

Example of a Prefabricated Bridge within Malibu Creek State Park

Malibu Creek State Park
Stokes Creek Bridge Project
DRAFT
Initial Study and Mitigated Negative Declaration (IS/MND)
SCH# TBD

May 2019

PUBLIC REVIEW PERIOD: The Draft Initial Study is being circulated for public review and comment for a period of 30 days. See the Notice of Availability for the timeframe. Your questions, comments and/or views regarding this Draft Initial Study are welcomed, especially those related to the Proposed Project's environmental impact. All mailed and e-mailed comments shall be considered before approval of the anticipated Mitigated Negative Declaration. Comments should be directed to:

ATTN: New Stokes Creek Bridge
California State Parks
Southern Service Center
2797 Truxtun Road
San Diego, CA 92106

or by email to

enviro@parks.ca.gov
include "New Stokes Creek Bridge"
in the subject line

During the public review period, copies of the Initial Study may be reviewed at the following locations during normal business hours or downloaded from the CDPR website at the following web address:

http://www.parks.ca.gov/?page_id=983

California State Parks Angeles District 1925 Las Virgenes Road Calabasas, CA 91302-1909
California State Parks Southern Service Center 2797 Truxtun Road San Diego, CA 92106

Mitigated Negative Declaration

Project:
Malibu Creek State Park New Stokes Creek Bridge Project

Lead Agency:
California Department of Parks and Recreation (CDPR)

Environmental Determination
Pursuant to Section 21082.1 of the California Environmental Quality Act (CEQA), CDPR has independently reviewed and analyzed this Initial Study (IS) for the Proposed Project and finds that it reflects the independent judgment of CDPR. CDPR, as lead agency, confirms that the Proposed Project mitigation measures detailed are feasible, will be implemented and will reduce all impacts to a less than significant level.

_____ _____

Craig Sap
Angeles District Superintendent

Date

_____ _____

Luke Serna
Associate Park & Recreation Specialist
Southern Service Center Environmental Coordinator

Date

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EXECUTIVE SUMMARY

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

- ☐ Aesthetics
- ☐ Agricultural Resources
- ☐ Air Quality
- ☒ Biological Resources
- ☐ Cultural Resources
- ☐ Geology/Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology/Water Quality
- ☐ Land Use/Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population/Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities/Service Systems
- ☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ The Proposed Project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared.

☒ Although the Proposed Project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the Proposed Project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ The Proposed Project **may** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared.

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

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

Project Purpose:

The Proposed Project would improve the visitor experience within the Park through the reduction in traffic flow through the Park's campground. With the construction of a bridge, the hydraulic function and biological resources within and surrounding Stokes Creek should improve. Public safety should be improved by the ability to better access the Park by use of the new creek crossing, particularly in the case of wildfire, which there is high risk of within the Park and greater Santa Monica Mountains region.

Project Need:

An undersized arch culvert currently exists in the location where the bridge is being proposed. The culvert was installed in 1999 to provide access for park staff and visitors to park facilities including the Angeles District Office and nearby visitor facilities. The crossing also provides ingress and egress during emergencies for both public safety and park visitors. Since that time, the culvert has overtopped numerous times creating erosion in the creek banks and damage to the road which crosses the culvert. CDPR has repaired the damage more than once, only to have the repairs wash out in subsequent storms. Currently, the road is closed to vehicles, due to storm damage and park staff must access the district office by driving through the Park's campground, causing disruption to campers. The Proposed Project would remove this conflict by restoring a dedicated service entrance for park staff to access the district office. As a permanent fix to the problem continues to be delayed, further damage to the road and creek occurs, resulting in an increase in deferred maintenance costs. Additionally, the bridge would restore a crossing used by pedestrians and bikers to provide access to aesthetically valuable oak woodland habitat.

Project Description

The Proposed Project would remove the arch culvert along with rock gabions surrounding the culvert which currently provide support to the creek banks. They would be replaced with a pre-fabricated bridge over Stokes Creek in the same location as the culvert. The disturbed creek banks shall be restored to a more natural condition to support improved hydraulic function of the creek as well as the restoration of riparian habitat to support wildlife endemic to the area. The bridge would be designed to a size which would accommodate emergency vehicles as well as be visually compatible with the surroundings. The construction methods would include measures to preserve existing oak woodland habitat surrounding the Proposed Project site. Necessary road repairs shall occur on either side of the bridge to restore continuity of the roadway with the new bridge. A restoration plan shall be implemented following the Bridge's construction to monitor the success of the restoration effort as well as replace any plantings that aren't successful.

Impacts

With the implementation of appropriate project measures including Native American and archaeological resource monitoring, designing the bridge to avoid sensitive natural and

cultural resources, compensation for impacted oak trees, use of Best Management Practices to minimize water and air quality impacts, scheduling of construction to avoid high-visitation times, impacts as a result of the construction and operation of the Proposed Project should remain less than significant. Refer to the **Project Requirements Monitoring Plan (Chapter 4)** for details regarding all project measures.

No impact would occur to agriculture resources, cultural resources, mineral resources, population and housing, public services, or transportation and traffic.

Less than significant impact would occur due to greenhouse gas emissions, hazards and hazardous materials, aesthetics, air quality, geology and soils, hydrology and water quality, land use and planning, noise, recreation, utilities and service systems and mandatory findings of significance.

Potential impacts to biological resources would be reduced to a less than significant level through the use of appropriate project measures.

Alternatives

The following alternative solutions were considered to meet the Proposed Project's need, purpose and goals.

Alternative 1 (Proposed Project)
Replace the arch culvert with a bridge and restore the creek
This alternative would replace the existing undersized culvert with a bridge in order to reduce deferred maintenance costs, provide a secondary escape route in case of fire, reduce disruption to campers and restore the creek to a more natural configuration.

Alternative 2
Replace the undersized arch culvert with a larger culvert.

This alternative would meet many of the Proposed Project's goals but would not be as effective in restoring the creek to a more natural configuration as Alternative 1. The expense of providing a culvert of the size needed would be comparable to the cost of a bridge, which is preferred from an environmental standpoint. This alternative would result in more impact to biological and hydraulic resources with no or negligible cost savings.

Alternative 3
Remove the arch culvert and restore the creek.

While this alternative is preferable from an environmental and deferred maintenance standpoint, it meets none of the other Proposed Project's goals. Under this alternative there would continue to be only one egress route for campers and park staff in case of fire, and campers would continue to be disrupted by park staff driving through the campground to access the district office. This alternative, while less costly, does not meet all of the Proposed Project's goals.

Alternative 4.
No project.

This alternative would leave the undersized arch culvert in place. Under this alternative, damage to the road and erosion of the creek bed would continue, the deferred maintenance costs would continue to rise, there would continue to be only one egress route for campers and park staff in case of fire, campers would continue to be disrupted and the creek would remain constricted. This alternative does not meet the CDPR mission and Proposed Project need of protecting natural resources and restoring vehicle access, respectively.

Agency/Public Coordination

The County of Los Angeles will act as a responsible agency and provide discretionary approval due to the Proposed Project being located within the Coastal Zone. Approval by the County of Los Angeles will ensure consistency with the Santa Monica Mountains Land Use Plan (LUP) and Local Implementation Program (LIP).

CDPR shall provide the Draft Initial Study to federal, state and local agencies that are obligated or have particular interest in providing comments or suggesting methods of reducing the environmental impacts associated with the Proposed Project. See **Section 1.5.**

Comments Regarding the Initial Study

A synopsis of comments received during the comment period shall be provided here following the public comment period. The comments in full shall additionally be provided within the **Appendices**. These shall be considered and any changes needed to ensure that any further significant impacts are reduced to a less than significant level shall be incorporated.

Avoidance, Minimization, Mitigation

Mitigation for the Proposed Project includes compensation for the loss of oaks trees, Best Management Practices and numerous other measures to protect resources including water quality, cultural resources, aesthetics, biological resources, geology, and recreational resources. All mitigation measures for the Proposed Project have been documented in the **Mitigation Monitoring Reporting Plan (MMRP) (Chapter 4)** and shall be implemented in order to mitigate impacts to the environment to a less than significant level.

Conclusions

Based on the analysis within this Initial Study, CDPR has concluded that the Proposed Project would not result in significant impact to the environment with the incorporation of CDPR Standard Project Measures as well as mitigation measures specific to the Proposed Project included within the MMRP. This would allow CDPR to continue

forward with an MND and approval to carry out the Proposed Project. The Proposed Project would allow for re-establishment of the connection across Stokes Creek along Waycross Road for automobiles including public safety vehicles as well as allow for the restoration of Stokes Creek to a more natural state to support an improvement in hydrology and riparian habitat for old growth oak woodland and various wildlife species. This would additionally improve the viewshed compared to the existing condition through the removal of the culvert and associated bank protection.

1 INTRODUCTION

This Initial Study (IS) and Mitigated Negative Declaration (MND) shall comply with the CEQA Guidelines and Statutes. CDPR shall act as the Lead Agency. The IS/MND shall evaluate and mitigate the impacts associated with the Proposed Project. The evaluation of impacts has concluded that impacts shall be less than significant. A public review period will provide the public an opportunity to comment on the Proposed Project. Following the consideration of public comment, CDPR shall approve the MND in order to carry forward with construction and operation of the Proposed Project.

1.1 CEQA REGULATORY OVERVIEW

This IS/MND has been prepared by CDPR to evaluate the potential environmental effects of the proposed New Stokes Creek Bridge Project (Proposed Project) at Malibu Creek State Park, within Los Angeles 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 IS 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 the project would result in less than significant impacts including mitigation, an MND may be prepared rather than an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

1.2 LEAD AGENCY

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

Craig Sap, District Superintendent
California Department of Parks and Recreation
Angeles District
1925 Las Virgenes Road
Calabasas, CA 91302
Office: (818) 880-0396
Craig.Sap@parks.ca.gov

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

Luke Serna, Associate Park & Recreation Specialist
California Department of Parks & Recreation
Southern Service Center
2797 Truxtun Road
San Diego, CA 92106
Office: (619) 221-7060
enviro@parks.ca.gov

1.3 DOCUMENT PURPOSE AND ORGANIZATION

The purpose of this document is to describe the Proposed Project to replace the failing culvert with a bridge and evaluate the Proposed Project's potential environmental effects. Through a combination of design to minimize impacts and the incorporation of mitigation measures to avoid, minimize or and/or compensate for the loss of resources, impacts should be reduced to a less than significant level.

This document is organized as follows:

Chapter 1 - Introduction.

This chapter provides an introduction to the Proposed Project and describes the purpose and organization of this document.

Chapter 2 - Project Description.

This chapter describes the reasons for the Proposed Project, scope of the Proposed Project, Proposed Project objectives and identifies standard or specific project requirements applied to the Proposed Project design to reduce potential impacts to the environment.

Chapter 3 - Environmental Evaluation.

This chapter describes the environmental setting for each environmental factor, evaluates potential impacts based on the CEQA Environmental Checklist and identifies the significance of environmental impacts, then establishes mitigation measures where necessary to ensure impacts remain less than significant.

Chapter 4 – Mitigation, Monitoring, Reporting Program

This chapter includes all of the measures necessary to ensure impacts associated with the Proposed Project remain less than significant.

Chapter 5 - References.

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

APPENDICES

The appendices include comments received during the IS/MND public review period and any other documentation utilized in preparation of the environmental document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the Proposed Project. Based on the IS and supporting environmental analysis provided in this document, the Proposed Project would result in less than significant impacts for the following issues: air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, and noise.

In accordance with §15064(f) of the CEQA Guidelines, a Mitigated Negative Declaration shall be prepared if the Proposed Project will not have a significant effect on the environment after the inclusion of sufficient mitigation measures to reduce environmental impact to a less than significant level. Based on the available Proposed Project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of the Proposed Project specific requirements, the Proposed Project would have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with the CEQA Guidelines.

1.5 AGENCY AND PUBLIC OUTREACH

A Notice of Availability indicating the completion of a Draft IS/MND has been distributed to property owners and occupants within a 1000-foot radius of the Park limits.

As defined by PRC§21091(b), the IS/MND shall be made available for public review and comment for a period of 30 days.

Native American Outreach

In April 2016, Native American outreach occurred through contact with the Native American Heritage Commission (NAHC) to request a contact list of individuals or groups with interest in or knowledge of the Proposed Project area. A search of the sacred lands file as well as any additional information associated with Native American concerns for the Project's Area of Potential Effect (APE) was also requested. The NAHC responded that the sacred lands file search indicated that no Native American resources were found within the immediate project area.

On April 25, 2016 a letter was mailed to each person or organization that was listed on the contact list provided by the NAHC. The contents of the letter described the proposed project and invited them to contact the project or district archaeologists regarding comments or concerns that they may have.

Two individuals called both the project and district archaeologists to provide comments. Follow-up telephone calls were made in May 2016 to the remaining contacts who had not responded to the initial letter. The project archaeologist spoke to three tribal representatives at that time.

One person requested that any human remains that might be discovered should be left at the site. He was advised that the State would consult with the Most Likely Descendent as to the disposition of Native American remains if any were found, and that human remains typically do stay at the site.

All of the respondents expressed their desire that a local Native American monitor be present during all ground-disturbing activities. They were advised that a Native American monitor would be required to be on-site during work that included ground disturbance. Three of the people contacted indicated that they were interested in bidding for the Native American monitor position, and ultimately, one of them was awarded the contract for preconstruction archaeological, geotechnical and wetland delineation testing.

One person requested an on-site visit and consultation meeting that would include interested parties who were not identified by the NAHC on the contact list. On June 8, 2016 an email invitation to a meeting to be held at Malibu Creek State Park on July 29 was sent out to 13 listed and unlisted contacts. The meeting was cancelled due to schedule conflicts. An additional attempt to schedule the meeting was abandoned for the same reason. The Draft IS/MND shall be provided to all Native American Contacts and a follow-up field meeting will be scheduled should there be interest.

Los Angeles County

CDPR has conducted scoping with the County of Los Angeles to ensure compliance with the Santa Monica Mountains Land Use Plan and Local Implementation Plan. Pertinent policies to the Proposed Project site that can be applied shall be complied with including the need to protect oak woodland habitat including a significant number of oak trees within the project footprint.

The County of Los Angeles is the local agency with discretionary authority for providing a Coastal Development Permit (CDP) and ensuring consistency with their Local Coastal Plan. The County shall be provided the IS/MND for review and comment. Conditions provided by the County within the CDP shall be implemented as part of the Proposed Project's Mitigation Monitoring Reporting Program.

Summary of Comments and Responses

Pending following public review

1.6 DOCUMENT APPROVAL

The Mitigated Negative Declaration shall be approved by the Angeles District Superintendent managing Malibu Creek State Park as well as the Southern Service Center Environmental Coordinator.

According to the California State Parks Department Operations Manual (DOM Chapter 0600), the Director, the Deputy Director of Operations, or Deputy Director of the Acquisition and Development Division shall approve the Notice of Determination.

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2 PROJECT DESCRIPTION

2.1 PARK BACKGROUND INFORMATION

Malibu Creek State Park was opened to the public as a unit of CDPR as a State Park in 1976. A State Park is a classification of state recreation unit and further defined within Public Resources Code Section 5019.53.

The General Plan for Malibu Creek State Park, 2004, establishes the Park unit's purpose and vision.

> *The Park exhibits a natural beauty once common across southern California. Located centrally in the SMMNRA, the Park plays a prominent role in protecting and perpetuating the ecological integrity and picturesque character of the mountain features, while providing an important historical context for the interaction of humans with their environment and the changing landscape. The purpose of the Park is to provide environmental amenities and recreational and educational opportunities for the public in a manner compatible with the Park's enduring values and features. The value of the Park's important natural and cultural features will only increase as development continues to encroach upon the remaining natural areas in the region.*

Activities at the Park include: sightseeing, camping, hiking, bicycling, picnicking, and education through interpretive exhibits and programs.

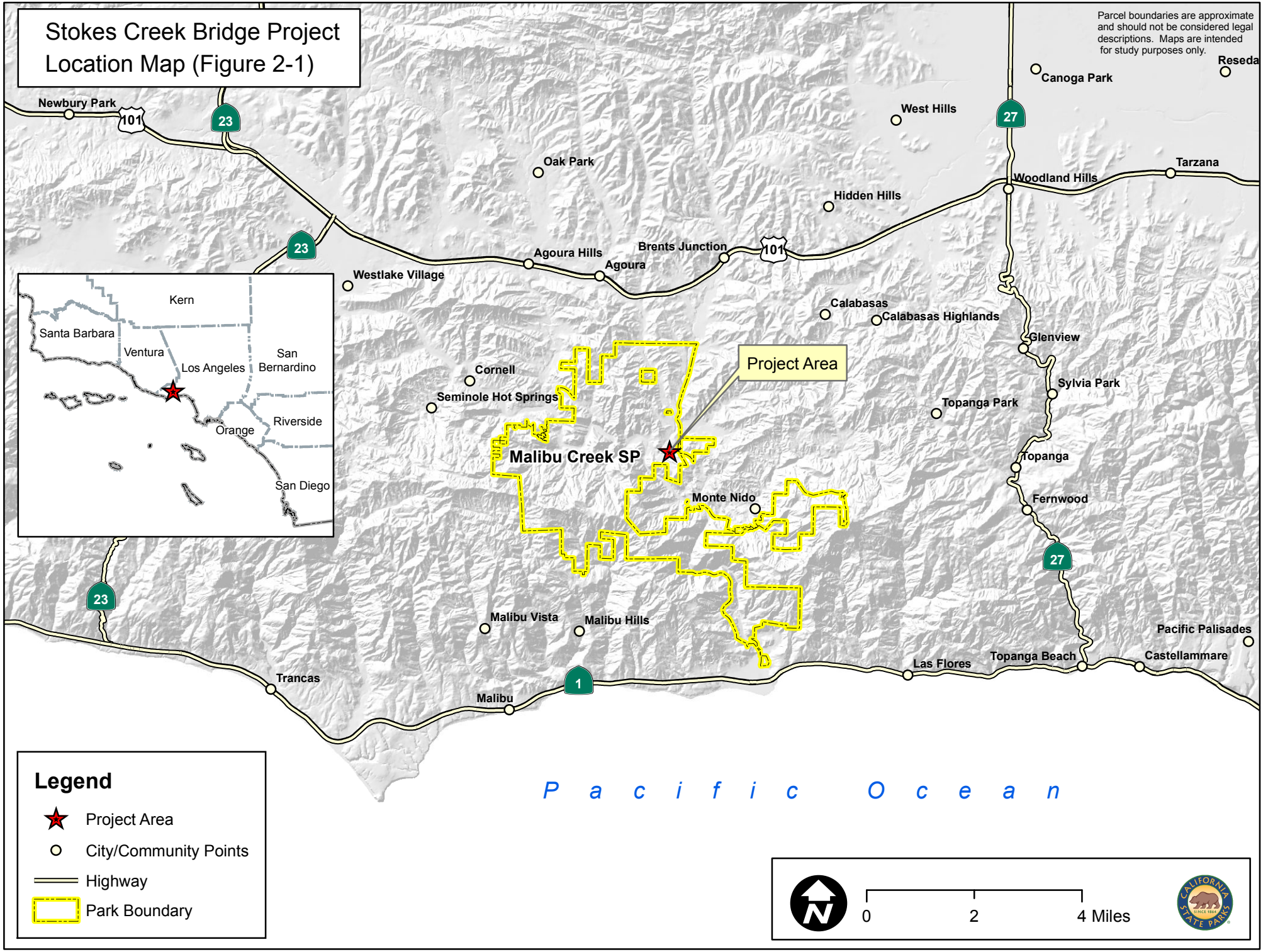
The Park hosts events and programs for children and adults. Events include daytime and nighttime ranger led hikes, campfires, bird watching, educational hikes, and educational events for children.

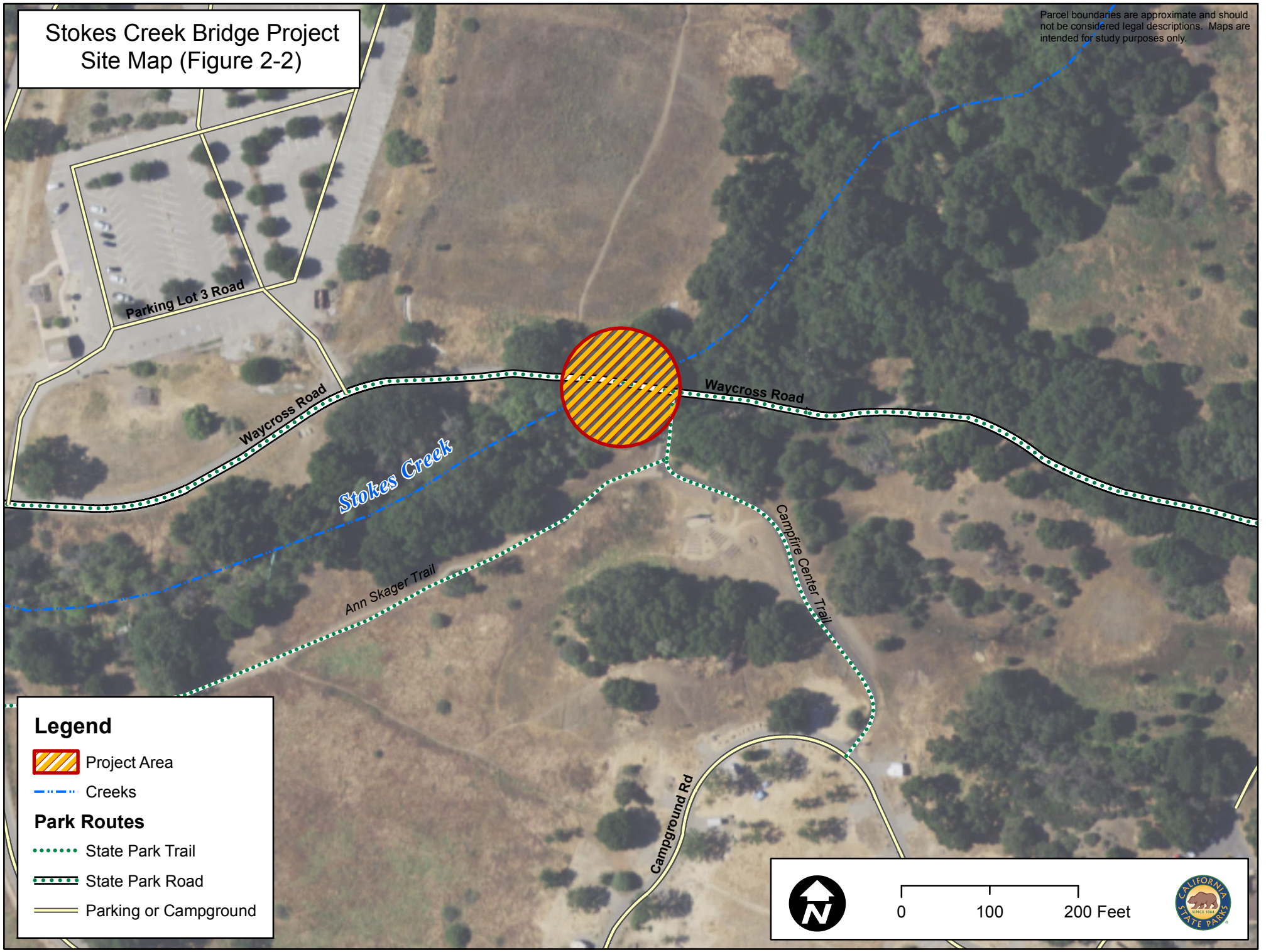
Interpretive services at the Park are offered by volunteer and docent programs as well as Park staff. Teachers and school groups commonly use the Park for educational purposes. Other common programs at the Park include guided tours, outdoor adventure groups, and trail programs.

Visitation to Malibu Creek State Park during fiscal year 2015/2016 was 306,691.

2.2 PROJECT LOCATION

Malibu Creek State Park is located within the center of the Santa Monica Mountains. To the north is the City of Calabasas, an incorporated city of approximately 23,000 residents. To the east is Las Virgenes Road and areas of unincorporated Los Angeles County. To the south is more area of unincorporated Los Angeles County as well as the coastal city of Malibu. Finally, west of the Park is public land making up a portion of the Santa Monica Mountain National Recreation Area as well as further area of unincorporated Los Angeles County. See **Figure 2-1 (Location Map)** and **Figure 2-2** (**Project Site Map)** for further detail regarding the Proposed Project site and its surroundings.


Stokes Creek Bridge Project
Location Map (Figure 2-1)
Parcel boundaries are approximate and should not be considered legal descriptions. Maps are intended for study purposes only.
Newbury Park
Reseda
Canoga Park
West Hills
Oak Park
Tarzana
Woodland Hills
Hidden Hills
Agoura Hills
Brents Junction
Agoura
Westlake Village
Calabasas
Calabasas Highlands
Glenview
Sylvia Park
Cornell
Seminole Hot Springs
Project Area
Topanga Park
Malibu Creek SP
Topanga
Monte Nido
Fernwood
Malibu Vista
Malibu Hills
Pacific Palisades
Topanga Beach
Castellammare
Las Flores
Trancas
Malibu
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Legend
Project Area
City/Community Points
Highway
Park Boundary
0
2
4 Miles
Pacific Ocean


Stokes Creek Bridge Project
Site Map (Figure 2-2)
Parcel boundaries are approximate and should not be considered legal descriptions. Maps are intended for study purposes only.
Parking Lot 3 Road
Waycross Road
Waycross Road
Stokes Creek
Ann Skager Trail
Campfire Center Trail
Campground Rd
Legend
Project Area
Creeks
Park Routes
State Park Trail
State Park Road
Parking or Campground
0
100
200 Feet

2.3 PROJECT PURPOSE

The Proposed Project would improve the visitor experience within the Park through the reduction in traffic flow through the Park's campground. The campground is not meant to be a thoroughfare for visitors and staff to be regularly traveling through. The new bridge will provide for visitor access around the campground, thus reducing impact to campers. In addition, the bridge would provide a dedicated service entrance for park staff to access the Angeles District Office. Additionally, the new bridge would improve the hydraulic function and biological resources within and surrounding Stokes Creek. The Proposed Project would remove this conflict by restoring a dedicated service entrance for park staff to access the district office.

2.4 PROJECT NEED

The Proposed Project is needed due to several deficiencies that currently exist.

- An undersized arch culvert currently exists in the location where the bridge is being proposed. The culvert was installed in 1999 on an existing access road to provide access for park staff to the district office and emergency egress for park visitors. Since that time, the culvert has overtopped numerous times during significant storms resulting in erosion into the creek banks and damage to the road which crosses the culvert. CDPR has repaired the damage more than once, only to have the repairs wash out in subsequent storms.

- The road is currently impassable to vehicles due to damage to the road and park staff must access the district office by driving through the Park's campground, causing disruption to campers. As a permanent fix to the problem continues to be delayed, further damage to the road and creek occurs, resulting in an increase in deferred maintenance costs.

- The Bridge shall be critical to providing adequate fire safety response within Malibu Creek State Park.



Existing culvert with washed out gabions



Looking downstream through existing culvert

2.5 PROPOSED PROJECT

Please refer to the Project Site (**Figure 2-3**) and Elevation Plans (**Figure 2-4**) for detail in addition to that found below.

2.5.1 Removal of Existing Culvert

The Proposed Project would demolish and remove the approximately 17.5ft wide by 11.5ft tall by 50ft long corrugated metal pipe and associated fill beneath the culvert. The existing gabion walls shall be removed. Additionally, an associated concrete brow ditch shall be demolished and removed. Existing pavement including subbase across the culvert shall be demolished and removed. Existing trees, utility poles and reusable pavement shall be protected in place.

2.5.2 Creek Debris Removal

An accumulation of debris has resulted in a creek bed and bank that are not allowing the creek and associated natural resources to succeed optimally, therefore, this debris shall be removed. This includes, but is not limited to, the removal of (1)5ft diameter by 10ft long and (1)10ft diameter by 30ft long corrugated metal pipes, geotextile fabric (estimated at 500 square feet), concrete blocks (estimated at 100) and additional debris not consistent with the effective function of Stokes Creek.

2.5.3 General Specifications of New Free Span Bridge

The new pre-fabricated bridge would be made of concrete and reinforcing steel with concrete abutments and concrete laid over a steel deck to provide the road surface. It would be 16ft wide by 70ft long. The bridge height shall exceed the 100-year floodwater elevation. The bridge structure shall raise the road surface approximately 50 inches above the existing road height.

The bridge would include a 54-inch height metal beam guard railing on both sides. The railing shall meet safety standards for vehicles.

The bridge would support multiple means of crossing including pedestrians, bicyclists and vehicles. Permissible vehicles to cross the bridge would include 2 large multi-axle vehicles such as fire engines crossing the bridge simultaneously in opposite directions.

If necessary to provide sufficient service, utilities can utilize the bridge for crossing Stokes Creek.

2.5.4 Associated Grading and Retention

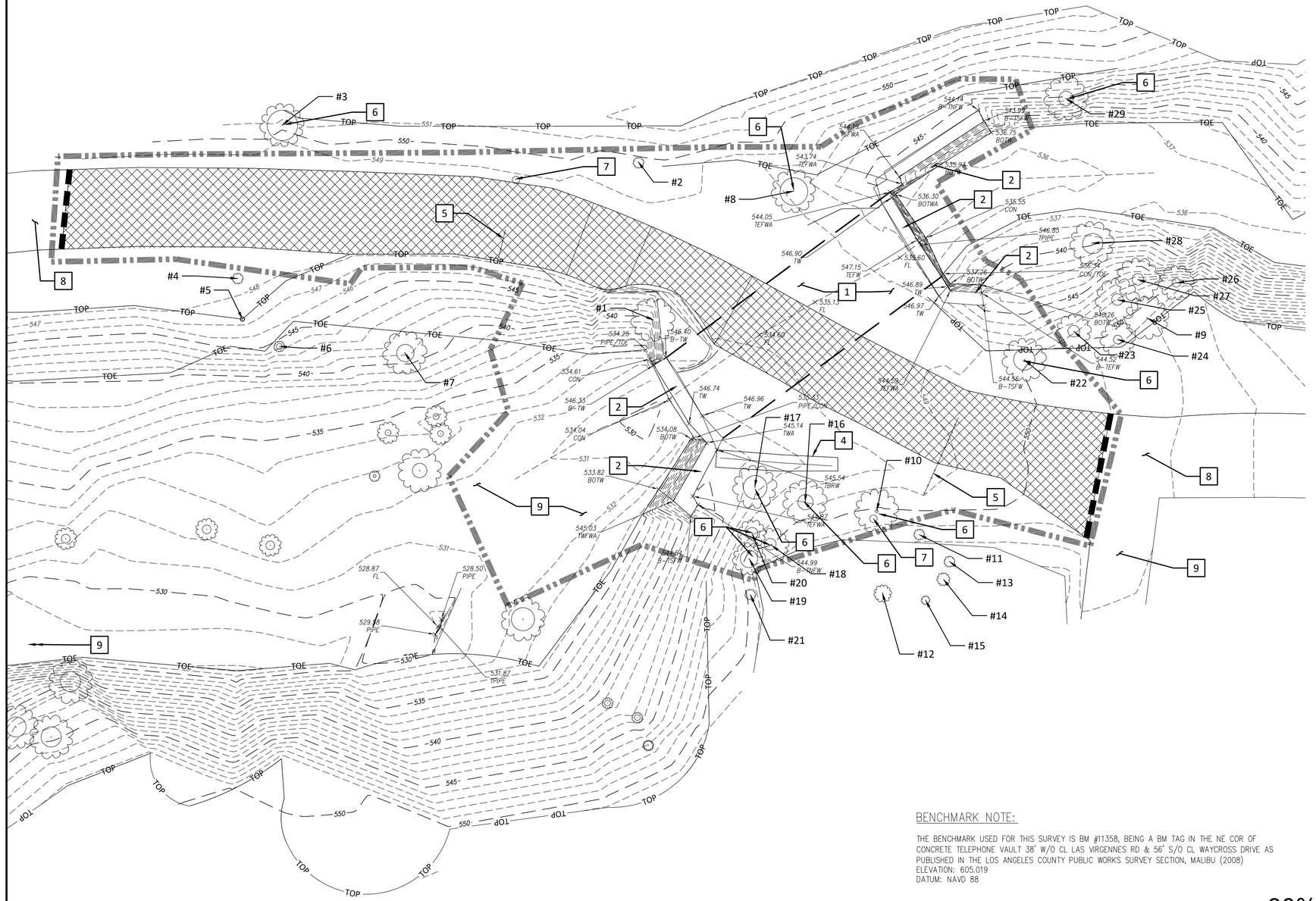
Creek banks above and below the bridge shall be graded at an average of 1.5:1 slope. To accommodate the roadway ascents needed to raise the bridge above the 100-year flood zone, retaining walls would be constructed on both west and east bridge approaches.

2.5.5 Siting of the New Bridge across Stokes Creek

The Proposed Project area would encompass an area of approximately 8,625 square feet (0.20 acres). Refer to **Figure 2-2 (Site Map)** for the site of the bridge and nearby land use. The new facility would be sited closely within the footprint of the existing culvert to avoid and minimize impact to nearby natural resources.

The Proposed Project does not involve work that extends beyond Park property.

Preliminary Site Plan
Figure 2-3



DEMOLITION KEY NOTES

1	DEMOLISH AND REMOVE 17.5X11.5 CORRUGATED METAL PIPE (CMP) AND ASSOCIATED BOTTOM
2	DEMOLISH AND REMOVE GABION WALL
3	NOT USED
4	DEMOLISH AND REMOVE CONCRETE BROW DITCH
5	DEMOLISH AND REMOVE CHAIN LINK FENCE
6	PROTECT IN PLACE EXISTING TREE
7	PROTECT IN PLACE EXISTING UTILITY POLE
8	PROTECT IN PLACE EXISTING PAVEMENT
9	REMOVE THE FOLLOWING FROM STREAMBED: CMP APPROXIMATELY 5' DIA. BY 10' LONG, CONCRETE BLOCKS AND RELATED DEBRIS (ASSUME EQUIVALENT TO 100 CONCRETE BLOCKS), GEOTEXTILE FABRIC INTERSPERSED IN CREEK BED (ASSUME EQUIVALENT TO 500 SF) LOCATED APPROXIMATELY 30' DOWNSTREAM FROM CULVERT. CMP APPROXIMATELY 10' DIA BY 30' LONG LOCATED APPROXIMATELY 500' DOWNSTREAM FROM CULVERT.

TREE TABLE

TREE ID	DIA. BREAST HIGHT (DBH) (INCHES)	SPECIES
1	25-30	COAST LIVE OAK
2	1	COAST LIVE OAK
3	42.1	VALLEY OAK
4	4.7, 3.1	COAST LIVE OAK
5	2.1	COAST LIVE OAK
6	7.9	COAST LIVE OAK
7	19.5	COTTONWOOD
8	44.3	COAST LIVE OAK
9	27.8	COAST LIVE OAK
10	27.4	VALLEY OAK
11	3.4	COAST LIVE OAK
12	5.3	COAST LIVE OAK
13	1.5	VALLEY OAK
14	3.2	VALLEY OAK
15	1.2	COAST LIVE OAK
16	28	VALLEY OAK
17	28	COAST LIVE OAK
18	18.1	COAST LIVE OAK
19	15.5	COAST LIVE OAK
20	17.9, 14.6	VALLEY OAK
21	1, 0.7	COAST LIVE OAK
22	32.5	COAST LIVE OAK
23	15.9	COAST LIVE OAK
24	22.1	COAST LIVE OAK
25	21.7	COAST LIVE OAK
26	16.8	COAST LIVE OAK
27	26.8	COAST LIVE OAK
28	20.2	COAST LIVE OAK
29	22-25	COAST LIVE OAK

LEGEND

- APPROX. LIMITS OF WORK
- SAWCUT LINE
- DEMOLISH AND REMOVE EXISTING PAVEMENT INCLUDING SUBBASE
- 400 — ELEVATION CONTOUR LINE (1' INTERVAL)
- TOP — TOP — TOP OF BANK
- TOE — BOTTOM OF BANK
- CHAIN LINK FENCING
- EXISTING TREE
- #15 — TREE IDENTIFICATION NUMBER

BENCHMARK NOTE:

THE BENCHMARK USED FOR THIS SURVEY IS BM #11358, BEING A BM TAG IN THE NE COR OF CONCRETE TELEPHONE VAULT 38' W/O CL LAS VIRGENNES RD & 56' S/O CL WAYCROSS DRIVE AS PUBLISHED IN THE LOS ANGELES COUNTY PUBLIC WORKS SURVEY SECTION, MALIBU (2008)
ELEVATION: 605.019
DATUM: NAVD 88

30% CONSTRUCTION DOCUMENT

BergerABAM
10525 Vista Sorrento Parkway Suite 350
San Diego, CA 92121 (858) 500-4500

CALIFORNIA STATE PARKS SINCE 1864

ACQUISITION & DEVELOPMENT DIVISION
One Capitol Mall
Sacramento, CA
95814-3229

CALIFORNIA STATE FIRE MARSHAL- APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DPR ACCESS COMPLIANCE REVIEW ACCESSIBILITY SECTION

CERTIFICATION #

Reviewed by Date

ACCESSIBILITY COMPLIANCE AND STATE FIRE MARSHAL SIGNED ORIGINALS ARE ON FILE AT THE DEPARTMENT OF PARKS AND RECREATION, NORTHERN SERVICE CENTER

DESIGNED:
DRAWN:
CHECKED:
DATE: 05/07/2018

REVISIONS

	DATE
1	

MALIBU CREEK STATE PARK
NEW STOKES CREEK BRIDGE

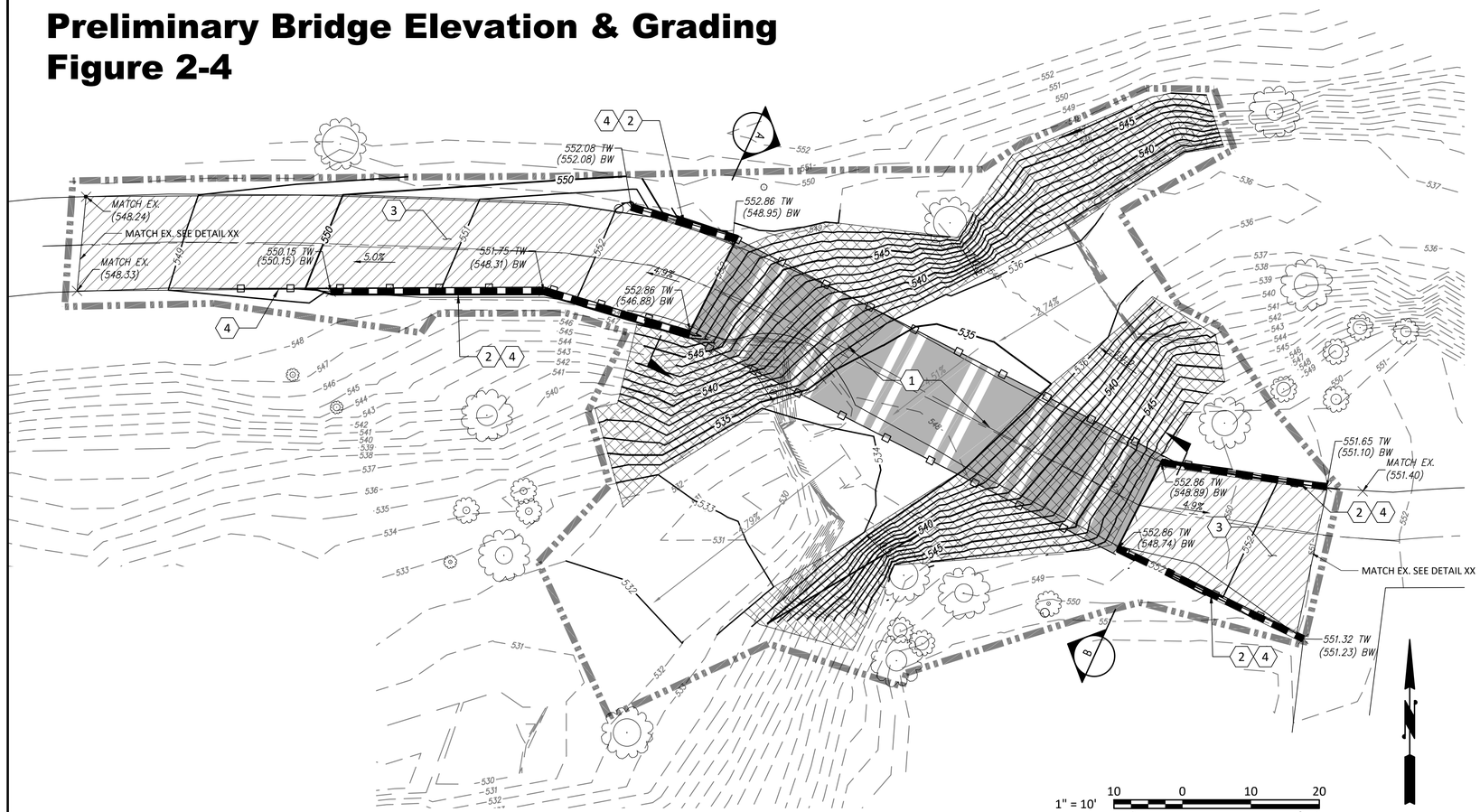
EXISTING AND DEMOLITION PLAN

DESIGN DEVELOPMENT

DRAWING NO.

SHEET NO.
C-1.1
2 OF 9

Preliminary Bridge Elevation & Grading
Figure 2-4

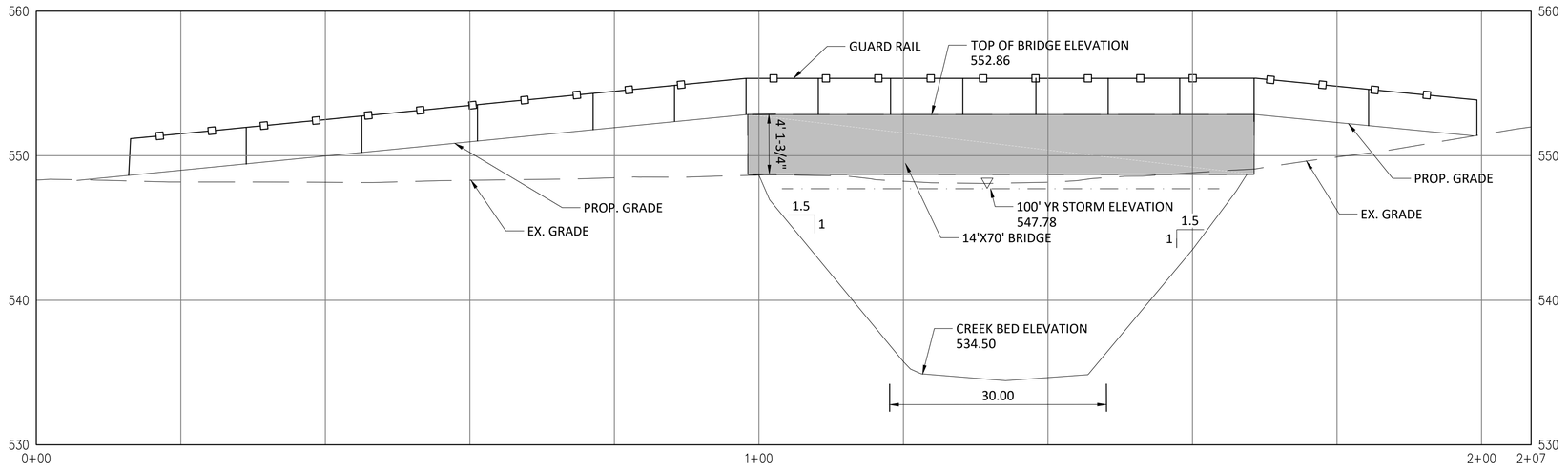


GRADING KEY NOTES

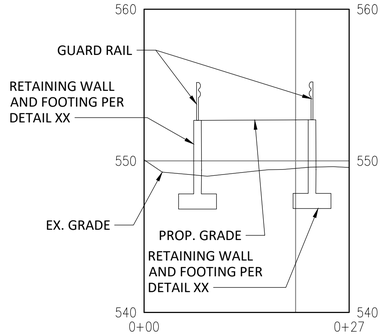
1	16' X 70' BRIDGE
2	RETAINING WALL
3	4" AC PAVEMENT OVER 6" GRAVEL BASE OVER 90% COMPACTED SUBGRADE
4	GUARD RAIL

LEGEND

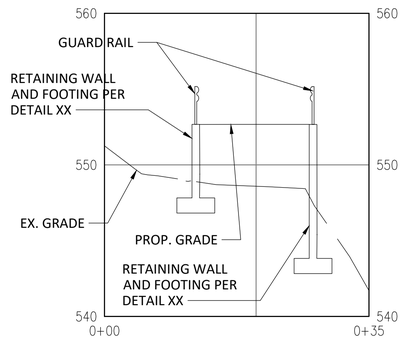
- APPROX. LIMITS OF WORK
- 4" AC PAVEMENT OVER 6" GRAVEL BASE OVER 90% COMPACTED SUBGRADE
- CURLEX BLANKET (HIGH VELOCITY) FOR SLOPE PROTECTION OR APPROVED EQUAL
- 400 — PROP. ELEVATION CONTOUR LINE (1' INTERVAL)
- 400 — EX. ELEVATION CONTOUR LINE (1' INTERVAL)
- GUARD RAIL
- RETAINING WALL
- 100 YEAR FLOOD WATER ELEVATION 1% ANNUAL CHANGE FLOOD



BRIDGE SECTION AT CENTER OF ROAD
SCALE: 1"=10' (H); 1"=5' (V)



SECTION B
SCALE: 1"=10' (H); 1"=5' (V)



SECTION A
SCALE: 1"=10' (H); 1"=5' (V)

30% CONSTRUCTION DOCUMENT

BergerABAM
10525 Vista Sorrento Parkway Suite 350
San Diego, CA 92121 (858) 500-4500

CALIFORNIA STATE PARKS SINCE 1864
ACQUISITION & DEVELOPMENT DIVISION
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ACCESSIBILITY SECTION
CERTIFICATION #

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DESIGNED:
DRAWN:
CHECKED:
DATE: 05/07/2018

REVISIONS

	DATE

MALIBU CREEK STATE PARK
NEW STOKES CREEK BRIDGE

GRADING PLAN

DESIGN DEVELOPMENT

DRAWING NO.

SHEET NO.
C-2.0
3 OF 9

2.6 CONSTRUCTION MANAGEMENT

This section describes components of the construction process. All project requirements found within the **Project Requirements Monitoring Plan (Chapter 4)** shall be implemented.

Timeframe

Construction timeframe windows would be placed on the Proposed Project to minimize disturbance to day-use and overnight visitors within the Park. A campground is 0.1 miles from the Proposed Project site. By limiting noise produced from construction to daytime, noise impact should be none to minimal to overnight park visitors.

Work hours shall be between 7:00 AM and 5:00 PM, Monday through Friday, with no work on Saturdays or Sundays.

Work may be scheduled during lighter visitor use seasons such as winter months to lessen the number of visitors impacted by construction.

Staging/Access

Staging and/or storage shall occur within the adjacent day-use parking lot. Major disturbance to visitors is not anticipated by making use of this parking facility. This staging site provides nearby access for heavy equipment and should reduce soil disturbance. Loss of access across the creek should not be of concern due to the small amount of traffic that utilizes the crossing.

Construction BMPs

Due to grading required for the Proposed Project site, Best Management Practices (BMPs) will be used to protect water quality. Work shall be done during dry creek conditions to the extent practicable as this makes construction easier and lessens run-off due to soil disturbance. Sediment control during construction will be implemented through a variety of erosion control features or construction BMPs identified as part of a comprehensive *Storm Water Pollution Prevention Plan,* which will prevent or minimize the potential of sediment leaving the construction site. No chemical discharges from debris are expected. The SWPPP will include, but is not limited to:

1) minimizing the extent of the disturbed area and duration of exposure,
2) stabilizing and protecting the disturbed area as soon as possible,
3) keeping runoff velocities low,
4) protecting disturbed areas from contact with runoff,
5) retaining sediment within the construction area, and
6) heavy equipment lubricant containment.

Construction BMPs may include but are not limited to:

1) temporary desilting basins,
2) silt fences,
3) gravel bag barriers,
4) temporary soil stabilization through mattress or mulching,
5) temporary drainage inlet protection with filtration inserts,
6) diversion dikes and interceptor swales, and
7) regular maintenance of installed sediment/debris control devices.

To avoid and minimize air quality impacts from construction, the following measures may be implemented, but are not limited to:

1) paved roads shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway,
2) exposed dirt shall be sprayed with water to minimize dust and dust plumes,
3) inactive disturbed areas shall be revegetated as soon as feasible to prevent soil erosion,
4) open storage piles that will remain on-site for two or more days shall be sprayed with water once per day or more, as dictated by conditions including material, temperature, humidity, wind velocity and traffic, or coverings shall be installed,
5) all haul vehicles shall be covered or shall comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads, and
6) during high wind conditions (wind speeds in excess of 25 miles per hour), all earthmoving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.

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3 ENVIRONMENTAL EVALUATION

The following chapter provides a description of the setting, including resources within the Proposed Project footprint as well as the surrounding area. The resources and issues described are those established within CEQA Guidelines. This is followed by an evaluation of impacts to issue areas that would occur from construction and operation of the Proposed Project. Lastly, mitigation measures are provided to maintain impacts to a less than significant level.

3.1 AESTHETICS

3.1.1 Environmental Setting

Malibu Creek SP is a State Park unit within the Los Angeles metropolitan area meant to preserve the natural environment as well as provide for the education, recreation, and health of the public. The landscape of the park includes views of mountain peaks, the Pacific Ocean, oak woodland valleys, streams, pools, and unique rock formations.

The main entrance access route is the first stop in the park unit and provides parking and picnicking areas with views of the Santa Monica Mountains. The entrance road winds through the savannas with oak trees lining the creeks on either side of the road, making its way to two campgrounds and the District offices.

The project site is currently a creek crossing via a culvert that exists within native valley oak woodland surrounded by non-native annual grassland habitats. No vehicular access is permitted; however, pedestrian access across the stream is still permissible. Development includes the culvert and roadway across the creek. Adjacent to the Project area are parking lots and facilities supporting Malibu Creek State Park including restrooms and Park operations buildings.

3.1.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion

a) The removal of the current culvert and replacement of it with a new bridge would not have a substantial adverse effect on a scenic vista. The change from culvert to bridge crossing would have a beneficial impact on views of riparian habitat within the Creek due to improved conditions for the establishment of vegetation and wildlife within the Creek. No remarkable scenic views are present within the project footprint or of the project area due to the oak woodland habitat, which surrounds the project area. This would result in less than significant impact.

b) The Proposed Project is adjacent to numerous oak trees and associated habitat. Project requirements would be in place to minimize damage to trees. Some trimming and potentially removal of trees may be necessary, but shall be completed under the consultation of an arborist. This would result in less than significant impact.

c) The visual character of the existing site will experience minimal change as a result of the Project. The new bridge would be constructed to achieve its intended functions within the minimum footprint necessary so as to minimize impact on the existing visual character of the site. The larger footprint created by the bridge would allow for improved hydrology and habitat along Stokes Creek. This would result in less than significant impact.

d) The Proposed Project does not include lighting and would not result in any substantial amount of light or glare that could affect visitors' ability to enjoy the Park. This would result in no impact.

3.1.3 Avoidance, Minimization, Mitigation Measures

Visual-1: CDPR project designers and natural resource specialists shall design the Proposed Project to avoid impacts to valuable aesthetic resources including mature trees as well as provide compensatory restoration for habitat loss if facility siting cannot avoid impact.

Visual-2: The Proposed Project will be designed to incorporate appropriate park scenic & aesthetic values including:

- Designing the bridge at a scale in association with the surrounding landscape;
- Incorporating aesthetic treatments on the bridge and associated elements to reduce impact to the surrounding natural environment;
- Landscaping with native species unless historic records indicate differently.

3.2 AGRICULTURE RESOURCES

3.2.1 Environmental Setting

No agricultural land use is found within Malibu Creek State Park.

3.2.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion:

a) Malibu Creek SP does not contain any farmland. This would result in no impact.

b) As indicated above, no farmland zoning designation exists within Malibu Creek SP. The Proposed Project will not have any impact on any land uses near the Proposed Project that are zoned for agricultural use. This would result in in no impact.

c) The Proposed Project would not result in the conversion of farmland to non-agricultural use nor would it affect any nearby farmland because there is no farmland adjacent to the Proposed Project. This would result in no impact.

3.2.3 Avoidance, Minimization, Mitigation Measures

None necessary

3.3 AIR QUALITY

3.3.1 Environmental Setting

The Proposed Project site is located within the South Coast Air Basin, an area that includes Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. The Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

The Basin's air pollution problems are a consequence of the combination of emissions from the nation's second largest urban area, meteorological conditions adverse to the dispersion of those emissions, and mountainous terrain surrounding the Basin that traps pollutants as they are pushed inland via onshore winds. The average wind speed for Los Angeles is the lowest of the nation's ten largest urban areas. In addition, the summertime daily maximum mixing heights in Southern California are the lowest, on average, due to strong temperature inversions in the lower atmosphere that effectively trap pollutants near the surface. Southern California also has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone (O_3) and a significant portion of fine particulate mass ($PM_{2.5}$, particles less than 2.5 microns in diameter).

While air quality has dramatically improved over the years, the Basin still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation.

The State and federal ambient air quality standards for each of these pollutants and their effects on health and welfare are summarized in Table 2-1.

Table 2-1: Air Quality Standards and Health Effects

AIR POLLUTANT	FEDERAL STANDARD (NAAQS)	STATE STANDARD (CAAQS)	KEY HEALTH & WELFARE EFFECTS
Ozone (O_3)	**0.070 ppm, 8-Hour (2015) 0.12 ppm, 1-Hour (1979)**	**0.070 ppm, 8-Hour 0.09 ppm, 1-Hour**	**(a)** Pulmonary function decrements and localized lung injury **(b)** Mortality risk **(c)** Vegetation damage **(d)** Property damage
Fine Particulate Matter (PM2.5)	**35 µg/m3, 24-Hour (2006) 12.0 µg/m3, Annual (2012)**	**12 µg/m3, Annual**	**(a)** Exacerbation of symptoms in patients with respiratory or cardiovascular disease **(b)** Decline in pulmonary function or growth in children **(c)** Increased risk of premature death **(d)** Increased risk of lung cancer **(e)** Increased asthma-related hospital admissions **(f)** Possible link to reproductive effects; **(g)** Visibility reduction
Respirable Particulate Matter (PM10)	**150 µg/m3, 24-Hour (1997)**	**50 µg/m3, 24-Hour 20 µg/m3, Annual**	
Carbon Monoxide (CO)	**35 ppm, 1-Hour (1971) 9 ppm, 8-Hour (1971)**	**20 ppm, 1-Hour 9.0 ppm, 8-Hour**	a) Increased risk ofcoronary heart disease **(b)** Decreased exercise tolerance in persons with peripheral vascular disease and lung disease **(c)** Impairment of central nervous system **(d)** Possible increased risk to fetuses
Nitrogen Dioxide (NO_2)	**100 ppb, 1-Hour (2010) 0.053 ppm, Annual (1971)**	**0.18 ppm, 1-Hour 0.030 ppm, Annual**	**(a)** Potential to aggravate chronic respiratory disease and respiratory symptoms in children with asthma **(b)** Increased airway responsiveness in asthmatics **(c)** Contribution to atmospheric discoloration
Sulfur Dioxide (SO_2)	**75 ppb, 1-Hour (2010)**	**0.25 ppm, 1-Hour 0.04 ppm, 24-Hour**	Respiratory symptoms (bronchoconstriction, possible wheezing or shortness of breath) during exercise or physical activity in persons with asthma
Lead (Pb)	**0.15 µg/m3, rolling 3-month average (2008)**	**1.5 µg/m3, 30-day average**	**(a)** Learning disabilities **(b)** Impairment of blood formation and nerve conduction **(c)** cardiovascular effects, including coronary heart disease and hypertension
Sulfates-PM10 (SO_{42-})	**N/A**	**25 µg/m3, 24-Hour**	(a) Decrease in lung function **(b)** Aggravation of asthmatic symptoms; **(c)** Vegetation damage **(d)** Degradation of visibility **(e)** Property damage
Hydrogen Sulfide (H_2S)	**N/A**	**0.03 ppm, 1-hour**	Low concentrations above the standard result in objectionable odor and result in headaches, nausea, dizziness, nasal irritation, cough, and shortness of breath

Regional Air Quality Progress

The population in the region is over 16 million people, with emissions of approximately 499 tpd (tons per day) of Volatile Organic Compounds (VOC)s and 529 tpd of Nitrogen Oxides (NOx). Based on current regulations and actions already taken, emissions are projected to be approximately 376 tpd of VOC and 265 tpd of NOx by 2023. By 2031, emissions are projected to be further reduced to approximately 358 tpd of VOC emissions and 224 tpd of NOx emissions. However, these levels are not low enough to meet the NAAQS for the Basin, so additional emission reductions are necessary.

Substantial progress has been made in reducing ozone and PM emissions through regulatory measures, voluntary actions and partnerships with other agencies and stakeholders.

3.3.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion:

a) The Proposed Project would not obstruct implementation of the South Coast Air Quality Management Plan. The Proposed Project would not contribute to stationary

sources of air pollution, which include large emission sources referred to as point sources including power plants and refineries Additionally, the Project would not contribute area sources which include emissions from water heaters, architectural coatings, consumer products and other relatively small emissions. The Project would result in minor emissions due to construction equipment use and project site grading. The Project would not impede any of the air quality control strategies being implemented within the Air Quality Management Plan. This would result in no impact.

b) The Proposed Project would not violate any air quality standards or contribute substantially to any existing or projected air quality violations. The Proposed Project shall consist of nominal construction emissions and a minor decrease in operational emissions due to the improved accessibility of vehicles within the Park as a result of restoring vehicle access across Stokes Creek. This would result in no impact.

c) There shall be no cumulatively considerable increase in emissions of any criteria pollutants currently in non-attainment for the South Coast Air Basin. As stated above, the Basin currently exceeds federal public health standards for both ozone and particulate matter (PM). Therefore, even small emissions should be minimized to the maximum extent practicable. Fortunately, the improvement in access throughout the Park should result in fewer emissions due to more efficient travel between destinations throughout the Park. **Air Quality** measures included below and within the mitigation monitoring reporting plan shall minimize construction emissions. This would result in less than significant impact.

d) Sensitive receptors shall not be exposed to substantial pollutant concentrations. The minimal pollutants generated would not pose any concern to sensitive receptors. The minimal pollution created would not be in any concentration that would be harmful. This would result in no impact.

   The California Air Resources Board recommends avoiding the siting of sensitive land uses near any of the following specific sources of air pollution:

   - High traffic freeways and roads
   - Distribution centers
   - Rail yards
   - Ports
   - Refineries
   - Chrome plating facilities
   - Dry cleaners
   - Large gas dispensing facilities

   None of these air pollution sources are known to be within the vicinity of the Proposed Project.

e) No objectionable odors shall be created from the Proposed Project either during construction or operation of the Proposed Project. This would result in no impact.

3.3.3 Avoidance, Minimization, Mitigation Measures

AQ-1: All haul vehicles shall be covered or shall comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.

AQ-2: Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway.

AQ-3: Watering of exposed dirt to minimize dust and dust plumes.

AQ-4: Inactive disturbed areas shall be treated as soon as feasible to prevent soil erosion.

AQ-5: Open soil piles that will remain on-site for two or more days shall be treated or covered to prevent soil erosion.

AQ-6: During high wind conditions (wind speeds in excess of 25 miles per hour), all earthmoving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.

AQ-7: All gasoline-powered equipment will be maintained according to manufacturer's specifications, and in compliance with state and federal requirements**.**

3.4 BIOLOGICAL RESOURCES

3.4.1 Environmental Setting

The Study Area includes the Project footprint and a 200-foot buffer. This area includes Stokes Creek as well as native valley oak woodland habitat surrounded by non-native annual grassland habitats. The Study Area encompasses an area of 5.32 acres. Stokes Creek bisects the Study Area north to south; this ephemeral creek is tributary to Malibu Creek, a relatively permanent stream that flows south to the Pacific Ocean. Vegetation community limits within the project footprint may be found in **Figure 3-1**.

Vegetation Communities

Three vegetated native or naturalized vegetation communities are present within the Study Area and the associated 200-foot buffer. They include:

1. **Native and non-native herbaceous superalliance mapping unit**

   This community is characterized by dominant native or non-native grasses, typically non-native *Bromus* species, in the herbaceous layer. Herbs are less than 2.5 feet in height and emergent trees or shrubs may be present at low cover. This community occurs on flat to steep slopes in foothills, waste places, rangelands, and openings in woodlands from sea level to 7,218 feet in elevation. Annual grasslands are a naturalized vegetation community that is prevalent through the state of California. Annual grasslands occur within the northern and southern portion of the Study Area. This community does not occur within the Project footprint, but does encompass about 2.19 acres within the buffer.

2. **Quercus lobata Woodland Alliance**

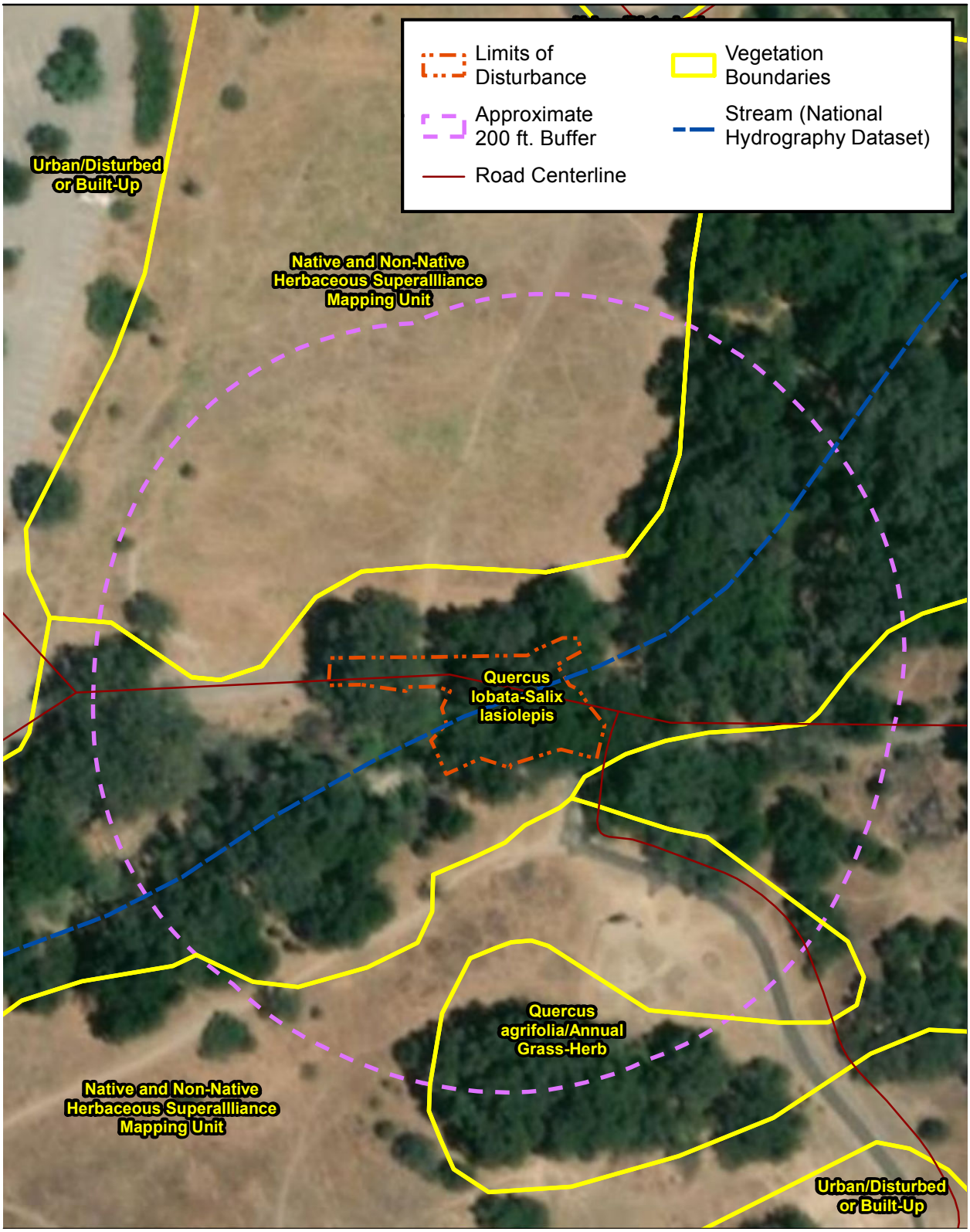
   Valley oak woodland (*Quercus lobata* woodland alliance) is classified by the CDFW as a sensitive natural community. This vegetation community is characterized by dominant or co-dominant valley oak (*Quercus lobata*) in the tree canopy, with an open to continuous canopy. Trees may be up to 98 feet in height. Other tree species that may be present include Oregon ash (*Fraxinus latifolia*), western sycamore, Fremont cottonwood, other *Quercus* genus oaks including coast live oak, blue oak, and California black oak, and several willow species including Gooding's willow (*Salix gooddingii*) and arroyo willow, the latter of which is co-dominant with valley oak within the Study Area. Shrubs may be common to occasional, and the herbaceous layer may be grassy. This community generally occurs on valley bottoms from sea level to 2,542 feet. Soils are typically alluvial or residual, are often seasonally saturated, and may be intermittently flooded. Within the Study Area, valley oak woodland occurs on the banks of Stokes Creek, with a canopy that overhangs the creek channel. This vegetation community dominates the Study Area, encompassing a total of 0.20 acre within the Project footprint and an additional 2.23 acres of the buffer, totaling 2.43 acres.

3. Quercus agrifolia Woodland Alliance

Coast live oak woodland (*Quercus agrifolia* woodland alliance) is characterized by dominant or co-dominant coast live oak (*Quercus agrifolia*) in the tree canopy, with an open to continuous canopy. Trees may be up to 98 feet in height. Other species that may be co-dominant in the tree canopy include California walnut (*Juglans californica*), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), other *Quercus* genus oaks including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), Engelmann oak (*Quercus engelmannii*), California black oak (*Quercus kelloggii*), arroyo willow (*Salix lasiolepis*), and California bay (*Umbellularia californica*). The shrub layer is sparse to intermittent, and the herbaceous layer is sparse to grassy, the latter of which is typical within the Study Area. This community occurs on alluvial terraces, canyon bottoms, stream banks, slopes and flats at elevations of sea level to 3,937 feet. Soils are typically deep with high organic matter, and may be sandy or loamy. Coast live oak woodland does not occur within the Project footprint, but does encompass approximately 0.70 acre of the buffer.

Table 3-1. Vegetation Communities and Acreages within the Study Area and Buffer

Vegetation Community	Project Footprint Acreage	Buffer Acreage	Total Acreage in Study Area
Native and Non-native Herbaceous Superalliance Mapping Unit	0.00	2.19	2.19
Valley oak woodland (*Quercus lobata* woodland alliance)	0.20	2.23	2.43
Coast live oak woodland (*Quercus agrifolia* woodland alliance)	0.00	0.70	0.70
Urban/disturbed or built-up	0.0	0.0	0.0
TOTAL	0.34	5.12	5.32



Source: Esri, DigitalGlobe, GeoEye, Microsoft, USDA; LA County 2015; USGS 2016; CA State Parks 2016

100 50 0 100 Feet

Scale: 1:1,200; 1 inch = 100 feet

Figure 3-1
Existing Vegetation Communities

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Designated Critical Habitat

No designated critical habitat occurs within the Study Area. The nearest designated critical habitat is for Lyon's pentachaeta (*Pentachaeta lyonii*) and occurs approximately 1.78 miles west of the Study Area. No direct or indirect impacts to this critical habitat unit are anticipated due to Project-related activities.

Additionally, critical habitat units for the federally endangered tidewater goby (*Eucyclogobius newberryii*) and the federally endangered Southern California Coast steelhead have been designated at the mouth of Malibu Creek, downstream of the Study Area.

Plant and Animal Observations

Forty species of plants were recorded during the 2016 survey of the Study Area. Of these, 28 are native and 12 are non-native. One special-status plant species, the Ojai Navarettia (*Navarettia ojaiensis*), was observed on-site. This species is described in greater detail below. A list of the plant species observed is provided in Appendix C of the Biological Assessment Report for the New Stokes Creek Bridge Project.

Incidental wildlife observations primarily consisted of common species, including red-tailed hawk (*Buteo jamaicensis*), acorn woodpecker (*Melanerpes formicivorus*), white-crowned sparrow (*Zonotrichia leucophyrys*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and California ground squirrel (*Otospermophilus beecheyi*). Two special-status bird species, oak titmouse (*Baelophus inornatus*) and Nuttall's woodpecker (*Picoides nuttallii*) were observed; both of these species are described below further. A list of the wildlife species observed is provided in Appendix C of the Biological Assessment Report for the New Stokes Creek Bridge Project.

Tree Inventory

The tree survey documented a total of 132 native trees within the Study Area and 200-foot buffer, including valley oak, coast live oak, western sycamore, and California black walnut. Figure 3 displays the locations of each of these trees. **Table 3-2** provides a summary of the number of each tree species documented.

Table 3-2. Tree Inventory Summary by Species

Scientific Name	Common Name	Individuals within Study Area and Buffer
Juglans californica var. *californica*	California black walnut	6
Planatus racemosa	Western sycamore	1
Quercus agrifolia	Coast live oak	107
Quercus lobata	Valley oak	18
Total		**132**

Sensitive Natural Communities

Sensitive natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection (i.e., CWA Section 404 and/or CFGC Sections 1600 et seq.). In addition, CDFW has designated a number of communities as rare; these communities are given the highest inventory priority.

One sensitive natural community, valley oak woodland alliance, was observed within the Study Area. Valley oak woodland alliance, which occurs in association with arroyo willow, is designated as a CDFW sensitive natural community. Valley oak woodland alliance occupies a total of approximately 2.09 acres, including 0.27 acre within the Study Area and 1.81 acres within the buffer.

Sensitive Species

For the purposes of this report, sensitive and special-status species are defined as plant and wildlife species protected by California Department of Fish and Wildlife, California Native Plant Society or the United States Fish and Wildlife.

Two special-status bird species and one special-status plant species were observed during field surveys of the Study Area, including oak titmouse and Nutall's woodpecker.

Oak titmouse

The oak titmouse is a common year-round resident of open oak woodlands, including blue oak woodlands, valley oak woodlands, and coast live oak woodlands, and a variety of other habitats, including montane hardwood-conifer forests, montane forest, and montane and valley foothill riparian habitats. This species forages primarily for insects and spiders, berries, acorns, and some seeds, by gleaning prey items from foliage, branches, and occasionally the ground. Oak titmice are cavity nesters, which build a nest in a natural cavity, nest box, or woodpecker hole. Breeding generally occurs from March into July. Oak titmice are listed by the USFWS as a BCC for the Coastal California Bird Conservation Region (BCR).

Nuttall's woodpecker

Nuttall's woodpeckers are a common, permanent resident of low-elevation deciduous riparian woodlands and oak woodlands. This small woodpecker forages for adult and larval insects, especially beetles, by gleaning, probing, or drilling for prey items. Berries, poison oak seeds, nuts, sap, and other fruits may also be included in its diet. Nesting occurs from late March through July in an excavated cavity between 2 and 60 feet above ground level. Nest cavities are typically excavated in riparian habitats in dead limbs or trunks of willows (*Salix* sp.), sycamore, cottonwood (*Populus* sp.), or alder (*Alnus* sp.) trees; nest cavities are rarely excavated in oak trees. Nuttall's woodpeckers are listed by the USFWS as a BCC for the Coastal California BCR.

Species with Potential to Occur

Through the review of available data sources, 19 plants, 4 mammals, 3 birds and 3 fish have the potential to occur within the Study Area and within a five-mile radius, but were not. More information regarding these species may be found within the Project's Biological Resources Report (AECOM March 2017).

Santa Monica Mountains LCP Habitat Categories

The Santa Monica Mountains LCP has developed a system of habitat categories based on biological resources that designate development standards for each category within the LCP boundaries. Habitat categories are defined as:

H1 Habitat – most sensitive and valuable habitats, of highest priority to protect;

H2 Habitat –sensitive and valuable habitats, limited development allowed;

H3 Habitat – primarily disturbed or non-native habitats, fewer restrictions on development.

The Study Area and associated 200-foot buffer has H1 and H3 habitats (**Figure 3-2** and **Table 3-3**).

Table 3-3. Santa Monica Mountains LCP Habitat Categories in the Study Area

Area	H1 Habitat	H3 Habitat	Total
200-ft Buffer of Crossing/Project Area	3.63	1.35	4.98
Crossing/Project Area	0.28	0.06	0.34
TOTAL	3.91	1.41	5.32



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS; LA County 2014; CA State Parks 2016

70 35 0 70 Feet

Scale: 1:840; 1 inch = 70 feet

Figure 3-2
Santa Monica Mountains LCP Habitat Categories within the Biological Survey Area

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Migratory and Nesting Birds

The vegetation communities of the Study Area provide suitable nesting habitat for several species of migratory birds. The oak woodland within and surrounding the creek channel, and grassland areas in the vicinity both have high potential to support nesting by tree-, cavity-, and ground-nesting species. Any work activities in the Study Area during the breeding bird season (February 15-September 1) should be evaluated for potential direct and indirect impacts to nesting birds. Refer to the avoidance, minimization, mitigation measures as well as the mitigation, monitoring, and reporting program for specific measures to be implemented to protect migratory and nesting birds.

Wildlife Movement Corridors and Habitat Fragmentation

Impacts to wildlife movement corridors and habitat fragmented through development can be detrimental to populations of species that rely on these areas for seasonal migration (usually one direction per season), interpopulation movement (long-term genetic exchange), and daily movements within an animal's territory (small travel pathways). Small travel pathways facilitate movement for daily home range activities such as foraging and escape from predators; however, they also provide connection between outlying populations and larger movement corridors, permitting an increase in gene flow between populations. Larger linkages between habitat types can extend for miles between primary habitat areas and occur on a regional scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas. Even where patches of pristine habitat are fragmented, the movement between wildlife populations is facilitated through habitat linkages, i.e., migration corridors and movement corridors.

Stokes Creek channel, including the Study Area, may provide some function as a wildlife corridor for species moving through the adjacent habitats. Flows within Stokes Creek are ephemeral, occurring only immediately following significant rain events; thus, the creek is not expected to provide a valuable migration corridor for aquatic species. Habitat in the vicinity is largely continuous with the Santa Monica National Recreation Area, and provides ample opportunities for wildlife movement. However, impacts to wildlife movement as a result of any proposed project activities should be assessed and minimized to the extent feasible.

Jurisdictional Resources

Stokes Creek is an ephemeral tributary via Los Virgenes Creek to Malibu Creek, which drains into the Pacific Ocean, a Traditional Navigable Water (TNW). Stokes Creek has a direct surface hydrological connection to a downstream TNW through Los Virgenes and Malibu Creeks. Because Stokes Creek appears to have an effect on the chemical, physical, and/or biological integrity of this TNW, it is expected that Stokes Creek possesses a *significant nexus* with a downstream TNW and is subject to USACE jurisdiction.

The Study Area contains both USACE jurisdictional non-wetland waters of the U.S. and CDFW-jurisdictional streambed. No USACE jurisdictional wetland waters were identified

within the Study Area or buffer. **Table 3-4** provides a summary of the federal and state jurisdictional waters within the biological study area.

Table 3-4. Estimated Jurisdictional Acreages within the Biological Study Area

Waters under USACE, RWQCB, and CDFW Jurisdiction Acres (Linear Feet)		CDFW-Only Jurisdictional Areas Acres	
Waters Type	**Acreage within BSA**	**Waters Type**	**Acreage within BSA**
Other (Non- Wetland) Waters of the U.S.	0.13	Riparian Habitat	2.30
Total	**0.13**		**2.30**

[1] Exact acreages were calculated using Geographic Information System software; small discrepancies are due to rounding.

3.4.2 Environmental Impact Evaluation

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, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

a) **Plant Impacts**

The plant species with most potential to be affected by the Project are native tree species. This includes 24 that have a portion of their tree protected zone overlapping with the limits of disturbance (LOD). Of these 24, 10 trees are located within the LOD. The trees located within the LOD include seven (7) Coast live oak, two (2) Valley oak and one (1) Arroyo willow. None of these trees shall be removed due to construction. The construction does not plan for the trimming of any tree canopy. The protected zone surrounding the tree would not be permanently impacted. The construction would impact the protected zone of native trees. Due to this impact mitigation shall occur as is described in **BIO-5** and **BIO-6**.

Designated Critical Habitat impacts are not expected, as no critical habitat occurs in the BSA. Critical habitat for the tidewater goby and Southern California Coast steelhead occurs at the mouth of Malibu Creek, downstream of the BSA. Replacing the culvert crossing with a bridge and removal of the gabion walls would allow for more unrestricted stream flow. The project would not adversely alter the stream course. Water volumes would increase downstream, which would result in higher potential for flooding. This downstream effect is discussed further in **Section 3.9.2**. Water quality is likely to have short-term degradation due to an increase in the suspension of soil within water downstream of the BSA. Some temporary impact would occur, but longer term impact should be minimal.

Ojai navarettia was detected within the BSA, but outside of the temporary and permanent impact areas. Therefore, no permanent or temporary impacts to this species should occur.

Animal Impacts

Oak Titmouse and Nuttall's Woodpecker were detected in the BSA. Impacts to these species would be avoided through the design of the project. The project would not remove trees that could provide suitable nesting habitat. In addition, construction impacts would be avoided through avoidance, mitigation, and measure BIO-3 which requires that vegetation clearing activities occur outside the bird breeding season to the extent practical. This measure also prescribes that, if construction should occur during the bird breeding season, a nesting bird survey will precede such activities, and a qualified biologist shall monitor construction activities. As such, no impacts are expected to occur to the oak titmouse or Nuttall's woodpecker.

b) **Vegetation Communities**

Temporary impacts to vegetation communities are illustrated in **Figure 3-3**. No permanent impacts would occur, as the proposed road and bridge would fit within the existing road and culvert crossing footprint. Temporary impacts to individual native trees within the LOD would be avoided, as the engineering design of the project

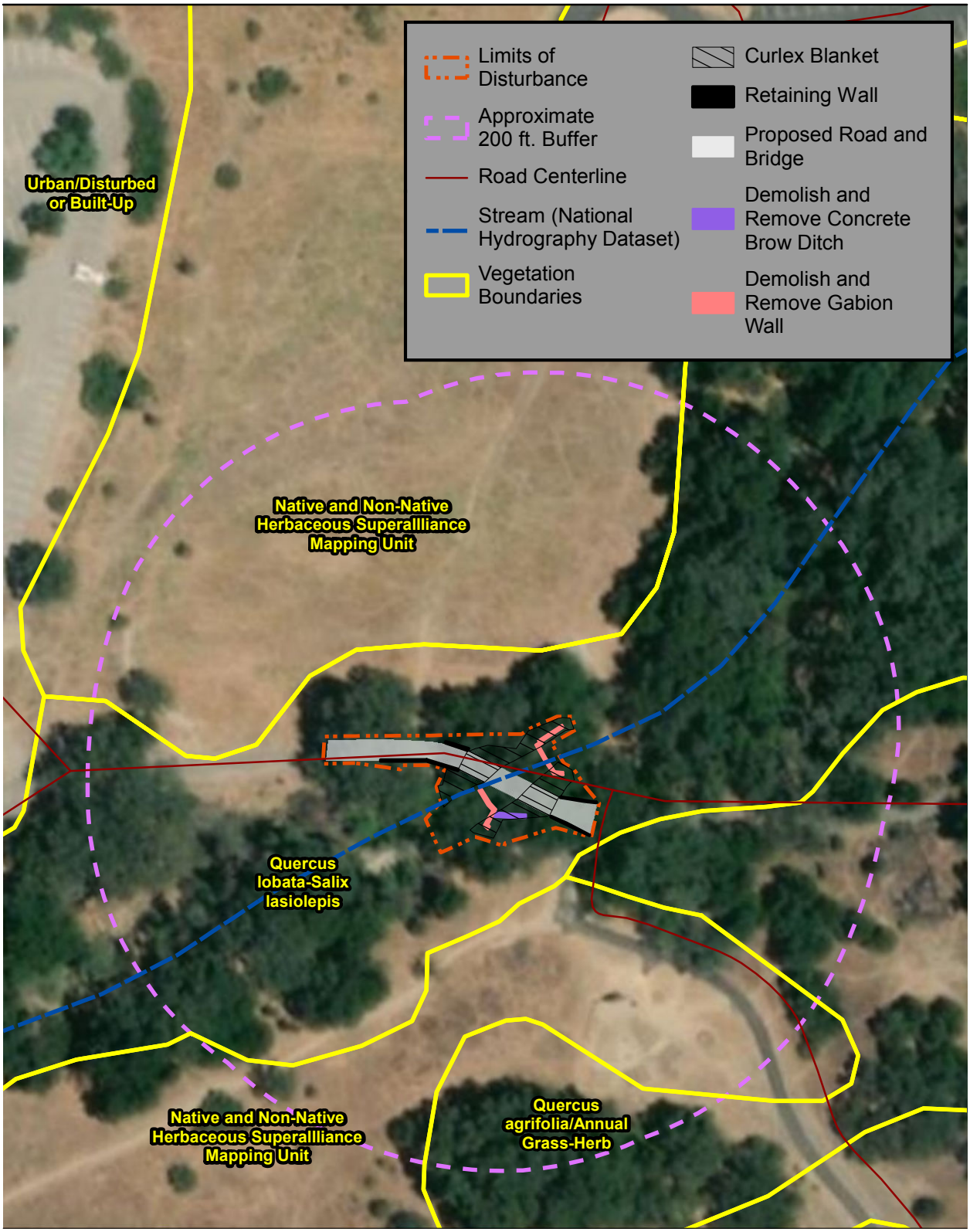
protects in-place each native tree. However, 0.20 acre of temporary impacts to *Quercus lobata-Salix lasiolepis* alliance would occur from temporary impacts within the project LOD, including grading of the stream banks, removal of the gabions, installation of the Curlex blanket, and associated construction activities. Temporary impacts to the understory of this alliance would be restored post-construction per measure **BIO-6**.

Designated Critical Habitat

Impacts to designated critical habitat are not expected, as no critical habitat occurs in the BSA. As described in Section 4.4, critical habitat for the tidewater goby and Southern California Coast steelhead occurs at the mouth of Malibu Creek, downstream of the BSA. Replacing the culvert crossing with a bridge and removal of the gabion walls would allow for more natural stream flow. Further, the project would not permanently alter the stream course, water volumes, or water quality downstream of the BSA. Therefore, no temporary or permanent impacts to critical habitat are expected.

Sensitive Natural Communities

Impacts to the sensitive natural community that occurs within the LOD (valley oak woodland) would be avoided through design of the project, which avoids the removal of native trees. In addition, measures **BIO-1** and **BIO-7** will avoid, minimize, and mitigate impacts that may occur as a result of construction. Measure **BIO-1** will educate the construction crews on laws and ordinances protecting biological resources within the LOD, to help avoid impacts from construction. Measure **BIO-6** will mitigate impacts resulting from construction by restoring temporarily disturbed areas.



Source: Esri, DigitalGlobe, GeoEye, Microsoft, USDA; LA County 2015; USGS 2016; CA State Parks 2016

100 50 0 100 Feet

Scale: 1:1,200; 1 inch = 100 feet

Figure 3-3
Impacts to Vegetation Communities

c) **Wetland Impacts**

A jurisdictional delineation was completed for this project on October 17, 2016. Table 6 describes the total acreages of jurisdictional waters that would be temporarily impacted within the Limits of Disturbance, as a result of the project.

Table 3-5. Estimated Potential Impacts to Jurisdictional Acreages within the LOD

Waters under USACE, RWQCB, and CDFW Jurisdiction Acres (Linear Feet)		CDFW-Only Jurisdictional Areas Acres	
Waters Type	**Estimated Temporary Impacts (In LOD)**	**Waters Type**	**Estimated Temporary Impacts (In LOD)**
Other (Non-Wetland) Waters of the U.S.	0.04	Riparian Habitat	0.16
Total	**0.04**		**0.16**

[1] Exact acreages were calculated using Geographic Information System software; small discrepancies are due to rounding.

All temporary impacts would occur within a 0.20-acre area, of which approximately 0.04 acre is non-wetland waters regulated by the USACE, CDFW, and RWQCB, and the remaining 0.16 acre is riparian habitat under the jurisdiction of the CDFW. Temporary impacts to waters under the jurisdiction of the USACE, RWQCB, and CDFW are limited to removing the existing structures, including the gabion wall, and corrugated metal pipe and associated bottom. The slopes of the stream would be graded and a Curlex blanket would be installed to prevent erosion and facilitate restoration of the bank slopes after grading. As such, temporary impacts to waters under the jurisdiction of the USACE, RWQCB and CDFW would be 0.04 acre from grading and Curlex blanket installation. The non-wetland waters temporarily impacted by construction would be restored post-construction per measure **BIO-6**. No permanent impacts to waters of the U.S. and state are proposed.

In addition to impacts to waters of the U.S. and state, temporary impacts to 0.16 acre of CDFW-only riparian habitat would occur. These impacts would result from grading and installation of the Curlex blanket for erosion control. Of the 0.16 acre, approximately 0.003 acre of riparian habitat would be impacted from the construction of new retaining walls. However, the project would require demolition of 0.006 acre of existing gabion wall and concrete brow ditch. Therefore, permanent impacts from the construction of the new retaining walls would be less than the demolition of the wall and brow ditch within the riparian habitat. The riparian habitat areas that would be temporarily impacted by construction would be restored post-construction per measure **BIO-6**.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA

75 37.5 0 75 Feet

Scale: 1:900; 1 inch = 75 feet

Figure 3-4
Impacts to Jurisdictional Areas (Waters and Wetlands)

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d) **Wildlife Movement Corridors and Habitat Fragmentation**

The BSA may provide some function as a wildlife corridor for species moving through the adjacent habitats **(Section 3.4.1: Wildlife Movement Corridors and Habitat Fragmentation)**. However, impacts to wildlife movement are not expected because the project would not remove native trees nor significantly degrade the riparian habitat within the BSA. Construction activities will occur during a short duration and should not interfere with movement corridors. The project involves replacing and existing culvert crossing which can serve as a movement corridor. Therefore, the project would not contribute to habitat fragmentation. This would result in no impact.

e) The Proposed Project shall be compliant with policies established by the County of Los Angeles' Santa Monica Mountain's Local Coastal Program Land Use Plan. Policies providing protection to Biological Resources include, but are not limited to, the preservation of oak, walnut, sycamore, bay, or other native trees. Refer to **Figure 3-5** showing impacts to native trees within the project footprint. Policies which are applicable to the Proposed Project as well as how they will be complied with may be found in **Section 3.10 (Land Use and Planning)**. With compliance with these policies, impact shall be less than significant.

f) No conservation plans were found to be approved for the Proposed Project site or for the County of Los Angeles. This would result in no impact.

3.4.3 Avoidance, Minimization, Mitigation Measures

Biological Resources

BIO-1 A qualified biologist shall prepare a Worker Environmental Awareness Training (WEAT), which discusses the federal, state, and local laws and ordinances protecting biological resources; the fines and penalties for violating these laws; the sensitive biological resources with potential to occur within the Study Area, including their identifying traits, life history, and regulatory status; and general practices to avoid impacts to these species and resources. The WEAT shall be presented to all project staff, including supervisors and subcontractors, prior to the commencement of work activities, and shall be given to new personal as needed throughout the term of construction.

BIO-2 A qualified biologist shall identify special-status plants within the disturbance footprint and buffer no more than 2 weeks prior to the start of construction. In the event that a special-status plant is observed, the species shall be incorporated into the planting palette for the restoration plan for the site (**BIO-5**). If feasible, seed shall be collected from the special-status plants on-site to use in the restoration and any special-status plants that will be permanently displaced by construction shall be transplanted.

BIO-3 All vegetation clearing activities shall be conducted outside the bird breeding season (February 15 through September 1) to the extent practicable. Where such activities must occur during the breeding bird season, activities shall be preceded by nesting bird surveys and shall be monitored by a qualified biologist. If construction is necessary during the bird breeding season (February 15 through September 1), nesting bird surveys of the project footprint and a 500-foot buffer shall be conducted 30 days prior to construction to detect any active bird nests within 500 feet of the construction area. The last survey shall be conducted 3 days prior to the initiation of clearance/construction. If there is a work stoppage for 7 or more days then a nesting bird survey will be required prior to resumption of construction activities. If nesting birds are encountered, no-disturbance buffers shall be established to protect the nest from disturbance. The buffer shall remain in effect until a qualified biologist determines the nest has either failed or fledged, young are no longer dependent upon the nest, and there is no evidence of a second attempt at nesting. Buffers shall be a minimum of 300 feet for migratory bird nests and 500 feet for active raptor, rare, threatened, endangered, or species of concern nests. Limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing and construction personnel shall be instructed on the sensitivity of the area.

BIO-4 Stokes Creek and its associated riparian habitat are designated as an Environmentally Sensitive Area (ESA). No encroachment (i.e., workers, equipment, materials) shall be allowed off of the pavement in these locations at any time, unless otherwise indicated in the project plans/specifications or

approved by CDPR in coordination with the CDPR Natural Resource Specialist. ESAs shall be protected with temporary fencing (e.g., orange plastic fencing, silt fencing) or other acceptable method. Work limits shall be clearly marked in the field and confirmed by the CDPR Natural Resource Specialist. All staked/fenced boundaries shall be maintained throughout the construction period. Work within the streambed shall occur only during the dry season, when limited surface waters are present within Stokes Creek at the crossing. All efforts will be made to prevent sediment from entering the streambed and dissipating downstream.

BIO-5 Project design and construction shall be in accordance with Department Tree Protection measures, as outlined in the Natural Resources Handbook. Operations shall be conducted in a manner that avoids damage and minimizes disturbance to existing trees and other vegetation. Where trees occur within or adjacent to the construction disturbance zone, the following measures shall be adhered to:

a. Prior to any surface-disturbing work, temporary fencing shall be installed around the protected zones of native trees within/near the project area to prevent disturbance from construction-related activities. Fencing shall be maintained in place for the duration of work. Any breach in the protective fencing that occurs during construction shall be promptly repaired or replaced.

b. No staging or storage of materials shall be allowed within the fenced exclusion areas or within the protected zones of any on-site native trees. Additionally, no grading or construction shall occur in the fenced/protected zones, unless otherwise indicated in the project plans.

c. The services of a qualified arborist, certified by the International Society of Arboriculture, shall be retained to inspect and monitor trees within and adjacent to the construction area, to recommend care, maintenance and protection of trees affected by construction during and after completion of the work, and to provide guidance on the repair of any tree damaged during the course of construction. The certified arborist shall be available to oversee and consult on project work involving the pruning/removal of tree branches, the cutting of roots two inches or larger, and for review and assessment of any accidental tree damage/destruction that may occur during the Proposed Project. Any construction, including grading or excavation, which requires encroachment into the protected zone of a native tree shall be monitored by the certified arborist to minimize impacts to the tree's root system.

d. Tree pruning procedures shall comply with the American National Standards Institute (ANSI) A300, "Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices". Cutting of branches and cutting of roots two inches or larger must be approved by CDPR in coordination

with the arborist and the CDPR Natural Resource Specialist and shall be made cleanly, using disinfected, sharp tools to achieve neat severance with the least possible damage to the tree.

BIO-6 Restore temporary impacts to 0.20 acre of jurisdictional waters and valley oak woodland understory and mitigate for impacts to native tree protected zones. In accordance with the Santa Monica Mountains LCP, greater than 30 percent encroachment into tree protected zones and encroachment that extends within 3 feet of a tree trunk will be mitigated at a ratio of 10:1. Encroachment of 10 to 30 percent into tree protected zones and trimming branches over 11 inches in diameter will be mitigated at a ratio of 5:1. For trees with less than 10 percent encroachment into protected zones, no mitigation is required, but monitoring is required.

Table 3-6: Tree Mitigation

Tree Type	Percentage Impacted	Number of Trees	Mitigation Ratio	Total Trees to be Mitigated
Quercus agrifolia	Greater than 30% of Tree Protected Zone	9	10:1	90
Quercus agrifolia	Between 10–30% of Tree Protected Zone	3	5:1	15
Quercus agrifolia	Less than or equal to 10% of Tree Protected Zone	2	NA	Monitor Trees
Quercus lobata	Greater than 30% of Tree Protected Zone	1	10:1	10
Quercus lobata	Between 10–30% of Tree Protected Zone	2	5:1	5

For impacts to trees requiring mitigation and on-site restoration of temporary impacts, the following measures shall be implemented:

a. CDPR will prepare a habitat restoration plan that outlines the methods by which impacts to habitat/trees shall be addressed. The re-vegetation will serve to visually enhance the site, and offset the loss of trees, shrubs, and plants from construction. The plan will be prepared by a qualified biologist with experience/knowledge of native vegetation communities within southern California. At a minimum, the restoration plan shall include information on: 1) the purpose and objectives, 2) existing conditions, 3) methods of implementation, 4) a planting plan, 5) maintenance program, and 6) monitoring plan, including success criteria.

b. Restoration shall occur in appropriate/suitable habitat within Malibu Creek State Park, and as close to the project site, as feasible.

BIO-7 If project construction activities are scheduled between May and August, surveys shall be conducted by a qualified biologist for the presence of western red bat maternity roosts. In the unlikely event that roosting western red bat are detected, a buffer shall be established by the qualified biologist. The buffer shall be maintained free of construction and construction related noise, until the pups are weaned and exhibiting flight behavior.

BIO-8 Access routes, staging areas, and the total footprint of disturbance shall be limited to the minimum number/size necessary to complete the Proposed Project. Routes of travel and work boundaries will be configured to avoid unnecessary intrusions into the surrounding habitat.

BIO-9 A CDPR Natural Resource Specialist will be made available for both the pre-construction and construction phases to review plans, address resource issues, and periodically monitor or arrange for monitoring of ongoing work. The CDPR Natural Resource Specialist shall maintain communications with project staff to ensure that concerns related to sensitive species/habitats are appropriately and lawfully managed.

BIO-10 Should any areas require hydroseeding for temporary erosion control, then only local, native plant species, approved by the CDPR Natural Resource Specialist shall be used.

BIO-11 For reasons of safety, areas of excavation (e.g., pits, trenches, holes) shall be covered overnight or during periods of inactivity. Routes of escape from excavated pits and trenches shall also be installed for wildlife that could potentially become entrapped. These locations shall be regularly inspected and shall be immediately inspected prior to filling. Should any wildlife be discovered, then a qualified biologist shall be contacted to obtain instructions on how to safely remove the wildlife from the trench/hole or suspend work at the excavation site until the entrapped animal can be relocated by the qualified biologist.

BIO-12 The Proposed Project area will 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.

BIO-13 Erosion control measures shall be inspected daily during rainfall events and at least weekly throughout construction. Prior to the onset of any precipitation, both active (disturbed) soil areas and stockpiled soils shall be stabilized to prevent sediments from escaping off-site or into Stokes Creek. Should inspection determine that any BMPs are in disrepair or ineffectual, action shall be taken immediately to fix the deficiency.

BIO-14 The changing of oil, refueling, and other actions (e.g., washing of concrete, paint, or equipment) that could result in the release of a hazardous substance shall be restricted to approved/designated areas that are a minimum of 100 feet from any sensitive habitat (e.g., riparian) or waterway. Such sites shall be surrounded with berms, sandbags, or other barriers to further prevent the accidental spill of fuel, oil, or chemicals. Any discharges shall be immediately contained, cleaned up, and properly disposed.

BIO-15 Storage and staging areas will be placed a minimum of 100 feet from any drainage or other water body. Such sites shall occur in existing developed or disturbed locations (e.g., paved or previously hardened surfaces) that have been reviewed and approved by the CDPR Natural Resource Specialist and CDPR Archaeologist. All areas used for stockpiling shall be kept free from trash and other waste. No project-related items shall be stored outside approved staging areas at any time.

BIO-16 All construction vehicles shall not exceed 15 mph on any paved or unpaved surfaces within Malibu Creek State Park.

BIO-17: Spark arrestors or turbo charging (which eliminate sparks in exhaust) and fire extinguishers shall be required for all motorized equipment and heavy equipment.

BIO-18: Pets belonging to project personnel shall not be permitted within the construction boundaries at any time.

BIO-19: No construction shall be allowed on Saturdays, Sundays, or State holidays, unless approved in advance. Additionally, no nighttime operations (including lighting) shall be authorized to complete the Proposed Project.

BIO-20: Conditions set forth in the CDP, which will be issued by the County of Los Angeles, shall be observed and implemented as part of the Proposed Project.

3.5 CULTURAL RESOURCES

3.5.1 Environmental Setting

Pre-Historic Setting

Near the end of the Pleistocene epoch, approximately 13,000 years ago, humans began settling in North America, with coastal archaeological sites along California dating to 11,000 to 13,000 years ago. Scientific evidence has documented human presence in the Santa Monica Mountains coastal region at around 8,000 years ago (King 2000), with settlement patterns and archaeological features associated with the Early Period. Such Early Period archaeological sites consist of villages and temporary settlements located primarily along the coast with evidence of fishing, using watercraft, trading, milling, and small-game hunting (Gamble and King 1997). Typically these settlement sites are small in size and located on elevated land features for defensive purposes.

Archaeological data from the Santa Monica Mountains that date from 7,000-3,200 years ago, known as the Early Period or Early Milling Stone Horizon, indicate that people at this time gathered a diverse range of plants due to the abundance of stone grinding implements and core tools (Wheeler et al. 1989).

The Middle Period, approximately 3,200-800 years ago, saw the establishment of many inland villages. Village sites during this period show evidence of having been semi-sedentary settlements based on a hunter-gatherer economy for a varied diet of plant and animal species, including fish and shellfish form the coastal region (Wheeler et al. 1989). A Middle Period inland village site first excavated in 1960 by King et al. (1968) indicates it was a heavily used and permanent settlement. Archaeological and ecological materials present at the site, including a shell midden and human burials, gave the site a large perimeter. Several burials and cremains indicate the site was inhabited from the Middle to Late Period, or approximately 2,300 to 420 years before present (Wheeler et al. 1989). King et al. (1968) also illustrated the trade relationships of this inland village site to coastal site residents.

The Late Period, from about 800 years ago to post-Spanish contact at 200 years ago, in the Santa Monica Mountain region reflected the classic well-developed complex social structure of the Ventureño Chumash in the western area and the Tongva/Gabrieleño in the eastern region of the mountains (Cooley et al. 2003; King 2000). Coastal resources, including fish and shellfish, consisted of a larger portion of the inhabitants' diet (Wheeler et al. 1989). This period saw increasingly complex social and political organizations as well as significant inter-regional trade relationships between coastal and inland village sites (Cooley et al. 2003; King 2000). Mission-era baptismal records show that inter-regional marriages between the coastal and inland inhabitants were commonplace (Wheeler et al. 1989). European contact introduced some new resources to the region, including new food materials and ceramic styles (Wheeler et al. 1989).However, the missionization of indigenous American groups, as well as diseases brought by the Europeans severely reduced the native populations in the region (Cooley et al. 2003:19).

Historic Setting

European contact of the local coastal region first occurred in 1542 when a Spanish expedition, led by Juan Cabrillo, landed at a Native American village along the Ventura County coastline (Cooley, et al. 2003:19). In the late 1700s, European contact became more intensive with several Spanish expeditions passing near Malibu Creek, including a land expedition by Gaspar de Portolá in 1769 that passed north of the Santa Monica Mountain range through the San Fernando and Conejo valleys (Cooley, et al. 2003). Portolá and his crew documented their interactions with the local Native Americans in this region during this expedition.

European settlement in the area took hold with the establishment of Spanish missions (Cooley, et al. 2003). Two missions founded near Malibu Creek area include Mission San Buenaventura—established in 1782 by Father Junípero Serra—and Mission San Fernando Rey de España—established in 1797 by Father Fermín Lasuén—which colonized the Western Tongva/Fernandeño, Tataviam and Ventureño Chumash people. During the Mission Period, many indigenous groups like the Tongva and Chumash were fatally exposed to Old World diseases and others were forcibly integrated into the mission system which resulted in the loss of much of native life and culture.

Further European settlement in California was encouraged with the issuing of about 30 land-grant titles, or ranchos, to private individuals by the Spanish government between 1784 and 1821. Rancho Topanga Malibu Sequit along the Malibu coast, which was over 13,000 acres of land, was granted to José Bartolomé Tapia in 1802 by the Spanish government (Cooley, et al. 2003). Tapia and his family used most of the land for cattle grazing but also built an adobe home and corrals in the southern portion of Malibu Canyon. Other Spanish land grants in the vicinity of the Santa Monica Mountains, including the El Triunfo provisional grant, were ceded by the Governor to Mission San Fernando for use as grazing land (Cooley, et al. 2001).

Following independence from Spain in 1821, the Mexican government continued supporting land grant settlements in California, calling for the secularization of the Missions and the division of their grazing lands for more settlement opportunities (Cooley, et al. 2001). One such area of land was disbanded from Mission San Fernando and split between Domingo Carrillo and Nemesio Dominguez in 1834, constituting the Mexican-era Rancho Las Virgenes (Cooley, et al. 2001). By 1837 José Maria Dominguez, father of Nemesio Dominguez, acquired Rancho Las Virgenes and later sold the land to Maria Antonia Machado in 1845 (Cooley, et al. 2003).

With the cessation of the Mexican-American war in 1848 and the U.S. assuming control of California, the 1851 California Land Act took effect to recognize the Mexican-era land grants as agreed upon in the Treaty of Guadalupe-Hidalgo (Cooley, et al. 2003:20). Around this time, Maria Antonia Machado petitioned for Rancho Las Virgenes and the nearby Triunfo Canyon lands which were confirmed by the U.S. Government appeals court in the late 1850s. Increasingly, however, settlers began occupying the surrounding canyon lands, including Pedro Sepulveda who built two adobes in Triunfo Canyon in

1863, one adobe of which still remains in Malibu Creek State Park (Felton and Newland 2001). Land title disputes between the Triunfo Canyon settlers and the owners of Rancho Las Virgenes led the General Land Office to publish a new plat map in 1889 as it was determined José Maria Dominguez had never officially been granted the Triunfo lands. As a result, homesteaders in the area rushed to file patent claims for the lands they were occupying in the early 1900s (Cooley, et al. 2003).

The 1900s brought further change in land ownership and use to the Malibu Creek area in the Santa Monica Mountains. From about 1911-1936, land previously owned by homesteaders south of Rancho Las Virgenes was purchased by real estate developers who created an exclusive clubhouse for Los Angeles' elite called Crags Country Club (Cooley, et al. 2003). By 1936 the clubhouse was closed and over 2000 acres of the property was sold to Twentieth Century Fox studios in 1946 to film movies (Cooley et al. 2003:21). Fox studios increased the land belonging to them in the region over the following two decades, but as land prices continued to climb and Fox had financial troubles, they were forced to sell their holding to the State of California in 1974 for close to $5 million (Cooley, et al. 2003). This land acquisition by the State led to the creation of Malibu Creek State Park which was opened to the public in 1976.

Archaeological Work

Numerous archaeological survey and testing projects, site recordation work and monitoring of development projects have taken place over the years at Malibu Creek State Park. One of the earliest archaeological excavations took place from 1961 to 1963 sponsored by University of California, Los Angeles (UCLA) at three prehistoric sites within the park, including CA-LAN-225, CA-LAN-227, and CA-LAN-229 (King, et al. 1968). King, et al. (1968) described these sites as spanning from the Early Period to the historic period and from their excavations they uncovered human burials and cremains, lithic and shell artifacts, midden and rock features, and evidence of tool manufacturing and food preparation. In addition, King, et al. (1968) speculated that CA-LAN-227 and CA-LAN-229 were village sites based on the archaeological evidence uncovered from their excavations. In 1976, California State Park archaeologists surveyed this area and relocated all three sites (CA-LAN-225, CA-LAN-227, and CA-LAN-229) (Dodds 2010).

In 1977, nine units were excavated at village site CA-LAN-227 by State Park archaeologists uncovering several human interments, lithics, and midden deposits (Evans and Fisher 1980). Five of the excavation units were to determine the extent of the cemetery and four units were to determine the remaining intact midden, and several auger test holes were dug between the two excavation areas (Evans and Fisher 1980). Several burials were observed at the site, including a cemetery of twenty-two burials in what was once the southern edge of the site (King et al. 1968; Mealey et al. 2010). Over one thousand artifacts, such as groundstone tools, lithic tools, steatite pipes, stone and shell beads, projectile points, bone tools, pottery, and basket impressions were collected from the site (Mealey et al. 2010). A Haliotis cracherodii shell bead from a burial within LAN-227 gave a radiocarbon date of 1530 A.D. (420 ± 100 B.P) (King et al. 1968:94). In 1987, archaeological monitoring of an east-to-west sewer line trench just north of the site uncovered additional midden deposits at LAN-227 (Mealey et al. 2010:4; Wheeler et al.

1989:2; Wheeler 2016). However, later archaeological testing and monitoring turned up very minimal cultural materials (McFarland 2012 and 2013b; Mealey et al. 2010:4) possibly because of extensive ground disturbance that occurred within this area over time (King et al. 1968; Mealey et al. 2010:11).

In May 1987, Thomas Wheeler recorded CA-LAN-840, which is a large site consisting primarily of prehistoric features, such as lithic tools and debitage, as well as human interments and cremations with associated burial objects (Aseltine 1976; Johnson 1976; McFarland 2013a; Wheeler 1987b). There is also a small component of historic artifacts along the creek (McFarland 2013a and 2013b). In 2012, an archaeological survey and testing program for a trails project in a portion of the site turned up very minimal cultural materials (McFarland 2012) possibly because of ground disturbance in the area attributed to ranching and agricultural activities, movie-making, and rodent activity (McFarland 2013b; Wheeler et al. 1989). Nearby, in 1985 Clay Singer recorded two small lithic scatter sites in 1985 designated CA-LAN-2105 and CA-LAN-1206.

Recent archaeological testing and monitoring occurred at the project location. In July 2016, Bethany Weisberg and Juliette Meling excavated six shovel-test pits and seven auger test pits within the project footprint and documented only a low density of artifacts, including shell, lithic debitage, metal, and glass material types (Weisberg 2016). Mariana Bandera monitored geotechnical drilling for the Stokes Creek Bridge project in July 2017 which turned up no cultural resources (Bandera 2017).

Due to the proximity of two significant archaeological sites with known human remains, CA-LAN-227 and CA-LAN-840, to the project area, it is recommended that a qualified archaeological monitor and a Native American representative from the local tribal community be present during ground disturbing construction work, in order to properly document and respectfully treat any unanticipated cultural materials. If there are any changes to the project scope or design, then further review will be necessary by a State qualified archaeologist. Specifics of the archaeological work history may be obtained by contacting the State Archaeologist.

3.5.2 Environmental Impact Evaluation

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?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic features?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

a) No resource listed in or determined to be eligible for listing in the National, California or a local register of historic resources is found within the Proposed Project site. Nor does any object, building, structure, site, area, place, record or manuscript which CDPR has determined is historically significant exist within the Proposed Project area. This would result in no impact.

b) Based on current and past archaeological work history, the Proposed Project would not result in an adverse change to any archaeological resource due to no known significant resources existing within the Proposed Project area (Bandera 2017; Weisberg 2016). Due to the close proximity of known archaeological sites, measures shall be in place, including monitoring of ground disturbance, to ensure that any unforeseen resources can be protected in place and documented sufficiently. This would result in less than significant impact.

c) The project area is located within Recent Alluvial deposits with no known paleontological localities. In the event that these resources are discovered during soil disturbing activities, measure **Paleo-1** shall be implemented to ensure there is less than significant impact. Based on the available information, there should be no impact.

d) While there are no known human remains within the Proposed Project area, there are known burials and cremations in proximity to the project location. However, the project footprint is located in a previously disturbed area due to construction of the existing culvert and the original Waycross Road. Archaeological monitoring (**Arch-1**) and mitigation measure **Arch-3** ensures that should any be discovered, that the discovery is handled appropriately in order to remain compliant with all applicable state and federal laws. This would result in less than significant impact.

3.5.3 Avoidance, Minimization, Mitigation Measures

Archaeological Resources (Arch)

Arch-1: All ground-disturbing activities shall be monitored by a qualified archaeologist and a Native American monitor. Monitors shall observe all new earthwork and inspect back dirt piles for artifacts. Monitoring logs shall be completed for each day that monitoring is undertaken, including photographs of the Proposed Project area and records of construction activities. Any discoveries (including diagnostic isolates) shall be accurately plotted in order to document distribution and create working field maps and final report-quality maps.

Arch-2: If archaeological features or potentially significant concentrations of artifacts are encountered during monitoring, all ground-disturbing activities will immediately be redirected away from the discovered resource to allow for its evaluation and appropriate treatment. This evaluation will be undertaken by the archaeological Principal Investigator at the Southern Service Center or their designee. The discovery site shall be flagged to protect it from further construction impacts. Once the feature or deposit has been exposed to the extent possible, CDPR archaeologists shall assess the eligibility of the feature or deposit and make a determination as to avoidance, protection, or implementation of mitigation measures such as data recovery.

Arch-3: In the event of an accidental discovery or recognition of any human remains within the Proposed Project area in any location other than a dedicated cemetery, the following steps shall be taken. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Los Angeles County Coroner has been contacted to determine that no investigation of the cause of death is required. If the Medical Examiner determines the remains to be Native American, the Medical Examiner shall contact the Native American Heritage Commission within 24 hours.

The Native American Heritage Commission shall identify the person or persons it believes to be the Most Likely Descendent/s (MLD) of the deceased Native American. As provided in Public Resources Code Section 5097.98, the MLD may make recommendation for treatment or disposition with appropriate dignity, of the human remains and any associated grave goods. Alternatively, where the conditions listed below occur, an authorized representative of CDPR shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. The conditions are: (1) that the Native American Heritage Commission is unable to identify an MLD, or (2) the MLD fails to make a recommendation within 24 hours after being notified by the commission, or (3) CDPR rejects the recommendation of the MLD, and

the mediation by the Native American Heritage Commission fails to provide measures acceptable to CDPR. California Department of Parks and Recreation's policy regarding the treatment of human remains is consistent with these guidelines.

Paleontological Resources (Paleo)

Paleo-1: A qualified vertebrate paleontologist shall be contacted in the rare instance that such resources are found during demolition and grading activities associated with the Proposed Project.

3.6 GEOLOGY AND SOILS

3.6.1 Environmental Setting

Geotechnical Evaluation

A geotechnical soils investigation was performed to ensure that the site is suitable for the improvements being proposed. It determined that construction of the proposed improvements is feasible with the incorporation of recommendations within the geotechnical report.

Geology

The Santa Monica Mountains are a geological unit of the Transverse Mountain Ranges of Southern California. They are a part of the only east-west belt of mountains in California and one of only two in North America so oriented. The Santa Monica Range is a broad anticline that has been severely ruptured by faulting and intruded by sills and dikes. The Santa Monica range is bisected by the flow of water that flows through Malibu Canyon. Malibu Creek is thought to have flowed in its present course before the mountains existed. The main fault of the Santa Monica Mountains is the Malibu Coast Fault. The Santa Monica Mountain Range is a result of the interactions between the Pacific Plate and the North American Plate. The Pacific Plate's crust is oceanic and composed of basalt, which is denser than continental crust. The Pacific Plate subducts under the North American Plate. The Pacific Plate moves north and the North American Plate moves south; a strike slip plate boundary. The area where the two plates slip past each other is the San Andreas Fault.

The Santa Monica Mountains are composed of markedly faulted and folded coarse- to medium-grained sedimentary deposits. From the crest of the Santa Monica Mountains in the south of the Park to the Thousand Oaks Corridor Hills in the Park's north lie belts of sandstone and fossil-bearing early Miocene shale. Over 15 million years ago, during the Middle Miocene age, the sandstone and shale were covered by Conejo Volcanics, a molten volcanic rock. The volcanic rock, layered with sedimentary rock, began the mountain formation. The Calabasas formation was a result of an alternating sequence of volcanism and marine deposition, which consists of layers of sandstone, siltstone, and fragments of sedimentary rock imbedded in sandstone conglomerates. The Park has many steep canyons with shallow alluvial fills, ranging in thickness from 30 feet at the bottom of canyons to less than 4 feet on canyon slopes.

Soils

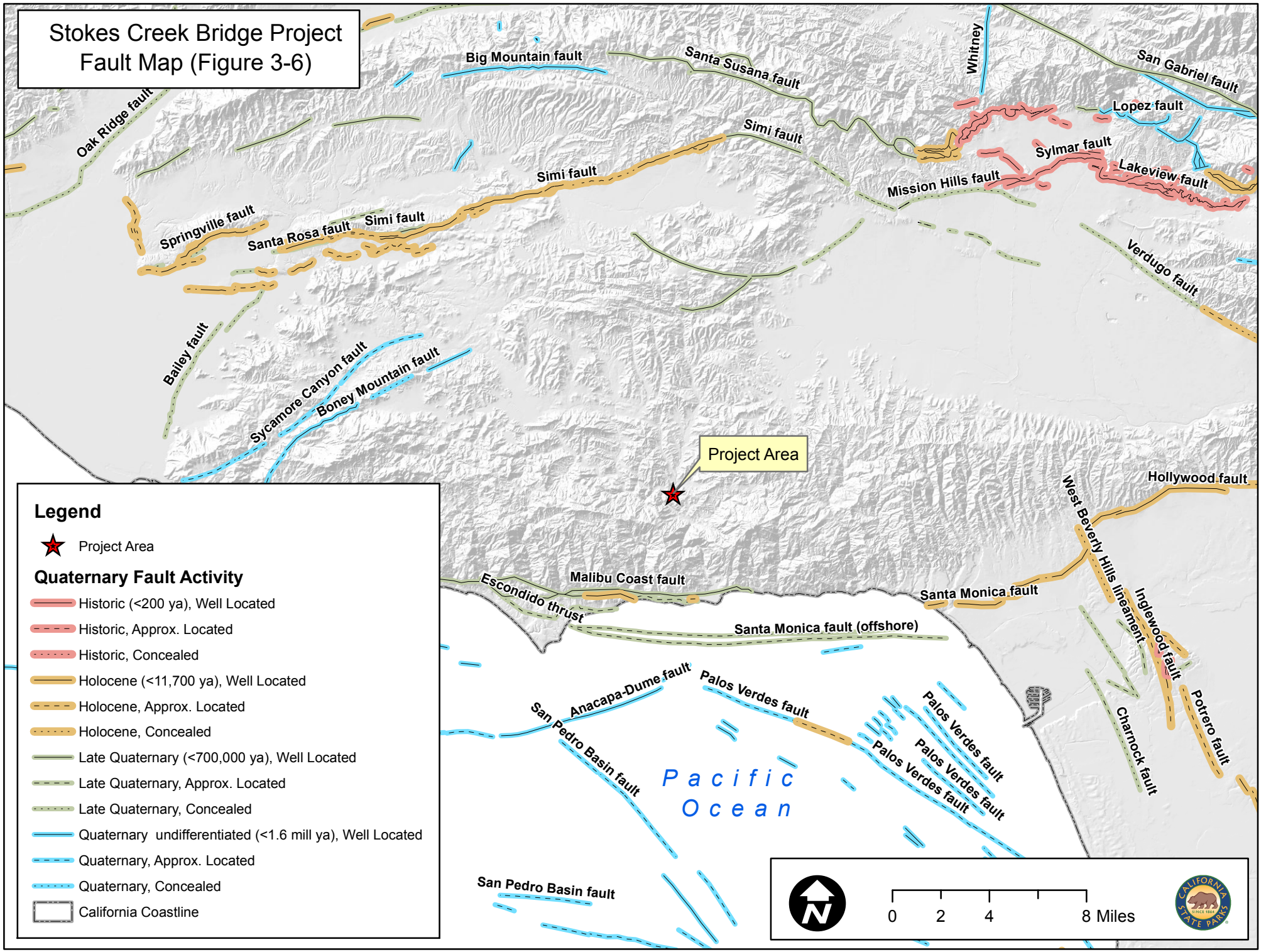
The Malibu Creek watershed includes a range of soils, including loamy, silty, sandy, and clayey soils. These soils originated from a combination of rock types, including sandstone, shale, and igneous rocks, which were laid in place as marine and non-marine terrace deposits. Folding and erosion of these terraces, and deposition by rivers left the alluvial soils that are now abundant in the Park.

Seismicity

Earthquakes pose a significant risk within the Santa Monica Mountains. Several fault systems border the area, including the active Malibu Coast Fault to the south, the Malibu Coast-Santa Monica- Raymond Hill fault system to the southeast, and the Simi-Northridge-Verdugo fault system to the north. **Figure 3-6** provides fault lines within the project vicinity. The San Andreas Fault, though some distance away, has the potential - as it does in any part of the region - to cause significant damage in the Santa Monica Mountains. Primary hazards in the area associated with earthquakes include: surface rupturing along fault lines; damage to structures due to ground-shaking; landslides; and soil consolidation, settlement, or liquefaction. Seismic activity in the Santa Monica Mountains can have widespread impacts, despite relatively low development densities and mandated compliance with current building and safety codes. Earthquakes can cause direct damage to structures, roadways, and utilities, as well as trigger landslides in unstable areas, endangering lives and property. Potentially significant hazards exist even without an earthquake due to the prevalence of unstable slopes. The Santa Monica Mountains have the potential for earthquake-induced mass wasting events. Slopes over 25 percent are susceptible to seismically-induced landslides.

Non-Seismic Geologic Hazards

The major non-seismic geologic hazards in the Santa Monica Mountains are mass wasting events (including rockfalls, landslides, slumps, debris flows, and mudflows), and liquefaction. The Santa Monica Mountains are naturally prone to mass wasting due to a combination of steep slopes and unstable geology. Human action can contribute directly to slope instability through such activities as grading, vegetation removal, increased soil saturation, and increased amounts of runoff from developed areas. Unusually high levels of water in the soil can trigger liquefaction and slumping. Human activity can increase the risk and severity of liquefaction and slumping through actions such as improper grading (e.g., cutting off the supporting toe of a slope or improperly compacting fill material), and by landscaping with vegetation not appropriate for the soils and slopes of the area. (e.g., iceplant).


Stokes Creek Bridge Project
Fault Map (Figure 3-6)
Big Mountain fault
Santa Susana fault
Whitney
San Gabriel fault
Oak Ridge fault
Lopez fault
Simi fault
Sylmar fault
Simi fault
Mission Hills fault
Lakeview fault
Springville fault
Santa Rosa fault
Simi fault
Verdugo fault
Bailey fault
Sycamore Canyon fault
Boney Mountain fault
Project Area
Hollywood fault
West Beverly Hills lineament
Malibu Coast fault
Escondido thrust
Santa Monica fault
Santa Monica fault (offshore)
Inglewood fault
Anacapa-Dume fault
Palos Verdes fault
San Pedro Basin fault
Palos Verdes fault
Palos Verdes fault
Palos Verdes fault
Charnock fault
Potrero fault
Pacific Ocean
San Pedro Basin fault
Legend
Project Area
Quaternary Fault Activity
Historic (<200 ya), Well Located
Historic, Approx. Located
Historic, Concealed
Holocene (<11,700 ya), Well Located
Holocene, Approx. Located
Holocene, Concealed
Late Quaternary (<700,000 ya), Well Located
Late Quaternary, Approx. Located
Late Quaternary, Concealed
Quaternary undifferentiated (<1.6 mill ya), Well Located
Quaternary, Approx. Located
Quaternary, Concealed
California Coastline
N
0 2 4 8 Miles

3.6.2 Environmental Impact Evaluation

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.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water?	☐	☒	☐	☐

Discussion

a) The Proposed Project would not expose people or structures to substantial adverse effects, including the risk of loss, injury, or death:

   i. Review of the Alquist-Priolo Earthquake Fault Zoning Map found that there are no there are no "Zones of Required Investigation" that could result in a threat to public health and safety.

   ii. Earthquakes pose a substantial risk within the Santa Monica Mountains. Several fault systems border the area, including the active Malibu Coast Fault to the south, the Malibu Coast-Santa Monica- Raymond Hill fault system to the southeast, and the Simi-Northridge-Verdugo fault system to the north. The San Andreas Fault, though some distance away, has the potential - as it does in any part of the region - to cause significant damage in the Santa Monica Mountains.

   iii. As indicated above, hazards in the area associated with earthquakes include: surface rupturing along fault lines; damage to structures due to ground-shaking; and soil consolidation, settlement, or liquefaction.

   iv. Landslides also have potential to occur both seimic and non-seismically induced. Non seismically induced landslide has potential due to slopes in excess of 25%

   All current structural bridge standards to mitigate impact from seismic events shall be implemented. This would result in less than significant impact.

b) Temporary soil instability may occur during construction. Grading shall take place to prepare surfaces for development of paving, landscaping, and structures. Appropriate soil stability BMPs, including development and implementation of a SWPPP should ensure impacts remain less than significant.

c) The results of geotechnical investigations shall be used to determine the type of foundations needed to support the Stokes Creek Bridge. The Seismic Hazards Evaluation, Malibu Beach Quadrangle (2001) indicates recent stream deposits in Stokes Creek are subject to liquefaction. It is recommended foundation elements of the proposed bridge not be supported by recent stream deposit that are likely susceptible to liquefaction. Foundation support for the bridge structure should be through piles embedded into dense Conejo Volcanics, which are not considered susceptible to liquefaction due to its high density. Relatively shallow retaining wall structures should be placed in medium-dense to dense alluvium. Soil borings indicate alluvium exists within approximately one foot of the Conejo Volcanics.

   The site is not underlain by landslides according to both mapping as well as during on-site investigation. However, enbankments of Stokes Creek are susceptible to erosion and associated landsliding due to undercutting. Embankments of Stokes

Creek should be adequately protected to prevent erosion and undercutting that could result in slope instability, or periodic failures can be anticipated.

d) Near surface soils including the recent stream deposits are dry, loose and susceptible to compression in their current condition. Vegetation and animal burrows have loosened near surface undocumented fill and alluvium. It is recommended that loose and disturbed near surface soils be overexcavated and processed for placement as compacted areas for structures and fill support.

   Based on geologic observations and laboratory test results, the near-surface materials at the site are anticipated to have a very low to low expansion potential. With proper design techniques utilized, impacts should be less than significant.

e) No septic tanks or alternative waste disposal systems are included within the Proposed Project. This would result in no impact.

3.6.3 Avoidance, Minimization, Mitigation Measures

Geology and Soils (Geo)

Geo/Soils-1: After a large earthquake event (i.e., magnitude 5.0 or greater within 50 miles of the Proposed Project site), the Construction Manager will arrange for appropriate inspection of all project structures and features for damage as soon as possible after the event. If any structures or features have been damaged, they will be closed to park visitors, volunteers, residents, contractors, and staff until repairs have been made.

Geo/Soils-2 Track-mounted or heavy-wheeled vehicles would be used in only the minimum area necessary to complete the Proposed Project. Delineation on plans and/or construction site fencing shall be used to avoid access to unauthorized locations in order to minimize soil compaction and erosion.

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 Environmental Setting

Greenhouse gas emissions shall occur from the operation of demolition, grading and construction equipment within the Proposed Project's footprint. These emissions would be temporary and amounts would be based on the equipment used and duration of use. Emissions would include, but are not limited to, CO_2 and N_2O. There would be no operational emissions once the Proposed Project is completed.

3.7.2 Environmental Impact Evaluation

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?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion

a) Construction equipment would create a short-term release of GHGs during the construction phase of the Proposed Project. GHGs are a cumulative impact that is difficult to determine the immediate effect of. The Proposed Project would comply with **GHG measures** to minimize emissions. The cumulative impact of emissions should be minimized. This would result in a less than significant impact to the environment.

b) CDPR is aware of the need to reduce the emissions of greenhouse gases. However, no specific CDPR policy currently exists for the reduction of emissions. Any other agency's requirements applicable to the Proposed Project to reduce GHG emissions shall be followed. This would result in no impact.

3.7.3 Avoidance, Minimization, Mitigation Measures

Greenhouse Gases

GHG-1 Improve fuel efficiency from construction equipment:

a. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site.

b. Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is used.

c. Use the proper size of equipment for the job to most efficiently complete work.

d. Use modern equipment to reduce fuel consumption and emissions.

GHG-2 Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).

GHG-3 Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.

GHG-4 Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.

3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 Environmental Setting

Wildfire

Of concern within the Proposed Project's footprint, Malibu Creek SP and the Santa Monica Mountains is the potential risk of wildfire. Wildfire has historically been part of the Santa Monica Mountains region; however, fire frequency due to human caused fires has increased as population has increased.

The Santa Monica Mountains are a prime example of the Wildland Urban Interface (WUI). This term describes the area where human development meets wildland vegetation. Throughout the WUI, fire poses and ongoing threat to human property and life safety, while high fire frequency threatens the integrity of local wildlands including those found within Malibu Creek SP. A wildfire becomes a WUI fire when the fire burns in areas where wildand fuels and urban fuels combine (i.e. structures, wood decks, flammable landscaping, or other improvements). The probability of wildfire is dependent upon a chain of events that includes ignition, weather, topography, fire behavior once fire has begun, and fire suppression actions taken. The potential for large-scale wildfire within the Santa Monica Mountains is high, given the local fuel sources, the likelihood of Santa Ana weather events, population density, and the volume of historical ignitions.

Hazardous Materials

There are no known hazardous materials within the Proposed Project's footprint. Hazardous waste is more commonly found in building materials. The following briefly discusses common hazardous materials that may be found within CDPR facilities.

Asbestos

Asbestos includes a set of six naturally occurring silicate minerals which share in common long, thin, fibrous crystals. It has been used in applications including electrical insulation and building insulation. When asbestos is used for its resistance to fire or heat, the fibers are often mixed with cement or woven into fabric or mats.

The prolonged inhalation of asbestos fibers can cause serious illnesses including malignant lung cancer, mesothelioma and asbestosis.

Lead

Lead is a naturally occurring element that has some beneficial uses as well as detrimental effects. It is found within a number of household products including paint, ceramics, pipes, plumbing materials, solders, gasoline, batteries, ammunition and cosmetics.

Lead's effects are most harmful to children six years and younger. Lead in the blood can result in behavior and learning problems, lower IQ, hyperactivity, slowed growth, hearing problems and anemia. In rare cases it can result in seizures, coma and/or death. Pregnant women may pass lead to their fetus which may result in reduced growth of the fetus and premature birth. Adults can suffer from cardiovascular effects, increased blood pressure, hypertension, decreased kidney function and reproductive problems.

Regulatory Hazardous Waste Databases

The California Department of Toxic Substances Control (DTSC) EnviroStor database and the California State Water Resources Control Board GeoTracker database were referenced to determine whether hazardous materials are present or have been present on the Proposed Project site. The EnviroStor database includes the following site types: those listed on the National Priorities List (Federal Superfund sites); State Superfund and Military Facilities; Voluntary Cleanup; and School sites. The GeoTracker database includes geographic information and data on underground fuel tanks, fuel pipelines, and public drinking water supplies, and contains information regarding leaking underground fuel tanks. This database also includes information and data on non-leaking underground fuel tank cleanup programs, including "Spills-Leaks-Investigations-Cleanups Sites," U.S. Department of Defense Sites, and Land Disposal programs.

3.8.2 Environmental Impact Evaluation

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?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	☐	☐	☐	☒
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Discussion:

a) No significant hazard shall result to the public or environment due to the transport, use or disposal of hazardous materials. All waste material shall be determined to be safe to be left onsite or hauled offsite and disposed of in compliance with all federal, state and local regulations. This would result in no impact.

b) There is no reasonably foreseeable upset and/or accident conditions anticipated that would result in the release of hazardous materials, substances or waste into the environment. Appropriate measures shall be taken for removal of construction waste and supplies shall be on hand to clean up any small scale spills that could result from construction. This would result in less than significant impact.

c) There is little to no potential for the release of hazardous emissions, materials, substances or waste by the Proposed Project. There are no known existing or proposed schools found within a quarter mile of the Proposed Project site. The nearest known school is a private day school at 1666 Las Virgenes Canyon Road in

Calabasas. The school is approximately 0.4 miles from the Project site. This should result in no impact.

d) Review of hazardous material sites compiled pursuant to Government Code §65962.5, also referred to as the Cortese List, determined that no sites exist within the Proposed Project's footprint. The DTSC's EnviroStor database was referenced and none of the sites it compiles are within the Park. This should result in no impact.

e) The Proposed Project is not within the airport influence area/planning boundary of nearby airports based on review of the Los Angeles County Airport Land Use Plan. No other airports are found in the region of the Proposed Project. This would result in no impact.

f) The Proposed Project is not located in the vicinity of a private airstrip. This would result in no impact.

g) The Proposed Project would not impair the implementation or physically interfere with the implementation of an adopted emergency response plan or emergency evacuation plan. The State of California's Emergency Plan (2009) would be applicable to the Park. Its implementation would not be impacted by the Proposed Project. The project area would not be more susceptible to hazards identified within the Plan by implementing the Proposed Project. The Proposed Project would not affect programs to prevent or mitigate emergencies, but would improve first responders' ability to access and protect the public visiting the Park. Hazards of most risk to the project area would be wildfire and flood. Park staff are appropriately trained to protect the public in the case of emergency as well as communicate with other emergency service providers for additional support. This should result in no impact.

h) The Proposed Project is located in an area classified as a "Very High Fire Hazard Severity Zone" and is within a State or Federal Responsibility Area according to the State of California's Fire Hazard Severity Zones Mapping. The National Park Service and Santa Monica Mountains Community along with a collaboration of numerous stakeholders, both have plans in place to continually assess the risk of wildfire and implement action plans to reduce the risk of wildfire to resources within the Santa Monica Mountains including those within the Proposed Project footprint. The Project design will be subject to current regulations set forth by the State Fire Marshall to lessen risk from potential wildfire to the structure and adjacent resources. With these plans in place, the risk of wildfire to the Proposed Project and visitors it serves should be less than significant.

3.8.3 Avoidance, Minimization, Mitigation Measures

Wildfire

Fire-1: Construction crews will park vehicles, when not in use, within paved areas, away from flammable material, such as dry grass or brush.

Fire-2: **C**DPR personnel will have a CDPR radio at the Park, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

Fire-3: Prior to the start of on-site construction activities, clean and repair (other than emergency repairs) all equipment outside the project site boundaries.

Fire-4: Under dry conditions, a filled water truck and/or fire engine crew will be onsite during construction activities.

3.9 HYDROLOGY AND WATER QUALITY

3.9.1 Environmental Setting

The Proposed Project site exists within the Malibu Creek watershed, and is found at the border of 3 sub-watersheds, Las Virgenes Canyon, Cold Creek Canyon and Malibu Canyon. The watershed encompasses approximately 109 square miles. Stokes Creek, running through the Project site, is an intermittent blue-line stream that is a tributary to Malibu Creek, which then drains to Malibu Lagoon and the Pacific Ocean.

Flooding

As shown in **Figure 3-8**, the 100-year floodplain does inundate the Proposed Project site due to the presence of Stokes Creek as an ephemeral stream with a channel that drains a large area upstream.

Records of flooding events are limited, however, the current status of the culvert demonstrates that it is currently deficient due to undermining that has occurred below the culvert as well as gabions that are supporting the stream banks immediately adjacent to the culvert.

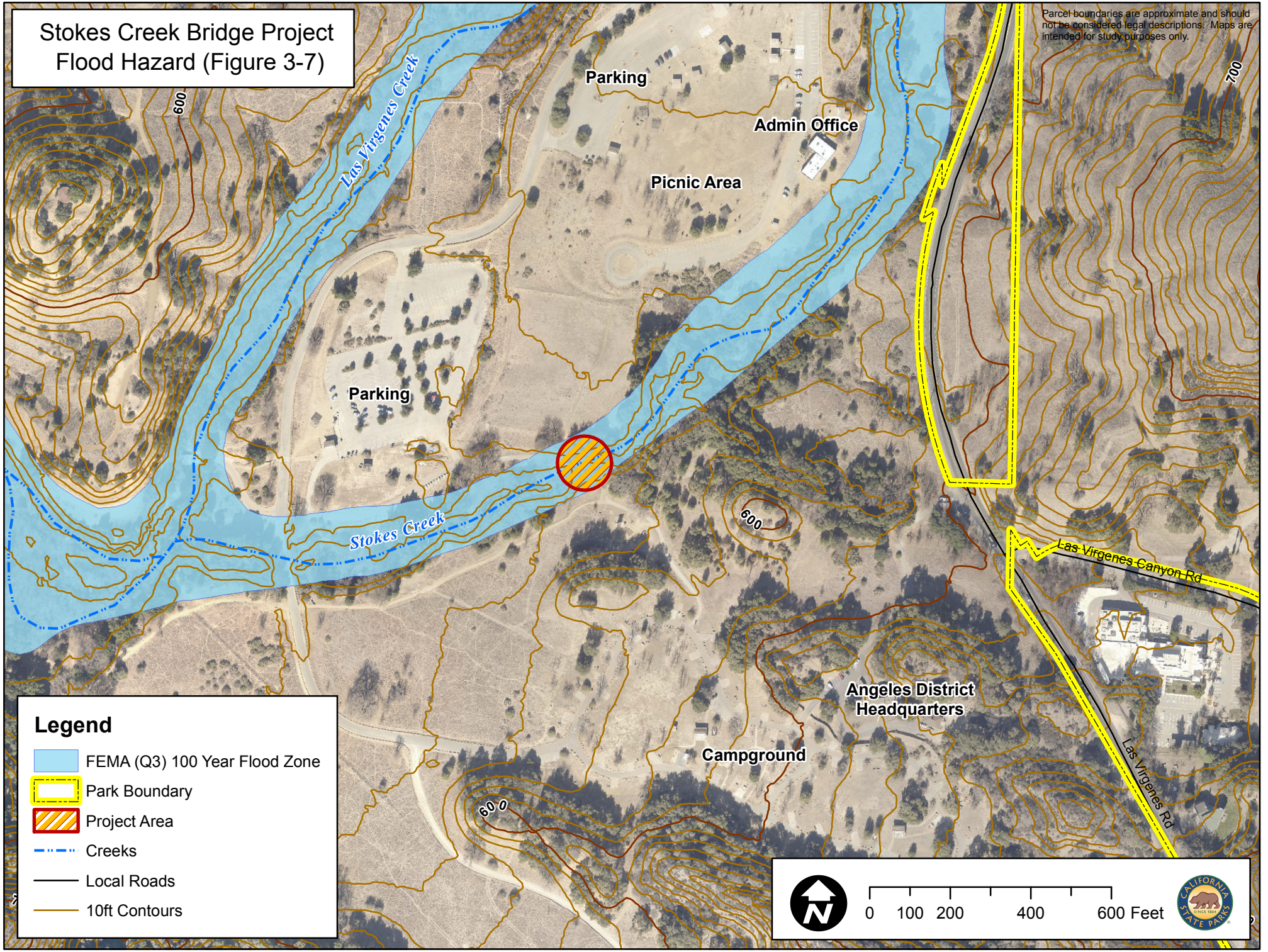


Water Quality

Several tributaries and lakes in the Malibu Creek Watershed have Total Maximum Daily Loads (TMDL) and are included in the Clean Water Act Section 303(d) list for water quality due to impairments of beneficial uses. TMDLs in the Malibu Creek Watershed have been developed for bacteria, trash, nutrients, and sediment related impairments. In addition, Santa Monica Bay has several TMDLs, including bacteria, trash (debris), DDTs, and PCBs. The Santa Monica Bay TMDLs for bacteria and trash integrate the TMDL waste load allocations from the Malibu Creek TMDL. Therefore, with the exception of the PCBs and DDTs TMDLs, compliance with the Santa Monica Bay TMDLs for jurisdictions in the Malibu Creek Watershed is based on the Malibu Creek TMDL allocations . Compliance with the PCBs and DDTs TMDLs is based on the waste load allocations assigned in the Municipal Separate Storm Sewer System (MS4) permit.

The Malibu Creek Watershed poses significant challenges for monitoring activities. The watershed has topography that limits safe access, such as steep ravines and densely vegetated riparian corridors. In addition, sensitive habitat and private property requires that permission be granted and other precautions be used to access certain areas.

Water quality monitoring of the MCW has taken place since the early 1980s. The early work focused on bacteria and pathogens at and near the lagoon and beach. Starting in the mid to late 1990s, the focus expanded to include tributaries and the upper watershed and a broader range of constituents. The Los Angeles County Flood Control District (LACFCD) has stormwater monitoring data dating back to the mid-1990s. LACFCD data is focused on water chemistry. Different agencies focus on different aspects such as dry weather monitoring, biological surveys, or habitat assessments. Monitoring has been, or is currently being, conducted by the LACFCD, Los Angeles County Department of Health Services, Las Virgenes Municipal Water District, Heal the Bay, City of Calabasas, City of Malibu, and Ventura County. The MCW is subject to two different National Pollutant Discharge Elimination System (NPDES) MS4 Permits: the Ventura County MS4 Permit (Order No. R4-2009-0057) in the upper portion of the watershed and the Los Angeles County MS4 Permit (Order No. R4-2012-0175) in the lower part of the watershed, which is the subject of the MCW Enhanced Watershed Management Program (EWMP). Additionally, other entities within the watershed that could contribute pollutant loads, but are not part of the MCW EWMP Group, include State Parks, National Parks, and Caltrans who are subject to other MS4 Permits and other NPDES.


Stokes Creek Bridge Project
Flood Hazard (Figure 3-7)
Parcel boundaries are approximate and should not be considered legal descriptions. Maps are intended for study purposes only.
Las Virgenes Creek
Stokes Creek
Parking
Admin Office
Picnic Area
Parking
Angeles District Headquarters
Campground
Las Virgenes Canyon Rd
Las Virgenes Rd
600
700
600
600
Legend
FEMA (Q3) 100 Year Flood Zone
Park Boundary
Project Area
Creeks
Local Roads
10ft Contours
0 100 200 400 600 Feet

3.9.2 Environmental Impact Evaluation

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?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	☐	☐	☐	☒
h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area?	☐	☐	☐	☒

i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam?	☐	☐	☐	☒
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

a) Implementation of the Proposed Project would be conducted in accordance with all applicable local, State, and/or Federal water quality control standards and waste discharge requirements. BMPs would also be incorporated into construction and operations to ensure that off-site sedimentation and excess erosion is controlled.

Prior to the start of construction, the Proposed Project would require a General Construction Activity Stormwater Permit issued by the Regional Water Quality Control Board (RWQCB). The General Permit requires that a Notice of Intent be filed with the RWQCB. By filing a Notice of Intent, CDPR agrees to the conditions outlined in the General Permit. One of the conditions of the General Permit is the development and the implementation of a SWPPP. With implementation of the applicable permit requirements and BMPs, the Proposed Project would not violate any water quality standards or waste discharge requirements. Therefore, impacts would be less than significant (**Section 3.9.3**).

b) Water need would be minimal and only required during construction of the Proposed Project. No groundwater will be needed in the operation of the bridge. Irrigation shall be provided to ensure that restored trees and other types of vegetation impacted as a result of the Proposed Project have the opportunity to become established. Once it can be determined that vegetation can survive without the need for irrigation, it shall be removed to assist in water conservation. As a result, impact to groundwater supply or recharge shall be less than significant.

c) The Proposed Project will alter drainage as a result of removal of large obstructions including the existing culvert and gabions. This may result in short-term increases in downstream sedimentation, but should be for the benefit of the creek and riparian habitat associated with it once vegetation and streambanks normalize to the creek's new geomorphology. Appropriate BMPs shall be implemented to minimize siltation and/or erosion to the maximum extent practicable. This would result in impacts that are less than significant.

d) The drainage of the Project site should not be substantially altered by the Proposed Project. Drainage into Stokes Creek should be improved as indicated above by the removal of significant obstructions. Without these obstructions, the potential for on or offsite flooding would be reduced. This would result in no impact.

e) The Proposed Project won't create any substantial further pollution. No stormwater drainage facilities would be affected or are in the area of the Proposed Project. There are no human built stormwater systems within the Proposed Project footprint other than the culvert and gabions that are being removed to restore the creek to a more natural function. The project would not create any new sources of pollution other than sedimentation and a small potential for hydrocarbons from the operation of heavy machinery during construction. Measures shall be in place shall be in place to keep these impacts minimized. This would result in less than significant impact.

f) No substantial degradation in water quality is anticipated. As has been indicated previously, water quality impacts will be minimal and limited to the construction of the Proposed Project. No impact shall occur in during the operation of the Proposed Project. Minimal additional sediment may enter Stokes Creek within the Proposed Project site during construction while the construction area is graded and un-vegetated. The Proposed Project area shall be restored to maximize the amount of permeable surface in order to absorb stormwater and offsite sourced contaminants that enter the Proposed Project area. Temporary irrigation will be monitored to prevent unnecessary runoff. The use of appropriate water quality BMPs will ensure that water quality impact is less than significant.

g) The Proposed Project does not include the construction of housing, resulting in no impact.

h) The Proposed Project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area. The hydrology of the Proposed Project area is anticipated to improve from the conversion of a restricted culvert to a free spanning bridge across a wide section of Stokes Creek. The reduction in flow restriction shall result in less potential for 100-year flood hazard within the Proposed Project footprint. The recommendations of a professional hydrologic report will be followed to ensure that flood hazard is reduced to the maximum extent practicable. Those recommendations are included within bridge design plans, specs and the following **Water Quality** measures. This should result in less than significant impact.

i) The Proposed Project would not 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. As indicated previously, the Proposed Project shall remove a culvert which is currently restricting flow. With less restricted flow, measures will need to be taken to ensure that downstream impacts are minimized with the introduction of less restricted flows. Following recommendations of the hydrology report shall assist in reducing the risk of flooding. This would result in less than significant impact.

j) The Proposed Project site is at most risk of mudflow, due to friable soils which exist within the banks of Stokes Creek. This risk should be reduced by installing the proposed bridge across the Creek. Flows should have less restriction through the Proposed Project site and thus result in less potential for erosion. No major mudflows are known to have occurred within the Proposed Project site. Therefore, impact

should be less than significant for mudflow, as well as no impact due to seiche or tsunami.

3.9.3 Avoidance, Minimization, Mitigation Measures

WQ 1: Prior to the start of construction involving ground-disturbing activities, the Project contractor will prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for DPR approval that identifies temporary Best Management Practices (BMPs) (e.g., tarping of any stockpiled materials or soil; use of silt fences, straw bale barriers, fiber rolls, etc.) and permanent BMPs (e.g., structural containment, preserving or planting of vegetation) for use in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, trenching, repaving, or other ground-disturbing activities. The SWPPP will include BMPs for hazardous waste and contaminated soils management and a Spill Prevention and Control Plan (SPCP), as appropriate.

WQ 2: All heavy equipment parking, refueling, and service will be conducted within designated areas outside of the 100-year floodplain to avoid water course contamination.

WQ 3: All construction activities will be suspended during heavy precipitation events (i.e., at least 1/2-inch of precipitation in a 24-hour period) or when heavy precipitation events are forecast.

WQ 4: To minimize water quality impact due to run-off created from development, permeable surfaces shall be considered. If this is not feasible, then appropriate permanent BMPs shall be included in project design to minimize polluted run-off from entering Stokes Creek.

WQ 5: Contractor shall stage construction equipment and vehicles only on paved or previously hardened surfaces. Equipment parked or sitting idle for more than three hours shall be parked over a collector pan to capture any leaking hydrocarbon fluids. Equipment shall remain within construction staging area when not in use with the exception of circumstances that would prevent additional erosion by keeping equipment within the work site.

WQ 6: Any work within the Stokes Creek streambed shall be verified daily with the State's representative to ensure that impact within the Proposed Project site is minimized.

3.10 LAND USE AND PLANNING

3.10.1 Environmental Setting

Malibu Creek State Park is classified as a State Park and strives to meet this classification as codified in Public Resources Code §5019.53. This includes providing recreational opportunities while protecting its diversity of scenic, ecological, geological, historical and archaeological resources. The 7,881-acre Park serves as significant area of natural open space in Los Angeles County

Additionally, the Park has three areas that have been given the sub-classification of "Natural Preserve." The Natural Preserves, located at Kaslow, Liberty Canyon, and Udell Gorge, together encompass more than one-third of the existing Park acreage. Natural preserves are defined within PRC §5019.71. They are areas of outstanding natural or scientific significance established within the boundaries of other state park system units. They preserve a range of features and allow natural dynamics to continue without interference except for cases of scientific analysis for preservation purposes.

Surrounding land uses include privately owned camps and National Park Service lands. The Park is a part of the Santa Monica Mountains National Recreation Area (SMMNRA), at a size of 150,000 acres. 90 percent of this land is undeveloped, with nearly 50 percent reserved as open space by government and conservation agencies. The public land is jointly administered by NPS, CDPR and the Santa Monica Mountain Conservancy (SMMC). Outside the SMMNRA are urban and rural residential land uses including incorporated cities and unincorporated communities of Los Angeles County.

The existing General Plan for Malibu Creek State Park (2005) guides the future development of the Park unit. Areas of future development within the General Plan include, but are not limited to:

- Improving visitor access via trails and roads
- Providing an easily accessible visitor center
- Rehabilitation of existing campsites and development of a minimal number of new campsites
- Establishing an equestrian camp facility
- Increasing interpretation through facilities and programs throughout the Park

California State Parks Accessibility Guidelines

The development within the Proposed Project shall be consistent with the latest edition of the California State Parks Accessibility Guidelines. These guidelines affect, but are not limited to, interpretive exhibits, routes of travel, signage, restrooms, storage areas, lockers, benches and parking.

County of Los Angeles Santa Monica Mountain's Local Coastal Program Land Use Plan (2014)

Review of Los Angeles County's Santa Monica Mountain Local Coastal Program Land Use Plan recognized policies which are applicable to the Proposed Project and would be relevant towards protecting resources and values important to the region. Below are those policies determined to be relevant to the Proposed Project. By adhering to the following policies along with those recommended by the County of Los Angeles and other resource agencies, the Proposed Project can be implemented while maintaining and improving resources and recreational opportunity in the Park and surrounding open space.

Water Quality Policies

CO-2 Site, design, and manage new development and improvements, including – but not limited to – landscaping, to protect coastal waters from non-point source pollution by minimizing the introduction of pollutants in runoff and minimizing increases in runoff rate and volume. Review new development and improvements for potential degradation of water quality, and ensure that they meet the requirements of the NPDES Municipal Stormwater Permit's Low Impact Development (LID) Requirement, included as part of the Local Implementation Program.

California State Parks shall comply with requirements of the NPDES Municipal Stormwater Permit's LID requirements to ensure that project design and management practices (e.g., temporary and permanent BMPs) are used to protect water quality within and surrounding the project's footprint.

CO-3 To reduce runoff and erosion and provide long-term, post-construction water quality protection in all physical development, prioritize the use of Best Management Practices (BMPs) in the following order: 1) site design BMPs, 2) source control BMPs, 3) treatment control BMPs. When the combination of site design and source control BMPs is not sufficient to protect water quality, require treatment control BMPs, in addition to site design and source control measures. Design, construct, and maintain any required treatment control BMPs (or suites of BMPs) so that they treat, infiltrate, or filter the amount of storm water runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs. Prioritize the use of Low Impact Development in project design to preserve the natural hydrologic cycle and minimize increases in storm water or dry weather flows.

The site design and grading plans for the proposed project shall prioritize the use of BMPs, as recommended in the policy above, to most effectively control sediment and pollutants from entering Stokes Creek.

CO-4 Minimize impervious surfaces in new development, especially directly-connected impervious areas. Require redevelopment projects to increase the area of pervious surfaces, where feasible.

The proposed project would not result in a significant amount of new impervious surface beyond what currently exists. The majority of impervious surface would consist of the bridge's deck surface, which would result in a modest amount of runoff into the Creek.

CO-5 Infiltrate development runoff on-site, where feasible, to preserve or restore the natural hydrologic cycle and minimize increases in stormwater or dry weather flows.

By limiting the amount of new impervious surfaces, the project will ensure that stormwater will be contained on-site to preserve the natural hydrologic cycle. Removal of the culvert and replacement with a bridge will have the greatest beneficial impact to the creek's hydrology.

CO-6 Require development to protect the absorption, purification, and retention functions of natural drainage systems that exist on the site. Where feasible, site and design development, including drainage, to complement and utilize existing drainage patterns and systems, conveying drainage from the developed area of the site in a non-erosive manner. Disturbed or degraded natural drainage systems should be restored where feasible.

As indicated above, the project will assist in promoting/restoring more natural flows within the creek by removing the existing arch culvert. The structure is currently causing erosion of the creek banks downstream of the culvert during storm events when flows are extensive.

CO-10 Limit grading, soil compaction and removal of locally-indigenous vegetation to the minimum footprint needed to create a building site, allow access, and provide fire protection for the proposed development. Monitor grading projects to ensure that grading conforms to approved plans.

Efforts will take place to preserve as much of the indigenous vegetation that currently exists within the Project site. Due to the type of project and the sensitivity of the oak woodlands, no fire protection clearance is currently anticipated to be needed surrounding the bridge. Grading will be monitored to ensure that bridge construction doesn't disturb more than is necessary to efficiently complete the work.

CO-11 Revegetate prior to the rainy season areas disturbed by development activity. Use locally indigenous plant species outside of Fuel Modification Zone A and avoid non-native invasive species, balancing long-term slope stability and habitat restoration with reduced fuel loads for fire protection.

Revegetation activities will be scheduled and completed prior to the winter rainy season to take advantage of natural rainfall and minimize the potential for erosion into the drainage. Additionally, as the CDPR has a genetic integrity policy, only plant species native/local to the area will be used in any revegetation effort to assist in stabilizing the slopes and allowing recovery of the site over the long-term.

CO-17 Prohibit non-emergency earthmoving operations during the rainy season (extending from October 15 to April 15). Approved grading shall not be commenced unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion until grading resumes after April 15, unless the County determines that completion of grading would be more protective of sensitive environmental resources and would minimize erosion and sedimentation. Erosion control measures shall be required for any ongoing grading project or any completed grading project that is still undeveloped.

Project specifications shall require that grading will commence outside of the rainy season. This measure will have to be balanced with other work windows including that of the bird breeding and nesting season (February 15th to September 15th). Grading work will be stopped when rain occurs to minimize run-off and ensure sufficient use of construction BMPs to minimize sedimentation and erosion off-site.

CO-21 Natural vegetation buffer areas that protect riparian habitats shall be maintained. Buffers shall function as transitional habitat and provide a separation from developed areas to minimize adverse impacts. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the riparian habitat, but in no case shall the buffer be less than 100 feet, except when it is infeasible to provide the 100 foot buffer in one of the following circumstances: (1) to provide access to development approved in a coastal development permit on a legal parcel where no other alternative is feasible; (2) for public works projects required to repair or protect existing public roads when there is no feasible alternative; (3) for a development on a legal parcel that is the minimum development necessary to provide a reasonable economic use of the property and where there is no feasible alternative. Water quality BMPs required for new development shall be located outside the 100-foot buffer, except for non-structural BMPs (e.g. vegetated berms/swales, bioengineered velocity reducers). Water quality BMPs proposed to improve the water quality of runoff from existing development without adequate BMPs shall be located outside the 100-foot buffer to the maximum extent feasible. The County encourages the restoration of streams that had previously been channelized or otherwise significantly altered. Existing legally-established development within the required 100-foot buffer of such a restored stream

shall be considered a lawfully non-conforming use subject to the non-conforming development provisions of the LCP.

One of the primary objectives of the proposed project is to restore the natural flows within Stokes Creek by removing the existing culvert and replacing it with a bridge that spans the drainage. As outlined in CO-21, this should/might qualify as a "lawfully non-conforming use subject to the non-conforming development provision of the LCP ".

CO-24 Access for geologic testing (or percolation or well testing) shall use existing roads or track mounted drill rigs where feasible. Where there is no feasible access, a temporary access road may be permitted when it is designed to minimize length, width and total grading to only that necessary to accommodate required equipment. All such temporary roads shall be restored to the maximum extent feasible, through grading to original contours, revegetating with native plant species indigenous to the project site, and monitoring to ensure successful restoration. All percolation testing shall take place out of any future planned road access.

Geologic testing shall be completed by using existing roads on either side of Stokes Creek where clearance is feasible and no impacts to trees will occur. No temporary roads will be graded or needed for the testing.

CO-32 Alteration of natural streams for the purpose of creating stream road crossings shall be prohibited unless there is no other feasible alternative to provide access to public recreation areas or lawfully-established development on legal parcels, and the stream crossing is accomplished by bridging. Bridge columns shall be located outside streambeds and banks. Wherever possible, shared bridges shall be used for providing access to multiple home sites. Culverts may be utilized for the crossing of minor drainages lacking beds and banks and riparian vegetation and where the culvert is sized and designed to not restrict movement of fish or other aquatic wildlife. An in-stream road crossing, such as an "Arizona crossing", shall be modified to a soft-bottom crossing or replaced by a bridge, consistent with Fire Department requirements, when major maintenance or repair activities on the crossing are undertaken.

Replacement of the existing arch culvert with a free spanning bridge shall allow the creek to flow in an unobstructed manner. No columns will be placed or built within the bed of the creek. The design of bridge abutments shall be constructed to minimize impact to the creek's banks.

Native Tree Protection Policies

CO-99 New development shall be sited and designed to preserve oak, walnut, sycamore, bay, or other native trees to the maximum extent feasible that are not otherwise protected as H1 or H2 habitat and that have at least one trunk measuring six inches or more in diameter, or a combination of any two trunks measuring a total of eight inches or more in diameter, measured at four and one-half feet above natural grade. Removal of native trees shall be prohibited except where no other feasible alternative exists. Development shall be sited to prevent any encroachment into the protected zone of individual native trees to the maximum extent feasible, as set forth below. Protected Zone means that area within the dripline of the tree and extending at least five feet beyond the dripline, or 15 feet from the trunk of the tree, whichever is greater. Removal of native trees or encroachment in the protected zone shall be prohibited for accessory uses or structures. If there is no feasible alternative that can prevent tree removal or encroachment, then the alternative that would result in the fewest or least-significant impacts shall be selected. Adverse impacts to native trees shall be fully mitigated, with priority given to on-site mitigation. Mitigation shall not substitute for implementation of the feasible project alternative that would avoid impacts to native trees and/or woodland habitat.

When unavoidable adverse impacts to native trees will result from permitted development, the impacts must be mitigated in accordance with the following standards and subject to a condition of approval requiring a native tree replacement planting program:

Native Tree Mitigation

Impact	**Mitigation Ratio (no. of replacement trees required for every 1 tree impacted/removed)**
Removal	10:1
> 30% encroachment into protected zone	10:1
Encroachment that extends within 3 ft. of tree trunk	10:1
Trimming branch over 11 in. diameter without encroachment within 3 ft. of tree trunk	5:1
10-30% encroachment into protected zone without encroachment within 3 ft. of tree trunk	5:1
< 10% encroachment into protected zone and without encroachment within 3 ft. of tree trunk	None. Monitoring Required

Where development encroaches into less than 30 percent of the protected zone of native trees, each affected tree shall be monitored annually for a period of not less than 10 years. An annual monitoring report shall be submitted for review by the County for each of the 10 years. Should any of these trees be lost or suffer worsened health or vigor as a result of the proposed development, the applicant shall mitigate the impacts at a 10:1 ratio with seedling-sized trees.

The presence of oak woodland with a dense canopy of coast live oak, valley oaks and other native trees will necessitate the evaluation of impacts that may be associated with the bridge's construction. A preliminary survey and mapping of oaks and other riparian species is included. No impacts to mature shall occur from the geotechnical drilling as canopy clearance is adequate for the drill rig to both access and set-up on-site. California State Parks shall adhere to the mitigation requirements outlined by policy CO-99 for the Project. A CDPR biologist shall remain available to evaluate impacts due to construction and recommend resource protection measures. Additionally, a restoration plan shall be completed as indicated within CO-101.

Scenic Resource Policies

CO-135 Preserve topographic features of high scenic value in their natural state, including canyon walls, geological formations, creeks, ridgelines, and waterfalls.

As stated earlier, a goal of the project is to allow for improved functioning of Stokes Creek by constructing a free spanning bridge and removing the existing culvert within the drainage. This will allow for the preservation and restoration of the creek including its flows, bed, banks and associated habitat.

CO-153 Public works projects along scenic routes that include hardscape elements such as retaining walls, cut-off walls, abutments, bridges, and culverts shall incorporate veneers, texturing, and colors that blend with the surrounding landscape. The design of new bridges on scenic routes shall be compatible with the rural character of the Santa Monica Mountains and designed to protect scenic views.

The project site shall incorporate a bridge of minimalist design to avoid drawing attention from the scenic value of the oak tree canopy and riparian habitat. This would include keeping railings and abutments walls simple so that they don't overwhelm views when approaching the bridge from either side of Stokes Creek.

Recreation and Trail Policies

CO-155 The beaches, parklands and trails located within the Coastal Zone provide a wide range of recreational opportunities in natural settings which include hiking, equestrian activities, bicycling, camping, educational study, picnicking, and coastal access. These recreational opportunities shall be protected, and where feasible, expanded or enhanced as a resource of regional, State and national importance, and allowed to migrate when feasible with rising sea level.

The newly constructed bridge will accommodate pedestrians and bicyclists, in addition to vehicles. Due to an expected low traffic rate using the new bridge, there should be no issue with multiple modes of transportation sharing the bridge. Keeping the width of the bridge to a minimum will additionally ensure it maintains minimal intrusion on the sensitive riparian habitat within which it is being constructed.

Paleontological and Historic Cultural Resource Policies

CO-204 Protect and preserve archaeological, historical, and paleontological resources from destruction, and avoid impacts to such resources where feasible. Where avoidance is not feasible, minimize impacts to resources to the maximum extent feasible.

Archaeological testing has been completed to determine the presence or absence of cultural materials. A qualified archaeologist and Native American monitor shall be present for all ground disturbing activities. Data obtained shall provide guidance for the protection of potential cultural resources during the bridge's construction.

CO-206 Regulate landform alteration to ensure minimal disturbance of known archaeological and historic cultural sites. New development on sites identified as archaeologically sensitive shall include onsite monitoring of all grading, excavation, and site preparation that involve earthmoving operations by a qualified archaeologist(s) and appropriate Native American consultant(s).

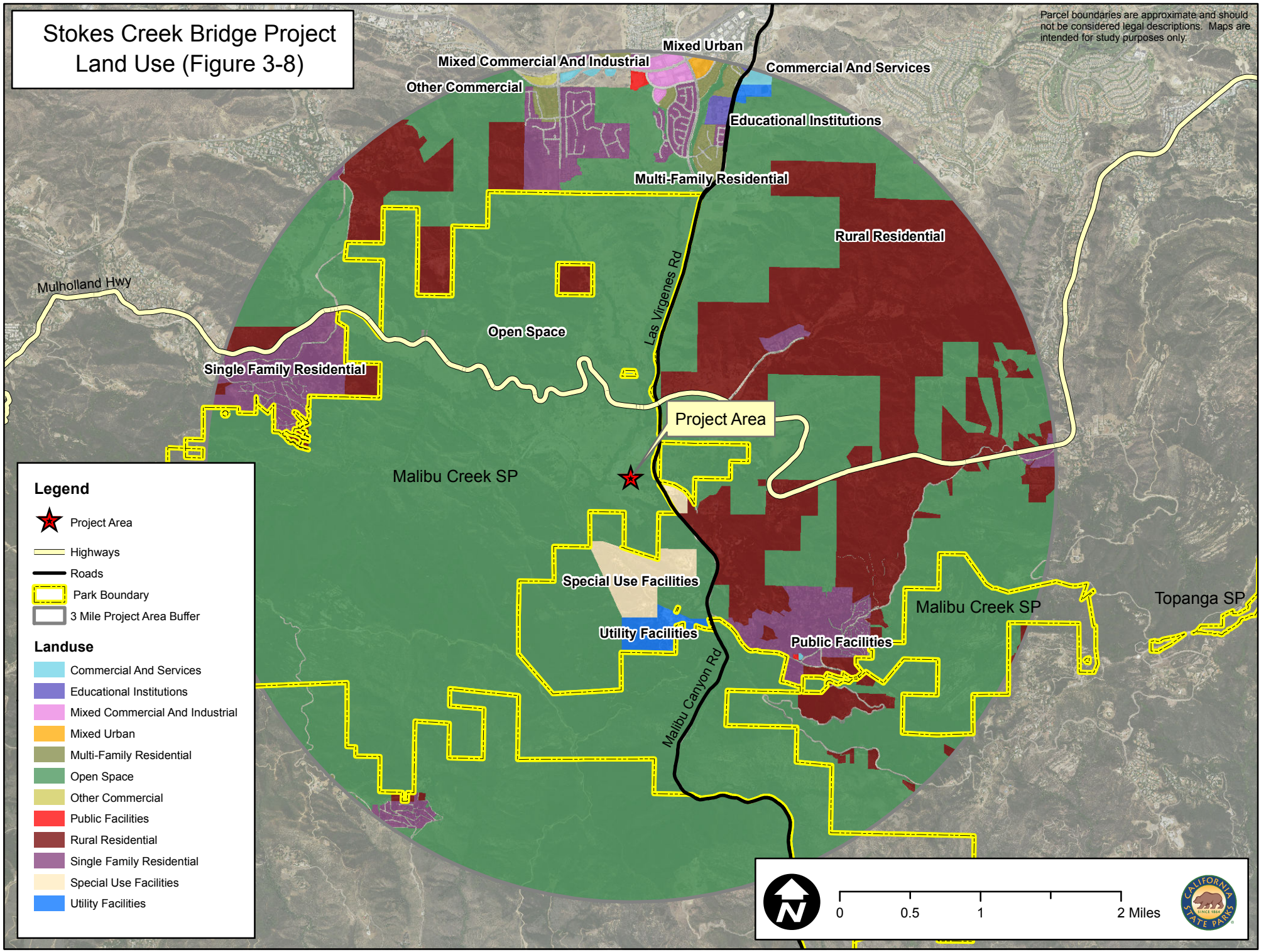
Landform alteration shall be minimized to reduce the potential to impact archaeological and historic cultural sites. Despite whether sites are determined to be archaeologically sensitive, monitoring shall take place during grading, excavation, and site preparation that involves earthmoving operations.

CO-209 Preserve and protect cultural resources and traditions that are of importance to Native Americans, including the Chumash and Gabrieliño/TongvaWestern Tongva/Fernandeño peoples.

CSP maintains regular communication with Native Americans in completing projects, and will continue to do so with this project through consultation and monitoring to ensure that resources are protected to the extent feasible.

CO-211 Notify all appropriate agencies, including Native American tribes, and the Department of Regional Planning of archaeological or paleontological resources discovered during any phase of development construction to ensure proper surface and site recordation and treatment.

Tribal consultation shall continue to inform local tribes of the project and potential impacts. Tribes have approved of the project with the condition that a Native American monitor be present during ground-disturbing work.


Stokes Creek Bridge Project
Land Use (Figure 3-8)
Parcel boundaries are approximate and should not be considered legal descriptions. Maps are intended for study purposes only.
Mixed Urban
Mixed Commercial And Industrial
Commercial And Services
Other Commercial
Educational Institutions
Multi-Family Residential
Rural Residential
Mulholland Hwy
Las Virgenes Rd
Open Space
Single Family Residential
Project Area
Malibu Creek SP
Special Use Facilities
Malibu Creek SP
Topanga SP
Utility Facilities
Public Facilities
Malibu Canyon Rd
Legend
Project Area
Highways
Roads
Park Boundary
3 Mile Project Area Buffer
Landuse
Commercial And Services
Educational Institutions
Mixed Commercial And Industrial
Mixed Urban
Multi-Family Residential
Open Space
Other Commercial
Public Facilities
Rural Residential
Single Family Residential
Special Use Facilities
Utility Facilities
N
0
0.5
1
2 Miles

3.10.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION

a) No communities have the potential to be divided by the Proposed Project. The Proposed Project would establish further connection throughout the Park. The Project resides completely within Malibu Creek State Park. There are no residential communities present within the Park. Park employee housing exists within the Park, but isn't enough to be considered a community. This would result in no impact.

b) The Proposed Project would not conflict with any applicable planning documents developed for the purpose of avoiding, minimizing or mitigating and environmental effect. Planning documents applicable to the Proposed Project and the relevant policies that apply are analyzed within **Section 3.10.1 (Environmental Setting)**. This includes consistency with the County of Los Angeles Santa Monica Mountain's Local Coastal Program Land Use Plan. The County shall be provided with this document to review and comment on. A Coastal Development Permit (CDP) shall be obtained prior to the beginning of construction. All conditions provided within the CDP shall be complied with. With adherence to applicable policies and permit conditions, impacts shall be less than significant.

c) No habitat conservation plan or natural community conservation plan exists within the Proposed Project site after consulting the California Department of Fish & Wildlife's Sumary of Natural Community Conservation Plans (September 2016). This would result in no impact.

3.10.3 Avoidance, Minimization, Mitigation Measures

Refer to measures found within the Mitigation, Monitoring, Reporting Program (**Chapter 4**), many of which apply to the protection of resources within the Proposed Project footprint and surrounding area.

3.11 MINERAL RESOURCES

3.11.1 Environmental Setting

According to the County of Los Angeles's Conservation and Natural Resources Element of the General Plan.,

> The Los Angeles metropolitan area produces and consumes more construction aggregate than any other metropolitan area in the country. A continuous supply of aggregate materials for urban infrastructure is essential to the Southern California economy.

Local deposits within Los Angeles County are regionally significant and have the potential to meet the needs of the region for the next 30 years.

Additionally, non-renewable energy sources in the form of oil and natural gas exist within the County.

Nevertheless, Public Resources Code §5001.65 does not permit mineral or energy extraction within CDPR units.

3.11.2 Environmental Impact Evaluation

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?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

DISCUSSION

a) Public Resources Code §5001.65 does not permit resource extraction within CDPR units.

b) Refer to the response to question a.

3.11.3 Avoidance, Minimization, Mitigation Measures

No requirements necessary

3.12 NOISE

3.12.1 Environmental Setting

Although there are not specific CDPR regulations to control noise, an environment with minimal noise, especially from human sources, is an important condition for visitors to Malibu Creek State Park. A low noise environment is important to the enjoyment of the Park's numerous resources and recreational activities. It is difficult to generate specific limits of noise generation due to the variety of settings within which park units exist. They can vary from an urban park setting where a higher level of noise may be tolerable to a remote/rural park setting where solitude and minimal noise intrusion are critically important. Malibu Creek State Park resides between both rural and urban settings. It is within a less developed open space region of the Santa Monica Mountains and is surrounded by high levels of development within the greater Los Angeles region. Visitors looking for a nearby escape from the extensive soundscape of urban Los Angeles look to the Santa Monica Mountains including the Proposed Project site as a high quality natural outdoor experience.

The primary noise producer adjacent to the Proposed Project site is Las Virgenes Road, a two lane rural winding road through the Santa Monica Mountains. The topography limits speeds, resulting in limited intrusion of roadway noise into the Park other than immediately adjacent to it.

Construction noise from a range of equipment that could be used during project construction is found in **Table 3-7**:

Table 3-7
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level at 50 feet (dBA L_{max})	Acoustic Usage Factor[a] (%)
Auger Drill Rig	85	20
Backhoe	80	40
Blasting	94	1
Chain Saw	85	20
Clam Shovel	93	20
Compactor (ground)	80	20
Compressor (air)	80	40
Concrete Mixer Truck	85	40
Concrete Pump	82	20
Concrete Saw	90	20
Crane (mobile or stationary)	85	20
Dozer	85	40
Dump Truck	84	40
Excavator	85	40
Front End Loader	80	40
Generator (25 KVA or less)	70	50
Generator (more than 25 KVA)	82	50
Grader	85	40
Hydra Break Ram	90	10
Impact Pile Driver (diesel or drop)	95	20
Insitu Soil Sampling Rig	84	20
Jackhammer	85	20
Mounted Impact Hammer (hoe ram)	90	20
Paver	85	50
Pneumatic Tools	85	50
Pumps	77	50
Rock Drill	85	20
Roller	74	40
Scraper	85	40
Tractor	84	40
Vacuum Excavator (vac-truck)	85	40
Vibratory Concrete Mixer	80	20
Vibratory Pile Driver	95	20

[a] Acoustic Usage Factor represents the percent of time that the equipment is assumed to be running at full power.

Note: KVA = kilovolt amps

Source: Federal Transit Administration, 2006; Thalheimer, 2000. These values are also used in the Roadway Construction Noise Model, 2006.

3.12.3 Environmental Impact Evaluation

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?	☐	☐	☒	☐
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	☐	☐	☐	☒
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	☐	☐	☐	☒
d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?	☐	☒	☐	☐
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION

a) The Proposed Project would result in limited short-term increase in noise levels during construction due to heavy machinery including internal combustion engines. This short-term increase would not result in exceedance of any known noise ordinances. No noise ordinances exist for State Park units due to their diversity of locations and environments. **Noise** measures shall be included to minimize noise. Impact would be less than significant.

b) None of the construction equipment to be used during construction or operation would generate or expose people to excessive groundborne vibrations or groundborne noise levels. This would result in no impact.

c) The Proposed Project would not introduce any new substantial permanent ambient noise. Noise within the Park unit would remain very similar to what is currently present. Very modest increases would occur due to automobile traffic crossing the bridge. This would result in less than significant impact.

d) There will be limited introduction of temporary noise due to construction. The use of **Noise** mitigation measures (**Section 3.12.4)** shall minimize impact to visitors. This would result in less than significant impact with mitigation.

e) The Park is not within an airport land use plan including any areas of airport influence surrounding an airport. Review of maps included within Los Angeles County's Airport Land Use Plan show no airport influence areas near the Proposed Project site nor Malibu Creek SP. This would result in no impact.

f) The Park is not within the vicinity of a private airstrip. The Proposed Project would not expose people residing or working in the project area to excessive noise levels. This would result in no impact.

3.12.4 Avoidance, Minimization, Mitigation Measures

Noise-1: As indicated by County of Los Angeles Municipal Code Section 12.08.440 – Construction noise. The operation of tools or equipment in construction between weekday hours of 7:00 pm and 7:00 am, or at any time on Sundays or holidays shall be prohibited.

Noise-2: Construction activities creating high decibel noise shall be limited to low visitor use times including the off seasons of fall and winter to minimize noise impacts to sensitive receptors including Park visitors.

Noise-3: Internal combustion engines used for project implementation will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for Project-related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever necessary.

3.13 POPULATION AND HOUSING

3.13.1 Environmental Setting

The Proposed Project site is located within unincorporated Los Angeles County. Planning for existing and future housing within the County is guided by the Los Angeles County Housing Element. The Proposed Project will not affect any of the existing housing within the Park.

The population of Los Angeles County is approximately 10 million with an estimated 3.5 million housing units in the county. Occupancy of this housing is approximately 94%.

The Proposed Project would not result in population growth from its implementation. The Proposed Project does not include the construction of housing or indirectly result in an increase in growth due to the construction of public infrastructure such as roads or utilities.

3.13.2 Environmental Impact Evaluation

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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a) The Proposed Project would not induce population growth, either directly or indirectly, due to the scope of the Proposed Project being the restoration of access throughout the Park for the public, operations and public safety. No homes or businesses are being built nor would there be any additional roads or other infrastructure built other than that needed to effectively serve the facilities to be constructed. This would result in no impact.

b) The Proposed Project would not displace housing due to no housing being impacted by the Proposed Project. This would result in no impact.

c) The Proposed Project would not displace people necessitating the construction of replacement housing elsewhere. No housing shall be affected. This would result in no impact.

3.13.3 Avoidance, Minimization, Mitigation Measures

None necessary.

3.14 PUBLIC SERVICES

3.14.1 Environmental Setting

Park Services

Malibu Creek State Park provides numerous activities for visitors. To support these activities requires a range of staff including: State Park Peace Officers (Park Rangers) providing public safety; maintenance staff maintaining facilities; interpreters providing education programs; resources staff ensuring protection of cultural and natural resources and Volunteers and Park Aides providing numerous visitor services.

Fire Protection

Fire protection of the facilities and resources within the Park are provided by the Mountains Recreation and Conservation Authority (MRCA) Fire Division Headquarters as well as the Los Angeles County Fire Department. The MRCA is located at 1670 Las Virgenes Canyon Rd, Calabasas, CA 91302. The nearest LA Country Fire Department is Station #67 at 25801 Piuma Rd., Calabasas, CA 91302.

Public Safety

Public safety is provided by CDPR State Park Peace Officers (Rangers) patroling Malibu Creek State Park. In the case that conditions require further support, the Los Angeles County Sheriff's Department can be utilized.

Schools

A school within the vicinity of Malibu Creek State Park is MUSE School. The Proposed Project will not have any effect on this school.

3.14.2 Environmental Impact Evaluation

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 services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

Discussion

a) No adverse impacts to public services would result from the construction associated with the proposed bridge crossing of Stokes Creek. Public safety will be improved by the reopening of the crossing to vehicular traffic including public safety vehicles. It will provide an alternative access route for Park staff and safety responders as well as provide an emergency egress for park visitors. The proposed bridge will improve access throughout the Park for pedestrians, bicyclers and vehicles. No adverse impacts shall result to fire protection, police protection, schools, parks or any other public facilities.

3.14.3 Avoidance, Minimization, Mitigation Measures

None necessary

3.15 RECREATION

3.15.1 Existing Environment

Recreation opportunities are widely available in the region of Malibu Creek SP and include other State Park units as well as other parks and recreation areas managed by Los Angeles County, the National Park Service, Santa Monica Mountains Conservancy, and Mountains Recreation and Conservation Authority.

With over 8,000 acres of rugged, undeveloped land in the middle of the central Santa Monica Mountains, Malibu Creek SP provides a range of activities including: hiking, mountain biking, jogging, camping, horse riding, picnicking, fishing, rock climbing, swimming, attending interpretive programs, and sightseeing, among other diverse activities.

Other State Parks in the near vicinity include Topanga State Park to the east, Malibu Lagoon State Beach to the south, and Point Dume State Beach to the west. Also located in the crests and canyons of the Santa Monica Mountain range, Topanga State Park offers similar recreational activities to Malibu Creek SP. Both Malibu Lagoon SB and Point Dume SB are coastal park units, offering park visitors the chance to swim, snorkel, surf, hike, picnic, visit historic resources, and to sightsee.

3.15.2 Environmental Impact Evaluation

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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☒	☐	☐

Discussion

a) The facilities being proposed would not increase the use of any nearby recreational facilities. The Proposed Project will improve the circulation of visitors and park staff, which will improve the management of Malibu Creek State Park. The existing culvert is underused due to its deteriorated state. It is currently providing a small number of trips limited to pedestrians and bicyclists. This would result in no impact.

b) The facilities constructed by the Proposed Project would not result in an adverse physical effect on the environment nor would they require the construction or expansion of further facilities that would have an adverse physical effect on the environment. Through the implementation of the mitigation measures proposed within the MMRP, impacts would be less than significant with mitigation.

3.15.3 Avoidance, Minimization, Mitigation Measures

There are no specific measures related to recreation, however, project requirements within the Project Requirements Plan **(Chapter 4)** shall ensure impact to the environment from the construction of new recreation facilities results no impact or less than significant impact.

3.16 TRANSPORTATION AND TRAFFIC

3.16.1 Environmental Setting

CDPR maintains the transportation systems running throughout Malibu Creek SP. Park roads fill a variety of functions including accessing visitor facilities as well as providing access for public safety by State Park Peace Officers, maintenance staff and fire crews stationed within the Santa Monica Mountains. They are the responsibility of CDPR to maintain.

The crossing of Stokes Creek allows for the movement of pedestrian, bicyclists, and equestrians along Waycross Road. With the Proposed Project, the passage of automobiles including public safety vehicles would be restored. This road provides access to a number of park facilities including campgrounds, day-use facilities, trails and park operations including the District Office for the Angeles District of CDPR.

Access to the Park comes from Las Virgenes Road, a Los Angeles County road, running along the eastern side of the Park. This road continues south where it intersects with Piuma Road and changes name to Malibu Canyon Road. This road continues south until it intersects with Pacific Coast Highway (1). Las Virgenes Road also runs north of the Park and intersects with US Highway 101.

3.16.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒

c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion

a) No conflicts with any applicable transportation plans would take place due to the Proposed Project not having any impact on local or regional transportation facilities. The Proposed Project is completely within the Park and has no connection to other jurisdiction's facilities, such as Los Angeles County Roads. This would result in no impact.

b) No level of service standards would be affected due to the Proposed Project having no impact on local streets or highways. Usage of the bridge would be limited. It would not attract a substantial amount of traffic. This would result in no impact.

c) The Proposed Project would result in no change in air traffic patterns. The Proposed Project has no impact on air traffic. This would result in no impact.

d) The Proposed Project contains no features that would result in dangerous design features. The bridge is low speed and would accommodate a low level of traffic. Cross traffic should be fairly minimal, but the bridge shall be signed to ensure the safety of those using it. This would result in less than significant impact.

e) Emergency access would improve due to the re-establishment of the crossing to serve emergency vehicles. This would result in no impact.

f) The Proposed Project would not have any effect on parking supply within the Park. The Proposed Project does not require parking onsite to function effectively. This would result in no impact.

g) The Proposed Project would not conflict with any policy related to alternative transportation. The Proposed Project shall continue to support usage of the crossing

by hikers and bikers. The Park does not contain nor would it benefit in the future from alternative transportation facilities. This would result in no impact.

3.16.3 Avoidance, Minimization, Mitigation Measures

None necessary

3.17 UTILITIES AND SERVICE SYSTEMS

3.17.1 Environmental Setting

Utilities

Water service and wastewater service is provided to the Park via the Las Virgenes Municipal Water District.

The Park's solid waste collector is Universal Waste Services. Waste collected is deposited at the Puente Hills landfill.

Electricity is provided by Southern California Edison and natural gas is provided by SoCalGas,

3.17.2 Environmental Impact Evaluation

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	☐	☐	☐	☒

e) Result in a determination, by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations as they relate to solid waste?	☐	☐	☐	☒

Discussion

a) Wastewater would not be produced by the construction or operation of the Proposed Project. Therefore there would be no impact to wastewater treatment restriction or to RWQCB standards related to wastewater.

b) The Proposed Project would not require the construction of new wastewater facilities. Water treatment demand shall not be affected by the Project. This would result in no impact.

c) Stormwater will need to be drained from the bridge deck. This run-off shall be managed to ensure that it does not result in an increased water quality impact. The bridge design will include a crown placed in the center of the bridge deck to allow water to sheet flow off both sides of the bridge deck. Short-term impact as a result of construction within the waterway and banks will need to be minimized, but can be done through the use of water quality best management practices. Permanent water quality BMPs will also be utilized including the use of fiber blanket in order to prevent the introduction of sediment to Stokes Creek. Other best management practices shall be used as project design proceeds. There should be little to no expansion of impervious surfaces as the bridge facility will not be constructed to expand capacity beyond what was provided by the existing culvert before it was damaged by storm flows. Water quality impact shall be minimized by the restoration of plantings within the project footprint impacted by construction. With these BMPs utilized, impacts as a result of the project would remain less than significant. For a list BMPs to be utilized, refer to those found in **Section 3.9.3 (Hydrology and Water Quality).**

d) There would be limited need for water supply in the construction or operation of the Proposed Project. Water would be needed for the cleaning of construction equipment including vehicles. Water would also be needed for the landscaping and establishment of restoration plantings. Mitigation plantings would need water for a set time based on the plant species. With the efficient use of water, there should be no impact on

water supply including the ability to meet existing water commitments within the Park.

e) Wastewater treatment is not needed for the construction or operation of the Proposed Project. This would result in no impact to wastewater facilities within the Park.

f) A sizeable amount of construction waste shall be generated including the existing culvert, rock-filled gabion baskets and other material associated with the existing damaged culvert system. It is expected that this construction waste can be sufficiently accommodated by the existing landfill that is permitted to accept waste from the Park, the Puente Hills landfill. Alternatively, if a suitable site can be found onsite for excess materials that can provide benefit to the project and/or project site, they may be kept onsite. No waste shall be generated by the operation of the Project. This would result in no impact.

g) The Proposed Project would comply with all statutes and regulations related to solid waste. No elements of the Proposed Project should prevent the ability to comply with statute and regulations related to solid waste. This would result in no impact.

3.17.3 Avoidance, Minimization, Mitigation Measures

Utilities

No project requirements necessary

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

3.18.1 Environmental Setting

Several findings that are important to evaluate are discussed below. These include impacts to plants, animals and/or important examples of California history or prehistory. Impacts shall be evaluated that are cumulatively considerable as well as direct and indirect impacts to humans.

3.18.2 Environmental Impact Evaluation

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?	☐	☒	☐	☐
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects?)	☐	☐	☒	☐
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	☐	☐	☐	☒

Discussion

a) Degradation of the environment shall be minimal due to the improvement of the creek by expanding its width to support a free span bridge crossing Stokes Creek. This would allow for a less restricted creek flow during times that the stream contains water. The creek is ephemeral with intermittent flows that do not provide sufficient

flow to support fish populations through the project footprint. No plant or animal communities shall be eliminated nor shall the project restrict the range of a rare of endangered plant or animal. Further detail regarding the species likely to be present within the project region and the impacts associated with project construction are found within **Section 3.4.2**. Measures shall be incorporated to protect sensitive biological resources as described within the **BIO** measures found in **Section 3.4.3**. Specifically, mitigation shall be incorporated that compensates for the encroachment into the tree protected zone of several tree species as described in mitigation measure **BIO-6**. This would result in less than significant impact with mitigation.

b) The Proposed Project would not have the potential to eliminate important examples of the major periods of California history or prehistory, due to their lack of presence within or near the Proposed Project's footprint. This would result in no impact.

c) The impacts resulting from the construction and operation of the Proposed Project would have potential cumulative impacts. There is the potential for impact to downstream hydrology, geomorphology and natural resources as a result of the Proposed Project. Modeling has taken place to calculate the results of storm event scenarios on the crossings. The downstream will now be at increased risk of flooding due to the removal of the culvert and replacement of it with a free span bridge. With the increased flow traveling under the project crossing, there will be increased flow that will result in overtopping of the downstream culvert during a 100-year storm event. The downstream crossing is currently capable of accommodating flows from a 10-year storm. Despite this increased flow at the downstream culvert, modifications to the downstream to accommodate flows from a larger storm event won't be financially feasible at this time. This change in flows shall be considered in the case that a future improvement is considered to the downstream crossing. In the event that the downstream crossing cannot be used, the Proposed Project bridge can be used instead of the downstream crossing. Therefore, cumulative impact shall be less than significant.

d) No adverse human impacts, either direct or indirect are anticipated by the Proposed Project. Improving the movement of visitors throughout the park and providing improved public safety response would result in positive impacts to humans. This would result in no impact.

3.18.3 Avoidance, Minimization, Mitigation Measures

Numerous project requirements, particularly those within **Biological Resources (3.4.3)**, would be implemented to reduce impacts to a less than significant level.

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4 PROJECT REQUIREMENTS MONITORING PLAN

Mitigation measures have been provided in this table for efficient reference during design and construction.

Table 4-1: Mitigation Monitoring Reporting Program

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Visual-1	CDPR project designers and natural resource specialists shall design the Proposed Project to avoid impacts to valuable aesthetic resources including mature trees as well as provide compensatory restoration for habitat loss if facility siting cannot avoid impact.	Project Planning and Design	CDPR Project Manager, CDPR Project Designer CDPR Biologist	
Visual-2	The Proposed Project will be designed to incorporate appropriate park scenic & aesthetic values including: • Designing the bridge at a scale in association with the surrounding landscape; • Incorporating aesthetic treatments on retaining walls or other ancillary structures; • Landscaping with primarily native species unless historic records indicate differently.	Project Design	CDPR Engineer CDPR Landscape Architect CDPR Construction Manager	
Air Quality-1 (AQ)	All haul vehicles shall be covered or shall comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.	Construction	CDPR Project Manager CDPR Construction Manager	
AQ-2	Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway	Construction	CDPR Project Manager/ CDPR Construction Manager	
AQ-3	Watering of exposed dirt to minimize dust and dust plumes	Construction	CDPR Project Manager CDPR Construction Manager	
AQ-4	Inactive disturbed areas shall be treated as soon as feasible to prevent soil erosion.	Construction Grading	CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
AQ-5	Open soil piles that will remain on-site for two or more days shall be treated or covered to prevent soil erosion	Construction	CDPR Construction Manager	
AQ-6	During high wind conditions (wind speeds in excess of 25 miles per hour), all earthmoving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.	Construction Grading	CDPR Construction Manager	
Archaeology-1 (Arch)	All ground-disturbing activities shall be monitored by a qualified archaeologist and a Native American monitor. Monitors shall observe all new earthwork and inspect back dirt piles for artifacts. Monitoring logs shall be completed for each day that monitoring is undertaken, including photographs of the Proposed Project area and records of construction activities. Any discoveries (including diagnostic isolates) shall be accurately plotted in order to document distribution and create working field maps and final report-quality maps.	Construction	CDPR Construction Manager CDPR Archaeologist	
Arch-2	If archaeological features or potentially significant concentrations of artifacts are encountered during monitoring, all ground-disturbing activities will immediately be redirected away from the discovered resource to allow for its evaluation and appropriate treatment. This evaluation will be undertaken by the archaeological Principal Investigator at the Southern Service Center or their designee. The discovery site shall be flagged to protect it from further construction impacts. Once the feature or deposit has been exposed to the extent possible, CDPR archaeologists shall assess the eligibility of the feature or deposit and make a determination as to avoidance, protection, or implementation of mitigation measures such as data recovery.	Construction: Grading and Demolition	CDPR Construction Manager CDPR Archaeologist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Arch-3	In the event of an accidental discovery or recognition of any human remains within the Proposed Project area in any location other than a dedicated cemetery, the following steps shall be taken. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Diego County Medical Examiner has been contacted to determine that no investigation of the cause of death is required. If the Medical Examiner determines the remains to be Native American, the Medical Examiner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the Most Likely Descendent/s (MLD) of the deceased Native American. As provided in Public Resources Code Section 5097.98, the MLD may make recommendation for treatment or disposition with appropriate dignity, of the human remains and any associated grave goods. Alternatively, where the conditions listed below occur, an authorized representative of CDPR shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. The conditions are: (1) that the Native American Heritage Commission is unable to identify an MLD, or (2) the MLD fails to make a recommendation within 24 hours after being notified by the commission, or (3) CDPR rejects the recommendation of the MLD, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to CDPR. California Department of Parks and Recreation's policy regarding the treatment of human remains is consistent with these guidelines.	Construction: Grading and Demolition	CDPR Construction Manager CDPR Archaeologist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Biology-1 (Bio)	A qualified biologist shall prepare a Worker Environmental Awareness Training (WEAT), which discusses the federal, state, and local laws and ordinances protecting biological resources; the fines and penalties for violating these laws; the sensitive biological resources with potential to occur within the BSA, including their identifying traits, life history, and regulatory status; and general practices to avoid impacts to these species and resources. The WEAT shall be presented to all project staff, including supervisors and subcontractors, prior to the commencement of work activities, and shall be given to new personal as needed throughout the term of construction.	Construction	CDPR Project Manager CDPR Environmental Scientist	
Bio-2	A qualified biologist shall identify special-status plants within the disturbance footprint and buffer no more than 2 weeks prior to the start of construction. In the event that a special-status is observed, the species shall be incorporated into the restoration plan for the site (BIO-5).	Pre-Construction Construction: Demolition	CDPR Project Manager CDPR Environmental Scientist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-3	All vegetation clearing activities shall be conducted outside the bird breeding season (February 15 through September 1) to the extent practicable. Where such activities must occur during the breeding bird season, activities shall be preceded by nesting bird surveys and shall be monitored by a qualified biologist. If construction is necessary during the bird breeding season (February 15 through September 1), nesting bird surveys of the project LOD and a 500-foot buffer shall be conducted 30 days prior to construction to detect any active bird nests within 500 feet of the construction area. The last survey shall be conducted 3 days prior to the initiation of clearance/construction. If there is a work stoppage for 7 or more days then a nesting bird survey will be required prior to resumption of construction activities. If nesting birds are encountered, no-disturbance buffers shall be established to protect the nest from disturbance. The buffer shall remain in effect until a qualified biologist determines the nest has either failed or fledged, young are no longer dependent upon the nest, and there is no evidence of a second attempt at nesting. Buffers shall be a minimum of 300 feet for migratory bird nests and 500 feet for active raptor, rare, threatened, endangered, or species of concern nests. Limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing and construction personnel shall be instructed on the sensitivity of the area.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-4	Work within the streambed will occur only during the dry season, when limited surface waters are present within Stokes Creek at the crossing. All efforts will be made to prevent sediment from entering the streambed and dissipating downstream.	Construction	CDPR Construction Manager CDPR Environmental Scientist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-5	Where trees occur within or adjacent to the construction disturbance zone, the following measures shall be adhered to: a. Protective fencing shall be used around the outermost limits of the protected zones of the native trees within or adjacent to the construction area that may be disturbed during construction or grading activities. Before the commencement of any clearing, grading, or other construction activities, protective fencing shall be placed around each applicable tree. Fencing shall be maintained in place for the duration of all construction. No construction, grading, staging, or materials storage shall be allowed within the fenced exclusion areas, or within the protected zones of any on-site native trees. b. Any approved development, including grading or excavation, that encroaches into the protected zone of a native tree shall be constructed using only hand-held tools. c. CDPR shall retain the services of a qualified independent biological consultant or arborist to monitor native trees that are within or adjacent to the construction area. If any breach in the protective fencing occurs, all work shall be suspended until the fence is repaired or replaced.	Construction	CDPR Construction Manager CDPR Environmental Scientist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-6	Restore temporary impacts to 0.20 acre of jurisdictional waters and valley oak woodland understory and mitigate for impacts to native tree protected zones. In accordance with the Santa Monica Mountains LCP, greater than 30 percent encroachment into tree protected zones and encroachment that extends within 3 feet of a tree trunk will be mitigated at a ratio of 10:1. Encroachment of 10 to 30 percent into tree protected zones and trimming branches over 11 inches in diameter will be mitigated at a ratio of 5:1. For trees with less than 10 percent encroachment into protected zones, no mitigation is required, but monitoring is required. For impacts to trees requiring mitigation and on-site restoration of temporary impacts, the following measures shall be implemented: a. CDPR shall develop a detailed restoration or enhancement plan. The habitat restoration area shall be delineated on a detailed site plan, to scale, that illustrates the parcel boundaries; topography; existing habitat types; and species, size, and location of all native plant materials to be planted. The habitat restoration plan shall be prepared by a qualified resource specialist or biologist familiar with the ecology of the coastal zone and shall be designed to restore the area in question for habitat function, species diversity, and vegetation cover appropriate for the type of habitat in question. The restoration plan shall include an evaluation of existing habitat quality, statement of goals and performance standards, revegetation and restoration methodology, and maintenance and monitoring provisions.	Pre-Construction Construction	CDPR Construction Manager CDPR Environmental Scientist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
	b. The habitat restoration/enhancement plan shall specify that habitat restoration and/or enhancement shall be monitored for a period of no less than 5 years following completion. Specific restoration objectives and performance standards shall be designed to measure the success of the restoration and/or enhancement. Midcourse corrections shall be implemented if necessary. Monitoring reports shall be provided to the County of Los Angeles annually and at the conclusion of the 5-year monitoring period that document the success or failure of the restoration. If performance standards are not met by the end of 5 years, the monitoring period shall be extended until the standards are met. The restoration will be considered successful after the success criteria have been met for a period of at least 2 years without any maintenance or remedial activities other than exotic species control. At the County's discretion, final performance monitoring will be conducted by an independent monitor or County staff with the appropriate classification, supervised by the staff biologist and paid for by the CDPR. If success criteria are not met within 10 years, the applicant shall submit an amendment proposing alternative restoration. c. When determining mitigation location, priority shall be given to on-site restoration or enhancement, unless there is not sufficient area of disturbed habitat on the project site, in which case off-site mitigation may be allowed.			

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
	d. If the restoration site is off-site, written evidence that the property owner has irrevocably agreed to allow the restoration work, maintenance and monitoring required by this condition and not to disturb any native vegetation in the restoration area. The area of habitat to be restored shall be permanently preserved through the recordation of an open space deed restriction or other documented evidence of preservation. If restoration is proposed in the State Park, in an area that is not slated for other Park development, placement within the State Park may be sufficient evidence of preservation. e. The habitat restoration or enhancement shall be carried out prior to or concurrently with construction of the development project.			
Bio-7	If project construction activities are scheduled between May and August, surveys shall be conducted by a Qualified Biologist for the presence of western red bat maternity roosts. In the unlikely event that roosting western red bat are detected, a buffer shall be established by the Qualified Biologist. The buffer shall be maintained free of construction and construction related noise, until the pups are weaned and exhibiting flight behavior.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-8	An arborist, certified by the International Society of Arboriculture, shall be available to oversee and direct any work involving the pruning/removal of tree branches or any accidental tree damage that may occur. Tree pruning procedures shall comply with the American National Standards Institute (ANSI) A300, “Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices”.	Construction	CDPR Construction Manager CDPR Environmental Scientist	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-9	Operations shall be conducted in a manner that avoids damage and minimizes disturbance to existing landscaping/trees. If any vegetation, not designated for trimming/removal, is damaged or destroyed, the Contractor shall repair the damage at no additional cost to the State. Damage is defined, without limitation, as any cutting, breaking, tearing, bruising, or skinning of the trunk, roots, or significant limbs. Should the State Environmental Scientist/CDPR-approved biologist determine that the damage is irreparable or that a tree has been destroyed, the Contractor shall compensate for the loss, as determined by the State's Representative and State Environmental Scientist, at the Contractor's expense.	Project Design Construction	CDPR Landscape Architect CDPR Environmental Scientist CDPR Construction Manager	
Bio-10	During trenching/digging, all roots two (2) inches in diameter or greater that need to be removed shall be carefully excavated and cleanly cut to minimize damage to the tree's root system. Such activities shall be supervised/directed by the State's Representative, in coordination with the State Environmental Scientist/CDPR-approved biologist.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-11	No parking of equipment or storage of vehicles, materials, or debris shall be allowed underneath a tree's canopy.	Pre-Construction Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-12	Access routes, staging areas, and the total footprint of disturbance shall be limited to the minimum number/size necessary to complete the Proposed Project. Routes of travel and work boundaries will be configured to avoid unnecessary intrusions into the surrounding habitat.	Pre-Construction	CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-13	A State Environmental Scientist/CDPR-approved biologist will be made available for both the pre-construction and construction phases to review plans, address resource issues, and periodically monitor ongoing work. The biologist shall maintain communications with the State's Representative to ensure that concerns related to sensitive species/habitats are appropriately and lawfully managed.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-14	Should any areas require hydroseeding for temporary erosion control, then only local, native plant species, approved by the State Environmental Scientist/CDPR-approved biologist, shall be used. No invasive exotics shall be included in any proposed seed palette. Species with a High or Moderate Rating (Table 1) on the California Invasive Plant Council's California Invasive Plant Inventory (2006) are prohibited.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-15	For reasons of safety, areas of excavation (e.g., pits, trenches, holes) shall be covered overnight or during periods of inactivity. Routes of escape from excavated pits and trenches shall also be installed for wildlife that could potentially become entrapped. These locations will be regularly inspected by the Contractor and immediately inspected prior to filling. Should any wildlife be discovered, then the Contractor shall contact the State's Representative or State Environmental Scientist/CDPR-approved biologist to obtain instructions on how to safely remove the wildlife from the trench/hole or suspend work at the excavation site until the entrapped animal can be relocated by the State Environmental Scientist/CDPR-approved biologist.	Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-16	The Proposed Project area will 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.	Construction	CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-17	Erosion control measures shall be inspected daily during rainfall events and at least weekly throughout construction by the Contractor. Prior to the onset of any precipitation, both active (disturbed) soil areas and stockpiled soils shall be stabilized to prevent sediments from escaping off-site or into Stokes Creek. Should inspection determine that any BMPs are in disrepair or ineffectual, the Contractor shall take immediate action to fix the deficiency.	Pre-Construction Construction	CDPR Construction Manager	
Bio-18	All equipment engines shall be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and Federal requirements.	Design Construction	CDPR Landscape Architect CDPR Project Manager CDPR Construction Manager	
Bio-19	A toxic material control and spill-response plan will be prepared and submitted to the State's Representative for approval prior to the onset of construction. The plan shall include measures to protect on-site workers, the public, and environment from accidental leaks or spills of vehicle fluids or other potential contaminants, and contain guidelines for the proper use, storage and disposal of any flammable materials used during construction. Techniques for promptly and effectively responding to any accidental spill shall also be outlined. All workers involved in construction shall receive instruction regarding spill prevention and methods of containment.	Construction	CDPR Construction Manager	
Bio-20	The changing of oil, refueling, and other actions (e.g., washing of concrete, paint, or equipment) that could result in the release of a hazardous substance shall be restricted to approved/designated areas that are a minimum of 100 feet from any sensitive habitat (e.g., coastal sage scrub) or waterway. Such sites shall be surrounded with berms, sandbags, or other barriers to further prevent the accidental spill of fuel, oil, or chemicals. Any discharges shall be immediately contained, cleaned up, and properly disposed, in accordance with the toxic material control and spill-response plan.	Construction	CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-21	Storage and staging areas will be placed a minimum of 100 feet from any drainage or other water body. Such sites shall occur in existing developed or disturbed locations (e.g., paved or previously hardened surfaces) that have been reviewed and approved by the State's Representative, in coordination with the State Environmental Scientist/CDPR-approved biologist and State Archaeologist/Cultural Resources Monitor. All areas used for stockpiling shall be kept free from trash and other waste. No project-related items shall be stored outside approved staging areas at any time.	Construction	CDPR Construction Manager	
Bio-22	All construction vehicles shall not exceed 15 mph on any paved or unpaved surfaces within the Proposed Project area.	Construction	CDPR Construction Manager	
Bio-23	Spark arrestors or turbo charging (which eliminate sparks in exhaust) and fire extinguishers shall be required for all motorized equipment and heavy equipment.	Pre-Construction Construction	CDPR Construction Manager	
Bio-24	Following project completion, any erosion control measures that are no longer needed, as deemed by the State's Representative, shall be removed and properly disposed off-site. BMPs may remain if the measures are necessary to provide continued stabilization or minimize pollution.	Construction	CDPR Construction Manager	
Bio-25	Areas temporarily disturbed by work-related activities shall be hydro seeded/landscaped with locally-derived native seeds/plants in accordance with a CDPR-approved landscaping plan. The re-vegetation will serve to visually enhance the site, and offset the loss of trees and shrubs from construction.	Construction	CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Bio-26	Pets belonging to project personnel shall not be permitted within the construction boundaries at any time.	Pre-Construction Construction	CDPR Construction Manager CDPR Environmental Scientist	
Bio-27	Conditions set forth in the CDP, which will be issued by the County of Santa Barbara, shall be observed and implemented as part of the Proposed Project.	Construction	CDPR Construction Manager	
Geology/Soils-1 (Geo/Soils)	After a large earthquake event (i.e., magnitude 5.0 or greater within 50 miles of the Proposed Project site), the Construction Manager will arrange for appropriate inspection of all project structures and features for damage as soon as possible after the event. If any structures or features have been damaged, they will be closed to park visitors, volunteers, residents, contractors, and staff until repairs have been made.	Construction	CDPR Construction Manager	
Geo/Soils-2	Track-mounted or heavy-wheeled vehicles would be used in only the minimum area necessary to complete the Proposed Project. Delineation on plans and/or construction site fencing shall be used to avoid access to unauthorized locations in order to minimize soil compaction and erosion.	Construction	CDPR Project Manager CDPR Construction Manager CDPR Engineer	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Greenhouse Gases-1 (GHG)	Improve fuel efficiency from construction equipment: a. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site. b. Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is used. c. Use the proper size of equipment for the job to most efficiently complete work. d. Use modern equipment to reduce fuel consumption and emissions.	Design Construction	CDPR Engineer CDPR Project Manager CDPR Construction Manager	
GHG-2	Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).			
GHG-3	Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.			
GHG-4	Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.			

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Fire-1	Construction crews will park vehicles, when not in use, within paved or non-vegetated areas, away from flammable material, such as dry grass or brush.	Construction	CDPR Construction Manager	
Fire-2	CDPR personnel will have a CDPR radio at the Park, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.	Construction	CDPR Construction Manager	
Fire-3	Prior to the start of on-site construction activities, clean and repair (other than emergency repairs) all equipment outside the project site boundaries.	Construction	CDPR Construction Manager	
Fire-4	Under dry conditions, a filled water truck and/or fire engine crew will be onsite during construction activities.	Construction	CDPR Construction Manager	
Paleontology-1 (Paleo)	A qualified vertebrate paleontologist shall be contacted in the rare instance that such resources are found during demolition and grading activities associated with the Proposed Project.	Construction	CDPR Project Manager CDPR Construction Manager	
Water Quality-1 (WQ)	Prior to the start of construction involving ground-disturbing activities, the Project contractor will prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for DPR approval that identifies temporary Best Management Practices (BMPs) (e.g., tarping of any stockpiled materials or soil; use of silt fences, straw bale barriers, fiber rolls, etc.) and permanent (e.g., structural containment, preserving or planting of vegetation) for use in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, trenching, repaving, or other ground-disturbing activities. The SWPPP will include BMPs for hazardous waste and contaminated soils management and a Spill Prevention and Control Plan (SPCP), as appropriate.	Pre-Construction	CDPR Project Manager CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
WQ-2	All heavy equipment parking, refueling, and service will be conducted within designated areas outside of the 100-year floodplain to avoid water course contamination.	Construction	CDPR Project Manager CDPR Construction Manager	
WQ-3	All construction activities will be suspended during heavy precipitation events (i.e., at least 1/2-inch of precipitation in a 24-hour period) or when heavy precipitation events are forecast.	Construction	CDPR Project Manager CDPR Construction Manager	
WQ-4	To minimize water quality impact due to run-off created from development, permeable surfaces shall be considered. If this is not feasible, then appropriate permanent BMPs shall be included in project design to minimize polluted run-off from entering Stokes Creek.	Construction: Demolition and Grading	CDPR Project Manager CDPR Construction Manager	
WQ-5	Contractor shall stage construction equipment and vehicles only on paved or previously hardened surfaces. Equipment parked or sitting idle for more than three hours shall be parked over a collector pan to capture any leaking hydrocarbon fluids. Equipment shall remain within construction staging area when not in use with the exception of circumstances that would prevent additional erosion by keeping equipment within the work site.	Construction	CDPR Project Manager CDPR Construction Manager	
WQ-6	Any work within the Stokes Creek streambed shall be verified daily with the State's representative to ensure that impact within the Proposed Project site is minimized.	Construction	CDPR Construction Manager	
Noise-1	As indicated by County of Los Angeles Municipal Code Section 12.08.440 – Construction noise. The operation of tools or equipment in construction between weekday hours of 7:00 pm and 7:00 am, or at any time on Sundays or holidays shall be prohibited.	Construction	CDPR Project Manager CDPR Construction Manager	

Abbrev.	Mitigation Measure	Timing of Action	Monitoring Reporting Party	Date Completed & Initials (PM or CM)
Noise-2	Construction activities creating high decibel noise shall be limited to low visitor use times including the off seasons of fall and winter to minimize noise impacts to sensitive receptors including Park visitors.	Construction	CDPR Project Manager CDPR Construction Manager	
Noise-3	Internal combustion engines used for project implementation will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for Project-related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever necessary.	Construction	CDPR Construction Manager	

5 REFERENCES

5.1 LIST OF PREPARERS AND REVIEWERS

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5.2 DOCUMENT REFERENCES

Aesthetics

California Department of Parks and Recreation, *Malibu Creek State Park: General Plan and Environmental Impact Report, Volume 1,* March 2005, available at http://www.parks.ca.gov/?page_id=25918

Air Quality

California Environmental Protection Agency, California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005, available at http://www.arb.ca.gov/ch/landuse.htm

South Coast Air Quality Management District, Draft Air Quality Management Plan, June 2016, available at http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/Draft2016AQMP

Biological Resources

AECOM for California State Parks, Biological Assessment Report for Stokes Creek Bridge Replacement Project, Malibu Creek State Park, August 2018.

Cultural Resources

Aseltine, Julie, *CA-LAN-840 Archaeological Site Survey Record,* University of California, 1976

Bandera, Mariana, 2017, *Archaeological Monitoring Form: Stokes Creek Bridge Project at Malibu Creek State Park,* California Department of Parks and Recreation

Cooley, Theodore, Stacey Jordan, and Laura Barrie, Mooney & Associates, *Cultural Resources Inventory Survey of 94 Acres within the Malibu Creek State Park, Tapia Sub-Unit, Los Angeles County, California,* January 2003

Dodds, Tricia, *An Archaeological Survey for the Proposed Accessibility Improvements Project, Malibu Creek State Park, Los Angeles County, California,* California Department of Parks and Recreation, July 2010

Evans, Nancy and Janice Fisher, *The Century Ranch Site Complex: Additional Excavation and Surface Collection at Lan-227 and Lan-736, Malibu Creek State Park,* September 1980

Gamble, Lynn and Chester King, *Archaeology of the California Coast During the Middle Holocene* in Middle Holocene Adaptations in the Santa Monica Mountains, pp. 61-72, 1997.

Johnson, Lise, *CA-LAN-840 Archaeological Site Survey Record,* University of California, 1976

King, Chester, *Native American Indian Cultural Sites in the Santa Monica Mountains,* prepared by Topanga Anthropological Consultants, February 2000

King, Chester, Thomas Blackburn, and Ernest Chadonet, *The Archaeological Investigation of Three Sites on the Century Ranch, Western Los Angeles County, California,* 1968

McFarland, Patricia, 2012, *Malibu Creek State Park Ann Skager Trail ADA Improvements Archaeological Survey & Testing Report.* On file at CDPR, Southern Service Center, San Diego.

--. 2013a, *Archaeological site record update for CA-LAN-840 (Draft).* On file at CDPR, Southern Service Center, San Diego.

--. 2013b, *Malibu Creek State Park, Ann Skager Trail ADA Improvements Archaeological Monitoring Report Plus Addendum of Other Archaeological Findings.* On file at CDPR, Southern Service Center, San Diego.

Mealey, Marla, Tricia Dodds, and Erin Smith, *Malibu Creek State Park Interagency Operations Center Advanced Study Archaeological Investigations,* California Department of Parks and Recreation, July 2010

Weisberg, Bethany, 2016, *Results of Archaeological Testing for the New Stokes Creek Bridge Project at Malibu Creek State Park,* California Department of Parks and Recreation

Wheeler, Thomas, Philip Walker, Elizabeth Honeysett, and Walter Wisura, *Report and Analysis of Cremated Human Remains from Lan-840,* California Department of Parks and Recreation, 1989

Geology and Soils

California Department of Parks and Recreation, *General Plan: Malibu Creek State Park*, March 2005, available at https://www.parks.ca.gov/?page_id=25918

Los Angeles County Department of Regional Planning, *Santa Monica Mountains Local Coastal Program Land Use Plan*, 2014, available at http://planning.lacounty.gov/coastal/smm

California State University, Northridge, Geology of the Santa Monica Mountains, Norman Herr, Ph.D., 2007, available at https://www.csun.edu/science/geoscience/fieldtrips/santa-monica-mts/geology-santa-monicas.html

Greenhouse Gases

U.S. Environmental Protection Agency, Greenhouse Gas Emissions, available at https://www.epa.gov/ghgemissions/overview-greenhouse-gases

Sacramento Metropolitan Air Quality Management District, CEQA Guide: Chapter 6 Appendix: Cosntruction GHG Reductions (May 2016), available at http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools

Hydrology and Water Quality

AECOM for California State Parks, Biological Assessment Report for Stokes Creek Bridge Replacement Project, Malibu Creek State Park, August 2018.

Heal The Bay, Malibu Creek Watershed, available at http://www.healthebay.org/our-work/current-issues/keeping-ocean-healthy/malibu-creek-watershed

Hazards and Hazardous Waste

California Environmental Protection Agency, Cortese List Data Resources, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm

California Office of Emergency Services, State of California Emergency Plan, 2009, http://www.caloes.ca.gov/PlanningPreparednessSite/Pages/State-of-California-Emergency-Plan-Emergency-Functions.aspx

Los Angeles County Department of Regional Planning, Los Angeles County Airport Land Use Plan, revised December 2004, available at http://planning.lacounty.gov/view/alup/

National Park Service, Santa Monica Mountains National Recreation Area's Fire Management Plan, updated June 2012, available at, https://www.nps.gov/samo/learn/management/firemanagement.htm

County of Los Angeles, County of Ventura, Santa Monica Mountain Community Wildfire Protection Plan, 2013, available at https://www.nps.gov/samo/learn/management/firemanagement.htm

Land Use and Planning

California Legislative Information, Public Resources Code §5019.53, available at http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=05001-06000&file=5019.50-5019.80

California Department of Park and Recreation, Malibu Creek State Park General Plan (2005), available at https://www.parks.ca.gov/?page_id=24359

California Department of Fish and Wildlife, Natural Community Conservation Planning, available at https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans

Wikipedia, Calabasas, California, available at https://en.wikipedia.org/wiki/Calabasas,_California

Mineral Resources

Los Angeles County Department of Regional Planning, General Plan 2035, Chapter 9: Conservation and Natural Resources Element, available at http://planning.lacounty.gov/generalplan/generalplan

Noise

US Department of Transportation-Federal Highway Administration, Highway Traffic Noise, Construction Noise, Roadway Construction Noise Model Inventory, available at

http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

Los Angeles County Department of Regional Planning, Los Angeles County Airport Land Use Plan, last revised December 2004, available at http://planning.lacounty.gov/view/alup/

Los Angeles County Municipal Code, Section 12.08.440 – Construction Noise, available at https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances

Park Unit Background

California Department of Parks and Recreation, *Statistical Report*, 2015-2016, https://www.parks.ca.gov/?page_id=23308

California Department of Parks and Recreation, Malibu Creek State Park website, http://www.parks.ca.gov/?page_id=614

Population and Housing

County of Los Angeles, General Plan 2035, Chapter 4 Background, http://planning.lacounty.gov/generalplan/generalplan

Public Services and Utilities

County of Los Angeles Fire Department, Fire Station Locator, https://locator.lacounty.gov/fire

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APPENDICES

Appendix A ..... Comments Received Regarding the IS/MND
(*Pending completion of public review period)*