations of those larger traditions. This analytic approach recognizes transitions between assemblages did not occur at the same time throughout the region. Fredrickson describes five periods as they relate to observed regional Patterns and include the Paleo-Indian, Lower Archaic, Middle Archaic, and Emergent.

Paleo-Indian Period (11,000-6,000 BC) - This is the earliest well-documented period of occupation on the North Coast, reflecting initial entry by people that focused on hunting with distinctive fluted points, other points similar in form to Lake Mojave, and Silver Lake types from the western desert region, crescents, scrapers, and choppers. Absent are milling tools. This type-site is the Borax Lake site (CA-LAK-36), excavated by Harrington (1948). Obsidian hydration analyses and cross dating, suggests initial use of CA-LAK-36 around 10,000 BC (Meighan and Haynes 1970). A fluted point discovered on the Mendocino Coast at CA-MEN-1918 in Casper, provides evidence hunters from this period visited the coast (Simons et al. 1985)

The earliest burials and milling implements from the region came from the Mostin Site (CA-LAK-381) and date to over 10,000 years before present (Ericson 1977; Kaufman 1980). Moratto (1984:88) observes, "Clovis-like points in the Far West occur in coastal, valley, and lakeshore setting along with the remains of mollusks, birds, and both large and small mammals. These varied settings and faunal remains, coupled with a diversified toolkit, suggest a generalized hunting-gathering way of life." Assumptions related to populations during this early period were that they were quite sparse and mobile and as a result, archaeological evidence is limited.

There is widespread agreement that early in this period, ancestral people speaking languages of the Yukian stock probably occupied much of the north coast region from the Eel River watershed south perhaps as far as San Francisco Bay (Fredrickson 1984). Yuki territory diminished as Athapascan speaking peoples encroached from the north and people speaking proto-Pomoan languages encroached from the east. The timing of those population displacements remains an active area of research, but linguistic evidence suggests Pomoan groups may have expanded west into the Russian River Valley around 3000 BC (Elmendorf 1964).

Lower Archaic (6,000-3,000 BC) – This period is associated with the Borax Lake Pattern in the North Coast Ranges. The earliest expressions of this pattern from Mendocino County consist of assemblages dating from circa 5,000 to 2,500 years BP found at CA-MEN-500 (Meighan 1955) and CA-MEN-84 (Soule 1975), referred to by Fredrickson (1984:520) as the Mendocino Aspect of the Borax Lake Pattern. The Mendocino Aspect is marked by “large lanceolate, concave-base, and side-notched projectile points and the co-occurrence of bowl mortars and pestles with milling stones and manos” (Fredrickson 1984:521).

Two sites at Albion Head (CA-MEN-1704 and -1844) contain components that have corrected radiocarbon dates as early as 3450±190 BC (Layton 1990:52). Mendocino Concave-base projectile points made of Monterey chert, a type of stone found only south of Point Arena, mark the earliest component. Chert, Mendocino Side-notched points dated solely by their stratigraphic position within CA-MEN-1704 between Components 1 and 3 dominates Component 2. Layton hypothesizes this initial period of occupation at Albion was by a proto-Yukian population based on the scarcity of obsidian.

Middle Archaic Period (3,000-1,000 BC) – There is widespread evidence of occupation in inland areas during this interval; however, evidence from the coast is limited. Assemblages across the region reflect a consistent tradition throughout much of the county designated as the Mendocino Pattern. This pattern continues into the Upper Archaic, where it is present at nearly a dozen excavated sites in the county (Fredrickson 1984; Layton 1990; Van Bueren and Scantlebury 2004). Large expanding-stem, concave base and shouldered lanceolate points; bowl mortars and pestles; split-beveled Olivella beads, and a biface reworking industry characterized Mendocino Pattern assemblages (Fredrickson 1984). This pattern reflects a broadened subsistence base thought to include acorn gathering.

Three Albion Head sites yielded evidence from this period characterized by Layton (1990) as Component 3. CA-MEN-1704, -1809, and -1844 each produced lanceolate points made of chert. A radiocarbon date immediately below a house floor at CA-MEN-1844 produced a calibrated date of 425 BC. During this period at Albion, subsistence involved shellfish procurement and processing with unmodified beach cobbles, net weights used for fishing, handstones, and a large decorated mortar suggesting consumption of acorns and other seeds. Monterey chert in this component came south from Point Arena along the west side of the San Andreas Fault. Site CA-MEN-3163/H and -3164 at the White Ranch just north of Fort Bragg also produced limited evidence of use between 2500 and 500 BC (Van Bueren and Scantlebury 2004). Lower Archaic materials found at those sites include four early obsidian hydration readings and a stemmed chert biface.

Upper Archaic Period (1,000 BC-AD 500) – Mendocino Pattern adaptations persist in the north with increasing exchange of obsidian and more contracting stem and lanceolate points, while Berkeley Pattern adaptations are evident in the southern North Coast Ranges. The Berkeley Pattern indicate complex socio-political institutions, increased grave wealth, more long distance exchange, and a strong emphasis on acorn exploitation inferred from nearly exclusive use of mortars and pestles. The Berkeley Pattern spread north from the Bay Area during this period. Along the Mendocino coast, the Upper Archaic Period coincides with the first intensive use of shellfish (Van Bueren 2011).

Investigators believe the notable discernibility in assemblages from the Mendocino region reflects the northward displacement of proto-Yukian populations by invading Pomo speakers (Layton 1990; Moratto 1984; Van Bueren and Scantlebury 2004, White 1989). This suggestion is also consistent with Elmendorf's (1964) analysis of the timing of Pomo language differentiation. Pomoan assemblages indicate affiliation with the Augustine Pattern and show Central California influences including reliable access to obsidian from the Clear Lake and Napa regions. Yukian assemblages, by contrast, display affiliation with the Gunther Pattern of northwest California where obsidian is rarely present. When Yukian assemblages do sometimes contain obsidian, it comes from the northeastern California sources such as Grasshopper Flats in the Medicine Lake highlands rather than the Clear Lake area. This exhibits differences in exchange networks that likely imply antipathy between the two groups. The border region between Pomo and Yuki speaking peoples likely shifted repeatedly due to internecine conflict and later historic colonization, directly influencing the patterns of land use and settlement.

The earliest dated components from MacKerricher State Park near Fort Bragg reflect this period. White (1989: 103-141) refers to those local expressions of the Berkeley Pattern as the MacKerricher Phase. Materials from sites CA-MEN-427, -428, and -828 include hammerstones and anvils for splitting open shellfish, hopper mortars and pestles, large lanceolate chert bifaces, Olivella shell beads, bone awls, elk antler prying tools, and rock-line hearth features. Radiocarbon dates indicate the most intensive occupation took place between AD 0 through AD 530. Obsidian from the Clear Lake area first appears in noticeable quantities in the Fort Bragg area during this period. A diversified subsistence orientation "characterized by residency over fairly long periods" is indicated (White 1989:141). Site CA-MEN-3134 at White Ranch just north of Fort Bragg exhibits the onset of diversified shellfish consumption after 380 BC, based on a calibrated radiocarbon date (Van Bueren, Scantlebury 2004: 60-61).

Emergent Period (AD 500-1850) – Assemblages from this period reflect increasing elaboration of socio-political and exchange systems, increasing populations and diversification of subsistence regimes, greater dependence on acorns, and seasonal population movements. Two versions of the bow and arrow, along with various small to medium size corner and side notched points were adopted. The self-bow arrived first and is associated with medium size Mendocino Side-notched and Mendocino Corner-notched points. Sometime between AD 900 and 1000, the sinew-backed bow came into widespread use and commonly found are the smaller Rattlesnake side notched and Gunther barbed points. Throughout the Emergent Period, obsidian appears in substantial

quantities at many, but not all coastal Mendocino sites. The prevalence of obsidian at three excavated Albion Head sites is prevalent late in the prehistoric sequence, but declines at sites in the Fort Bragg area after AD 1000.

During the early Emergent Period, Albion Head sites contain components marked by Mendocino Side-notched, Mendocino Corner-notched, and lanceolate projectile points, both manos and mortars, net weights, battered beach cobbles, shellfish, and a sudden influx of obsidian (Layton 1990). Indicated at those sites is an exploitation of sea mammal and shellfish. Near Fort Bragg, there is evidence that MacKerricher Phase occupants reported by White (1989) may have continued as late as AD 900 at CA-MEN-828.

Sometime between AD 1000 and 1400, during the Medieval Altithermal (a climatic episode characterized by warm and dry conditions), there is evidence of a widespread shift to seasonal transhumance and the inferred introduction of the sinew-backed bow. Rattlesnake corner-notched arrow points of chert and obsidian and Gunther barbed arrow points made exclusively of chert appear. Several sites tested along the coast between Ten Mile River and Mendocino reveal evidence of short-term camps used during this period (Bramlette and Fredrickson 1984; Van Bueren 2008; Van Bueren Scantlebury 2004, White 1989). A shared use is indicated of that coastal stretch by Pomo and Yuki populations.

Augustine Pattern assemblages are associated with people speaking Pomo languages and contain obsidian from Lake and Napa counties, while Gunther Pattern assemblages associated with Yuki occupations either lack obsidian or have small amounts that came through trade from northeastern California. Both Northern Pomo and Coast Yuki populations continued to use the coast around Fort Bragg during the Late Emergent Period. At least a half dozen sites near Fort Bragg have produced evidence of Gunther Pattern adaptations associated with the Yuki dating to the period AD 1170 to AD 1850 (Van Bueren and Scantlebury 2004; White 1989). White (1989) assigns them to the Sandhill Phase. Van Bueren (2008) found similar Gunther Pattern components radiocarbon dated after AD 1300 at sites CA-MEN-1818/H and -3382/H in Seaside north of the mouth of the Ten Mile River.

The Gunther Pattern components either lack obsidian or have limited obsidian from Medicine Lake Highlands and contain mussel-roasting pits, chert Gunther series points, hand stones (manos), polished bone tools, and mussel scrapers associated with significant intensification of shellfish exploitation. Coast Yuki (Gifford 1939:315) used baking pits, but use of these by the Pomo is not mentioned. In contrast, sites occupied by the Pomo had obsidian from Lake and Napa county quarries. White (1989) reported other traits that may serve to distinguish the two populations at a site at Laguna Point that includes an anvil cache and rock-line hearth, and presumed association with Pomo visitors to the area.

Joint use of the Fort Bragg vicinity does not appear amicable given the absence of permanent settlements and the lack of evidence to suggest obsidian trade in the later Emergent Period. For example, none of the sites tested in that disputed territory have produced evidence of burials that in permanent Yuki settlements to the north, are common.

At the three Albion Head, sites excavated by Layton (1990), Gunther barbed, Rattlesnake series points of obsidian and chert were present. The obsidians were from Clear Lake sources. These sites suggest an emphasis on mussel exploitation. Obsidian hydration on Rattlesnake arrow points from those sites have rims up to 2.5 microns thick on Borax Lake obsidian, roughly dating to AD 1100 when calibrated using Origer's (1987) formula. From that time until about AD 1600, Monterey chert from the south dominates the Albion flaked-stone assemblages. Other diagnostic materials include house floors, shell beads and ornaments, sea mammal exploitation, abundant shellfish remains, bone awls and wedges, and stone drills that may imply bead and ornament manufacture.

After AD 1600, there is heavier use of mussel, more flake tools, and greater reliance on terrestrial game at the Albion sites. Layton interprets that change as the replacement of Central Pomo by the Northern Pomo who shifted to short term seasonal visits for hunting and shellfish collecting.

Ethnography -

Prior to the 1850s, indigenous peoples who spoke languages of the Pomoan linguistic family (Barrett 1908; Kroeber 1925; McLendon and Oswalt 1978) inhabited the region encompassing the project area. The languages of the seven tribes subsumed within the Pomoan language family were mutually unintelligible, suggesting long divergence. Extensive studies by Halpren (1964) and Oswalt (1964) of shared linguistic traits of these groups suggest the Pomo expanded west from the ancestral homeland in the Clear Lake region.

The Northern Pomo claimed the local area. Generally, they lived in the interior region but had favorite coastal temporary camps and food collecting areas (Steward 1943). The territory of the Northern Pomo extended from the west shore of Clear Lake to the Pacific Ocean, encompassing coastal land from the Navarro River north to the Cleone. The northern Pomo were not a cohesive confederation, but instead consisted of various distinct tribelets occupying specific areas and speaking different dialects. For the most part the villages were autonomous; however, political ties existed with neighboring groups.

During the historic period, the area surrounding Big River was disputed territory. The Boya whose core territory lay to the south around Point Arena considered Big River part of their sphere. However, the Mitom from Willits, with pressure from white settlers, moved to Mendocino and established the village of BÜldam in 1851. The Mitom defeated the Boya in battle and assumed control of the local area (Van Bueren 2006). Apparently, the village of BÜldam consisted of two related settlements, one set back in the forest and the other in the sand near the mouth of the Big River. Barrett suggests the residents of BÜldam moved to a site by the mouth of the Big River from 1856 to 1866 during logging activities in the area surrounding their main village.

Stewart (1943:37) notes, "The main trail to the coast followed the same route as the present Willits Big River Road." It's presumed Little Lake Road is the road since the haul road along the north bank of the main branch of Big River was not present before World

War II. Residents of the interior Mitom villages and other tribelets from nearby interior allies regularly visited to collect “sea plants, sea animals, and fish... without making any payment,” although they did seek permission from BÜldam residents (Stewart 1943:38).

In addition to that spoken by the Mitom group, the Northern Pomo division comprises seven other dialects. As a whole, the social organization of these groups was more elaborate than that of the Coast Yuki, with the existence of larger confederations of tribelets. Often, extended kin groups lived in larger multifamily dwellings for at least a portion of the year. During seasonal collection forays, the tribelets broke up into small, individual family dwellings. Chieftainship was hereditary; however, alliances shifted readily due to the observance of ambilaterality and ambilocality in kinship. Secret societies were present and separate secular and ceremonial chiefs were recognized. In part, the complexity of the Pomo culture may have arisen from their control over numerous highly prized regional resources, which included obsidian and magnesite quarries and shells used in the manufacture of beads. Shell beads and magnesite functioned as currency.

The Pomo cremated their dead, had an elaborate basketry tradition, and practiced Kuksu ceremony. They relied heavily on the abundance of the abundant littoral resources from the coast. Runs of salmon and steelhead from local streams were caught with weirs, traps, and lines. Terrestrial plants and animals were gathered and hunted in the interior (Kroeber 1925; Stewart 1943). Houses consisted of conical bark slab houses. During the historic period, the houses were more traditional and constructed of boards. Pomo assembly houses were large semi subterranean structures supported by four internal posts (Van Bueren 2006). Implements were fashioned from a variety of local materials including stone, bone, antler, shell, and woven plant materials. For flake stone implements such as projectile points, drills, and scraped obsidian and chert were the preferred stone. Lithic materials varied for mortars, pestles, anvils, and hammer stones. Musical instruments, fishhooks, and awls were commonly fashioned from bone. Exchange items with interior groups for obsidian, and valued materials and finished products included shell beads and ornaments. A variety of basketry and clothing utilized woven vegetation. Pomo basketry techniques include both twined and coiled forms, with some examples incorporating beads and feathers.

Historic Background -

Non-indigenous exploration of the Mendocino coast occurred for centuries prior to initial European settlement. Russian fur trapping parties occasionally put in to shore along the Mendocino coast during the early 1800s; however, it was not until the mid-1840s that the first permanent European settlement took place. Following the sale of Fort Ross to John Sutter in 1842 and its abandonment by the Russian American Company, the Mexican government granted two large tracts that encompassed the entire coast from Big River south to the Gualala River to two individuals in 1844. Both grants extended inland for a distance of two leagues. William Richardson, an English ship's captain who became a Mexican citizen in 1830 received the northern grant. Richardson reportedly settled on his grant in 1845 and had between 300 and 400 acres under cultivation (Van Bueren, 2006:12).

Initial settlement was very limited and merely foreshadowed the wave of American settlers that would arrive on the Mendocino coast after 1850 to supply the demand for lumber. As people moved into California following the discovery of gold in 1848, the need for building materials increased. The virgin forests of coastal California provided some of the most readily accessible timber in the state. In the following decades, the forests of the Mendocino Coast would prove to be crucial in the growth and development of the state (Van Bueren, 2006:12).

By 1850, the demand for new timber sources arose to support the rapid growth of San Francisco, which had nearly depleted the forests in Marin County. On occasion, ships traveling along the coast north of San Francisco put ashore to avoid violent Pacific storms. While protective coves provided shelter, those aboard the ships observed the miles of coastline covered with virgin forests. In the winter of 1850-1851, the Frolic, a sailing ship laden with silk and tea, wrecked along the Mendocino coast near Caspar. Residents of Bodega traveled north to salvage the bounty, returning with the news that the Mendocino coast could supply vast amounts of lumber. The mill at Big River was among the first established in the area. Timber and milling operations on the Big River dominated the economy of Mendocino and the Big River woods watershed offered steady employment and fostered the growth of the Mendocino region (Van Bueren, 2006:12).

Milling operations in the Mendocino changed dramatically from 1851 to 1938. At the time the first milling equipment arrived in 1851, it was apparent the saws were to process the massive redwood logs present in the region. To accommodate the larger timber, new equipment and bigger saws were required. A millpond constructed near the mouth of Big River and an inclined railroad, transported saw logs up to the mill where they were processed and transferred to ships using a chute (Van Bueren, 2006:14). Initially, cutting focused on the most easily accessible stands. Large horse-drawn wagons transported smaller logs to streams where they were "swamped" downstream. Because the milling equipment available in the 1850s and 1860s could not accommodate the large trees, many remained standing until adequate equipment became available. The process of getting saw logs to the mill also experienced dramatic changes. The massive trees required special techniques to cut, transport, and mill. In the Big River drainage, water transported the timber from the 1850s until 1938 when the mill closed. This technique proved unsatisfactory in most redwood forests; however, on Big River, the flow was better than other coastal watersheds. The use of an elaborate system of dams and coordinated water releases forced the logs down river. In addition to using water to transport the logs, a new technology consisting of skid roads (corrugated trails made from small logs set in the ground perpendicular to the roadbed and greased to allow draft animals to drag logs across them) rapidly took hold as a means to improve the transport of logs in later years. With this new technology, logging moved to increasingly distant reaches of the Big River watershed (Van Bueren, 2006:15).

Like Marin County to the south, logging completely changed the once forested environment. After logging, people tried to convert the land to ranching. They burned the new open spaces repeatedly to promote pasture growth, however, these efforts met with little success, and the forests have been regenerating since the 1920s. By the early 1930s,

most of the remaining redwood groves were second growth and only 10 to 70 years old (DPR 1997).

Mendocino Woodlands Recreational Demonstration Area (RDA) –

Mendocino Woodlands RDA was listed on the National Register of Historic Places (NRHP) as a National Historic Landmark (NHL) in 1997 as a district. The nomination states the RDA is located in Mendocino County on the California coast about 180 miles north of San Francisco. According to the nomination form, "Mendocino Woodlands, the largest and most intact state park development undertaken by the Park Service in California during the 1930s, [is] the first California CCC-era state park to be listed on the National Register for its significance in the history of park planning and design". The park is a 720-acre unit of the California State Park system, surrounded on all sides except to the south (and a small section to the east) by the Jackson Demonstration State Forest. Nine other state parks are nearby along the scenic California coast. Management of Mendocino RDA, also known as Mendocino Woodlands Outdoor Center is through a concession agreement by a private nonprofit corporation (Mendocino Woodlands Camp Association), in cooperation with the superintendent of the Russian River-Mendocino District, California Department of Parks and Recreation.

Mendocino Woodlands was one of 46 RDAs established in the United States whose purpose was to retire sub-marginal agricultural and other lands and develop them for recreational use. Mendocino Woodlands was the only RDA in California, the only one in a Redwood forest, and one of only two recreational group camp facilities built west of the Rockies. Several of President Franklin D. Roosevelt's New Deal agencies were involved in these projects, with the National Park Service providing overall technical supervision, and the Civilian Conservation Corps (CCC) and the Works Progress Administration (WPA) providing labor.

The setting of the park is a second growth Coast Redwood forest about nine miles from the coast. Construction of the park was in a wooded canyon, along the banks of the Little North Fork Big River. The park features three group camps and an administrative area; all situated along the river.

Planning for the park began in 1934, when the Federal Emergency Relief Administration (FERA) committed funds to acquire sub-marginal agricultural lands for various new purposes. The Mendocino site was an ideal location for a new RDA because of its inherent beauty, its location within reasonable proximity of major metropolitan areas, its limited usefulness for agriculture, and its availability for purchase. Construction of the park is on the site of the abandoned logging town of Boyles (founded in 1912 and razed in 1936). By the spring of 1936, after approval of a "general development plan," construction was well underway. The number of WPA enrollees in the "transient camp" building the park varied from as many as 350 to as few as 90. Topographical and road surveying, fire suppression, and other activities were underway at "Boyle's camp," in addition to the construction of the group camps. In 1938, Camp 1, the first group camp, opened at Mendocino Woodlands. Construction continued, however, on dozens of buildings. Water and sewage systems

were under construction, as was a telephone system, swimming facilities, footbridges, and "landscape naturalization" around the completed construction projects.

By 1943, the three group camps (1, 2, and 3) were completed, and today they remain virtually unaltered. The entire park has continued to serve its original functions almost without interruption or alterations of any kind. Of the 193 buildings and structures in the 720-acre NHL District, 181 are contributors to that district.

The Mendocino Woodlands RDA exploited the recreational and scenic potential of a second growth Coast Redwood forest in a wooded canyon typical of this region. The area which was heavily logged prior to park development left remnants of these activities (log ponds, roads, and trails) and were incorporated into the new park by Park Service planners. The subsequent growth of the forest since the creation of the park presents a considerable contrast to the original appearance of the recreational area since its establishment. This reforestation of the park was a principal consideration for National Park Service designers who incorporated into the design. No other RDA in the country has the degree of integrity that Mendocino Woodlands holds.

In 1942, The Park Service received authorization to turn over all RDAs to the various states, an intention of the RDA program from the very beginning. In 1947, Mendocino Woodlands transferred to the State of California Division of Forestry, and was incorporated into the Jackson State Forest. In 1948, the Division of Forestry, unable to assume the management of group camps, turned the group camps themselves over to the Mendocino Woodlands Camp Association, a private non-profit group. This association has managed the property ever since for the benefit of the many camping organizations and other groups that have come to rely on the site for their activities. In 1976, Mendocino Woodlands became part of the California State Park system. A 720-acre state park, the heart of the original Mendocino RDA, has officially existed ever since.

CULTURAL RESOURCES

The information search for this project yielded information related to past cultural resource studies within the park and surrounding area, and the cultural resources (archaeological and historic) within these areas. Past studies focused primarily on historic resources in the park, specifically, historic buildings and features associated with Mendocino Woodlands RDA, a NHL-constructed by the CCC during the 1930s and 1940s.

The earliest investigative work in the park identified in the archival research was the Mendocino Woodlands Outdoor Center Plan (1979). This plan was prepared after transfer of the facility to State Parks. Transfer required parks prepare a plan for the park that identified measures to promote and enhance the use, and protection, preservation, and management of the Outdoor Center. This plan provides a detailed inventory of the buildings, roads, trails, and other facilities present in the park and relevant to the outdoor center. The most comprehensive cultural resource inventory in the park was for preparation of the NRHP nomination. Information provided in the National Register application tiered off and expanded on the 1979 plan. During the compilation of data for

the nomination, State Parks conducted inventories and analysis of the spatial organization, circulation, topography, vegetation, structures, and features relevant to the RDA landscape. This work resulted in detailed mapping, recordation, and descriptions of the resources that contribute to the significance of designation as a Historic District and those that do not. Mendocino Woodlands was designated a NHL on September 25, 1997 and simultaneously the park was listed on the NRHP as listing number 97001262. Beginning in 2008 and as recently as 2015, State Parks has conducted additional cultural resource surveys in the park for various park projects including this current project. These investigations focused on locating archaeological resources and/or features to assess potential resource impacts related to project implementation. During these recent investigations, resource specialists did not identify previously unrecorded archaeological resources in the project area. Nor was there evidence to support the presence of subsurface archaeological deposits related to prehistoric or historic occupation that would warrant further investigations in the park.

Present in the study area are those facilities (buildings, structures, features, objects, etc.) associated with the Mendocino RDA, which have been extensively documented since the 1930s. Additionally, ubiquitous throughout the park is evidence of past logging activities including second growth redwoods, stumps, an occasional logging cable segments, and the alignment of a former logging railroad grade. The railroad grade, during park development in the 1930s, was graded and converted into a road system for the park. Today the former railroad alignment provides access into the park from the west and is the main travel corridor through the park, provides service roads, and is a conduit for the park's utilities infrastructure (water, electrical, sewer, phone, etc.).

Archaeological and Historic Resources in Project Area –

Archaeological Resources

Intensive archival research, Native American consultation efforts, and field investigations in support of this wastewater improvements project failed to identify the presence of intact prehistoric archaeological resources in the project area. The project area(s) is located in the developed areas of the park (Camps 2 and 3) where original park development resulted in extensive ground disturbances to the area, and which continues today with routine maintenance and facilities upgrades.

As one would expect, the most notable cultural resources observed during the investigation are those associated with the Mendocino Woodlands RDA, some of which overlap between archaeological resources and the built historic environment. These resources are well documented in the Mendocino Woodlands Outdoor Center Plan, the 1997 NPS Form 10-500 (NPS National Register of Historic Places Registration Form), and the 2011 Cultural Landscape Inventory (CLI) conducted by the University of Oregon of Mendocino Woodlands State Park. Given the extensive documentation of the cultural resources, project engineers were able to design the project around the resources associated with the Mendocino Woodlands RDA.

Historic Resources

Planned work for wastewater improvements are at Camps 2 and 3 only; work at Camp 1 is completed. Described below are Camp 2 and Camp 3 and an overview of the buildings and structures within the camps' locations.

Camp 2 is located on Redwood flats, on the Little North Fork, one mile north of Camp 3 and three miles north of Camp 1 at the northern extreme of the NHL district. It is the furthest camp from the park entrance but named Camp 2 because it was the second camp constructed at the Woodlands.

Buildings and Structures at Camp 2 include the following:

- Four cabin units at Camp 2 with each cabin unit containing six camper cabins, two counselor cabins, a tent frame that sleeps four, and cold-water lavatories
- Infirmary
- Dining hall/kitchen serves as dining hall as well
- Gate House
- Staff Housing

Camp 3 was the last group camp constructed. Designed as a camp for younger children, tent frames on redwood blocks replaced the cabins that are in Camps 1 and 2. Camp 3 is located (out of order) half way between Camps 1 and 2, and divided into three separate units with one central area containing the dining hall and kitchen, and a hot water shower house. The campfire circle is located across the park road next to the river. Over the years, falling trees have destroyed the tent frames of unit 3 at Camp 3. The unit washhouse remains intact (DPR 1997).

Buildings and Structures at Camp 3 include the following:

- There are four primary categories of structures at Camp 3: tent cabins (original, rebuilt, and remnant foundations), dining hall, bathroom facilities, and miscellaneous utility structures.
- There are eighteen tent cabins currently in operation, with the majority of them being located on the steep slope on the northwestern portion of the site. Recently 18 cabins were rebuilt.
- Remnants of tent cabin foundations can be found in various locations around the site, but primarily in the northern area (34). These are potential locations for rebuilt structures.
- A large dining hall is the most prominent structure in Camp 3 due to its immediate visibility upon entering the camp from the road. It contains cooking facilities and an open eating area with fireplace and furniture.
- There are four washhouses in Camp 3 (three functional, one currently out-of-order) which include communal sink areas under timber awnings and toilets. One washhouse also hosts shower facilities.

- Miscellaneous utility structures on site include small sheds and generator housing. A woodshop is present in the southeastern region of the camp; however, it predates the period of significance.

Given the inherent nature of this proposed type of work, which could cause damage to historic resources, efforts were made that would allow resources associated with the Mendocino Woodlands RDA, a NHL and NRHP be preserved in place in an undisturbed state. DPR identified and examined substantial adverse environmental effects that could result from project implementation in the Area of Potential Effect. To accomplish the objective of preservation in an undisturbed state, DPR thoughtfully planned a project scope that avoided all resources that contribute to the significance of this NHL and developed specific and standard project requirements (CULT #s) to avoid adverse impacts to these resources or those inadvertently discovered during project implementation.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Cultural Resources is based on criteria **V a – d**, described in the environmental checklist above.

DISCUSSION

- a) This project is occurring within the boundaries of a National Historic Landmark District, and the park is listed on the National Register. Planning and development of this wastewater improvements project focused on avoidance of all historic resources that contribute to the significance of this historic property. The project is designed to stay within or near the original footprint of the wastewater facility in each of the camps and to preserve in place in an undisturbed state, all those resources that make Mendocino Woodlands Recreation Demonstration Area significant as a National Historic Landmark.

Cultural staff assisted in guiding the implementation of most design changes to avoid adverse impacts to the archaeological resources (cabin sites, road and trails, and infrastructure) associated with the RDA during construction activities.

In addition to avoidance of this historic property through project planning, DPR developed **Project Specific Requirements CULT 1** that will ensure the protection of these resources during project activities within the APE.

PSR CULT 1 - Project Changes

Changes in the project design including but not limited to addition of land, changes in location (trenches/pipes, tanks, leach fields, etc.) or changes in construction methods will require further archaeological analysis/review and approval.

- b) The survey in support of this current wastewater improvements project failed to identify the presence of significant archaeological resources in the project area at Camps 2 and 3; however, located in these areas are subtle features, roads, paths of travel, and remnant cabin sites that contribute to the significance to the Mendocino Woodlands NHL. Implementation of the **Specific Project Requirement CULT 2 - Staging Areas and Work Limits** and Standard Project Requirements **CULT 3 - Archaeological Monitoring** and **CULT 4; Inadvertent Discovery of Cultural Material** will ensure that impacts remain at a “less than significant” level.

PSR CULT 2 - Staging Areas and Work Limits

- **All staging areas will be limited to the hardened surfaces of roads and established parking areas unless reviewed and approved by a DPR-qualified archaeologist.**
- **The use of large mechanized equipment shall be restricted to existing road alignments and parking areas. Where use of mechanized equipment is necessary within the vicinity of historic structures, temporary orange barrier fencing shall be installed with T-posts around the buildings/structures. The fencing must have a buffer of approximately 18 – 24 inches between the building/structure and the fencing.**
- **Equipment use off the hardened surfaces of roads and parking areas shall be avoided to avoid features associated with CCC development. Ingress/Egress Into specific work locations off the main park road will be approved by a DPR-qualified archaeologist.**
- **Ground disturbance will not expand beyond the existing footprint of the path (trail). Suitable equipment will be employed to accomplish this. Once trenching is complete, the paths (trails) will be rehabilitated to their existing conditions prior to construction.**
- **Improvements to historic roads and paths of travel (grading, widening, tree removal, etc.) will not be allowed to access work areas.**

SPR CULT 3 - Archaeological Monitoring

A DPR-archeologist familiar with the project site's cultural/historic resources will monitor all construction activities at his/her discretion.

SPR CULT 4; Inadvertent Discovery of Cultural Material

In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flake stone, groundstone, or deposits of historic trash) are encountered during project work by anyone, the state's representative will put work on hold at that specific location and contractors will be redirected to other areas (tasks). A DPR-qualified archaeologist will record and evaluate the find, and work with the state's representative to implement avoidance, preservation, or recovery measures as appropriate to any work resuming at that specific location.

- c) To address the inadvertent discovery of human remains during any project work, DPR and the Native American Heritage Commission (NAHC) have developed a protocol for the treatment of such finds. Implementation of this protocol will maintain impacts at a "less than significant" level. Refer to **Standard Project Requirement CULT 5**.

SPR CULT 5: Inadvertent Discovery of Human Remains

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

VI. GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

Regional Geology

Mendocino Woodlands State Park (MWSP) is situated on the western (coastal) side of the Mendocino Range, the westernmost range of the Coast Range Geomorphic Province. This province consists of northwest-trending mountain ranges that stretch from Santa Barbara County north to the Oregon border. The northern and southern ranges are separated by the San Francisco Bay (CGS 2002). The Coast Ranges are subparallel to the active San Andreas Fault.

Thick Mesozoic (between 252 and 66 million years ago) and Cenozoic (66 million years ago to present day) sedimentary strata comprise the majority of the Coast Ranges (CGS 2002). The northern section of the Coast Ranges, which includes the park, is dominated by irregular, knobby, landslide-topography of the Franciscan Complex (CGS 2002). Rocks of the Franciscan Complex include mafic volcanic rocks (basalt), many of which are altered to greenstone; radiolarian cherts; greywacke sandstones; limestones; serpentinites; shales; and high-pressure metamorphic rocks, such as blueschist (Bailey et al. 1964). MWSP and adjacent areas have been mapped as undivided Cretaceous (145 ± 4 to 66 million years ago) marine rocks consisting of sandstone, shale, and minor conglomerates (CDC 1977).

Topography

Elevations in the park unit range from approximately 40 feet amsl (above mean sea level) along the Little North Fork Big River to about 520 feet amsl up slope from Camps 2 and 3. Elevations within the project area average approximately 50 feet to 75 feet amsl. Project areas are located in a narrow stream corridor (Little North Fork Big River) constrained by densely vegetated, steep to moderately steep canyon slopes.

Seismicity

Mendocino County is a seismically active area and this portion of the California coast lies along the active boundary between the Pacific and North American tectonic plates (CDPR 2006). In general, the Pacific plate is moving northward at a greater rate than the North American plate's northwestward movement, resulting in a strike-slip fault component. Offshore lies the San Andreas Fault, which is more than 600 miles long, extending from just north of Point Arena to the Gulf of California (CGS 2002). Along the length of most of California, the San Andreas Fault defines the boundary between the Pacific Plate to the west and the North American Plate to the east (UC 2008).

Although the Chamberlain Fault is approximately 10 miles from the project area there has been no reported displacement within the Quaternary Period (2.58 million years to present); hence it is not considered to be a likely generator of an earthquake.

The northern end of the San Andreas Fault is approximately 14 miles southwest of the project area and the Maacama Fault occurs approximately 23 miles to the east (CGS 2010). Both of these faults have exhibited historic (last 200 years) displacement. The U.S. Geological Survey estimates the northern segment of the San Andreas Fault has a 19% probability of generating a Richter magnitude 6.7 (M6.7) or greater earthquake through 2030 (Mendocino County 2009). The maximum earthquake Richter magnitude capable for the Maacama Fault is estimated to be M7.3

The most seismically active area in the contiguous United States, known as the Mendocino Triple Junction, occurs approximately 80 miles northeast of the park unit (Mendocino County 2009). This is the southern end of the Cascadia Subduction Zone (CSZ), which is where the Gorda tectonic plate collides with the Pacific and North American plates (USGS 2015). Since 1983 the region has generated about 80 quakes of $M \geq 3.0$ each year (as of November 2014), and historically the region has experienced major quakes (USGS 2015). Because the Gorda plate is subducting beneath the North American plate, there is the potential for a large magnitude earthquake in the area. The California segment of the CSZ is capable of producing an M8.3 earthquake (Petersen et al. 1996).

Soils

The National Cooperative Soil Survey of the USDA Natural Resources Conservation Service (NRCS 2015) has identified five soil map units for the project areas. These five soil types are described below.

Bigriver loamy sand, 0 to 5 percent slopes.

Most of the project area has been mapped as this type, which consists of alluvium derived from sandstone parent material that reaches a maximum depth of 63 inches. This moderately deep soil is well drained with very low runoff potential; however, it is subject to frequent flooding.

Dehaven-Hotel complex, 50 to 75 percent slopes.

This map unit is a complex of 45 percent Dehaven and similar soils, 35 percent Hotel and similar soils, and 20 percent minor components. Dehaven and Hotel soils are comprised of colluvium derived from sandstone and/or residuum weathered from sandstone parent material. Both of these soils are well drained with high runoff potential. Dehaven soils extend to a depth of 56 inches while Hotel soils are shallower, extending to a depth of 39 inches. A small patch of this soil map unit has been identified as occurring on steeper slopes in Camp 2.

Irmulco-Tramway complex, 9 to 30 percent slopes.

This map unit is a complex of 70 percent Irmulco and similar soils, 15 percent Tramway and similar soils, and 15 percent minor components. Irmulco and Tramway soils are derived from residuum weathered from sandstone. Both of these soils are well drained with

a high runoff capacity. Depth of Irmulco soils extends to 71 inches and to a depth of 32 inches for Tramway soils.

Irmulco-Tramway complex, 30 to 50 percent slopes.

This map unit is a complex of 70 percent Irmulco and similar soils, 15 percent Tramway and similar soils, and 15 percent minor components. Parent material, drainage and runoff classes, and soil depths are the same as the preceding soil map unit.

Vandamme loam, 9 to 30 percent slopes.

Vandamme loam soil is derived from residuum weathered from sandstone. These well drained soils exhibit a high runoff capacity. Depth of Vandamme soil extends to 46 inches.

The last three soils map units described above comprise the majority of soils in the steeper sloped project areas.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic related ground failure including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil as defined in Table 18-1-B of the Uniform	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Building Code (1997) creating substantial risks to life or property?
- e) Have soils incapable of adequately supporting 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 geological feature?

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Geology and Soils is based on criteria VI a – f, described in the environmental checklist above.

DISCUSSION

This project will provide improvements to the wastewater collection and disposal systems for Camps 2 and 3 at Mendocino Woodlands State Park. Project activities are 1) Installation of septic, pump and overflow tanks at all three camps; 2) Installation by trenching of a network of wastewater pipes (diameter range of 4” to 6”) throughout each camp; 3) Installation of new leach fields for the camps; 4) Installation of 1 new lift station at each camp; and 5) Installation by trenching of electrical conduit and cable for lift stations and corresponding tanks housing the pumps.

a) The proposed action does not have the potential to expose people or structures to potential adverse effects. All of the proposed facilities are located underground and are not designed for human habitation or entry. See individual responses to Items a (I-IV) below.

- i The project site is not located within an Alquist-Priolo Earthquake Fault Zone (APEFZ) as designated by the California Geological Survey (CGS). As described in the Environmental Setting above, the closest known fault to project areas is the Chamberlain Fault, which is located approximately 10 miles to the east. There has been no evidence of movement associated with this fault in the last 2.6 million years and the potential for ground surface rupture is low due to the absence of known active faults in the immediate vicinity of the project area. No impact.
- ii As described in the Environmental Setting above the San Andreas and Maacama Faults are located 14 and 23 miles, respectively, from the project area. These faults could potentially induce strong seismic shaking at the project site; however, this is an existing condition and there would be no increased risk to the public or structures from project implementation. No impact.
- iii Seismic-induced ground failure, such as liquefaction, usually occurs in unconsolidated granular soils that are water saturated. During seismic-induced ground shaking, pore water pressure can increase in loose soils, causing the soils to change from a solid to a liquid state (liquefaction). There may be a potential for

liquefaction in locations with Bigriver loamy sand soils, which occur primarily on level areas; however, the proposed facilities are located underground, are not designed for human habitation or entry, and the potential for liquefaction is an existing condition that would not be exacerbated by new wastewater facilities. No impact.

iv No known landslides have been mapped or otherwise identified at the project site. In addition, as stated above, the proposed facilities are located underground and are not designed for human habitation or entry. No impact.

b) The project could create temporary unstable soil conditions and increased erosion during ground disturbing activities; however implementation of **Standard Project Requirement HYDRO-1: Erosion and Sediment Control and Pollution Prevention**, a required Storm Water Soil Loss Prevention Plan (SWSLPP), and DPR-approved Best Management Practices (BMPs) would reduce soil erosion or loss of topsoil by the proposed project to a less than significant level.

c) The project site is not located within a geologic unit or on soil that is known to be unstable or that would become unstable, as a result of the project, based upon available data. As described above some project components may be on soils with a potential for liquefaction; however, this is an existing condition that would not be affected by new wastewater facilities. No impact.

d) No known expansive soils occur within the project area, as defined in Table 18-1-B of the Uniform Building Code (1997). No impact.

e) The project does involve the installation of sewage disposal systems at Camps 2 and 3. Four potential sewage disposal sites at Camp 2 and three at Camp 3 have been evaluated by a certified engineering geologist (LACO 2015). Two of the sites at Camp 2 and two at Camp 3 satisfy the requirements of the State Water Resources Control Board Onsite Wastewater Treatment System (OWTS) Policy of 2012 and the County of Mendocino Division of Environmental Health Guidelines, and were found to have soils capable of adequately supporting the proposed disposal systems. Less than significant impact.

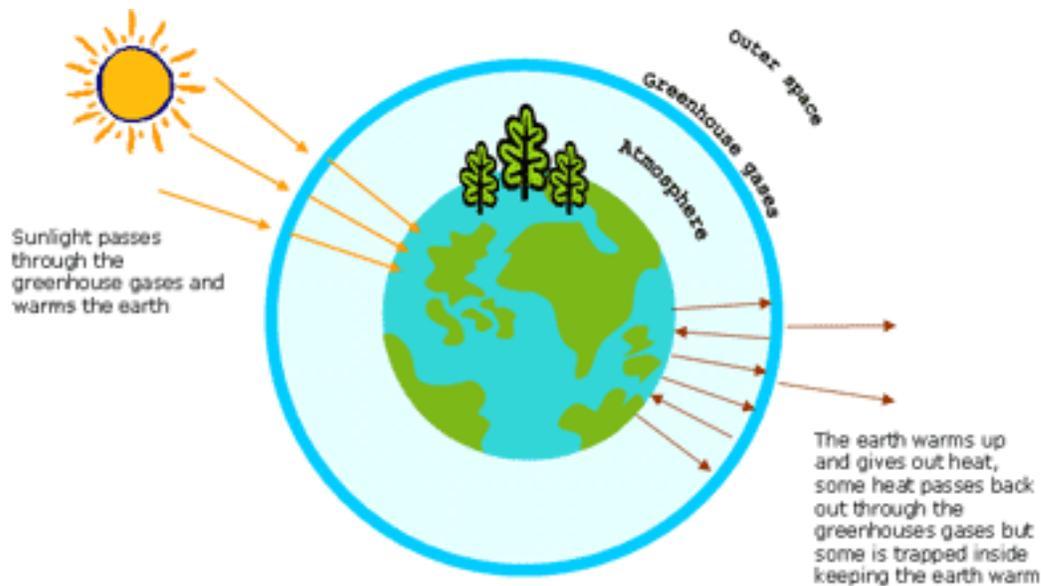
f) No known paleontological resources exist within project area, nor are they likely to be encountered by the proposed work. No impact.

VII. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

What Is a Greenhouse Gas

Certain gases trap heat radiating from the Earth's surface, much like the glass in a greenhouse—hence the term “greenhouse gas.” By definition, a greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere.



The Greenhouse Effect - St. Albans City & District Council

Sources

- **Carbon dioxide (CO₂):** Carbon dioxide enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide (N₂O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases:** Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are synthetic, powerful greenhouse gases that are emitted from a

variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but they are very potent and are sometimes referred to as High Global Warming Potential gases.

Each of these gases can remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years and all remain in the atmosphere long enough to become well mixed all over the world, regardless of the source of the emissions.

Plans & Policies

California Assembly Bill No. 32 (AB-32), also known as the Global Warming Solutions Act, was passed on August 31, 2006. AB 32 codifies the state's goal by requiring the state's GHG emissions be reduced to ten percent below the 1990 GHG emissions level as a target to be achieved by 2020. Regulating carbon dioxide (CO₂), which is the major GHG contributor to global warming, has been the main focus for achieving the 1990 levels.

In December 2009, the Natural Resource Agency adopted amendments to the *Guidelines for Implementation of the California Environmental Quality Act (CEQA)*, addressing the significance of impacts for GHG emissions (State of California 2009). Section 15064.4 of the amended CEQA Guidelines states: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project."

"Cool Parks" --Addressing Climate Change: Climate change threatens all that we value and protect in the world. Addressing it will be the defining challenge for this and several subsequent generations of Parks leaders. We must respond in each of the following areas:

1. Getting Our House In Order —In State Parks we must reduce our emissions of greenhouse gases (GHG) through energy conservation, innovative design and other creative approaches. We must maximize the carbon-sequestering potential of our forests and other habitats when consistent with our mission.
2. Adaptation— We must modify our resource management, acquisition and restoration policies and practices to help ensure the species and habitats we protect can successfully adapt to the effects of climate change.
3. Interpretation— We must teach our visitors, including children, about the impacts of climate change on parks and inspire them to adapt to climate change by making positive lifestyle changes. Our parks should become models of climate-change best practices showcasing what is at risk and what can be done about it.

Effects

Many GHGs stay in the atmosphere for long periods of time. As a result, even if emissions stopped increasing, atmospheric GHG concentrations would continue to increase and

remain elevated for hundreds of years. Increased GHG concentrations in the atmosphere are expected to:

- Increase Earth's average temperatures
- Influence the patterns and amounts of precipitation
- Reduce ice and snow cover, including permafrost
- Increase the acidity of oceans
- Raise sea level

Warming temperatures contribute to sea level rise by expanding ocean water and melting mountain glaciers and ice caps. Relative sea level also depends on local changes in currents, winds, salinity and water temperature. A rise in sea level impacts Parks the most.

Mean Sea Level Rise

DPR is responsible for managing 114 coastal park units that include more than 340 miles of the coast. These diverse units include beaches, bluffs, coastal forests and grasslands, rivers, estuaries, and dune systems. By 2100, sea levels are projected to increase by 4 to 56 inches (10-143 cm) in areas north of Cape Mendocino and 17 to 66 in (42-167 cm) in areas south of Cape Mendocino.

Given its extensive coastal holdings, DPR has a responsibility to prepare for mean sea level rise (MSLR) and the increasing impact from extreme coastal storm events. DPR prepared the Sea-level Rise and Extreme Event Guidance document to provide consistent and flexible guidance to State Parks staff with regard to managing coastal resources and developing new projects in the context of MSLR and extreme events.

Several provisions of the Department Operations Manual (DOM) relate to coastal and ocean processes. For instance, the Coastal Development Siting Policy (DOM 0307.3.2.1) states it is the policy of DPR that natural coastal processes (such as wave erosion, beach deposition, dune formation, lagoon formation, and seacliff retreat) should be allowed to continue without interference. The section states: "The Department shall not construct permanent new structures and coastal facilities in areas subject to ocean wave erosion, seacliff retreat, and unstable cliffs...", and that new structures located in areas known to be "subject to ocean wave erosion ... shall be expendable or movable." This policy does not yet address limiting development of structures in areas projected to be impacted by future sea-level rise and extreme events.

Similarly, the existing Department policy "Siting Facilities to Avoid Natural Hazards" (DOM 307.3.1.1) states that the Department will strive to site facilities where they will not be damaged or destroyed by natural physical processes; while general natural resources policy states natural change will also be recognized as an integral part of the functioning of natural systems (DOM 304.1). To the extent that MSLR combined with flood events on coastal floodplains is now recognized as a potential climate change impact, the Department's floodplain management policy, which calls for limits to development in floodplains (DOM 306.6), also applies. The department is in the process of updating these

policy provisions in light of the compelling scientific evidence and emerging policy direction on this topic.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Greenhouse Gas Emissions is based on criteria **VII a & b**, described in the environmental checklist above.

DISCUSSION

a. i) In 2002 the California legislature declared global climate change was a matter of increasing concern for the state’s public health and environment, and enacted laws requiring the state Air Resources Board (ARB) to control GHG emissions from motor vehicles (Health & Safety Code §32018.5 et seq.). CEQA Guidelines define GHGs to include carbon dioxide (CO2), nitrous oxide (N2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The California Global Warming Solutions Act of 2006 (Assembly Bill 32) definitively established the state’s climate change policy and set GHG reduction targets (Health & Safety Code §38500 et seq.). The State set its target at reducing GHGs to 1990 levels by 2020.

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (5 March 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable.” (CEQA Guidelines §15064(i)(1) and §15130).

In 2011 the CEQA Guidelines, Section 15064.4 Appendix G were modified to include thresholds of significance for GHG. The project would have potential significant impacts if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Due to the nature of the proposed project (Wastewater System Rehabilitation), DPR has determined that it is appropriate to assess potential GHG impacts qualitatively – as allowed by CEQA Guidelines §15064.4(a)2.

The proposed project could produce GHGs: 1) during fuel combustion while the wastewater system rehabilitation project is being implemented. Project vehicles and equipment would likely include the following: 2 large excavators, likely with stingers (hydraulic attachments designed to break up concrete); a loader; a dozer, a water truck and several 20 yard trucks. Some minor changes in types of equipment may be needed depending on the contractor hired to complete the project. Not all vehicles and equipment would operate simultaneously. Some equipment would only be operating during certain stages of the project depending on the work being done. The proposed project would be under various stages of construction for approximately 120 days but the construction-related greenhouse gas emissions would be short-term. Therefore, the project construction phase would not significantly increase greenhouse emissions.

Standard Project Requirement AIR 1 – Air Quality as noted in Section III above, would require all construction related equipment engines to be maintained and properly tuned up (according to manufacturer’s specifications), and in compliance with all state and federal requirements. This requirement is designed to reduce project-related emissions of CO₂ and N₂O.

ii) Climate Change and Sea Level Rise - Because of the project’s location and the nature of the project itself, the project will not contribute to sea level rise nor will it be susceptible to it. Therefore, no impact.

b.) The State has not developed specific GHG thresholds of significance for use in preparing environmental analyses under CEQA, and the NCUAQMD has not adopted GHG thresholds to determine significance. The Association of Environmental Professionals’ document *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*, states emissions for criteria pollutants tend to follow similar patterns as the emissions for GHG emissions” (AEP, 2007). Therefore, it is reasonable to assume that if all other pollutants from the Project are determined to be less than significant, the CO₂ emissions will also be less than significant. The proposed Wastewater System Rehabilitation project would not violate Mendocino County’s air quality standards and would not result in a cumulatively considerable increase in emissions. Therefore, the proposed Wastewater System Rehabilitation Project would not generate significant GHG emissions and would therefore not conflict with the current State and Mendocino County guidelines or any applicable plans, policies or regulations concerning GHG emissions.

To reduce potential GHG emissions due to project activities, the project would implement **Standard Project Requirement AIR 1 – Air Quality** to limit impacts to air quality and reduce GHG emissions during project activities. Implementation of this project requirement would ensure the project would have a less than significant impact.

VIII. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

A Hazard is considered a situation that poses a level of threat to life, health, property, or environment. Most hazards are dormant or potential, with only a theoretical risk of harm; however, once a hazard becomes "active", it can create an emergency situation. A hazardous material is any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

Hazardous materials include all flammable, reactive, corrosive, or toxic substances which, because of these properties, pose potential harm to the public or environment. Hazardous materials such as chlorine for the water system, standard cleaning chemicals, various vehicle maintenance fluids and paint and paint thinner are used and stored in Mendocino Woodlands State Park (Per. Comm.: Cyrus Kroninger, operations director, Mendocino Woodlands Camp Association).

This section concentrates on the specific environmental concerns included in the Initial Study Checklist below.

Emergency Response Plan

The County of Mendocino emergency management system functions under the Standardized Emergency Management System (SEMS). Mendocino County is part of the Governor's Office of Emergency Services Coastal Region (Region II).

Schools

The nearest school, Mendocino High School, is located approximately 7.4 miles from the proposed project site.

Wildfires

Dry weather conditions, heat, wind, and abundant fuel make fire one of the highest priority natural hazards for the area. Under drought classifications, this area is considered in "extreme drought." The California Department of Forestry and Fire Protection (CalFire) lists the fire hazard severity for Mendocino Woodlands as High (CalFire, 2007) and is designated as a State Responsibility Area in the event of a fire. According to the Mendocino County fire protection service area mapping, the project site is adjacent to three fire districts: Mendocino, Albion - Little River and the Comptche fire districts.

Cortese List:

The Hazardous Waste and Substances Sites List, also known as the Cortese List or California Superfund, is a planning document used by the State of California and its various local agencies and developers to comply with the California Environmental Quality

Act requirements in providing information about the location of hazardous materials release sites. *California Government Code section 65962.5* requires the California Environmental Protection Agency to develop at least an annually updated Cortese List. (Wiki)

A review of this Cortese list(s) found there are no known hazardous sites within the project area. There are no nearby occurrences of Leaking Underground Storage Tanks in the project area; the closest site is in the town of Mendocino and along Schoolhouse Creek just north west of the Little River Airport. There are two Permitted Underground Storage Tanks within a few miles of the park; one is located at 41650 Comptche Road and the other is at 10101 The Boom Road; both are located in Mendocino CA, 95460 and both are listed as closed sites (EPA, 2012).

Hazardous materials are defined and regulated in the United States primarily by laws and regulations administered by the U.S. Environmental Protection Agency (EPA), the U.S. Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (DOT), and the U.S. Nuclear Regulatory Commission (NRC). Each has its own definition of a "hazardous material." (IHHM)

Airport Safety

The Little River Airport is located approximately 5 miles diagonally and approximately 12.7 miles over surface roads from the project site. The airport is run by Mendocino County, open for public use and is operational twenty-four hours a day (AirNav.com) & (per comm: Amber Munoz).

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

on a list of hazardous material 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 of where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Hazards and Hazardous Materials is based on criteria **VIII a – h**, described in the environmental checklist above.

DISCUSSION

- a) Project activities are not expected to create a hazard to the public due to routine use of hazardous materials. Construction would require the use of heavy equipment and vehicles that use diesel fuel, gasoline, oil, and hydraulic fluid. Implementation of **Project Specific Requirement HAZ - 1 Hazardous Materials** will ensure impacts from the project remain less than significant.

SPR HAZ 1: Spill Prevention

- **Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination.**

- Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site.
 - Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but will not be limited to the following:
 - ✓ A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur.
 - ✓ A list of items required in an on-site spill kit that will be maintained throughout the life of the project.
 - Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project. Identification of lawfully permitted or authorized disposal destinations.
- b) Project construction would require the use of heavy equipment and vehicles that use diesel fuel, gasoline, oil, and hydraulic fluid. If used for project implementation, hazardous materials used during construction would be transported, used, and stored in accordance with state and federal regulations regarding hazardous materials. Implementation of **Standard Project Requirement HAZ 2 – Rubbish** will ensure that trash and garbage will not be released into the environment. Less than significant impact.

SPR HAZ 2 – RUBBISH

The project area shall be kept clear of trash to avoid attracting predators. All food and garbage will be placed in sealed containers and regularly removed from the site. Following construction, any trash, debris, or rubbish remaining within the work limits shall be collected and hauled off to an appropriate facility.

- c) The project is not located within one-quarter mile of any school and no schools are proposed for this area. No impact.
- d) Mendocino Woodlands State Park is not included on a 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 above and beyond household cleaning supplies and chlorine. All motor oil and coolant is transported by park staff to the Haz Mobile in Fort Bragg (pers comm Cyrus Kroninger). If encountered, construction specifications require the clean-up of hazardous materials. Therefore, no impact would occur with project development.
- e) As noted in the Environmental Setting above, the project site is not located within two miles of a public airport. Because the Project area is located outside of the designated referral area for the Little River Airport and the proposed Project would not result in a safety hazard due to the proximity of the airport, there will be no impact.
- f) The project is not located within two miles of a private air strip. No impact.

- g) All construction activities associated with the project would occur within the boundaries of Mendocino Woodlands State Park and work would not restrict access to or block any public road outside the immediate construction area. Construction work may require use of the existing service roads; however, minimum access requirements for emergency vehicles would be maintained at all times. No impact.
- h) Heavy equipment can get very hot in general and especially so during summer months; this equipment is sometimes in close proximity to flammable vegetation. Improperly outfitted exhaust systems could generate sparks. **Standard Project Requirement Hazards 2 - Fire Prevention** will ensure that impacts from fire will remain at a less than significant level.

SPR HAZ 2 – FIRE PREVENTION

- **Prior to the start of construction, the contractor will develop a Fire Safety Plan for DPR approval. The plan will include the emergency calling procedures for both the California Department of Forestry and Fire Protection (CDF) and local fire department(s).**
- **Contractor shall require all heavy equipment be equipped with spark arrestors or turbo-charging (eliminates sparks in exhaust) and have fire extinguishers on-site.**
- **Construction crews will park vehicles 40' from flammable material, such as dry grass or brush. At the end of each workday, construction crews will park heavy equipment over a non-combustible surface to reduce the chance of fire. Contractor personnel will have a State Park radio at the Park, which allows direct contact with CalFire and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire. Prior to the start of on-site construction activities, contractor will clean and repair (other than emergency repairs) all equipment outside the project site boundaries.**
- **Under dry conditions, a filled water truck and/or fire engine crew will be onsite during activities with the potential to start a fire.**
- **The contractor will designate and/or locate staging and stockpile areas in the designated staging area or on other paved surfaces to prevent leakage of oil, hydraulic fluids, etc. into any nearby water course.**
- **Contractors shall have firefighting hand tools on site and each vehicle shall have an appropriately-sized and fully charged fire extinguisher.**

The safety plan developed for each project is reviewed by all project staff and includes job site characteristics to reduce the potential for fire. In addition, because most areas within the project site are adjacent to the wetted perimeter of the river and on gravel bars, the chance of igniting a wildland fire is significantly reduced. Burn permits will be adhered to for disposal of and burning of exotic plants.

IX. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park (MWSP) is a 720-acre park unit in Mendocino County that is located within the Big River watershed, and adjacent to the Little North Fork Big River, a 3.5-mile section of which traverses the park.

The Big River watershed drains an area of approximately 116,000 acres, or about 181 square miles. The watershed drains from the east to the west, sharing ridges with the Noyo River watershed to the north, the Eel River watershed to the east, and the Albion River and Navarro River watersheds to the south (CDFW, 2015).

The river's headwaters are thirty miles inland from the Pacific Ocean in the Mendocino Range, part of the California Coast Range (Wikipedia 2015). The headwater area of the river is fed by Montgomery Creek as it flows through the upland riparian habitat and virgin redwoods of Montgomery Woods State Reserve. From there, the river flows roughly west through Jackson Demonstration State Forest. The lower portions of the river pass through Mendocino Woodlands State Park and the Big River Unit of Mendocino Headlands State Park before reaching the mouth of the river at the Pacific Ocean just south of the town of Mendocino.

The Big River watershed has a Mediterranean climate, characterized by a pattern of low-intensity rainfall in the winter and cool, dry summers with coastal fog. Mean annual precipitation is 40 inches at Fort Bragg near the western margin of the watershed and 51 inches at Willits to the east. About 90% of the precipitation in this area occurs between October and April with the highest average precipitation in January. Snowfall is very rare and hydrologically insignificant.

The Big River Basin is sparsely populated, with most of the land used for silviculture and other smaller areas used for ranching. There are only a handful of populated areas within the Big River Basin, including the areas around Orr Springs, Whiskey Springs, Cameron, and Mendocino approximately 5 miles away. By far the largest populated area is Mendocino, with a population of approximately 824 people.

The primary beneficial uses of concern in the Big River watershed are those uses associated with the cold freshwater fishery that supports Coho salmon, Chinook salmon, and steelhead trout, which are listed as threatened or endangered under the federal Endangered Species Act (NCRQWCB, 2011). Additionally, the Basin Plan identifies municipal, industrial, agricultural, and recreational uses of the Big River watershed. As with many of the north coast watersheds, the beneficial uses associated with a cold freshwater fishery appears to be the most sensitive of the beneficial uses in the watershed because of the sensitivity of salmonid species to habitat changes and water quality degradation. Accordingly, protection of these beneficial uses is presumed to protect any of the other beneficial uses that might also be harmed by sedimentation and high water temperatures.

The following beneficial uses are related to the Big River watershed's cold freshwater fishery:

- Commercial and sport fishing (COMM);
- Cold freshwater habitat (COLD);
- Migration of aquatic organisms (MIGR);
- Spawning, reproduction, and early development (SPWN); and,
- Estuarine habitat (EST).

Site Drainage Conditions: Camp 2 is located along both banks of the Little North Fork Big River where Thompson Gulch drainage empties into the river. Camp 3 is located approximately 2000' downstream at the confluence of the Manly Gulch Drainage and Little North Fork Big River. Both camps encompass relatively level locations on alluvial flats as well as steep to moderately steep adjoining canyon slopes.

Flooding Potential: According to the Federal Emergency Management Agency (FEMA), the project area is located within an unmapped area. The closest community is the town of Mendocino approximately 5 miles west of the park unit. The Project site is located adjacent to the Little North Fork Big River, within the Big River watershed.

Water Quality Regulation: Mendocino County is within the jurisdiction of the North Coast Regional Water Quality Control Board (NCRWQCB), which oversees ten northern California counties. Per the requirements of the Clean Water Act (CWA), and the California Porter-Cologne Act, the NCRWQCB has prepared a Water Quality Control Plan (NCRWQCB, 2011) for the watersheds under its jurisdiction. Per the requirements of CWA Section 303(c), the NCRWQCB Water Quality Control Plan is reviewed every three years and revised as necessary to address problems with the plan, and meet new legislative requirements.

Section 303(d) of the federal CWA and 40 CFR §130.7 require states to identify water bodies that do not meet water quality standards and are not supporting their beneficial uses. These waters are placed on the Section 303(d) List of Water Quality Limited Segments (also known as the list of impaired water bodies). This list includes the Little North Fork Big River, with temperature and dissolved oxygen identified as pollutants, per the definition of the U.S. Environmental Protection Agency (NCRWQCB, 2015).

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the 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 flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Result in inundation by seiche, | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

tsunami, or mudflow?

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Hydrology and Water Quality is based on criteria **IX a – j**, described in the environmental checklist above.

DISCUSSION

- a. The project entails rehabilitation of the existing wastewater systems at Camps 2 and 3. There are several existing leach fields servicing the collections and disposal system. One of the leach fields for Camp 3 is susceptible to flooding as a result of past road improvements that rerouted the adjacent creek. The Manly Gulch Coho Access and Habitat Restoration Project, which is currently being implemented, includes re-grading at and around the creek and realignment of 600 feet of Manly Gulch to reconnect it to the Little North Fork Big River. This will divert the water away from the leach field and eliminate flooding. That project also calls for a small bridge structure to allow the creek to flow underneath and past the road.

The existing wastewater systems at Camps 2 and 3 are aging systems with open drying trenches and failing underground pipes that have been an ongoing maintenance challenge. With the close proximity of the camps to the Little North Fork Big River, the declining state of the system will have the potential for releasing unintentional discharges that could result in a substantial impact on the beneficial uses of the river. As such, approval and construction of the proposed project will reduce that potential.

The project construction period will occur during the winter season to avoid impacting nesting birds and to avoid disrupting visitors to the campground. The potential for muddy conditions on project access roads is being addressed by upgrading these roads with new road base that will be completed prior to commencing any project activities.

The project could create temporary unstable soil conditions and increased erosion during ground disturbing activities including trenching for new sewer lines, and construction of new facilities (e.g. leach fields); however, integration of **STANDARD PROJECT REQUIREMENT HAZ 1** (see Chapter 2) and **STANDARD PROJECT REQUIREMENT HYDRO 1** (see Chapter 2) into construction plans will control waste and sediment discharge from project areas through the preparation and implementation of a Stormwater Soil Loss Pollution Prevention Plan (SWSLPPP). The SWSLPPP identifies appropriate project BMPs that conform to Mendocino County water quality standards and waste discharge requirements. Less than significant impacts.

- b. The project does not involve the extraction of groundwater and will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Upslope restoration activities associated with the Manly Gulch Project identified above will return drainage to historic patterns thereby decreasing surface runoff and increasing infiltration to the ground water. No impact.

- c. The project will not alter the current drainage patterns of Camps 2 and 3 and will not result in substantial erosion or siltation on or offsite. **STANDARD PROJECT REQUIREMENT HAZ 1** and **STANDARD PROJECT REQUIREMENT HYDRO 1** identified above will address any potential erosion or sediment production created by this project. No impact.
- d. The project will not alter the existing drainage pattern of the work site, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site. At Camp 3 the Manly Gulch Coho Access and Habitat Restoration Project will decrease the risk of flooding through upslope restoration activities that will return drainage to historic patterns. No impact.
- e. The project will not create or contribute runoff water that would exceed the capacity of existing or planned storm-water drainage systems, or provide substantial additional sources of polluted runoff. As described above, the project will rehabilitate the existing wastewater systems and decrease the potential for polluted runoff. In addition, the Manly Gulch Coho Access and Habitat Restoration Project at Camp 3 will stabilize slopes and return drainage to historic patterns, thereby improving surface runoff and decreasing the sediment load delivered to the Little North Fork Big River. No impact.
- f. The project will not substantially degrade water quality. The project could create temporary unstable soil conditions and increased erosion during ground disturbing activities, but implementation of the project SWSLPPP and its' BMP measures will reduce the potential for degradation of water quality to a less than significant level.
- g. The project will not place housing within a 100-year flood hazard area as mapped on any flood hazard delineation map. No housing will be created as part of this project. No impact.
- h. The project will not place within a 100-year flood hazard area structures which would significantly impede or redirect flood flows. This project does not include the construction of or improvement of any above ground structures that could potentially affect flood flows. No impact.
- i. The project will not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. This project does not involve dams or levees and will not affect flood flows. No impact.
- j. The project will not expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Project work sites are not located in areas at risk of inundation by seiche or tsunami. No areas susceptible to mudflows have been identified within the project area. Project actions are designed to improve or stabilize conditions at the project site and the project SWSLPPP will address any potential runoff or mobilization of soil created by project activities. In addition, the Manly Gulch Coho

Access and Habitat Restoration Project at Camp 3 will stabilize slopes and return drainage to historic patterns. Less than significant impact.

X. LAND USE AND PLANNING

ENVIRONMENTAL SETTING

The proposed project is situated within the boundaries of Mendocino Woodlands State Park, approximately 7 miles northeast of the town of Mendocino, in Mendocino County. Camps 2 and 3 are located further to the east along the main park road. No General Management Plan exists for this park but DPR's Departmental Operations Manual, Section 0300 states the goals and objectives of the Department's natural resource responsibility are "to acquire, protect, restore, maintain and sustain outstanding and representative examples of California's natural and scenic values for the benefit of present and future generation" (CDPR).

Development and uses within Mendocino Woodlands State Park are limited due to both the geographical terrain and the sensitive natural resources located within the park's boundaries. As a recreational facility, the development of permanent housing (other than a limited number of staff residences) is not a planned use of the park. The park is primarily a destination park, used by locals and out-of-town visitors alike, but does not offer residential opportunities within its boundaries. Business opportunities are limited to the single DPR-approved concession currently operating the park.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Land Use and Planning is based on criteria **X a – c**, described in the environmental checklist

above.

DISCUSSION

- a) The proposed project sites are wholly within the boundaries of Mendocino Woodlands SP. The sites do not contain, or define, an established community and no project activities will disrupt or divide any community functions. Project activities will also not prevent access to adjacent parcels. No impact.
- b) Rehabilitation of the Wastewater Systems at Mendocino Woodlands State Park will not conflict with any existing land use policies. No Impact.
- c) There are no established habitat conservation plans or natural community conservation plans. No Impact.

XI. MINERAL RESOURCES

ENVIRONMENTAL SETTING

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources.

The Mineral Resources and Mineral Hazards Mapping Program (MRMHMP) provides data about California's varied non-fuel mineral resources (such as metals and industrial minerals), naturally occurring mineral hazards (such as asbestos, radon, and mercury), and information about active and historic mining activities throughout the state (California Department of Conservation, 2007).

In accordance with Public Resource Code § 5001.65, commercial exploitation of resources in the units of the state park system is prohibited.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Mineral Resources is based on criteria **XI a & b**, described in the environmental checklist above.

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 Park and resource extraction is not allowed in State Park units. No impact.

- b) The project would not result in the loss of availability of a locally important mineral resource recovery site because none exists within the Park and resource extraction is not allowed in State Park units. No impact.

XII. NOISE

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park is located in rugged and steep terrain, in and amongst second- and third growth redwood trees with an understory of ferns. Existing noise currently affecting the area is the result of private vehicles and small mechanized equipment used to maintain the park's structures and amenities.

Noise Fundamentals

Sound is any detectable fluctuation in air pressure and is generally measured on a logarithmic scale in decibels (dB). When unwanted sound (i.e. noise) is measured, an electronic filter is used to de-emphasize extreme high and low frequencies to which human hearing has decreased sensitivity. Resulting noise measurements are expressed in weighting frequencies called A-weighted decibels (dBA). While zero dBA is the low threshold of human hearing, a sustained noise equal or greater than 90 dBA is painful and can cause hearing loss over long periods of exposure (Table XI-1, Bearden 2000).

Noise is further described according to how it varies over time and whether the source of noise is moving or stationary. Background noise in a particular location gradually varies over the course of a 24-hour period with the addition and elimination of individual sounds. Several terms are used to describe noise and its effects. The equivalent sound level (Leq) describes the average noise exposure level for a specific location during a specific time period, typically over the course of one hour. The Community Noise Equivalent Level (CNEL) is a twenty-four hour average of Leq with an additional 5 dBA penalty for noise generated between the hours of 7:00 p.m. and 10:00 p.m. and a 10 dBA penalty during the hours of 10:00 p.m. and 7:00 a.m. The penalties account for how much more pronounced a noise is at night when other sounds have diminished. Federal, state, and local governments have defined noise and have established standards to protect people from adverse health effects such as hearing loss and disruption of certain activities. Noise is defined in the California Noise Control Act, Health and Safety Code, California Code of Regulations (CCR) § 46,022 as excessive or undesirable sound made by people, motorized vehicles, boats, aircraft, industrial equipment, construction, and other objects.

Loudness is measured in decibels (dB) and is typically expressed in dBA, which approximates human hearing. The human ear can generally perceive noise from 0 to 140 decibels. Sounds as faint as 0 decibels are barely audible, and then only when there are no other sounds. Ordinary conversation is about 60 dBA. People can tolerate some noise, but brief exposure to intense sounds of 120 to 140 dBs can threaten physical or psychological well-being. (Parks, 2012)

Noise Source	Decibels (dBA)
Turbo jet engine	150
Truck without a muffler	90

Noisy class, gym, alarm clock, whistle	80
Average residence	40
Quiet room	20
Lowest audible sound	0
Source: TeachEngineering	

As loudness increases, the amount of time you can hear the sound before damage occurs decreases. Hearing protectors reduce the loudness of sound reaching the ears, making it possible to listen to louder sounds for a longer time.

The table below illustrates the range of noise in dBA of construction equipment.

Construction Noise Levels

Pneumatic chip hammer	103-113	Crane	90-96
Jackhammer	102-111	Hammer	87-95
Concrete joint cutter	99-102	Gradeall	87-94
Skilsaw	88-102	Front-end loader	86-94
Stud welder	101	Backhoe	84-93
Bulldozer	93-96	Garbage disposal (at 3 ft.)	80
Earth Tamper	90-96	Vacuum cleaner	70
Source: CPWR – Center for Construction Research and Training			

Airport Proximity

The nearest airport is the Little River Airport, accessed via Little River Airport Road and is located approximately 4 miles from the project site.

Noise Standards

- United States Noise Control Act: 42 U.S.C. §4901 et seq. (1972)
 The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans to be free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of federal research and activities in noise control; (2) authorize the establishment of federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products.
 While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment.
- California Noise Control Act of 1973 established an Office of Noise Control that is responsible for:

- a) Determining the psychological and physical health effects of noise.
- b) Determining the physiological effects of noise upon plant and animal life.
- c) Monitoring noise.
- d) Collecting and disseminating authoritative information on adverse effects of noise and of means for its control.
- e) Developing, in cooperation with local governments, model ordinances for urban, suburban, and rural environments.
- f) Providing assistance to local governmental entities engaged in developing and implementing noise abatement procedures.
- g) Developing criteria and guidelines for use in setting standards for human exposure to noise.
- h) Developing standards for the use of noise-producing objects in California.
- i) Developing criteria for submission to the Legislature so that state agencies may require noise control in equipment purchased for state use.

Mendocino County

Mendocino County has a zoning ordinance that controls potential nuisances such as noise and vibration. The noise zoning ordinance states the Lmax for any activity over a one hour period shall not exceed 60 dBA between 7:00 a.m. to 10:00 p.m. or 45 dBA between 10:00 p.m. to 7:00 a.m. for residential, agricultural, and resource zoning districts (MCGP, Noise Policies, Policy DE-100). Maximum noise exposure limits are applicable beyond any property lines of the property containing the noise, but construction site sounds between the hours of 7:00 a.m. and 7:00 p.m. are exempt as long as standard, reasonable practices are followed.

California State Parks

California State Park Laws were established to protect the park resources, to administer the parks and to maintain a park atmosphere. To insure peace and adequate rest for visitors:

- a) No person shall disturb others in sleeping quarters or in campgrounds between the hours of 10 p.m. and 6 a.m. daily.
- b) No person shall, at any time, use outside machinery or electronic equipment including electrical speakers, radios, phonographs, televisions, or other devices, at a volume which is, or is likely to be, disturbing to others without specific permission of the DPR.
- c) No person shall operate an engine driven electric generator which emits sound which is, or is likely to be, disturbing to others between the hours of 8 p.m. and 10 a.m. without permission of the Department.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generate or expose people to excessive groundbourne vibrations or groundbourne nose levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Noise is based on criteria **XII a – f**, described in the environmental checklist above.

DISCUSSION

- a) Trucks and heavy equipment such as a backhoe, dump truck or pump could operate during equipment delivery, lift station placement, telemetry system installation, and associated electrical work. Project related noise levels at and near the project sites could fluctuate, depending on the type and number of vehicles and equipment in use at any given time. Depending on the specific project related activities being performed, short-term increases in ambient noise levels could result in speech interference near the project sites and affect park users. Generally, project related work would not occur during the summer or on weekends or holidays when the park use is highest. Weekend work could be implemented, but only to accelerate the proposed project or address emergency or unforeseen circumstances.

Noise associated with the proposed project is considered to have a potentially significant short-term impact to nearby noise-sensitive receptors. Implementation of the **STANDARD PROJECT REQUIREMENT NOISE-1** measure would reduce potential impacts to a less than significant level.

SPR NOISE 1: Noise Reduction

- **Construction activities will generally be limited to the daylight hours, Monday – Friday; however, weekend work may be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur on those days before 8:00 a.m. or after 6 p.m.**
 - **Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g. engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.**
- b) Project related activities would not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant ground vibration or noise. Minor vibration adjacent to excavation and heavy equipment during construction work would be generated only on a short term basis. Therefore, ground borne vibrations and noises would have a Less than Significant Impact.
- c) Once the repair, replacement and rehabilitation of the wastewater systems at Camps 2 & 3, associated electrical upgrades, and installation of a new telemetry system is completed, project related noises would cease. The project would not create a source of noise that would contribute to a substantial permanent increase in noise levels in the vicinity of the project area. No Impact.

- d) See Discussion (a) and (c) above. Implementation of STANDARD PROJECT REQUIREMENT NOISE-1 will reduce any potential impacts to a less than significant level.
- e) The project is not located within an airport land use plan. No Impact.
- f) The project is not located in the vicinity of a private airstrip. No Impact.

XIII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Population and Housing is based on criteria **XIII a – c**, described in the environmental checklist above.

DISCUSSION

a-c) The project includes no component that would induce population growth in the area either directly or indirectly. It has no housing component and all work would take place within the confines of the park boundaries, with no additions or changes to the existing local infrastructure. It would neither modify nor displace any existing housing and would displace no one, either temporarily or permanently. Therefore, it would have no impact on population growth or housing in the area. No impact.

XIV. PUBLIC SERVICES

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park is located 7 miles east of the coastal town of Mendocino. Emergency access to the project site is via Little Lake Road, which is accessed from Highway 1. The general area is urban/rural in nature; Mendocino has a population of just over 900 persons.

Police

State Parks Peace Officers (Rangers) are trained law enforcement officers. They provide immediate police protection for the park with backup provided by the Mendocino County Sheriff's Department. The Sheriff's Department has a station within 14 miles of the proposed project site. The California Shock Trauma Air Rescue (CALSTAR 4) service helicopters, based at Ukiah Municipal Airport, provide air ambulance service for Mendocino County, 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, is the closest full-service medical facility to the project site (Parks, 2012).

Fire

Fire protection is provided by the California Department of Forestry and Fire Protection (CAL FIRE), as outlined in a Cooperative Fire Protection Agreement with California State Parks. They are supported by the Mendocino Fire Protection Department and, as necessary, the Fort Bragg Fire Department. The closest CAL FIRE station is located in Fort Bragg, approximately 15 miles, from the project site. CAL FIRE also maintains an Air Attack Base at the Ukiah Municipal Airport, approximately 20 miles southeast of the project site and a Helitack base located in Willits, about 15 miles east of the project site (Parks, 2012).

Schools

Mendocino Woodlands State Park is in the Mendocino Unified School District. There are no existing or proposed schools within one-quarter mile of the Camps 2 & 3 Wastewater System Rehabilitation Project (Parks, 2012).

Parks and Other Public Facilities

Mendocino Woodlands is a destination park for user groups. There are no other recreational parks located along Little Lake Road or in the nearby vicinity that provide the facilities and amenities found at Mendocino Woodlands.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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 service:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Public Services is based on criteria **XIV a**, described in the environmental checklist above.

DISCUSSION

a) The proposed project at Mendocino Woodlands State Park does not include new government facilities, but proposes to rehabilitate/replace the wastewater systems at Camps 2 and 3 at Mendocino Woodlands State Park. The project work would not create any increase in public service requirements. Project work would not significantly increase visitation or the demand for public services, and therefor would not necessitate the construction of new facilities. No impact.

Fire Protection: Use of construction equipment near flammable vegetation presents an increased fire risk that could result in the need for CAL FIRE and local fire response teams during project implementation. Any impact on services would be temporary; no elements of the project would contribute to the need for an increase in the existing level of public service. Implementation of Project Requirement HAZ-2 combined with the availability of on-site fire suppression equipment (fire extinguishers) would ensure potential impacts on Fire Protection services would remain at a no impact threshold.

Police Protection/Emergency Response: State Park Rangers provide law enforcement protection for Mendocino Woodlands State Park. However, demand for law enforcement would be no greater than present in the project areas and would not require an increase in emergency personnel. No element of the proposed project would create a situation that would significantly increase the demand for police protection, increase staffing needs, or adversely affect emergency response times. No impact.

Schools: There are no elements of this proposed project that would affect schools. No changes would occur that would require additional school facilities or personnel. No impact.

Parks or Other Public Facilities: Access to the park will remain open under normal operating standards with no proposed campground closures, construction activities would be planned for the park's non-peak seasons.

XV. RECREATION

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park is a rural recreation area emphasizing the importance of environmental education. The on-site nature center, herbarium, and library enhance the learning activities available at the Woodlands. Hiking trails and the ridge road offer 25 miles of paths, crossing throughout the park and into the adjacent Jackson Demonstration State Forest. Mendocino Woodlands is open seasonally from April to November for group camping only. Each year Mendocino Woodlands hosts workshops featuring music, arts artists, and dance from around the world (Association).

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Recreation is based on criteria **XV a & b**, described in the environmental checklist above.

DISCUSSION

- a) During construction activities, access to the individual camps would be limited via the use of plastic fencing and other removable barriers to ensure public health and safety. This limited access will not increase the use of any neighborhood of regional parks or other recreational facility or cause substantial physical deterioration to other parks or recreational facilities. Less than significant impact.
- b) The intent of the Wastewater System Rehabilitation Project is to prevent the discharge of sewage into adjacent bodies of water. The project would have a beneficial physical

effect on the environment by providing improved recreational opportunities for the public while at the same time increasing their health and safety. Without this project the threat to public health, due to the discharge of raw sewage into adjacent water bodies, remains. The proposed project would not include the construction or expansion of any recreational facilities within the Park. The project would have no impact.

XVI. TRANSPORTATION/TRAFFIC

ENVIRONMENTAL SETTING

This section describes the existing transportation system in and around Mendocino Woodlands State Park, and analyzes the potential impacts associated with the proposed project.

State routes, county roads and private roads serve the unincorporated areas of Mendocino County; the park is located in an unincorporated part of the County. The County maintained road system connects to the state routes to serve the unincorporated areas of the County. The County maintains 1,018 miles of roadway, approximately 660 miles of which are surfaced. The system is primarily a network of two-lane roads providing transportation corridors for motor vehicular movement of goods and people and providing facilities for non-motorized traffic. An extensive private road network serves a wide variety of uses throughout the County. Conflicting road names and ambiguous or unmapped road locations hamper emergency services in some areas (Mendocino County 2008 (Mendocino, 2009).

The Mendocino County 2005 Regional Transportation Plan (RTP) was adopted by the Mendocino Council of Governments (MCOG) in 2005, and reflects specific policies and improvements necessary to provide a safe, efficient and accessible countywide transportation system for all transportation modes. The 2006 Mendocino County Regional Bikeway Plan was adopted by MCOG in 2006, which complies California Streets and Highways Code Section 891.2 and the relevant policies of the Mendocino County RTP. The Bikeway Plan identifies existing and proposed bikeways throughout the County and defines a short-range implementation plan (Mendocino, 2009).

The Mendocino County Airport Land Use Commission has adopted a Comprehensive Land Use Plan for airports. The Plan regulates land use through safety zones, noise zones and height restrictions. It provides land use compatibility guidelines for lands near airports to avert potential safety problems and to ensure unhampered airport operations (Mendocino, 2009).

The proposed project may result in a slight increase in traffic entering the park during standard work hours. Depending on the phase of the project, the number of vehicle trips in and out of the park may see a slight increase as well. The systematic use of large trucks (i.e. eighteen wheelers) is not anticipated for project purposes, but may be used to deliver heavy construction equipment such as an excavator. The project will not cause a change in air traffic patterns and will not alter existing roads or require the use of slow heavy equipment on public roads. No roads will be blocked, no public parking areas will be rendered unavailable and no public transportation components will be hindered.

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Transportation/Traffic is based on criteria XVI a – g, described in the environmental checklist above.

DISCUSSION

- a) Construction activities are scheduled to take place during the park's off season, and what little increase in traffic that may occur will be within the park itself and offset by occurring during non-peak time for visitors. No impact.
- b) County service standards for roads and highways will not be affected by the project. No impact.
- c) Project will not affect or influence air traffic patterns in any way, including causing an increase in traffic levels. No impact.
- d) Project will repair/replace an existing waste water system and will not involve the redesign of existing roads or the design of new roads. Some heavy equipment may be used in the project area but will not be in use on public roads. No impact.
- e) No public roads will be blocked. No impact.
- f) Off season construction and designated staging areas for construction vehicles will result in no impact to parking facilities. No impact.
- g) Project activities are entirely within the park and will not disrupt or conflict with public transportation programs or hinder bicycle transportation. No impact.

XVII. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

Mendocino Woodlands State Park is a 720 acre recreational demonstration area located approximately 7 miles to the east of the coastal town of Mendocino. Sewage for the three camp sites is treated by wastewater facilities located within each camp area. Most utilities and services within the park unit are concentrated at locations such as the visitor's center, public restrooms, recreation halls, and campground areas. Mendocino Woodlands State Park utilizes ground water to meet the needs of the park unit. Sources are located within the park's boundaries and in Jackson Demonstration State Forest. The restroom facilities in Camps 2 and 3 are connected to existing lift stations and wastewater systems that are proposed to be replaced. Solid waste disposal service is provided under contract with Solid Waste of Willits (Rex, 2015).

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment restriction or standards of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

demand in addition to the provider's existing commitments?

- g) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- h) Comply with federal, state, and local statutes and regulations as they relate to solid waste?

CRITERIA FOR DETERMINING SIGNIFICANCE

The analysis of determining the significance of impacts of the Proposed Action to Utilities and Service Systems is based on criteria **XVII a – h**, described in the environmental checklist above.

DISCUSSION

- a) Mendocino Woodlands State Park is located within the jurisdiction of the North Coast Regional Water Quality Control District. Capacity of the wastewater facilities would not be increased and would be in compliance with all applicable water quality standards and State Parks would obtain a water quality permit from the NCRWQCD if deemed necessary. While the wastewater facilities will be improved, no additional wastewater would be produced by this project. The project will have no impact.
- b) As noted above, water for the park is supplied from wells and/or springs located in either Mendocino Woodlands SP or Jackson Demonstration State Forest. Completion of project will not require new water treatment facilities and will result in new wastewater treatment facilities. Less than significant impact.
- c) The proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. The project will have no impact.
- d) Any environmental effects from completion of this project would be beneficial. One purpose of this project is to move leach lines serving Camps 2 and 3 away from existing bodies of water, thus eliminating the possibility of effluent entering into the local watershed. Less than significant impact.
- e) This project will rehabilitate and/or replace parts of the wastewater treatment systems at Camps 2 and 3. As noted above, water for the park is supplied from wells and/or springs located in either Mendocino Woodlands SP or Jackson Demonstration State Forest. No new or expanded entitlements will be needed. No Impact.
- f) Mendocino Woodlands State Park provides wastewater treatment for the facilities within the boundaries of Camps 2 and 3. The proposed project will rehabilitate or replace

these existing treatment systems and will not place any demand on outside providers. No Impact.

- g) The proposed project includes the removal of several feet of wastewater pipeline if necessary for the placement of new wastewater pipeline. This waste would be hauled to the appropriate transfer station for disposal or recycling. Efforts will be made to recycle all reusable materials in cooperation with local agencies and businesses. No Impact.

CHAPTER 4. – MANDATORY FINDINGS OF SIGNIFICANCE

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have environmental effects that would cause substantial adverse effects on humans, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a. The project entails the rehabilitation of the existing on-site wastewater disposal system in the campgrounds adjacent to the Little North Fork Big River. Currently the existing wastewater systems are susceptible to failure which would potentially impact water dependent resources. Implementation of the project would reduce or eliminate impacts to anadromous fish and other aquatic organisms. Therefore, no impact would result.

- b. The proposed project has been evaluated for potential significant impacts to cultural resources of the Park and its immediate environment. DPR has been determined that, with integration of all Project Requirements the project will have no potential to eliminate important examples of the major periods of California history or prehistory. No impact.
- c. All of the environmental effects have been determined to pose a less than significant impact on humans. The project is designed to reduce adverse effects to humans to the greatest extent possible. Potential impacts would be reduced to a less than significant level if all project requirements are fully integrated into project implementation. Less than significant.
- d. As indicated in the impact analyses Sections discussions in Chapter 3, the proposed project will have no environmental effects that will cause substantial adverse effects on humans, either directly or indirectly with incorporation of Standard Project Requirements and Project Specific Requirements where noted. Less than significant.

CHAPTER 5. – SUMMARY OF MONITORING PLAN

Per CEQA Guidelines Section 15070, this project qualifies as a Negative Declaration; therefore, no mitigations were applied to project actions.

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Electronic library of construction occupational safety & health

http://www.elcosh.org/document/1666/d000573/OSHA's+Approach+to+Noise+Exposure+in+Construction.html?show_text=1

CHAPTER 7. – REPORT PREPARATION

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APPENDIX A – MAPS

