July 2019

PUBLIC DRAFT

Auburn State Recreation Area

Preliminary General Plan

AND

Auburn Project Lands

Draft Resource Management Plan

Draft Environmental Impact Report/ Environmental Impact Statement

PREPARED FOR:

California State Parks
One Capitol Mall, Suite 410
Sacramento, CA 95814

U.S. Bureau of Reclamation
7794 Folsom Dam Road
Folsom, CA 95630

Environmental Impact Report and Environmental Impact Statement

for the

Auburn State Recreation Area and Auburn Project Lands General Plan and Resource Management Plan

State Clearinghouse Number 2017112065

Prepared for:

California State Parks

1416 9th Street
Sacramento, CA 95814

and

U.S. Bureau of Reclamation

7794 Folsom Dam Road
Folsom, CA 95630

With assistance from:

Ascent Environmental, Inc.
128 Market Street, Suite 3E
Stateline, NV 89449

July 2019

Table of Contents

Chapter/Section Page

ACRONYMS AND ABBREVIATIONS ..... **V**

EXECUTIVE SUMMARY **ES-1**
ASRA/APL Description ES-1
ASRA/APL Location and Setting ES-1
Purpose and Need ES-3
Project Objectives ES-4
Public Involvement and Key Issues ES-4
ASRA GP/APL RMP Alternatives ES-5
Environmental Analysis ES-9

1 INTRODUCTION AND APPROACH **1-1**
1.1 Subsequent Environmental Review Process 1-1
1.2 Focus of the EIR/EIS 1-2
1.3 Interagency and Public Involvement 1-2
1.4 Intended Uses of this EIR/EIS 1-3

2 PROJECT DESCRIPTION AND ALTERNATIVES **2-1**
2.1 Introduction 2-1
2.2 Purpose and Need 2-1
2.3 Project Objectives 2-2
2.4 Overview of the Alternatives 2-3
2.5 No-Action Alternative 2-17
2.6 Proposed Action - Increased Recreation and Resource Management Alternative 2-18
2.7 Resource Management Emphasis Alternative 2-37
2.8 Recreation Emphasis Alternative 2-48

3 ENVIRONMENTAL EFFECTS ELIMINATED FROM FURTHER ANALYSIS **3-1**

4 ENVIRONMENTAL CONSEQUENCES AND MITIGATION **4-1**
4.1 Assumptions and Methods for Assessing Impacts 4-1
4.2 Air Quality 4.2-1
4.3 Biological Resources 4.3-1
4.4 Cultural and Tribal Cultural Resources 4.4-1
4.5 Mineral Resources 4.5-1
4.6 Environmental Justice 4.6-1
4.7 Geology and Soils 4.7-1
4.8 Greenhouse Gas Emissions, Climate Change, and Energy 4.8-1
4.9 Hydrology and Water Quality 4.9-1
4.10 Hazards and Hazardous Materials 4.10-1
4.11 Land Use and Planning 4.11-1
4.12 Transportation and Circulation 4.12-1
4.13 Public Services and Utilities 4.13-1
4.14 Recreation 4.14-1

4.15 Scenic Resources 4.15-1
4.16 Noise 4.16-1
4.17 Wildfire 4.17-1

5 OTHER CEQA AND NEPA REQUIREMENTS 5-1
5.1 Growth-Inducing Impacts 5-1
5.2 Irreversible and Irretrievable Commitments of Resources and Significant Irreversible Environmental Changes 5-2
5.3 Significant Effects on the Environment that Cannot be Avoided 5-3
5.4 Environmentally Superior/Environmentally Preferable Alternative 5-4

6 REFERENCES 6-1

7 REPORT PREPARERS 7-1

8 DISTRIBUTION LIST 7-1

Appendix A CSP Standard Project Requirements
Appendix B Air Quality and Greenhouse Gas Emissions Calculations
Appendix C Biological Resources
Appendix D Existing Noise Conditions, Noise Measurement Data, and Noise Modeling Calculations
Appendix E Transportation Study

FIGURES

ES-1 Regional Location ES-2

Figure 2.4-1 ASRA/APL Management Zones 2-5
Figure 2.4-2 Proportion of ASRA/APL within Each Land Use Designation under Each Alternative 2-15
Figure 2.5-1a No-Action Alternative (1 of 4) 2-19
Figure 2.5-1b No-Action Alternative (2 of 4) 2-21
Figure 2.5-1c No-Action Alternative (3 of 4) 2-23
Figure 2.5-1d No-Action Alternative (4 of 4) 2-25
Figure 2.6-1a Proposed Action (Increased Recreation and Resource Management Alternative) (1 of 4) 2-27
Figure 2.6-1b Proposed Action (Increased Recreation and Resource Management Alternative) (2 of 4) 2-29
Figure 2.6-1c Proposed Action (Increased Recreation and Resource Management Alternative) (3 of 4) 2-31
Figure 2.6-1d Proposed Action (Increased Recreation and Resource Management Alternative) (4 of 4) 2-33
Figure 2.7-1a Resource Management Emphasis Alternative (1 of 4) 2-39
Figure 2.7-1b Resource Management Emphasis Alternative (2 of 4) 2-41
Figure 2.7-1c Resource Management Emphasis Alternative (3 of 4) 2-43
Figure 2.7-1d Resource Management Emphasis Alternative (4 of 4) 2-45
Figure 2.8-1a Recreation Emphasis Alternative (1 of 4) 2-49
Figure 2.8-1b Recreation Emphasis Alternative (2 of 4) 2-51
Figure 2.8-1c Recreation Emphasis Alternative (3 of 4) 2-53
Figure 2.8-1d Recreation Emphasis Alternative (4 of 4) 2-55

Figure 4.1-1 Cumulative Projects 4-7

Figure 4.6-1 Census Tracts in the Vicinity of ASRA/APL 4.6-3

Figure 4.12-1 Project Study Intersections and Roadway Segments 4.12-3

Figure 4.15-1 Viewpoint Locations 4.15-2
Figure 4.15-2 Viewpoint 1 ..... 4.15-7
Figure 4.15-3 Viewpoint 2 ..... 4.15-8
Figure 4.15-4 Viewpoint 3 ..... 4.15-10

Figure 4.17-1 Fire Severity Ratings within and Surrounding ASRA/APL 4.17-6
Figure 4.17-2 Historic Wildfires within ASRA/APL 4.17-7
Figure 4.17-3 Auburn Shaded Fuelbreak 4.17-9

TABLES

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures ES-10

Table 2.4-1 Existing and Estimated Increase in Annual Visitation at ASRA/APL under Each Alternative 2-8
Table 2.4-2 Facilities Summary for Each of the Alternatives 2-11
Table 2.4-3 Comparison of Land Uses for Each Alternative 2-16

Table 4.1-1 Geographic Scope of Cumulative Impacts 4-5
Table 4.1-2 Cumulative Plans/Projects List 4-8

Table 4.2-1 Summary of Unmitigated Maximum Daily Construction-Generated Emissions of Criteria Air Pollutants for all Alternatives 4.2-7
Table 4.2-2 Summary of Annual Construction Emissions and Federal Conformity De Minimis Level for criteria air pollutants in National Nonattainment 4.2-7
Table 4.2-3 Summary of Unmitigated Maximum Daily Operational Emissions of Criteria Air Pollutants for all Alternatives 4.2-10
Table 4.2-4 Summary of Annual Operational Emissions and Federal Conformity De Minimis Level for criteria air pollutants in National Nonattainment 4.2-10

Table 4.6-1 Minority Population 4.6-5
Table 4.6-2 Poverty Level 4.6-6

Table 4.8-1 Summary of Maximum Annual Construction-Generated Increase in GHG Emissions for each Alternative 4.8-6
Table 4.8-2 Summary of Maximum Annual Operation-Generated Increase in GHG Emissions for each Alternative 4.8-6
Table 4.8-3 Summary of Construction-Generated Increase in Energy Use for each Alternative 4.8-12
Table 4.8-4 Summary of Annual Operation-Generated Increase in Energy Use for each Alternative 4.8-12

Table 4.12-1 Level of Service Definitions – Signalized Intersections 4.12-2
Table 4.12-2 Level of Service Criteria – Unsignalized Intersections 4.12-5
Table 4.12-3 Roadway Segment Level of Service Thresholds – El Dorado County 4.12-5
Table 4.12-4 Roadway Segment Level of Service Thresholds – Placer County 4.12-6
Table 4.12-5 Roadway Segment Level of Service Thresholds – City of Auburn 4.12-6

Table 4.12-6 ASRA/APL Day-Use Activities Trip Generation Rates 4.12-7
Table 4.12-7 ASRA/APL Camping Trip Generation Rates 4.12-7
Table 4.12-8 Total Trips Generated by Alternative- Day-use Activities and Camping Trips 4.12-8
Table 4.12-9 Project Trip Distribution by Management Zone 4.12-8
Table 4.12-10 Intersection Operations – CSP Proposed Action Existing Plus Project Conditions 4.12-12
Table 4.12-11 Peak Hour Two-Lane Highway Operations – CSP Proposed Action Existing Plus Project Conditions 4.12-16
Table 4.12-12 Peak Hour Roadway Operations – CSP Proposed Action Existing Plus Project Conditions 4.12-16
Table 4.12-13 Daily Roadway Operations – CSP Proposed Action Existing Plus Project Conditions 4.12-17
Table 4.12-14 TIRE Index Roadway Operations – CSP Proposed Action Existing Plus Project Conditions 4.12-17
Table 4.12-15 CSP Proposed Action – Cumulative Intersection Operations Analysis 4.12-27
Table 4.12-16 CSP Proposed Action – Cumulative Peak Hour Two-Lane Highway Operations ... 4.12-29
Table 4.12-17 CSP Proposed Action - Cumulative Peak Hour Roadway Operations 4.12-30
Table 4.12-18 CSP Proposed Action - Cumulative Daily Roadway Operations 4.12-30
Table 4.12-19 CSP Proposed Action - Cumulative TIRE Index Roadway Operations 4.12-31
Table 4.12-20 Intersection Operations Analysis – Cumulative Plus Project (Mitigated) Conditions 4.12-32

Table 4.13-1 Georgetown Divide Public Utility Districts – Water Supply and Demand through 2035 (Acre-Feet per Year) 4.13-4

Table 4.16-1 Typical A-Weighted Noise Levels 4.16-3
Table 4.16-2 Human Response to Different Levels of Ground Noise and Vibration 4.16-5
Table 4.16-3 Typical Noise Levels from Construction Equipment 4.16-9
Table 4.16-4 Proposed Action Construction Activities and Associated Noise Levels 4.16-10
Table 4.16-5 Summary of Modeled Traffic Noise Levels under Existing and Existing Plus Project Conditions 4.16-13
Table 4.16-6 Summary of Modeled Traffic Noise Levels under Cumulative and Cumulative Plus Project Conditions under Proposed Action 4.16-17

Table 4.17-1 Current and Estimated Treated Fuel Break Areas for Action Alternatives 4.17-14

Acronyms and Abbreviations

ABA	Architectural Barriers Act
ADA	Americans with Disabilities Act
ADT	average daily traffic
AFY	acre-feet per year
APL	Auburn Project Lands
ARD	Auburn Area Recreation and Park District
ARPA	Archeological Resources Protection Act
ASRA	Auburn State Recreation Area
ASRA GP/APL RMP	Auburn State Recreation Area General Plan/Auburn Project Lands Resource Management Plan
BLM	U.S. Bureau of Land Management
BMP	Best Management Practices
C&D	Construction and demolition
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board's
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
Central Valley RWQCB	Central Valley Regional Water Quality Control Board
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CSP	California State Parks
CWA	Clean Water Act
dB	decibels
DOC	California Department of Conservation
DOM	Department Operations Manual
DTSC	Department of Toxic Substances Control
EDCAQMD	El Dorado County Air Quality Management District
EIR	environmental impact report
EIS	environmental impact statement
ENF	Eldorado National Forest
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
FHWA	Federal Highway Administration

FMP	Fire Management Plan
Forest Plan	Land and Resource Management Plan
FTA	Federal Transit Administration
FYLF	Foothill yellow-legged frog
GDPUD	Georgetown Divide Public Utility District
GHG	greenhouse gases emissions
GP/RMP	Auburn State Recreation Area General Plan/Auburn Project Lands Resource Management Plan
HCM	Highway Capacity Manual
Hz	hertz
I-80	Interstate 80
in/sec	inches per second
Interim RMP	Interim Resource Management Plan
IPaC	Information, Planning, and Conservation System
IRMP	Interim Resource Management Plan
lb/day	pounds per day
L_{dn}	Day-Night Level
LED	Light-Emitting Diode
L_{eq}	Equivalent Continuous Sound Level
L_{max}	Maximum Sound Level
LOS	level of service
MBTA	Migratory Bird Treaty Act
mPa	micro-Pascals
mph	miles per hour
MRF	materials recovery facility
msl	mean sea level
$MTCO_2e$/year	metric tons of carbon dioxide equivalent per year
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NDAI	No Department of Defense Actions Indicated
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Preparedness
OHV	Off-Highway Vehicle
OPR	Governor's Office of Planning and Research
OWTS	Onsite Wastewater Treatment Systems
PCAPCD	Placer County Air Pollution Control District

PM_{10}	Respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$	Fine inhalable particles, with diameters that are generally 2.5 micrometers or less
PPV	peak particle velocity
PRC	Public Resources Code
RE	Recreation Emphasis
Reclamation	U.S. Bureau of Reclamation
RHA	Rivers and Harbors Act of 1899
RME	Resource Management Emphasis
RMS	root-mean-square
ROG	reactive organic gas
RTMP	Road and Trail Management Plan
SACMET	Sacramento Regional Travel Demand Model
SACOG	Sacramento Council of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District's
SCORP	Statewide Comprehensive Outdoor Recreation Plan
sf	square feet
SMAQMD	Sacramento Metropolitan Air Quality Management District's
SPL	sound pressure level
SPR	Standard Project Requirements
SPRP	Spill Prevention and Response Plan
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TIRE	Traffic Infusion on Residential Environments
TIS	Traffic Impact Study
TNF	Tahoe National Forest
UAIC	United Auburn Indian Community
UC	University of California
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VdB	vibration decibels
VELB	Valley elderberry longhorn beetle
VMT	vehicle miles traveled
WMP	wildfire management plan
WPWMA	Western Placer Waste Management Authority
WRSL	Western Regional Sanitary Landfill
WUI	wildland-urban interface

This page intentionally left blank.

Executive Summary

California State Parks (CSP) and the U.S. Bureau of Reclamation (Reclamation) have prepared this joint environmental document—an environmental impact report (EIR) for the purposes of the California Environmental Quality Act (CEQA) and an environmental impact statement (EIS) for the purposes of the National Environmental Policy Act (NEPA)—for the Auburn State Recreation Area General Plan/Auburn Project Lands Resource Management Plan (ASRA GP/APL RMP or, for simplicity, GP/RMP). This EIR/EIS evaluates the environmental consequences of implementing the ASRA GP/RMP alternatives. CSP is the CEQA lead agency. Reclamation is the NEPA lead agency.

ASRA/APL Description

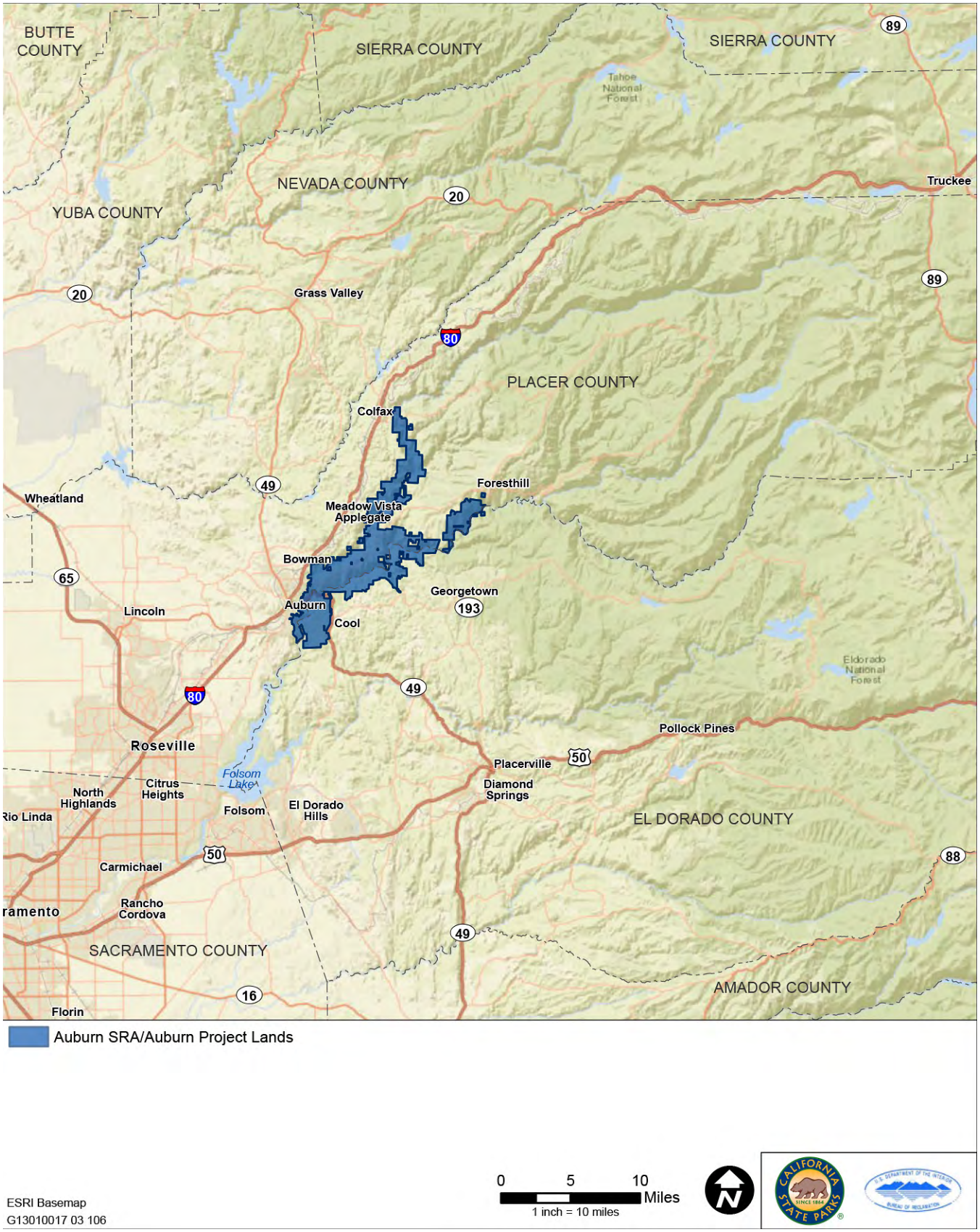
Auburn Project Lands (APL) consists of those lands that make up the federal project known as the Auburn-Folsom South Unit upstream from Folsom Reservoir (not including the Folsom-South Canal area), or more commonly known as the Auburn Dam and Reservoir lands. APL includes all of the federal lands in Auburn State Recreation Area (ASRA) plus approximately 106 additional acres of U.S. Bureau of Reclamation (Reclamation) land managed by other organizations through separate agreements, leases, or licenses. ASRA also includes approximately 800 acres of State fee title lands. ASRA and APL within the ASRA boundaries (also referred to throughout this EIR/EIS as ASRA/APL) has been managed by CSP through agreements with Reclamation since 1977. The current Managing Partner Agreement (MPA) between Reclamation and CSP for management of ASRA was finalized in 2012 and is a 25-year agreement. The GP/RMP covers all of the APL, but proposed changes would only occur within the ASRA portion of the APL. Therefore, the specific management guidance in this plan apply only to ASRA and those portions of APL that are within ASRA. The APL outside of ASRA would continue to be managed under existing agreements with other agencies.

The elevation within ASRA/APL ranges between a maximum of approximately 3,100 feet mean sea level (msl) on the eastern side in the Foresthill area, and a minimum of approximately 700 feet msl on its western end. ASRA consists of mostly-undeveloped, forested canyons used for dispersed recreation, and protected for natural and cultural resources. The North Fork American River and Middle Fork American River canyons are the dominant geophysical features in ASRA. Other drainages create steep side canyons along the North and Middle Fork canyons. Steep slopes dominate much of ASRA/APL. In the western portion of ASRA/APL near the town of Cool, the topography is more moderate and slopes are gradual.

Current uses in ASRA/APL reflect a wide variety of recreational activities that attract approximately one million visitors each year. Major recreational uses include hiking, swimming, whitewater boating, lake boating, rock climbing, fishing, camping, beach play, off-highway vehicle (OHV) use, horseback riding, and mountain biking.

ASRA/APL Location and Setting

ASRA/APL includes 30,600 acres of lands along 40 miles of river canyon on the North and Middle Forks of the American River. An additional 106 acres are located within APL outside of the ASRA boundary. It is located south of Interstate 80 in both Placer and El Dorado Counties (see Figure ES-1). ASRA/APL is adjacent to a number of small communities, including City of Auburn, Cool, Bowman, Applegate, Colfax, Georgetown, Meadow Vista, Auburn and Foresthill. The Tahoe National Forest encompasses areas northeast of ASRA/APL and Eldorado National Forest is located to the southeast. In general, land uses adjacent to ASRA/APL consist of open space, public land, and urban and rural residential areas.



Source: Data provided by CSP in 2017

Figure ES-1 Regional Location

Purpose and Need

The GP/RMP defines a long-term purpose and vision for APL including those ASRA lands within APL, consistent with the missions of CSP and Reclamation; outlines broad goals and guidelines for use, facility development, and operation of ASRA; and provides the basis for preparing future, focused management plans, specific project proposals, and other initiatives that implement the GP/RMP goals. The GP/RMP also provides goals and guidelines for the protection of important natural and cultural resources in ASRA/APL. It guides approaches for the management of sensitive resource areas and balances their protection with outdoor recreation activities.

The mission of CSP is "to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation." General Plans are the primary management document for park units by providing broad management direction, in the form of goals and guidelines, for development, public use, ongoing management, and resource protection. The General Plan considers the park unit not only in the larger context of the State Park Systems, but also the specific resource values and planning influences of the individual unit. The General Plan integrates overlapping or potentially conflicting goals into an integrated whole, such as providing opportunities for public enjoyment while also protecting natural and cultural resources.

The Reclamation mission is "to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public." Reclamation authority to prepare RMPs is vested in federal Reclamation laws, including the broad authority of the Reclamation Act of 1902 and the more specific authorization in the Reclamation Recreation Management Act of 1992. The purpose of the RMP is to chart the desired future condition for the area in question, with goals, objectives, standards, and guidelines with sufficient detail to direct future development, but flexible enough to allow resolution of day-to-day problems. Reclamation land management strategies include responsible management that balances resource development with public recreation and protection of natural and cultural resources and environmental values.

CSP prepared a General Plan for the management of Auburn Reservoir after construction of the dam began (CSP 1979). With construction of the Auburn Dam on hold for an indefinite period, an Interim RMP was prepared in 1992 that provided guidance for Reclamation management, of APL until completion of the dam and reservoir construction. This Interim RMP, still in effect today, focuses on the management of resources within APL, focusing on basic health and safety needs according to Reclamation's then-current authorities. Authorities then changed Reclamation-wide to allow provisions for needed recreation facilities and services. Because of changing Reclamation authorities, and because dam construction continues to be unfunded, a GP/RMP is needed to replace the Interim RMP and provide a long-term and comprehensive framework for the management of the existing river and canyons in ASRA/APL. It is still possible that Congress could fund dam and reservoir construction in the future. If so, CSP and Reclamation would amend or replace the GP/RMP with a long-term plan that includes the dam and reservoir.

Additionally, changes in conditions have occurred since the Interim RMP was completed. The regional and local populations have increases resulted in an increased number of visitors to ASRA/APL. The variety of recreation activities has also changed with increased recreation activities that include horseback riding, mountain biking, hiking, whitewater rafting and kayaking, and paddleboarding. A comprehensive management plan consistent with the missions of CSP and Reclamation is needed to achieve the stewardship of Reclamation lands, purpose and vision of ASRA/APL, reconcile current

human needs and desires with protection of natural and cultural resource values, and respond to current conditions and issues. A GP/RMP that provides an adaptive management framework (i.e., a flexible approach to management), is also needed to monitor and adjust management actions to achieve the purpose and vision for ASRA/APL over the long term.

Project Objectives

Recognizing the purpose and need of the GP/RMP, it is intended to achieve the following basic project objectives identified by CSP and Reclamation:

- Provide long-term management guidance for ASRA/APL without an Auburn Dam and Reservoir;
- Anticipate, accommodate, and manage recreational use for the benefit of the people of California and the United States;
- Protect, preserve, and restore senstive natural and cultural resources;
- Protect public health and safety; and
- Manage ASRA/APL consistent with CSP and Reclamation's missions, policies, directives, and applicable laws and regulations.

Public Involvement and Key Issues

The environmental review process began with circulating scoping notices (see Section 1.2, Focus of the EIR/EIS) to appropriate agencies, stakeholder groups, local Native American tribes (Tsi-Akim Maidu and United Auburn Indian Community of the Auburn Rancheria), and the public to solicit input on resource topics and alternatives to be considered in the EIR/EIS.

Some of the key issues discovered through the course of environmental scoping and the GP/RMP development process are:

- Trail Management, Use, and Connectivity
- Managing River Recreation
- Potential for Facility Inundation (under a future reservoir or natural flooding events)
- Providing Adequate Public Information, Education, and Interpretation
- Impact of Adjacent Lands on Visitor Experience
- Wildfire Management
- Adequacy of Administrative and Maintenance Facilities
- Preserving Special-Status Plants, Animals, and Sensitive Habitats
- Controlling Invasive Plants
- Protecting Cultural Resources
- Adapting to Climate Change
- Protecting Scenic Views
- Providing Adequate Camping Opportunities
- Parking Limitations and Congestion
- Road Conditions and Access
- Facilities for Camping and Picnicking
- Recreational Mineral Collection
- Nude Bathing and Beach Use
- Access for Visitors with Disabilities

These key issues and additional management zone-specific concerns related to these general categories are further discussed in Chapter 3, Issues and Analysis, of the GP/RMP.

ASRA GP/APL RMP Alternatives

The ASRA GP/APL RMP includes an introduction, description of existing conditions, discussion of issues and opportunities, and a plan that includes goals and guidelines. The GP/RMP also specifies proposed ASRA/APL development and operations, designation of appropriate land uses, and resource management approaches. It includes project location maps, management zones maps with proposed facilities and improvements, and a description of the GP/RMP's technical and environmental characteristics. The features of the GP/RMP are anticipated to be constructed in phases as funding is available and as project-level environmental compliance is completed over the next 20 to 30 years.

Three GP/RMP alternatives and a No-Action Alternative are analyzed in this EIR/EIS. The action alternatives represent a range of recreation and resource management themes with underlying similarities associated with the operation and maintenance of facilities according to the agreed-upon goals and guidelines. For example, all alternatives address issues related to public safety and emergency vehicle access.

No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses would be retained, and the Interim Resource Management Plan (Interim RMP) would continue to provide management direction and guidance for the protection of natural, scenic, and cultural resources and opportunities for diverse recreational activities in ASRA/APL. The Interim RMP includes proposals for construction of various facilities and the development of guidelines and programs that would provide for public health and safety, resource protection, volunteerism, and recreation enhancement (Reclamation 1992). Projects identified by the Interim RMP are ranked into three priority levels, with priority-one projects most likely to receive funding and priority-two and -three projects not likely to receive funding. Priority-one projects include adding things like garbage cans and restrooms throughout ASRA/APL, much of which has already occurred since adoption of the Interim RMP. Priority-two and -three projects include a range of projects throughout ASRA/APL, such as improving access to the river; additional parking; signage; contact kiosks; additional campsites; and disabled access trail and other access improvements in the Knickerbocker area. Because most priority-one projects have already been completed, and priority-two and -three projects are identified as low-priority projects. It is anticipated that no substantial new construction would occur under the No-Action Alternative. Continued operation and maintenance of existing facilities would occur. As existing facilities reach the end of their serviceable lifespan, they would be replaced. Minor new facilities, such as trash receptacles and informational signs/kiosks could be added. The types of improvements that could occur under the Interim RMP include modifying existing parking to enhance public safety and reduce sensitive resource impacts, implementation of revenue-collecting technology to increase collection of parking fees and repairing existing administrative offices. Additionally, a Fire Management Plan would be prepared as required by Reclamation policies. Other existing programs and operations would continue, such as interpretive programs, trail maintenance, whitewater management, and resource management. Some lands near the Auburn Dam site would remain excluded from management under the Interim RMP as an "Administrative Area," consistent with the Interim RMP.

Proposed Action (Increased Recreation and Resource Management Alternative)

The Increased Recreation and Resource Management Alternative is the Proposed Action. Implementation of the Proposed Action would result in new recreational facilities similar to what is currently provided in ASRA/APL, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. The Proposed Action would also increase cultural and biological resource protection and support additional interpretive and educational uses, as well as requisite support through ASRA/APL operations and maintenance facilities.

If fully implemented, below are some of the facilities and improvements that could occur with implementation of the Proposed Action:

- Up to 230 total campsites, including up to five group sites, and up to five alternative sites (e.g., family camp cabins or yurts):
    - New campgrounds could occur at the Knickerbocker Management Zone near the Cool Staging Area (50 individual sites and three group campsites), Mammoth Bar Management Zone (50 individual sites if the off-highway vehicle [OHV] tracks are moved), Auburn Interface Management Zone (50 individual sites and one group campsite), Cherokee Bar/Ruck-a-Chucky Management Zone (20 individual sites and one group campsite), and Foresthill Divide Management Zone (20 individual sites);
    - The existing campgrounds in the Cherokee Bar/Ruck-a-Chucky and Mineral Bar Management Zones could be expanded to include additional campsites (up to 30 individual sites);
- Trail bridges:
    - The Auburn-to-Cool trail bridge; and
    - A new trail bridge at the Greenwood Bridge site in the Cherokee Bar/Ruck-a-Chucky Management Zone;
- Increased day-use parking capacity in ASRA/APL by up to approximately 25 percent (i.e., 420 parking stalls);
- Up to an estimated new 140 picnic sites throughout ASRA/APL;
- Additional interpretive and education elements, such as guided tours of the Mountain Quarries Mine and a collection of panels, signage, and maps that could form a small interpretive center focused on the mine;
- Support for improved access and enhanced watercraft recreation through renovating, modifying, or adding river launching and landing facilities;
- Renovation or replacement of existing administrative offices in the Confluence Management Zone;

- Management and operational strategies to improve vegetation management, to reduce fire fuels, establish defensible space, and conduct surveys for special-status plants, animals, and sensitive habitats; and
- Physical improvements and management strategies to improve emergency access and evacuation in a wildfire scenario.

Resource Management Emphasis Alternative

The Resource Management Emphasis (RME) Alternative would provide increased cultural and biological resource protection and conservation as identified through comprehensive inventory, survey, or other mechanisms, such as CEQA/NEPA site-specific project review. This alternative primarily assumes the current level of recreation use would continue, but visitor access and recreation facilities would be modified to enhance resource protection, preservation, through interpretative education, and public safety.

Some of the facilities and improvements that could occur with implementation of this alternative include:

- Phase out camping adjacent to the river at Ruck-a-Chucky by removing camping facilities and restoring the area to native habitat;
- Construct up to 50 campsites in the Mammoth Bar Management Zone if the OHV tracks are relocated;
- Phase out OHV use, including tracks and trails, and convert Mammoth Bar Management Zone to non-OHV uses;
- Trail improvements that would mostly be limited to realignment, reconstruction, or removal of existing trail routes that are not sustainable;
- Improvements to trail access and emergency vehicle access from Cool to the river in the Auburn Interface Management Zone;
- Parking improvements would be related to adding up to 20 parking spaces to a new interpretive center, up to 50 day-use parking spaces at Mammoth Bar if the OHV tracks are relocated, and restricting roadside parking on State Route (SR) 49 at the Confluence;
- Up to 10 new picnic sites in the Knickerbocker Management Zone and up to 20 new picnic sites in the Mammoth Bar Management Zone if the OHV tracks are relocated;
- A moderate-sized interpretive center of about 3,000 square feet (sf) in the Confluence Management Zone;
- Management and operational strategies to improve vegetation management, to reduce fire hazards, establish defensible space, and conduct surveys for special-status plants, animals, and sensitive habitats;
- Physical improvements and management strategies to improve emergency access and evacuation in a wildfire scenario; and
- Construction of facilities to support habitat restoration projects, including greenhouses, native plant nurseries, and rain water collection systems in the Knickerbocker, Auburn Interface, and Confluence Management Zones.

Recreation Emphasis Alternative

The Recreation Emphasis (RE) Alternative would anticipate and accommodate demographically relevant and geographically diverse (regional and statewide) increases in visitor demand. This alternative would also increase resource protection and management to address this corresponding higher level of use and demand.

Many of the facilities proposed by the Proposed Action could also be implemented by the RE Alternative. For the RE Alternative, some additional facilities or improvements that could occur include:

- Up to 407 total campsites, including up to seven group sites, five alternative campsites, and five primitive sites:
    - New campgrounds could occur at the Knickerbocker Management Zone near the Cool Staging Area (200 individual sites and five group campsites), Mammoth Bar Management Zone (50 individual sites if the OHV tracks are moved), Auburn Interface Management Zone (70 individual sites and one group campsite), Cherokee Bar/Ruck-a-Chucky Management Zone (20 individual sites, one group campsite, and five alternative campsites), and Foresthill Divide Management Zone (20 individual sites);
    - The existing campgrounds in the Cherokee Bar/Ruck-a-Chucky, Mineral Bar, and Lake Clementine Management Zones could be expanded to include additional campsites (up to 10 at Cherokee Bar/Ruck-a-Chucky, up to 20 sites at Mineral Bar and five boat-in campsites at Lake Clementine);
- Increased day-use parking capacity in ASRA/APL by up to approximately 35 percent (i.e., 588 additional parking stalls);
- An additional 20 picnic sites in the Confluence Management Zone near the Mountain Quarries Mine or Quarry Trailhead and lunch stops for river recreation facilities that would include toilets and up to 10 picnic sites;
- A small interpretive center (about 700 sf) and up to six parking spaces in the Confluence Management Zone. A visitor center with space for educational programs and events, and associated parking, could also be constructed in the Knickerbocker Management Zone;
- Construction of facilities to support habitat restoration projects, such as greenhouses, native plant nurseries, and rain water collection systems in the Knickerbocker and Auburn Interface Management Zones;
- Management and operational strategies to improve vegetation management, to reduce fire fuels, establish defensible space, and conduct surveys for special-status plants, animals, and sensitive habitats; and
- Physical improvements and management strategies to improve emergency access and evacuation in a wildfire scenario.

Environmental Analysis

The GP/RMP EIR/EIS provides a program-level evaluation of the potential for significant environmental effects on air quality; biological resources; cultural and tribal cultural resources; mineral resources; geology and soils; greenhouse gas emissions, climate change, and energy; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; public services and utilities; recreation; scenic resources; transportation and circulation; and wildfire. The criteria used to evaluate impacts in the resource discussions were derived from the State CEQA guidelines and the Federal regulations implementing NEPA. CEQA and NEPA require site-specific analysis of the projects that may be implemented under this programmatic EIR/EIS. The EIR/EIS also includes an equal level of analysis of four alternatives as required under NEPA: No-Action Alternative, Increased Recreation and Resource Management Alternative (Proposed Action), Resource Management Emphasis Alternative, and Recreation Emphasis Alternative.

Across most of these resource topics, implementation of the GP/RMP alternatives would result in a less-than-significant impact or would not have an adverse effect on the environment based on implementation or compliance with the following:

- Goals and guidelines contained in Chapter 4, The Plan, of the GP/RMP;
- CSP Standard Project Requirements (see Appendix A of this EIR/EIS), including construction Best Management Practices;
- Reclamation Manual policies, directives, and standards;
- Department of Interior policies;
- CSP Department Operations Manual policies;
- CSP Departmental Notices referenced in Chapter 4 of the GP/RMP;
- Federal and state laws and regulations; and
- Mitigation measures listed in Table ES-1.

Table ES-1 summarizes the significant and potentially significant environmental effects for the purposes of CEQA and potentially adverse and adverse effects for the purposes of NEPA that would result from implementation of the GP/RMP alternatives; lists relevant goals and guidelines contained in Chapter 4, The Plan, of the GP/RMP that address resource effects; describes avoidance, minimization, or mitigation measures to address significant and potentially significant environmental effects; and identifies the significance of impacts both before and after mitigation. All impacts, including those that are less than significant and do not require mitigation measures, are included in Chapter 4, Environmental Consequences and Mitigation, of this EIR/EIS.

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures

Resources Topics/Impacts	Guidelines that Address Resource Impacts	Level of Significance before Mitigation (by Alternative)	Mitigation Measures	Level of Significance after Mitigation (by Alternative)
NI = No Impact	LTS = Less than Significant	PS = Potentially Significant	S = Significant	SU = Significant and Unavoidable
4.12 Transportation and Circulation				
Impact 4.12-1: Impacts on intersection operations All study intersections would continue to operate at an acceptable level of service (LOS) with the addition of traffic generated by the No-Action Alternative, Proposed Action, and RME Alternative. Therefore, the impacts to intersection operations under the No-Action Alternative, Proposed Action, and RME Alternative would be less than significant for the purposes of CEQA. The effects of the Proposed Action would be similar to, but greater than, the No-Action Alternative. The effects of the RME Alternative would be the same as the No-Action Alternative. Traffic volumes would be higher under the RE Alternative compared to the Proposed Action, and thus, the addition of project trips to the study intersections could potentially result in the degradation of LOS to unacceptable levels. Therefore, this impact would be potentially significant for the purposes of CEQA. After implementation of Mitigation Measure 4.12-1, this impact would be reduced to a less-than-significant level, for the purposes of CEQA, but the effect would remain greater than under the No-Action Alternative.	No guidelines specifically address intersection operations outside of ASRA/APL	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = PS	**Mitigation Measure 4.12-1: Limit visitor capacity to maintain acceptable operations** This mitigation measure would apply to the RE Alternative. Before construction of any new trip-generating amenities (i.e., campsites or parking spaces) in excess of that which is allowed under the Proposed Action within any activity node, CSP shall conduct a quantitative operations analysis of the study intersections and roadway study segments that could receive an increase in traffic volumes. The analysis shall determine whether the addition of project-generated trips to the surrounding roadway network would result in an increase in traffic volumes such that a degradation of operating conditions to unacceptable levels would occur, as determined by the intersection and roadway segment operations standards of the applicable jurisdiction (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). If through the project-specific analysis of study intersections and roadway study segments it is determined that any such facility would degrade to unacceptable operating conditions with the addition of project-generated trips, then CSP shall implement the following measures: ◆ Modify the proposed amenity to reduce the number of project-generated vehicle trips on the surrounding roadway network. For example, the size of a new campground or day-use area could be decreased to reduce the number of visitor-related trips. ◆ Conduct a revised project-level analysis that shall demonstrate through quantitative analysis that the modified amenity would not result in an exceedance	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = LTS

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures

Resources Topics/Impacts	Guidelines that Address Resource Impacts	Level of Significance before Mitigation (by Alternative)	Mitigation Measures	Level of Significance after Mitigation (by Alternative)
NI = No Impact	LTS = Less than Significant	PS = Potentially Significant	S = Significant SU = Significant and Unavoidable	
			of the study intersection or roadway study segment operations standards of the applicable jurisdiction. CSP shall provide a copy of the project-level analysis to the appropriate agency based on the location of the impacted intersection and/or roadway segment (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). CSP shall not develop any amenities that would result in the degradation of operating conditions for any study intersection or roadway segment such that the operations standards of the applicable jurisdiction would occur under existing plus project or cumulative plus project conditions.	
Impact 4.12-2: Impacts on roadway segment operations Traffic volumes would be higher under the RE Alternative than the Proposed Action, and thus, the addition of project trips to the study roadway segments could potentially result in the degradation of operating conditions to unacceptable levels. Therefore, this impact would be potentially significant for the purposes of CEQA. The No-Action Alternative, Proposed Action, and RME Alternative would not result in unacceptable roadway operations. They would be less than significant, for the purposes of CEQA.	No guidelines specifically address roadway operations outside of ASRA/APL	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = PS	**Mitigation Measure 4.12-2: Limit visitor capacity and maintain acceptable operations** This mitigation measure would apply to the RE Alternative. CSP and Reclamation shall implement Mitigation Measure 4.12-1 as described above.	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = LTS
Cumulative intersection operations The addition of traffic associated with the Proposed Action, RME Alternative, and RE Alternative would contribute to a cumulative change in the LOS from an acceptable level to an unacceptable level at the SR 49/SR 193/Old Foresthill Road intersection.	No guidelines specifically address intersection operations outside of ASRA/APL	No-Action Alt. = LTS Proposed Action = S RME Alt. = S RE Alt. = S	**Mitigation Measure 4.12-7a: Convert intersection of SR 49/SR 193/Old Foresthill Road to a signalized intersection** This mitigation measure would apply to the Proposed Action, RME Alternative, and RE Alternative. CSP and Reclamation will coordinate with Caltrans to facilitate the installation of a traffic signal at the intersection of SR 49/SR 193/Old Foresthill Road at the time when the applicable signal warrant is met.	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = LTS

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures

Resources Topics/Impacts	Guidelines that Address Resource Impacts	Level of Significance before Mitigation (by Alternative)	Mitigation Measures	Level of Significance after Mitigation (by Alternative)
NI = No Impact	LTS = Less than Significant	PS = Potentially Significant	S = Significant SU = Significant and Unavoidable	
Cumulative roadway operations All roadway segments operate acceptably under Cumulative Plus Project conditions for the Proposed Action, the RME Alternative, and the No-Action Alternative. The addition of cumulative and project trips under the RE Alternative could result in the segment of Riverview Drive from Skyridge Drive to Maidu changing to a traffic-dominated index. Additionally, because the RE Alternative would result in higher traffic volumes than the Proposed Action, it could result in additional impacts to roadway study segment operations. Therefore, this impact would be cumulatively significant for the RE Alternative.	No guidelines specifically address roadway operations outside of ASRA/APL	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = S	**Mitigation Measure 4.12-7b: Limit visitor capacity and maintain acceptable operations** This mitigation measure would apply to the RE Alternative. CSP and Reclamation shall implement Mitigation Measure 4.12-1, as described above.	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = LTS
4.16 Noise				
Impact 4.16-2: Operational traffic noise Implementation of the Proposed Action, RME Alternative, and RE Alternative would result in additional facilities within ASRA/APL that would lead to an overall increase in roadway traffic compared to existing conditions. Additionally, continuing population growth in the region would contribute to an increase in annual visitation under the all of the alternative including the No-Action Alternative. Additional vehicle traffic and the assumed distribution of the trips generated by implementation of the No-Action Alternative, Proposed Action, and the RME Alternative would not result in an exceedance of the CNEL standards or the incremental noise increase standards from transportation noise sources (i.e., 5 dB). The No-Action Alternative, Proposed Action, and RME Alternative would result in a less-than-significant impact related to operational traffic noise, for the purposes of CEQA. Implementation of the RE Alternative would result in traffic noise increases that could expose residential receptors along SR 49 (Lincoln Way to Old Foresthill Road) to	No guidelines specifically address traffic noise	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = PS	**Mitigation Measure 4.16-2: Monitor and reduce traffic noise** This mitigation measure applies to the RE Alternative. As new trip-generating amenities are proposed in ASRA/APL and as part of the associated project-level environmental review, CSP shall evaluate whether they would result in an increase in traffic volumes along the segment of SR 49 between Lincoln Way and Old Foresthill Road and whether this increase would result in the exposure of off-site land uses to noise levels that exceed the applicable CNEL standards. This project-specific assessment shall consider the number of new trips generated by the amenity, the expected distribution of those trips along the surrounding roadway network, and whether the new amenity would contribute to a combined traffic volume greater than 12,900 vehicles per day along the segment of SR 49 between Lincoln Way and Old Foresthill Road (the number of daily vehicle trips that is projected to exceed the CNEL standard). If the initial project-specific assessment determines that the traffic	No-Action Alt. = LTS Proposed Action = LTS RME Alt. = LTS RE Alt. = LTS

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures

Resources Topics/Impacts	Guidelines that Address Resource Impacts	Level of Significance before Mitigation (by Alternative)	Mitigation Measures	Level of Significance after Mitigation (by Alternative)
NI = No Impact	LTS = Less than Significant	PS = Potentially Significant	S = Significant SU = Significant and Unavoidable	
transportation noise level increases that exceed applicable CNEL standards adopted by CSP as significance criteria in this EIR/EIS, which would be a potentially significant impact, for the purposes of CEQA.			volume along this roadway segment without the project would be less than 12,900 vehicles per day, and the project could result in a combined traffic volume greater than 12,900 vehicles per day, then CSP shall implement one of the following measures: 1. Modify or relocate the amenity to reduce its level of trip generation. For example, the size of a new campground or day-use area could be decreased to adjust the number of visitor-related trips. 2. Conduct site-specific traffic noise measurements to determine a more precise traffic volume level that would result in an exceedance of the applicable CNEL standards along this roadway segment. This study shall be conducted by a qualified noise specialist. This study shall take into account the time of day those trips would likely occur, travel speed, acoustical features along this roadway segment, and the expected cumulative traffic volume on this roadway segment with and without the added amenity. This study shall include traffic noise measurements along the roadway segment to calibrate the results of traffic noise level modeling. CSP shall provide a written copy of project-level assessments to the appropriate agency based on the location of the impacted receptor(s) (i.e., Placer County or the City of Auburn). CSP shall not develop any amenities that would contribute to an exceedance of 12,900 vehicles per day on this roadway segment unless the site-specific traffic noise study determines that additional vehicle trips would not exceed the applicable CNEL standards.	
Cumulative operational traffic noise	No guidelines specifically address traffic noise	No-Action Alt. = LTS Proposed Action = LTS	**Mitigation Measure 4.16-3: Monitor and reduce traffic noise**	No-Action Alt. = LTS Proposed Action = LTS

Table ES-1 Summary of Impacts, Guidelines, and Mitigation Measures

Resources Topics/Impacts	Guidelines that Address Resource Impacts	Level of Significance before Mitigation (by Alternative)	Mitigation Measures	Level of Significance after Mitigation (by Alternative)
NI = No Impact	LTS = Less than Significant	PS = Potentially Significant	S = Significant SU = Significant and Unavoidable	
Under cumulative and cumulative plus project conditions for the No-Action Alternative, Proposed Action, and RME Alternative, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards under cumulative conditions. Implementation of the RE Alternative would result in a greater number of new facilities as compared to the Proposed Action, and thus, would result in a greater number of new daily vehicle trips on roadway study segments. As detailed above, with the addition of traffic generated by the RE Alternative, the existing receptors along this segment could be exposed to transportation noise level increases that exceed applicable CNEL standards. This impact would be cumulatively significant with implementation of the RE Alternative.		RME Alt. = LTS RE Alt. = S	This mitigation measure applies to the RE Alternative. CSP and Reclamation shall implement Mitigation Measure 4.16-2 as described above. This mitigation measure requires CSP to evaluate and minimize vehicle trips generated by new amenities, if trip numbers are greater than 12,900 vehicles per day along the segment of SR 49 between Lincoln Way and Old Foresthill Road.	RME Alt. = LTS RE Alt. = LTS

1 Introduction and Approach

California State Parks (CSP) and the U.S. Bureau of Reclamation (Reclamation) have prepared this joint environmental document for the Auburn State Recreation Area General Plan/Auburn Project Lands Resource Management Plan (ASRA GP/APL RMP or, for simplicity, GP/RMP). The environmental document is an environmental impact report (EIR) for CSP pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.) and an environmental impact statement (EIS) for Reclamation pursuant to the National Environmental Policy Act (NEPA) (42 U.S. Code Sections 4321-4347) and the Council on Environmental Quality (CEQ) Regulations Implementing NEPA (40 Code of Federal Regulation [CFR] Sections 1500-1508). The two agencies have determined that an EIR/EIS is needed to effectively analyze the project, evaluate the environmental impacts of the project, and discuss alternatives to the project. CSP is the lead agency for the purposes of CEQA. Reclamation is the lead agency for the purposes of NEPA. For CEQA compliance, the EIR serves as a program EIR, in accordance with CEQA Guidelines Section 15168. For NEPA compliance, the EIS serves as a programmatic EIS, consistent with Reclamation's NEPA Handbook (Reclamation 2012).

1.1 Subsequent Environmental Review Process

A program EIR/programmatic EIS is used for evaluating the potential effects of the ASRA GP/APL RMP (Section 15168 of the State CEQA Guidelines and 40 CFR 1500.4(i), 1502.4(b) and (c), 1502.20). A program EIR/programmatic EIS considers broad environmental issues at the general plan/resource management plan stage. When specific projects implementing the GP/RMP are proposed at a later date, a project-specific environmental review is conducted. These environmental reviews of the later activities consider environmental effects of the project in light of the analysis and findings in the program EIR/programmatic EIS.

"Later activities" consistent with the GP/RMP may be "within the scope" of the program EIR/programmatic EIS, for purposes of CEQA and NEPA compliance, if the project-specific impacts have been considered in this EIR/EIS and no new or more severe significant effects have been identified for the later activity. If so, CSP needs to demonstrate, typically using a checklist, that all potential environmental effects have been considered in the program EIR/EIS, and if needed, incorporate relevant mitigation measures. In some cases, a new significant environmental impact may arise at the project-specific CEQA review. In that situation, the appropriate documentation is determined following the procedures and criteria in State CEQA Guidelines Sections 15162 and 15164 and may include either an addendum, mitigated negative declaration, or supplement to an EIR focused on the new or more severe significant effect.

For NEPA compliance, a programmatic EIS (40 CFR 1500.4(i), 1502.4(b) and (c), 1502.20) is one that analyzes broad-scope actions defined at a planning stage in the RMP that provide a basis for evaluating environmental consequences. It provides an analysis of impacts that may not attempt to define the site-specific, project-level effects in detail, but that does present a description of potential effects that reflect the reasonably foreseeable consequences of the planned management designations, facilities, or uses. While site-specific data may not be available, the requirement of NEPA to gather all reasonably-available information needed to support a reasoned choice among alternatives does apply to a programmatic EIS. Information from a programmatic EIS would be referenced in subsequent NEPA documents prepared for

specific projects consistent with the RMP to reduce redundancy and address broad cumulative effects (i.e., "tiered from" the programmatic EIS). Subsequent environmental analysis may require preparation of a Supplemental EIS, Environmental Assessment, or Categorical Exclusion Checklist. Where proposed projects are not all together consistent with the GP/RMP guidelines, a p GP/RMP document revision or supplement may be required.

1.2 Focus of the EIR/EIS

The Notice of Preparation (NOP) for this ASRA GP/APL RMP Draft EIR/EIS was circulated as part of the CEQA process to the appropriate federal, state, and local agencies on November 29, 2017, and an environmental scoping meeting was held on December 7, 2017. Reclamation prepared a Notice of Intent (NOI) as part of the NEPA process that was published in the Federal Register on June 1, 2006. Based on known issues affecting the long-term management of ASRA/APL and on comments received during the planning process, this ASRA GP/APL RMP Draft EIR/EIS was prepared to address potential environmental impacts that may result from implementation of the ASRA GP/APL RMP alternatives.

1.3 Interagency and Public Involvement

An integrated CSP/Reclamation planning team conducted the GP/RMP planning process for ASRA/APL. Members of the public, stakeholder groups, and other agencies provided input throughout the planning process. The planning team used a combination of agency and stakeholder workshops, questionnaires, a dedicated project webpage, an online engagement tool, and personal contacts to engage with the public and stakeholders. Additional detail regarding each of these outreach efforts is provided in the Section 1.8 of Chapter 1, Introduction, in the GP/RMP. The following summarizes the types of public outreach that occurred throughout the planning process for the GP/RMP:

- **Public Workshops** – three workshops were held on November 12, 2015; December 7, 2017; June 26, 2018, and an Open House in June 2019 to provide an overview of the planning process, announce the preparation of the Draft EIR/EIS, obtain feedback on the GP/RMP alternatives, obtain feedback on the GP/RMP Proposed Action and gather input on the Preliminary GP/RMP and Public Draft EIR/EIS.

- **Stakeholder and Agency Meetings** – At key points in development of the plan, CSP and Reclamation met with stakeholder agencies to obtain input on the plan and issues for consideration in the EIR/EIS. Stakeholder meeting participants included U.S. Bureau of Land Management (BLM), U.S. Army Corps of Engineers (USACE), U.S. Forest Service, El Dorado County, Placer County, City of Auburn, Sierra Nevada Conservancy, and Auburn Area Recreation and Park District (ARD).

- **Webpage** – CSP and Reclamation maintained a GP/RMP webpage (www.parks.ca.gov/PlanASRA) to share information throughout the planning process and provide opportunities for input.

- **Questionnaires** – Interactive online and printed questionnaires were available at two points in the planning process to allow respondents to learn about the alternatives, view maps, answer questions, and provide comments.

- **Newsletters and Mailings** – At meaningful points throughout the planning and environmental review process, the planning team prepared and distributed a postcard (October 2015), newsletters (November 2015 and November 2017), and eight e-blasts to update the public and interested stakeholders on important plan development progress.

The planning team engaged with CSP, Reclamation, and USACE technical specialists to review key information; provide input to the ASRA/APL purpose and vision, management zones, and intent; develop concept alternatives; and recommend a preferred alternative. Planning team and technical staff meetings were held after each of the first two public workshops to review input and develop the alternatives and preferred alternative. Comments received at all of the public workshops were discussed at planning team meetings after all of the public workshops were completed.

1.4 Intended Uses of this EIR/EIS

Following completion of the environmental review process, CSP will consider certification of the EIR as adequately complying with CEQA and the California State Park and Recreation Commission will consider approval of the GP. After approval of the GP, CSP will file a Notice of Determination with the State Clearinghouse. Reclamation's Director of the Mid-Pacific Region will review and consider the EIS and the RMP and document its decisions on the environmental review and RMP in a Record of Decision that will filed in the Federal Register.

The following agencies would be expected to use the EIR/EIS as responsible or cooperating agencies in decision-making for some of the future projects that could occur with implementation of the ASRA GP/APL RMP:

- CSP – Lead CEQA Agency and Trustee Agency with regard to management of units within the State Park System; for Auburn State Recreation Area, specifically under their Managing Partner Agreement (MPA) with Reclamation;
- Reclamation – Lead NEPA Agency with regard to the administration of federal lands within the APL;
- California Department of Fish and Wildlife (CDFW) – Trustee Agency for projects that may affect fish, wildlife, or their habitat, and Responsible Agency, if a Lake and Streambed Alteration Agreement or California Endangered Species Act incident take authorization is needed for later activities;
- Central Valley Regional Water Quality Control Board (Central Valley RWQCB) – Responsible Agency;
- USACE – Cooperating Agency;
- BLM – Cooperating Agency;
- U.S. Fish and Wildlife Service (USFWS) – Endangered Species Act consultation, if take of threatened or endangered species may occur;
- El Dorado County Air Quality Management District – Responsible Agency; and
- Placer County Air Pollution Control District – Responsible Agency.

The potential approvals or permits that could be required to implement later projects identified within the ASRA GP/APL RMP include:

- Section 401 water quality certification from Central Valley RWQCB;

- Section 404 permit from USACE;
- California Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement or Section 2081 incidental take authorization under the California Endangered Species Act;
- Endangered Species Act Section 7 consultation with USFWS;
- State Historic Preservation Office Section 106 concurrence;
- Burn permits from the two air quality control districts; and
- California Department of Transportation encroachment permit.

2 Project Description and Alternatives

2.1 Introduction

California State Parks (CSP) and the U.S. Bureau of Reclamation (Reclamation) have collaborated to plan for the future of the Auburn State Recreation Area (ASRA) and Auburn Project Lands (APL). CSP and Reclamation prepared a joint General Plan/Resource Management Plan (GP/RMP) to meet both agencies' needs. The proposed GP/RMP would replace the existing federal Interim Resource Management Plan (IRMP) to provide long-term management direction to enhance and expand the recreation opportunities in ASRA and APL while protecting and managing natural and cultural resources consistent with the missions of CSP and Reclamation, and applicable laws, executive orders, regulations, and agency policies. The GP/RMP provides goals and guidelines related to resource management and protection, visitor experience and opportunities, facilities, interpretation and education, and operations that apply throughout ASRA/APL. It also includes more specific guidelines for individual management zones within ASRA/APL. It identifies allowable facilities within each management zone, which could be developed gradually over time in response to demonstrated need.

New facilities and recreational opportunities, and changes in operations and management that could occur with implementation of the GP/RMP would be limited to ASRA and those portions of the APL that are within the boundaries of ASRA. Portions of the APL outside of ASRA and managed by others would continue to be managed under separate managing partner agreements consistent with all applicable laws, regulations, and Reclamation policies and directives.

In addition to the CEQA- and NEPA-mandated No-Action Alternative, three action alternatives were considered during development of the GP/RMP: Increased Recreation and Resource Management Alternative (Proposed Action), Resource Management Emphasis (RME) Alternative, and Recreation Emphasis (RE) Alternative. Each alternative includes resource management actions to protect the physical resources of the site, as well as a range of visitor facilities and improvements that achieve the ASRA/APL purpose and vision. These alternatives are described below. The Proposed Action is the proposed project for the purposes of CEQA. The full text of goals and guidelines, and a list of key proposed management actions are provided in Chapter 4, The Plan, of the GP/RMP.

2.2 Purpose and Need

The GP/RMP defines a long-term purpose and vision for APL including those ASRA lands within APL consistent with the missions of CSP and Reclamation; outlines broad goals and guidelines for use, facility development, and operation of ASRA; and provides the basis for preparing future, focused management plans, specific project proposals, and other initiatives that implement the GP/RMP goals. The GP/RMP also provides goals and guidelines for the protection of important natural and cultural resources in ASRA/APL. It guides approaches for the management of sensitive resource areas and balances their protection with recreation activities.

The mission of CSP is "to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation." General Plans are the primary management document for park units by providing broad management direction, in the form of goals and guidelines, for development, public use, ongoing management, and resource

protection. The General Plan considers the park unit not only in the larger context of the State Park Systems, but also the specific resource values and planning influences of the individual unit. The General Plan integrates overlapping or potentially-conflicting goals into an integrated whole, such as providing opportunities for public enjoyment while also protecting natural and cultural resources.

The Reclamation mission is "to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public." Reclamation authority to prepare RMPs is vested in federal Reclamation laws, including the broad authority of the Reclamation Act of 1902 and the more specific authorization in the Reclamation Recreation Management Act of 1992. The purpose of the RMP is to chart the desired future condition for the area in question, with goals, objectives, standards, and guidelines with sufficient detail to direct future development, but flexible enough to allow resolution of day-to-day problems. Reclamation land management strategies include responsible management that balances resource development with public recreation and protection of natural and cultural resources and environmental values.

CSP prepared a General Plan for the management of Auburn Reservoir after construction of the dam began (CSP 1979). With construction of the Auburn Dam unfunded for an indefinite period, an Interim RMP was prepared in 1992 that provided guidance for Reclamation and CSP management, of ASRA/APL focused on basic health and safety until completion of the dam and reservoir. This Interim RMP, still in effect today, focuses on the management of resources within ASRA/APL with the prospect that the river canyons would eventually be inundated by the authorized reservoir. Because dam construction continues to be unfunded, and Reclamation authorities have changed substantially to required suitable recreation facilities, a GP/RMP is needed to replace the Interim RMP and provide a long-term and comprehensive framework for the management of the existing river and canyons in ASRA/APL. It remains possible that Congress could fund construction of the authorized dam and reservoir in the future. If so, CSP and Reclamation would amend or replace the GP/RMP to reflect a long-term plan that would include the prospective dam and reservoir.

Additionally, changes in conditions have occurred since the Interim RMP was completed. The regional and local populations have increases resulted in an increased number of visitors to ASRA/APL. The variety of recreation activities has also changed with increasingly popular recreation activities that include horseback riding, mountain biking, hiking, whitewater rafting and kayaking, and paddleboarding. A comprehensive management plan consistent with the missions of CSP and Reclamation is needed to achieve the stewardship of Reclamation lands, purpose and vision of ASRA/APL, reconcile current human needs and desires with protection of natural and cultural resource values, and respond to current conditions and issues. A GP/RMP is needed that provides an adaptive management framework (i.e., a flexible approach to management), appropriate to monitor and adjust management actions to achieve the purpose and vision for ASRA/APL over the long term.

2.3 Project Objectives

Recognizing the purpose and need of the GP/RMP, it is intended to achieve the following basic project objectives identified by CSP and Reclamation:

- Provide long-term management guidance for ASRA/APL (without an Auburn Dam and Reservoir);
- Anticipate, accommodate, and manage recreational use for the benefit of the people of California and the United States;

- Protect, preserve, and restore senstive natural and cultural resources;
- Protect public health and safety; and
- Manage ASRA/APL consistent with CSP and Reclamation's missions, policies, directives, and applicable laws and regulations.

2.4 Overview of the Alternatives

This EIR/EIS evaluates four GP/RMP alternatives consistent with CEQA and NEPA requirements: 1) No-Action Alternative, 2) Proposed Action, 3) Resource Management Emphasis (RME) Alternative, and 4) Recreation Emphasis (RE) Alternative. The alternatives are evaluated at an equivalent level of detail, consistent with NEPA requirements. The Proposed Action is the proposed project for purposes of CEQA. The main theme of each alternative is as follows:

- The **No-Action Alternative** would retain current facilities and land uses according to current practices and as specified in the Interim Resource Management Plan.
- The **Proposed Action** is the Increased Recreation and Resource Management Alternative. It would anticipate and accommodate increases in regional recreation demand by enhancing existing facilities and providing additional recreational facilities and access. This alternative would also increase resource protection and management focused on areas with the greatest threats. The Proposed Action is the Preliminary GP/RMP.
- The **RME Alternative** would provide increased resource protection and conservation as identified through comprehensive inventory, survey, or other mechanisms, such as NEPA and/or CEQA review. This alternative primarily assumes the current level of recreation use would continue. It would result in the fewest new facilities and would remove some existing facilities to facilitate resource protection and restoration.
- The **RE Alternative** would anticipate and accommodate demographically relevant and diverse increases in regional and statewide demand. As such, it would result in the greatest number of visitor facilities and access points. This alternative also increases resource protection and management to address this correspondingly higher level of use and demand.

The elements common to each of the alternatives and the key differences among the alternatives are presented below. A more detailed description of each alternative is provided in Sections 2.5 through 2.8.

2.4.1 Elements Common to Each of the Alternatives

The following elements would apply to the No-Action Alternative, Proposed Action, Resource Management Emphasis Alternative, and Recreation Emphasis Alternative.

CSP and Reclamation Policies and Procedures

With implementation of any of the alternatives, ASRA/APL would continue to be managed consistent with the policies and procedures that are adopted by CSP and Reclamation. CSP standard procedures, policies, and guidelines are included in the Standard Project Requirements (SPRs; see Appendix A in this EIR/EIS), Department Operations Manual (DOM), and Departmental Notices. Policies in the DOM and Departmental Notices describe typical procedures, protocol, and guidance for daily operations in

ASRA/APL and methods for protecting natural and cultural resources and supporting recreation opportunities. Additionally, Title 14, Division 3 of the California Code of Regulations (CCR) and Division 5 of the Public Resources Code (PRC) include specific guidance for operations, management, and use of state parks. Reclamation policies are included in the Reclamation Manual, Policies, Guidelines, and Directives and Standards, which assign program responsibility and establish and document Reclamation-wide procedures and policies. Each of the four alternatives would implement and be consistent with these agency policies and procedures, BMPs, as well as other applicable federal, state, and local laws and regulations.

Management Zones

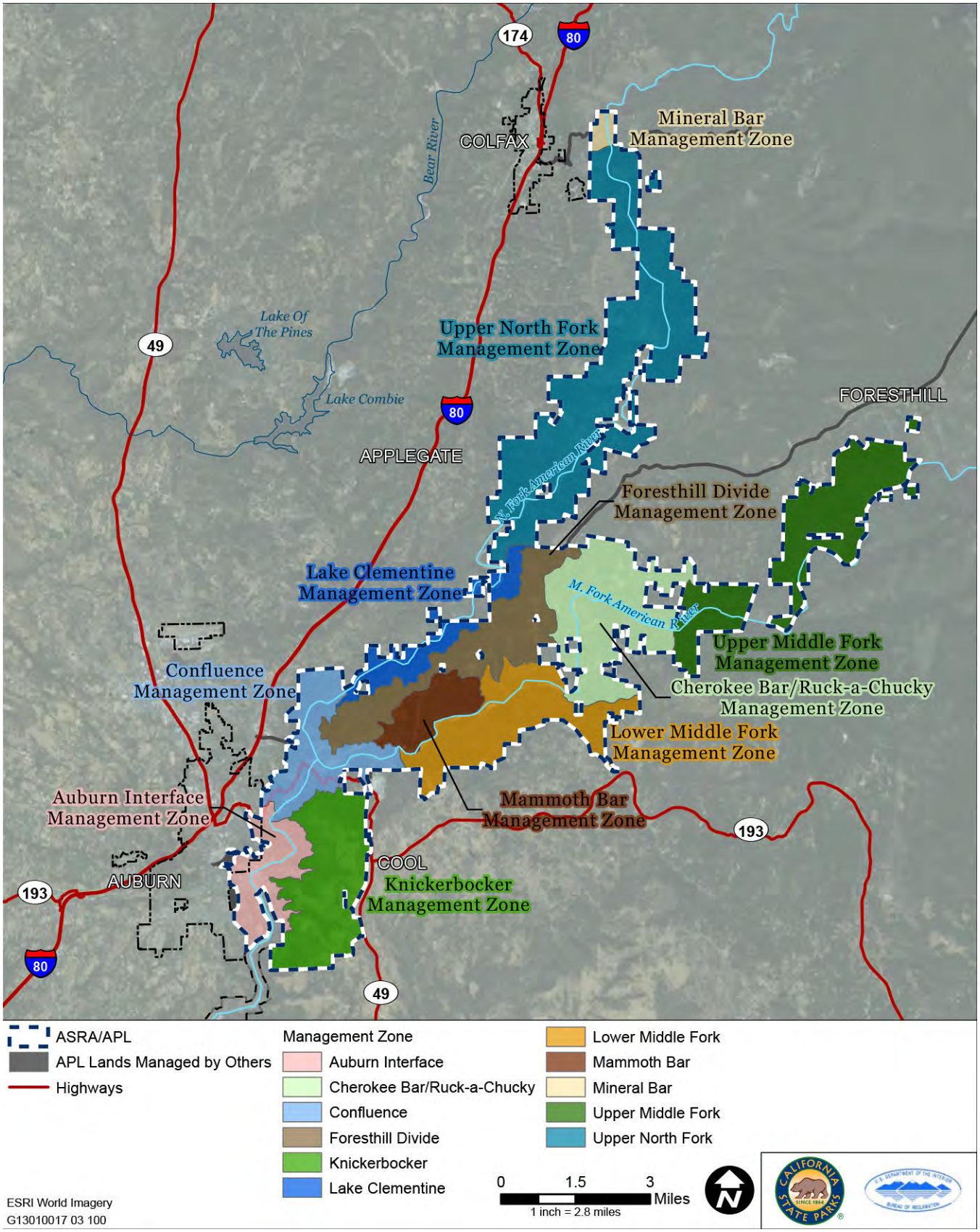
The GP/RMP aligns APL lands into those lands that are within ASRA and those lands that are managed by others through separate agreements. ASRA/APL lands are then further divided into 11 management zones that reflect geographic areas with similar existing conditions, uses, and issues. The management zones are further delineated into one or more activity nodes (i.e., smaller areas where specific actions or facilities would be located). These management zones and activity nodes were developed by CSP and Reclamation based on patterns of visitor use, the physical characteristics of each zone, and areas targeted for natural and cultural resource protection. While each of the action alternatives would include these management zone and activity node boundaries, the intensity of land use in some management zones and activity nodes would change with implementation of the GP/RMP due to changes in activities and/or facilities proposed under each of the action alternatives. The following management zones are proposed (see Figure 2.4-1):

- Knickerbocker Management Zone
- Auburn Interface Management Zone
- Confluence Management Zone
- Mammoth Bar Management Zone
- Lake Clementine Management Zone
- Lower Middle Fork Management Zone
- Cherokee Bar/Ruck-a-Chucky Management Zone
- Upper Middle Fork Management Zone
- Foresthill Divide Management Zone
- Upper North Fork Management Zone
- Mineral Bar Management Zone

The No-Action Alternative would not formally adopt the new management zone or activity node boundaries or the land use designations; however, these boundaries and land use designations reflect existing conditions and use. This facilitates comparison between the No-Action Alternative and the action alternatives.

Land Uses

Under each alternative, each activity node in ASRA/APL is assigned one of six land use designations: Administration, Off-Highway Vehicle (OHV) – High, OHV – Medium, Recreation – High, Recreation – Medium, and Resources – Low Recreation. Implementation of any of the alternatives would be consistent with the allowed uses and intensity of use in the land use designations. Descriptions of the land use designations are summarized here and are further described in Chapter 4, The Plan, of the GP/RMP.



Source: Data provided by CSP in 2016 and downloaded from CAL FIRE in 2013

Figure 2.4-1 ASRA/APL Management Zones

- **Administration.** Areas with facilities associated with the operation and maintenance of the lands within ASRA/APL or nearby public lands and could include parking, utilities, and infrastructure needed to support administrative and visitor use. These lands could also provide interpretive and visitor information facilities and activities.
- **OHV (High and Medium Intensity).** Areas that allow for motorized off-road vehicle use, in addition to other compatible uses.
- **Recreation (High and Medium Intensity).** Areas that allow more intensive recreational use in a developed and structured setting. These areas accommodate the highest levels of visitor use in the SRA, provide vehicle access to recreational and interpretive activities and facilities, and are of a sufficient size to locate the parking, utilities, and infrastructure needed to support the visitor use. The focus of resource management in these areas is to minimize or avoid additional impact to resources.
- **Resources (Low Recreation Intensity)** Areas where natural and cultural resource values would be protected and/or restored, as necessary in order to allow lower intensity recreation and interpretation that is compatible with, and dependent on, the resource values. These areas offer opportunities for more dispersed challenge- and adventure-based recreational activities in a more natural setting. If provided, facilities in these areas tend to be more primitive than in Recreation areas.

Special Events

Each alternative would continue to accommodate the existing types of special events that occur in ASRA/APL. Special events would be subject to either Reclamation or CSP special event permit requirements. The staging areas for large events (e.g., Western States 100-Mile Endurance Run) would continue to include the Cool Staging Area in the Knickerbocker Management Zone and the Rocky Point and China Bar areas in the Auburn Interface Management Zone. New types and locations of special events could be considered under all alternatives.

Wildfire Fuel Management

From 2014 to 2018, an estimated average of 57 acres per year have received fuel reduction treatments, including thinning and pile burning (Howard, pers. comm., 2018). Implementation of each alternative would result in an anticipated increase in the average amount of vegetation management treatments per year to reduce the risk of wildfire. The extent of vegetation management activities each year would be influenced by a number of factors, including funding availability, grants obtained by agency partners, and federal and state agency priorities. For these reasons, fuel treatments under all alternatives, including the No-Action Alternative, could increase over what has occurred in the past. Fuel reduction actions that could be implemented within ASRA/APL could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Fuel reduction activities would be completed between ASRA/APL and adjacent private lands under all alternatives. The action alternatives are estimated to result in the treatment of 160-185 acres per year. Under the action alternatives, additional vegetation management would occur around roads and existing and proposed facilities. Herbicide is currently used in targeted applications to control invasive weeds, which would continue under all alternatives and could be included as part of roadside vegetation treatments. None of the alternatives would include goals or guidelines that would result in widespread herbicide application over large areas or substantially increase herbicide use above existing levels.

Maintenance

Under each of the alternatives, maintenance activities would not be anticipated to change from existing conditions, although the extent of maintenance activities would be commensurate with the number of facilities authorized under each alternative. Maintenance activities include trail maintenance using hand tools and chainsaws; trash collection; cleaning restroom facilities; maintenance of ASRA/APL roads; and the repair of structures, gates, signs, and other facilities.

Hunting and Recreational Mining

Implementation of each alternative would allow for continuation of the existing hunting opportunities consistent with California Department of Fish and Wildlife (CDFW) regulations (California Code of Regulations [CCR] Tile 14, Division 3, 4501[b]). This would allow for continued hunting for deer, California quail, dove, band-tailed pigeon, and turkey in the northern and eastern portions of ASRA/APL.

Mineral resource collection would also be allowed to continue with implementation of any of the alternatives as defined under CCR Tile 14, Division 3, 4301(v) and Division 4611. Currently, recreational mineral collection at ASRA/APL is only permitted along reservoir shorelines and the beaches and gravel bars of streams and rivers, outside of designated swim beaches and boat launch areas, with the use of hands and gold pans only.

Construction Activities

The facilities and infrastructure improvements authorized under each of the alternatives could be constructed in phases as funding is available over the next 20 to 30 years. It is assumed that construction projects in ASRA/APL would not occur simultaneously. The extent and intensity of construction activities would vary between the alternatives based on the number and types of facilities and infrastructure improvements that are proposed.

The types of construction activities that could occur for each of the alternatives may include, but are not limited to, excavation, trenching, realigning trails, clearing vegetation, widening roads or trails, grading, paving, road or parking space striping, and the installation of vehicle barriers, trails, signage, drainage features, and trash receptacles. Other construction activities associated with realigning, reconstructing, or removing existing trail routes that are not sustainable may also include full topographic restoration and revegetation.

New restroom facilities for each of the alternatives would primarily consist of installation of vault toilets, which could involve installation of a prefabricated restroom building and vault, excavation for the vault, and pouring a concrete slab foundation.

Under the Proposed Action and RE Alternative, the new campground at the Knickerbocker Management Zone could involve construction of restroom facilities that would be supported by a new septic system, and new connections to a municipal water supply system. A new well could be installed for a campground at Rocky Point, which would require excavation. This construction activity would not occur under the No-Action Alternative or RME Alternative.

With implementation of the Proposed Action or RE Alternative, special construction techniques may be required for construction of the Auburn-to-Cool Trail Bridge, such as rock excavation, blasting, and drilling. Additional detail regarding construction activities would be reviewed at the time of project-level environmental analysis of the Auburn-to-Cool Trail Bridge.

2.4.2 Key Differences among the Alternatives

Each of the alternatives would result in differences in the amount of recreation capacity (i.e., capacity for visitation); and types, amounts, and locations of facilities and land uses consistent with the themes for each alternative.

Visitation

Future changes in visitation would be affected by numerous factors, including surrounding population growth, broad economic trends, and the availability of other recreation opportunities in the region. Additionally, the action alternatives each include varying amounts of capacity improvements in the form of new parking areas and campsites, which could increase the capacity for visitors at ASRA/APL. ASRA/APL draws the majority of its visitors from the local and regional area. The population of the Sacramento Region (consisting of Placer, El Dorado, Sacramento, Sutter, Yuba, and Yolo Counties) is anticipated to grow to 3,145,647 people in 2040, which is a 30 percent increase over the 2015 population (California Department of Finance 2018; also see Section 2.8.4, Demographics, Trends, and Projections, in the GP/RMP).

Currently, most developed areas within ASRA/APL reach capacity during peak periods (i.e., summer weekends and summer holidays). Even with the proposed increases in visitor capacity with the parking and number of campsites proposed by the action alternatives, the developed areas of ASRA/APL are anticipated to reach capacity during these peak periods. However, ASRA/APL has available capacity during off-peak periods (i.e., non-summer days and weekdays) to accommodate additional visitors. Thus, the additional visitation demand at ASRA/APL that would be influenced by population growth would be anticipated to occur primarily during these off-peak periods.

The estimated increase in regional population and commensurate increase in the demand for recreation is anticipated to contribute to a majority of the increase in visitation. The increases in visitor capacity proposed under the Proposed Action and RE Alternative would also contribute to some increase in visitation. Table 2.4-1 presents the estimated maximum increase in annual visitation that is influenced by the region's population growth and increases in visitor capacity, as applicable. It is anticipated that the total increase in visitation under each alternative would reflect the greater of the increase in visitor capacity or increase in population-driven visitation. That is, if visitor capacity increases, the total increase in visitation may exceed the increase in population growth because more amenities will be available, and visitors would be able to more easily access ASRA/APL.

Table 2.4-1 Existing and Estimated Increase in Annual Visitation at ASRA/APL under Each Alternative

Alternative	Estimated Existing Annual Visitation	Maximum Estimated Change in Visitor Capacity	Estimated Visitation Increase Driven by Population Growth	Total Estimated Increase in Visitation Due to Capacity and Population Growth	Estimated Additional Annual Visitation[1]	Total Estimated Annual Visitation
No-Action	1,000,000	0%	30%	30%	300,000	1,300,000
Increased Resource Management and Recreation Alternative - Proposed Action		+35%	30%	35%	345,000	1,345,000
Resource Management Emphasis Alternative		+4%	30%	30%	300,000	1,300,000

Table 2.4-1 Existing and Estimated Increase in Annual Visitation at ASRA/APL under Each Alternative

Alternative	Estimated Existing Annual Visitation	Maximum Estimated Change in Visitor Capacity	Estimated Visitation Increase Driven by Population Growth	Total Estimated Increase in Visitation Due to Capacity and Population Growth	Estimated Additional Annual Visitation[1]	Total Estimated Annual Visitation
Recreation Emphasis Alternative		+45%	30%	45%	450,000	1,447,000

[1] The estimated additional annual visitation is anticipated to be greatly influenced by regional population growth; therefore, the larger of the increases through either the change in visitor capacity and the increase driven by population growth is used here to estimate the additional annual visitation at ASRA/APL.

Source: Compiled by Ascent Environmental in 2018

Facilities and Improvements

Each alternative would result in a range of different types and amounts of new facilities in ASRA/APL. Table 2.4-2 provides an overview of the new facilities that could be constructed in each management zone under each alternative. Additional detail regarding the facilities and operational details that would occur under each alternative are further described below and are also listed in Chapter 4, The Plan, of the GP/RMP.

This page intentionally left blank.

Table 2.4-2 Facilities Summary for Each of the Alternatives

Management Zone	No-Action Alternative		Increased Recreation and Resource Management Alternative (Proposed Action)			Resource Management Emphasis Alternative			Recreation Emphasis Alternative		
	Existing Facilities		Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities
1. Knickerbocker	P	Parking Area (~75 parking spaces)	P	Parking Area (add up to 50 parking stalls)	1B/1C		Picnic Sites (add up to 5 shade ramadas and 10 picnic sites)	1B	P	Parking Area (add up to 50 parking stalls)	1B/1C
		Picnic Sites		Picnic Sites (add up to 15 shade ramadas and 30 picnic sites)	1B/1C		Restroom/Toilet	1B		Picnic Sites (add up to 10 shade ramadas and 20 picnic sites)	1B/1C
		Restroom/Toilet		Restroom/Toilet	1B		Visitor Contact/Interpretive Facilities	1B		Restroom/Toilet	1B
	TH	Trailhead		Interpretive Facilities	1B/1C	TH	Improve trail and emergency vehicle access from Cool to the American River	All		Visitor Center and Interpretive Facilities	1B/1C
				Overnight Use Facility (add up to 50 individual campsites and up to three group campsites	1C		Facilities to support habitat restoration projects	1B/1C		Overnight Use Facility (add up to 200 individual campsites and up to five group campsites	1C
				Administrative/Maintenance Facilities (add up to ¼ acre)	1B/1C					Administrative/Maintenance Facilities (add up to 1 acre)	1B/1C
			TH	Proposed trail connection to Folsom Lake State Recreation Area	1A					Facilities to support habitat restoration projects	1B/1C
2. Auburn Interface	P	Parking Area (~122 parking spaces)	P	Parking Area (add up to 150 parking spaces)	2A/2B		Facilities to support habitat restoration projects	All	P	Parking Area (add up to 150 parking spaces)	2A/2B
	TH	Trailhead	TH	Trailhead	2A/2B	TH	Improve trail and emergency vehicle access from Cool to the American River	2B	TH	Trailhead	2A/2B
		Restroom/Toilet		Restroom/Toilet	2B		Interpretive Facilities	All		Restroom/Toilet	2B
		Paddlecraft Launch		Paddlecraft Launch	All		Paddlecraft Launch	All		Paddlecraft Launch	All
		Administrative/Maintenance Facilities		Auburn-to-Cool trail bridge	2A/2B					Auburn-to-Cool trail bridge	2A/2B
				Overnight Use Facility (add up to 50 individual campsites and one group campsite)	2B					Overnight Use Facility (add up to 70 individual campsites and one group campsite)	2A/2B/2C
				Picnic Sites (add up to 40 shade ramadas, 50 picnic sites)	All					Picnic Sites (add up to 40 shade ramadas, 50 picnic sites)	All
				Visitor Contact/Interpretive Facilities	All					Visitor Contact/Interpretive Facilities	All
				Shuttle Service	All					Shuttle Service	All
				Technical Mountain Biking	All					Technical Mountain Biking	All
				Active Recreation Facilities	All					Active Recreation Facilities	All
										Facilities to support habitat restoration projects	All
3. Confluence		Administrative/Maintenance Facilities		Administrative/Maintenance Facilities	3C		Visitor Contact/Interpretive Facilities (moderate-size Interpretive Center of about 3,000 square feet and up to 20 parking spaces)	3B/3D		Administrative/Maintenance Facilities	3C
		Visitor Contact/interpretive facilities		Visitor Contact/Interpretive Facilities	3B/3D	TH	Trailhead (reroute, improve or remove river access and unauthorized spur trails)	All		Visitor Center/Interpretive Facilities	All

Table 2.4-2 Facilities Summary for Each of the Alternatives

Management Zone	No-Action Alternative		Increased Recreation and Resource Management Alternative (Proposed Action)			Resource Management Emphasis Alternative			Recreation Emphasis Alternative		
	Existing Facilities		Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities
		Rock Climbing Area		Allow Additional Rock Climbing Areas	All		Restrict or prohibit roadside parking on SR 49	3A		Allow Additional Rock Climbing Areas	All
		Paddlecraft Launch		Improve Paddlecraft Launch	3A		Facilities to support habitat restoration projects	All		Improve Paddlecraft Launch	3A
		Mountain Quarries Mine		Guided Mine Tours	3E					Guided Mine Tours	3E
		Trailhead		Trailhead	3A/3D					Trailhead	3A/3D
		Restroom/Toilet		Restroom/Toilet	3A/3B					Restroom/Toilet	3A/3B
		Picnic Sites		Shuttle Service	All					Shuttle Service	All
		Parking Area (~404 parking spaces)		Improve Parking Area	3A					Improve Parking Area	3A
										Parking Area (add up to 100 stalls)	3B
										Picnic Sites (add 10 shade ramadas and 20 picnic sites)	3B
4. Foresthill Divide		Parking Area (~242 parking spaces)		Parking Area (add up to 100 stalls)	4A		Interpretive Facilities	4A		Parking Area (add up to 100 stalls)	4A
		Trailhead		Administrative/Maintenance Facilities (add up to ¼ acre)	4A					Administrative/Maintenance Facilities (add up to ¼ acre)	4A
		Restroom/Toilet		Picnic Sites (add 10 shade ramadas and 20 picnic sites)	4A					Picnic Sites (add 10 shade ramadas and 20 picnic sites)	4A
				Restroom/Toilet	4A					Restroom/Toilet	4A
				Overnight Use Facility (add up to 20 campsites)	4A					Overnight Use Facility (add up to 20 campsites)	4A
				Improve trailhead and trail access	All						
5. Lake Clementine		Restroom/Toilet		Restroom/Toilet	5B		Close marina and remove facilities if and when no longer feasible to operate and maintain.	5B		Restroom/Toilet	5B
		Parking Area (~255 parking spaces)		Boat Rentals/Concession	All		Restroom/Toilet	5B		Boat Rentals/Concession	All
		Marina/Boat Launch		Renovate the existing marina facilities and expand watercraft capacity	5A					Renovate the existing marina facilities and expand watercraft capacity	5A
		Overnight Use Facility (15 campsites)								Overnight Use Facility (add up to five primitive boat-in campsites)	5A
		Visitor Contact/Interpretive Facilities								Parking Area (pave or grade the existing parking area)	5B
		Paddlecraft Launch									
		Trailhead									

Table 2.4-2 Facilities Summary for Each of the Alternatives

Management Zone	No-Action Alternative		Increased Recreation and Resource Management Alternative (Proposed Action)			Resource Management Emphasis Alternative			Recreation Emphasis Alternative		
	Existing Facilities		Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities
6. Mammoth Bar		Parking Area (~200 parking spaces)		Parking Area (add up to 50 parking stalls)	6A/6B		Phase out OHV track	All		Parking Area (add up to 50 parking stalls)	6A/6B
		Picnic Sites		Picnic Sites (add up to 10 shade ramadas, up to 20 picnic sites)	6A/6B		Picnic Sites (if OHV tracks are removed add up to 10 shade ramadas, up to 20 picnic sites)	6A		Picnic Sites (add up to 10 shade ramadas, up to 20 picnic sites)	6A/6B
		Restroom/Toilet		Restroom/Toilet	6A/6B		Restroom/Toilet (if OHV tracks are removed)	6A		Restroom/Toilet	6A/6B
		Trailhead		Trailhead	6B		Overnight Use Facility (add up to 50 campsites)	6A		Trailhead	6B
		Paddlecraft Launch		Paddlecraft Launch	6A		Parking Area (add up to 50 parking stalls)	6A/6B		Paddlecraft Launch	6A
		OHV Track		OHV Track	6A/6B					OHV Track (potentially relocate OHV track, expand OHV boundary by 70%, and allow OHV use seven days per week)	All
				Technical Mountain Biking	All					Technical Mountain Biking	All
				Other Active Recreation	All					Other Active Recreation	All
				Overnight Use Facility (add up to 50 campsites)	6A					Overnight Use Facility (add up to 50 campsites)	6A
				Viewing Area	6A					Viewing Area	6A
7. Lower Middle Fork		Trailhead		Trailhead	All		Interpretive Facilities	All		Trailhead	All
		Parking Area (~5 parking spaces)		Parking Area (add up to 20 parking stalls)	All					Parking Area (add up to 20 parking stalls)	All
				Visitor Contact/Interpretive Facilities	All					Visitor Contact/Interpretive Facilities	All
8. Cherokee Bar/Ruck-a-Chucky		Parking Area (~96 parking spaces)		Parking Area (add up to 40 parking stalls)	8B		Phase out camping adjacent to the river	8A		Parking Area (add up to 40 parking stalls)	8B
		Restroom/Toilet		Restroom/Toilet	8B					Restroom/Toilet	8B
		Picnic Sites		Picnic Sites (add up to 10 shade ramadas, and 10 picnic sites)	8B					Picnic Sites (add up to 10 shade ramadas, and 10 picnic sites)	8B
		Paddlecraft Launch		Paddlecraft Launch	8B					Paddlecraft Launch	8B
		Trailhead		Greenwood Trail Bridge	8A/8B					Greenwood Trail Bridge	8A/8B
		Overnight Use Facility (5 campsites)		Overnight Use Facility (add up to 30 individual campsites and one group campsite; up to 5 alternative camping facilities)	8A/8B					Overnight Use Facility (add up to 30 individual campsites and one group campsite; up to 5 alternative camping facilities)	8A/8B
9. Upper North Fork		Parking Areas (~110 parking spaces)		Parking Area (add up to 40 parking stalls)	9A/9B		Interpretive Facilities	All		Parking Area (add up to 40 parking stalls)	9A/9B

Table 2.4-2 Facilities Summary for Each of the Alternatives

Management Zone	No-Action Alternative		Increased Recreation and Resource Management Alternative (Proposed Action)			Resource Management Emphasis Alternative			Recreation Emphasis Alternative		
	Existing Facilities		Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities	Proposed Facilities		Activity Nodes for Proposed Facilities
		Restroom/Toilet		Restroom/Toilet	9A/9B					Restroom/Toilet	9A/9B
		Trailhead		Picnic Sites (add up to 20 picnic sites)	9A/9B					Picnic Sites (add up to 20 picnic sites)	9A/9B
		Paddlecraft Launch									
10. Mineral Bar		Parking Area (~70 parking spaces)		Parking Area (add up to 20 parking stalls)	All		Overnight Use Facility (renovate campground with no expansion or reduction)	All		Parking Area (add up to 20 parking stalls)	All
		Restroom/Toilet		Restroom/Toilet	All					Restroom/Toilet	All
		Picnic Sites		Picnic Sites (add up 10 picnic sites)	All					Picnic Sites (add up 10 picnic sites)	All
		Overnight Use Facility (16 campsites)		Overnight Use Facility (add up to 20 individual campsites)	All					Overnight Use Facility (add up to 20 individual campsites)	All
		Trailhead									
		Paddlecraft Launch									
11. Upper Middle Fork		Restroom/Toilet								Picnic Sites (add up to 10 picnic sites)	All
										Restroom/Toilet	All

Source: Compiled by Ascent Environmental in 2018

Land Uses

Each alternative would vary in the distribution of land uses in ASRA/APL (see Table 2.4-3 and Figure 2.4-2). The distribution of land uses for each alternative would reflect the theme of each alternative. The No-Action Alternative would maintain existing land uses. Under each alternative, lands within ASRA/APL would be predominantly designated as Resources – Low, ranging from 56 percent of the total area for the Proposed Action and RE Alternative to 69 percent for the No-Action Alternative and RME Alternative.

The Proposed Action would allow an increase in the OHV – High land use and an equal decrease in the OHV – Medium land use. The Recreation – Medium land use would gain an estimated 3,753 acres, an increase of approximately 48 percent over existing conditions, and the Recreation – High land use would gain an estimated 209 acres, an increase of approximately 38 percent over existing conditions. These conversions would primarily occur through the conversion of close to 4,000 acres of Resources – Low Recreation lands, a decrease of 19 percent from existing conditions.

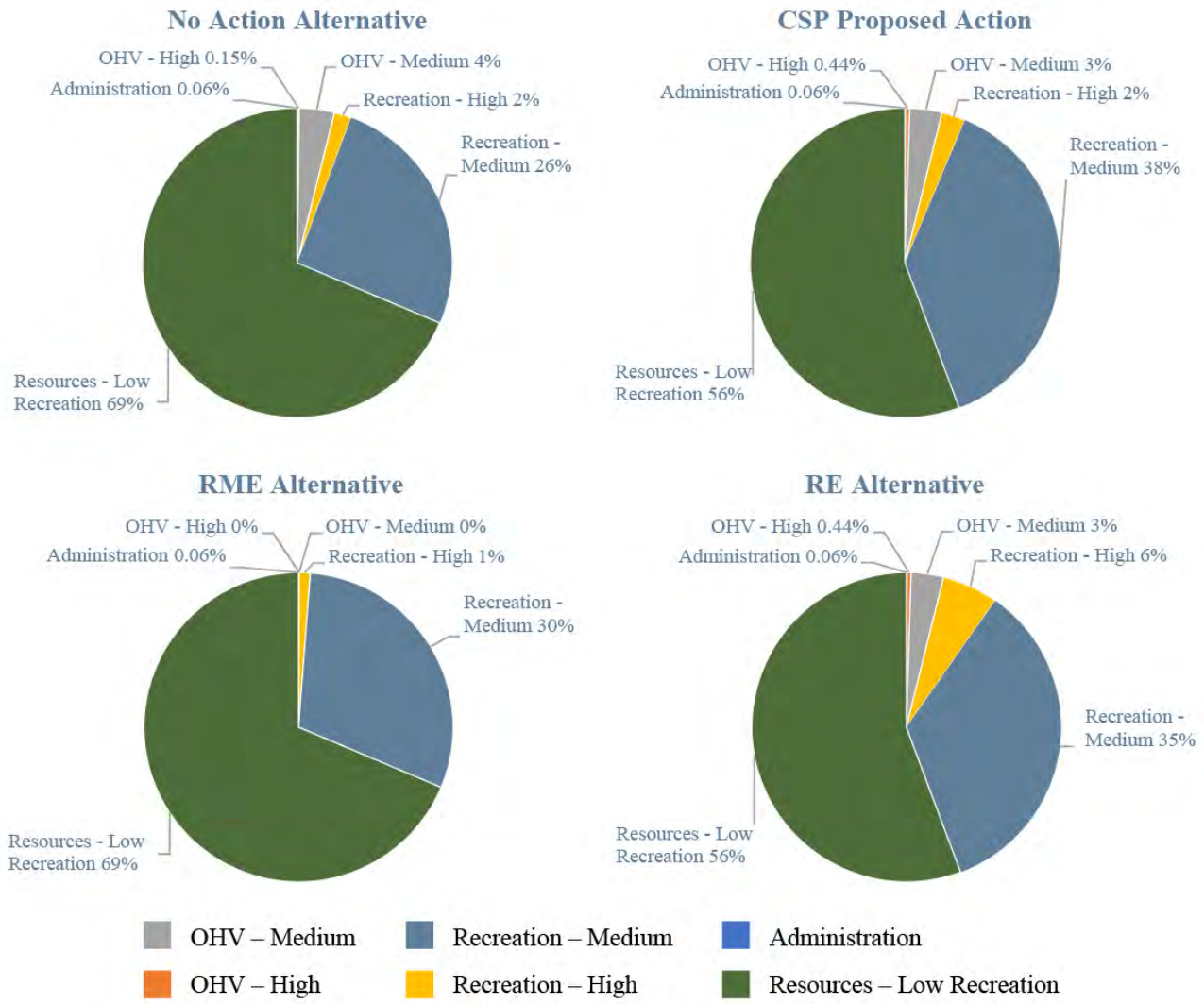


Figure 2.4-2 Proportion of ASRA/APL within Each Land Use Designation under Each Alternative

Table 2.4-3 Comparison of Land Uses for Each Alternative

Land Use	No-Action Alternative (Existing Conditions)	Proposed Action			Resource-Management Emphasis Alternative			Recreation-Emphasis Alternative		
	Area (acres)	Area (acres)	Percent Change from Existing Conditions[1]	Acreage Change from Existing Conditions	Area (acres)	Percent Change from Existing Conditions	Acreage Change from Existing Conditions	Area (acres)	Percent Change from Existing Conditions	Acreage Change from Existing Conditions
Administration	19	18	-8%	-1	19	0%	0	18	-8%	-1
OHV – High	47	136	189%	89	0	-100%	-47	136	189%	89
OHV – Medium	1,123	1,034	-8%	-89	0	-100%	-1,123	1,034	-8%	-89
Recreation – High	547	756	38%	209	351	-36%	-196	1,797	229%	1,250
Recreation – Medium	7,863	11,616	48%	3,753	9,229	17%	1,366	10,575	35%	2,712
Resources – Low Recreation	21,013	17,052	-19%	-3,961	21,013	0%	0	17,052	-19%	-3,961
Total[2]	**30,612**	**30,612**	**0%**	**0**	**30,612**	**0%**	**0**	**30,612**	**0%**	**0**

1 Percent total does not equal 100 due to rounding.

2 APL areas outside of the ASRA boundary encompass 106 acres. These areas are managed by other agencies besides under separate agreements with Reclamation. Although goals and guidelines in the GP/RMP may influence management in these areas, the GP/RMP does not propose any specific actions or construction of new facilities in these areas.

Source: Compiled by Ascent Environmental in 2018

The RME Alternative would eliminate the OHV (all uses) and would reduce Recreation – High land uses, and would result in a commensurate increase in the Recreation-Medium land uses. The land use designations on an estimated 1,366 acres in ASRA would shift from OHV (all uses) and Recreation – High land uses to Recreation-Medium land uses. There would be no change in the amount of Resources – Low Recreation Intensity land use.

The RE Alternative would allow for an increase in the OHV – High land use and an equal decrease in the OHV – Medium land use. The Recreation – Medium land use would gain an estimated 2,712 acres, a 17 percent increase over existing conditions, and the Recreation – High land use would gain an estimated 1,250 acres, a 229 percent increase over existing conditions. These conversions would primarily occur through the conversion of close to 4,000 acres of Resources – Low Recreation lands, which would be a 10 percent decrease over existing conditions.

2.5 No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses would be retained (see Tables 2.4-3 and 2.4-4), and the Federal Interim Resource Management Plan (Interim RMP) would continue to provide the management direction and guidance for the protection of natural, scenic, and cultural resources and the opportunity for diverse recreational activities in ASRA/APL where applicable. The IRMP excludes, from its planning, certain lands near the Auburn Dam site as an Administrative Area. CSP operations and management of ASRA/APL would continue to be guided by interpretations of the Interim RMP and the 2012 MPA. The Interim RMP includes proposals for construction of various minor facilities and the development of guidelines and programs that would provide for basic public health and safety, resource protection, volunteerism, and recreation enhancement (Reclamation 1992). Projects identified by the Interim RMP are ranked into three priority levels, with priority-one projects most likely to receive funding and priority-two and -three projects not likely to receive federal funding. Priority one projects include adding facilities such as garbage cans and restrooms throughout ASRA/APL, which has largely occurred since adoption of the Interim RMP. Priority-two and -three projects include a range of projects throughout ASRA/APL, such as improving access to the river; additional parking; signage; contact kiosks; additional campsites; and disabled access trail and other access improvements in the Knickerbocker area. Because most priority-one projects have already been completed, and priority-two and -three projects are identified as low-priority projects, it is anticipated that no substantial new construction would occur under the No-Action Alternative. Continued operation and maintenance of existing facilities would occur. As existing facilities reach the end of their serviceable lifespans, they would be replaced. Minor new facilities, such as trash receptacles and informational signs/kiosks could be added. Accessibility may be incorporated into existing or new facilities. Additionally, a Fire Management Plan would be prepared as required by Reclamation policies. Other existing programs and operations would continue, such as interpretive programs, trail maintenance, whitewater management, and resource management.

The types of recreation facilities that currently exist in ASRA/APL include trails for hiking, mountain biking, and horseback riding; campgrounds; OHV tracks; marina and motorized boat launch at Lake Clementine; launching points for paddlecraft; and a rock climbing area. Day-use facilities for visitors in ASRA/APL include picnic sites, parking, restrooms, and interpretive facilities. An administrative office for CSP is also located in the Auburn Interface Management Zone. These existing facilities and their locations by management zone and activity node are listed in Table 2.4-2 and are consistent with the existing land use designations as described above under Section 2.4.2. Figures 2.5-1a through 2.5-1d show the existing facilities and land uses in each management zone that would be maintained with implementation of the No-Action Alternative.

2.6 Proposed Action - Increased Recreation and Resource Management Alternative

The Increased Recreation and Resource Management Alternative is the Proposed Action. Implementation of the Proposed Action would result in new recreational facilities similar to what is currently provided in ASRA/APL, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. Compared to the RE Alternative, the Proposed Action would have a greater emphasis on day use and less camping (i.e., overnight use). This alternative would also increase resource protection and support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural and biological resource protection.

The following provides an overview of the characteristics of the Proposed Action, including general descriptions of facilities that could be developed and improvements that could be made in ASRA/APL consistent with the GP/RMP. Table 2.4-2 lists the types of facilities and improvements that would be allowed within each management zone. The CSP Standard Project Requirements, the goals and guidelines of the GP/RMP, and the proposed distribution of land uses in ASRA/APL influence where and how development could occur, address critical planning issues, and help avoid or minimize the potential adverse environmental effects of future actions that could be taken in ASRA/APL.

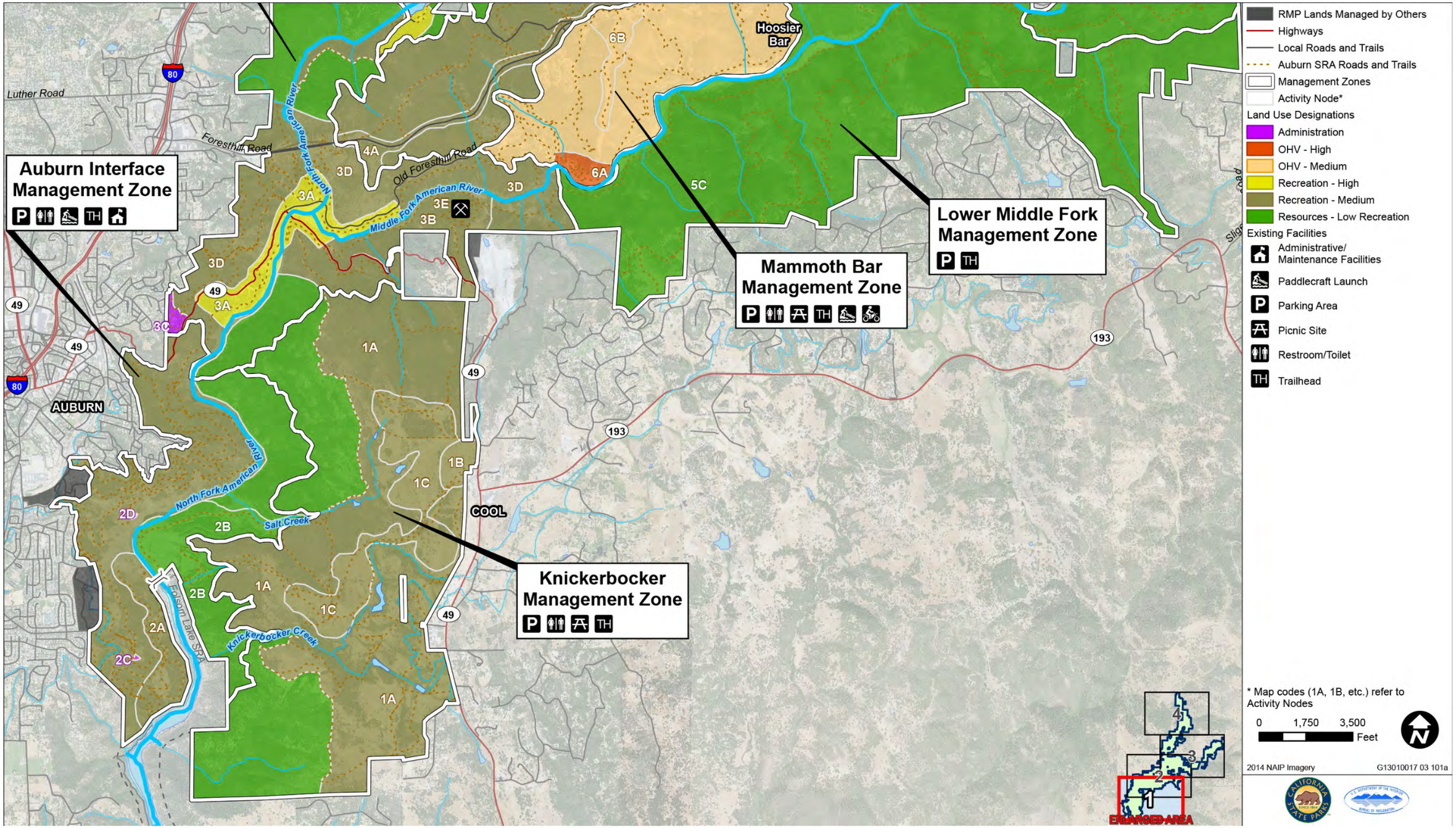
Chapter 4, The Plan, in the GP/RMP provides additional detail regarding proposed goals, guidelines, and facilities that could be implemented with the Proposed Action. Figures 2.6-1a through 2.6-1d show the proposed land uses and facilities in each management zone that could result from implementation of the Proposed Action.

2.6.1 Goals and Guidelines

The GP/RMP includes goals and guidelines that describe the proposed management approach throughout ASRA/APL and within each management zone. Additionally, the GP/RMP identifies existing conditions (Chapter 2, Existing Conditions) and key issues (Chapter 3, Issues and Analysis). Chapter 4, The Plan, of the GP/RMP establishes the overall long-range purpose and vision for the lands and waters considered within the project area. It includes goals and guidelines related to resource management and protection, visitor experience and opportunities, facilities, interpretation and education, and operations. These goals and guidelines are designed to achieve the purpose and vision for CSP and Reclamation, address critical planning issues, and avoid or minimize adverse environmental effects.

Camping

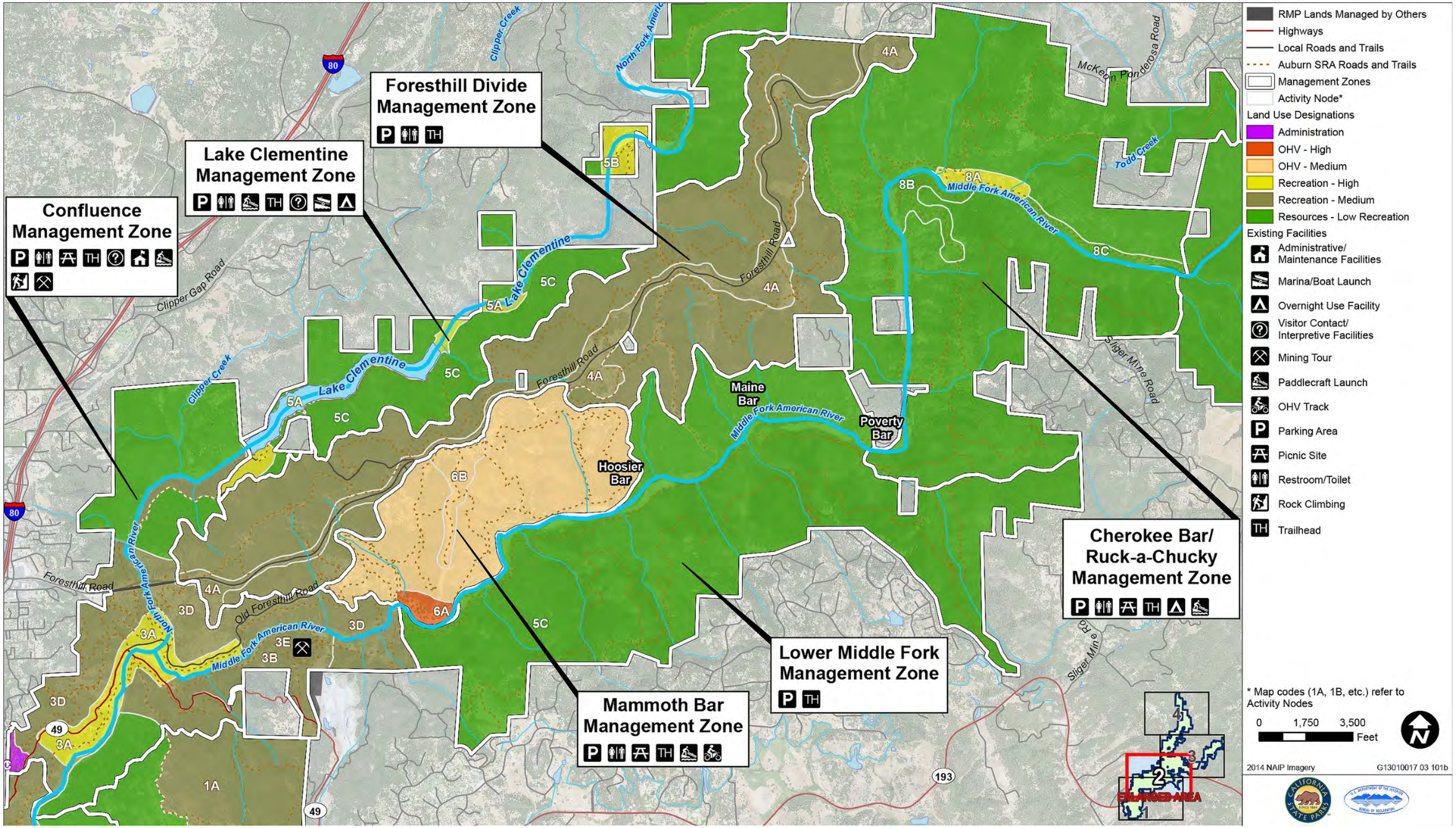
Implementation of the Proposed Action would add up to 230 campsites, including up to five group sites, and up to five alternative sites. Alternative camp facilities could include family camp cabins or yurts. Each campsite facility would be anticipated to include a fire ring, picnic table, and parking spur. The sizes of individual campsites and alternative camp facilities could vary but are estimated to be approximately 672 square feet (sf), which would include space for parking. Based on the assumption that each group campsite is anticipated to be equivalent to five individual campsites, a group campsite would be estimated to be approximately 3,360 sf. The estimated area of the proposed campsites would be approximately 168,000 sf (3.9 acres). With implementation of the Proposed Action, a portion of the existing campground at Mineral Bar would continue to be closed seasonally. The other campgrounds throughout ASRA/APL could remain open year-round.



Source: Compiled by Ascent Environmental in 2017

Figure 2.5-1a

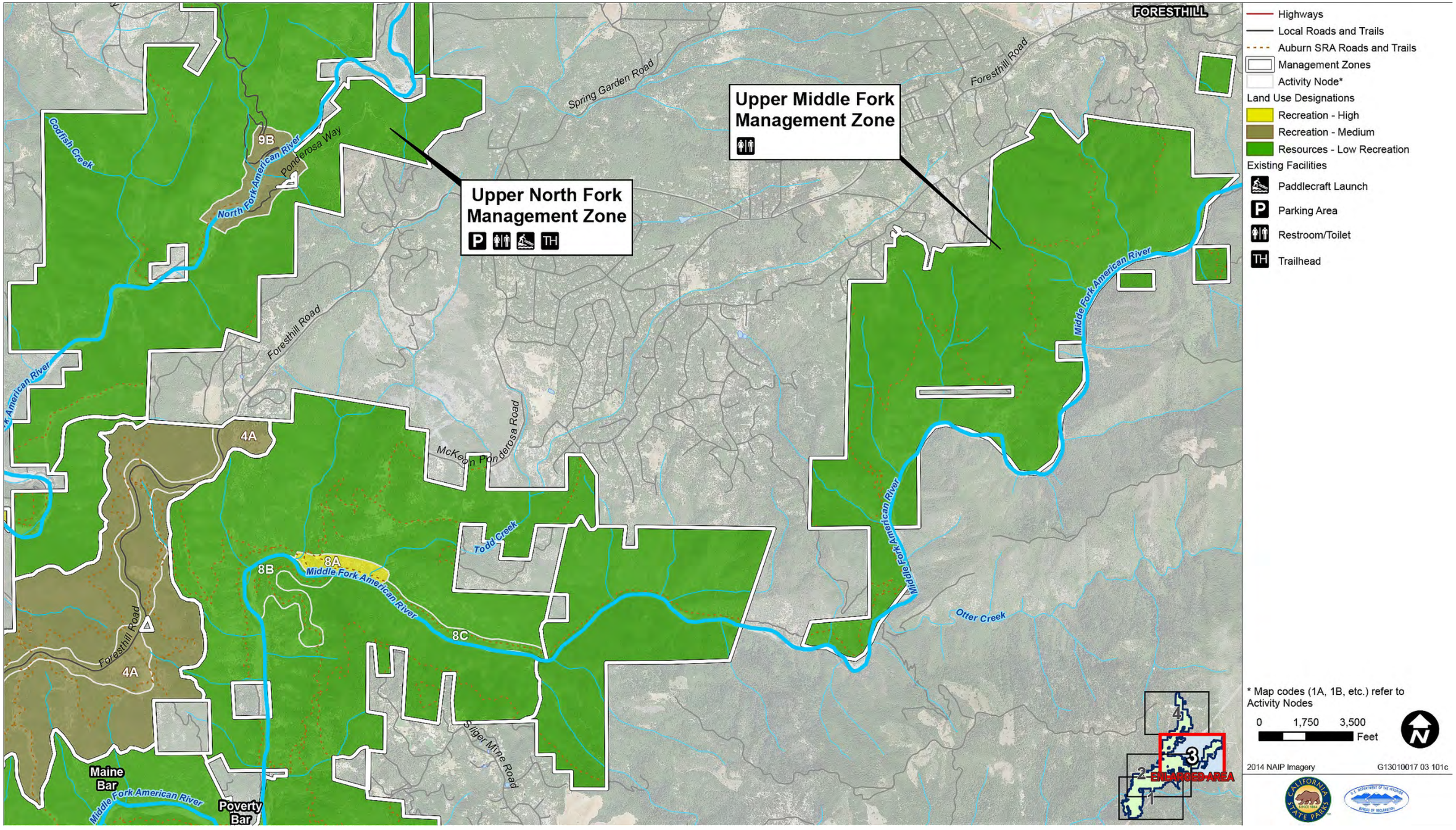
No-Action Alternative (1 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.5-1b

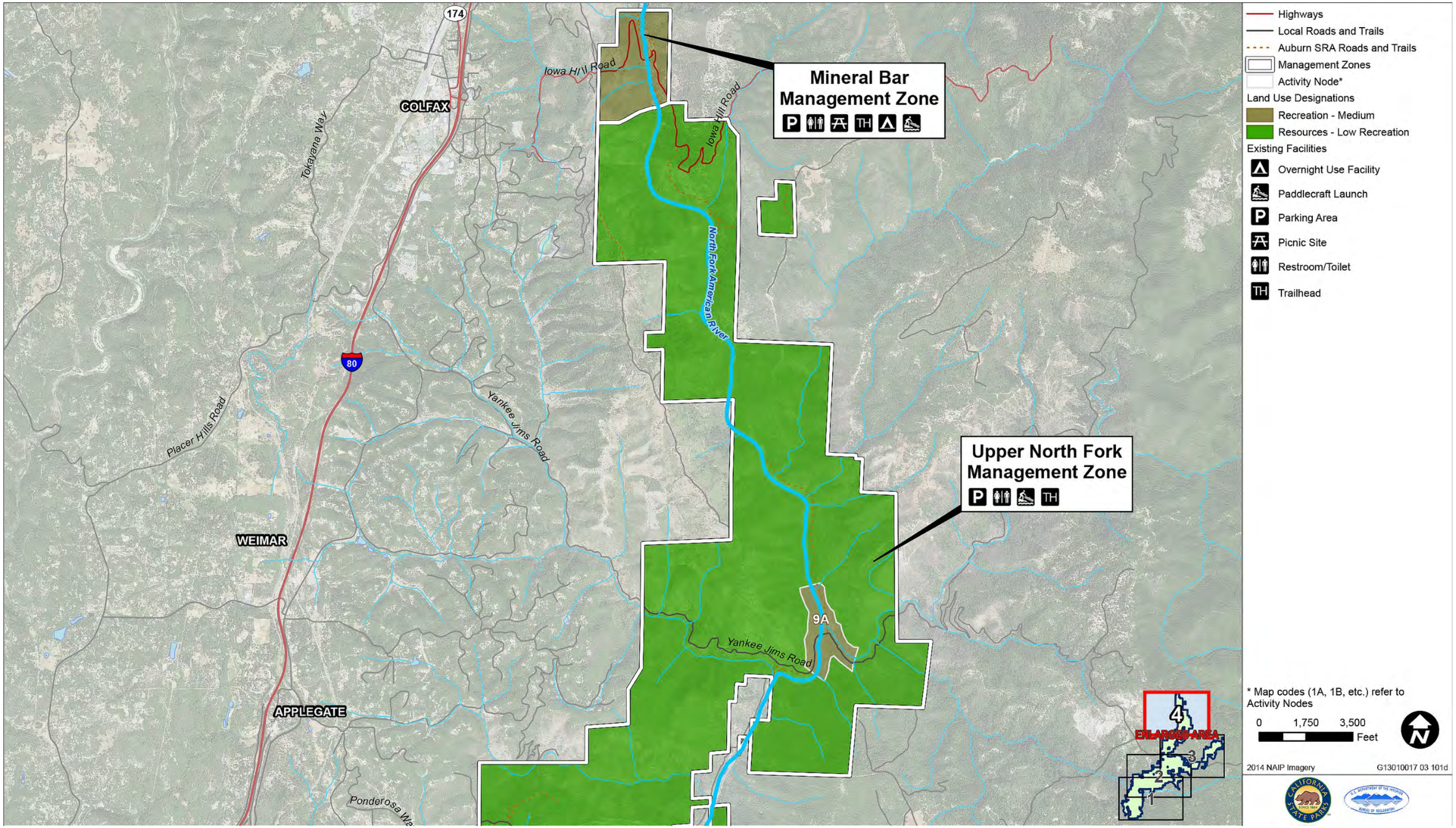
No-Action Alternative (2 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.5-1c

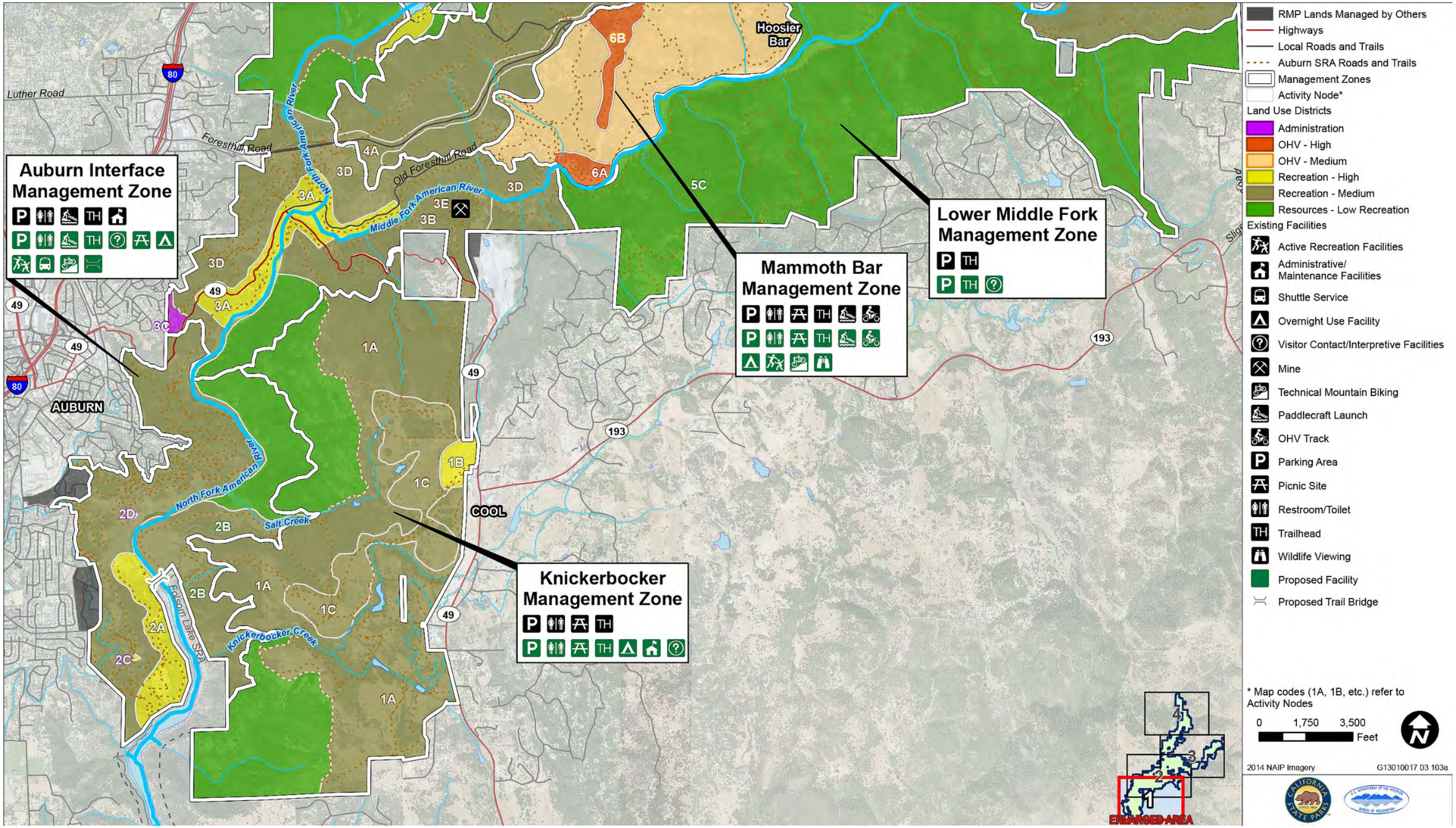
No-Action Alternative (3 of 4)



Source: Compiled by Ascent Environmental in 2017

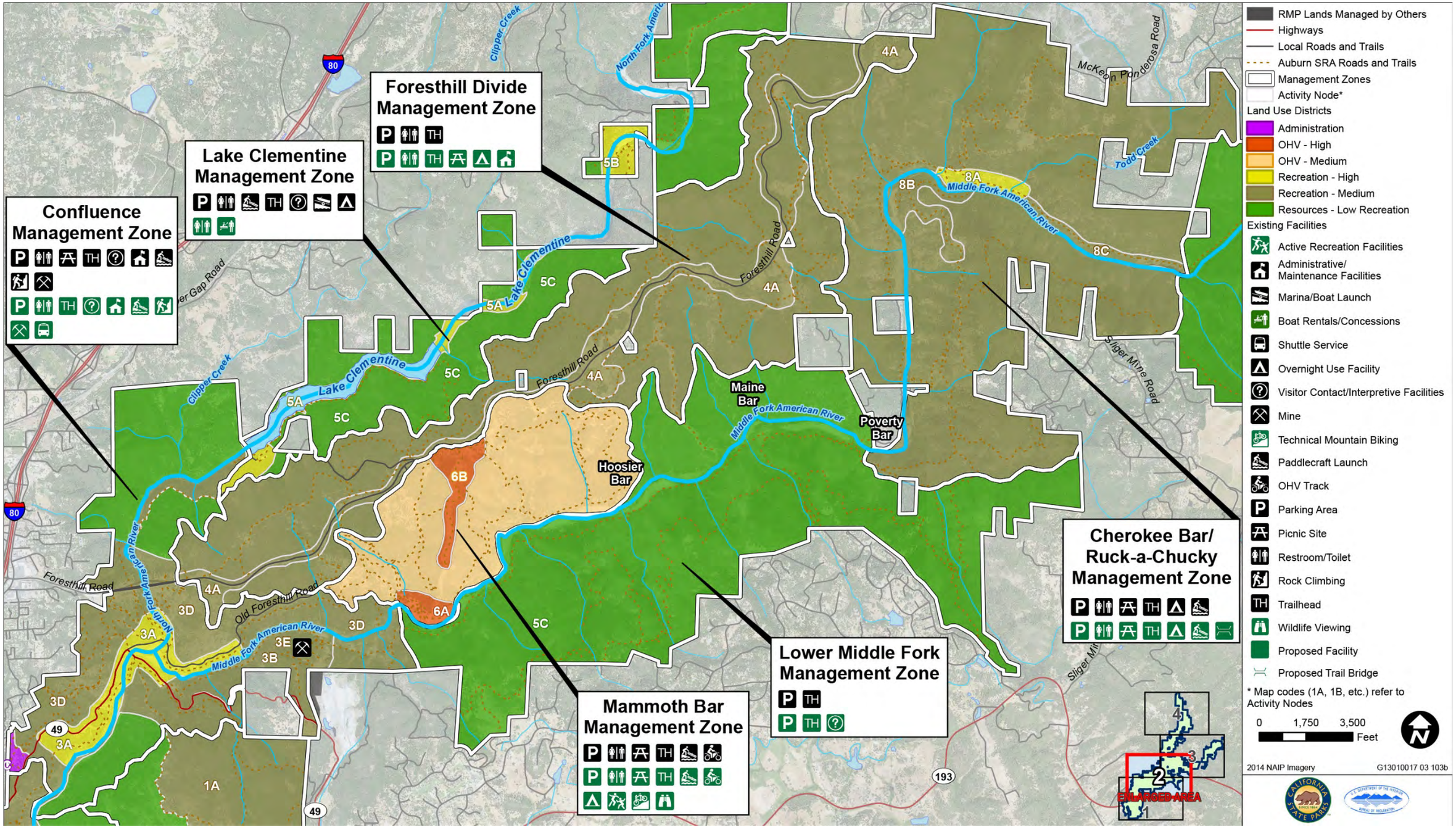
Figure 2.5-1d

No-Action Alternative (4 of 4)



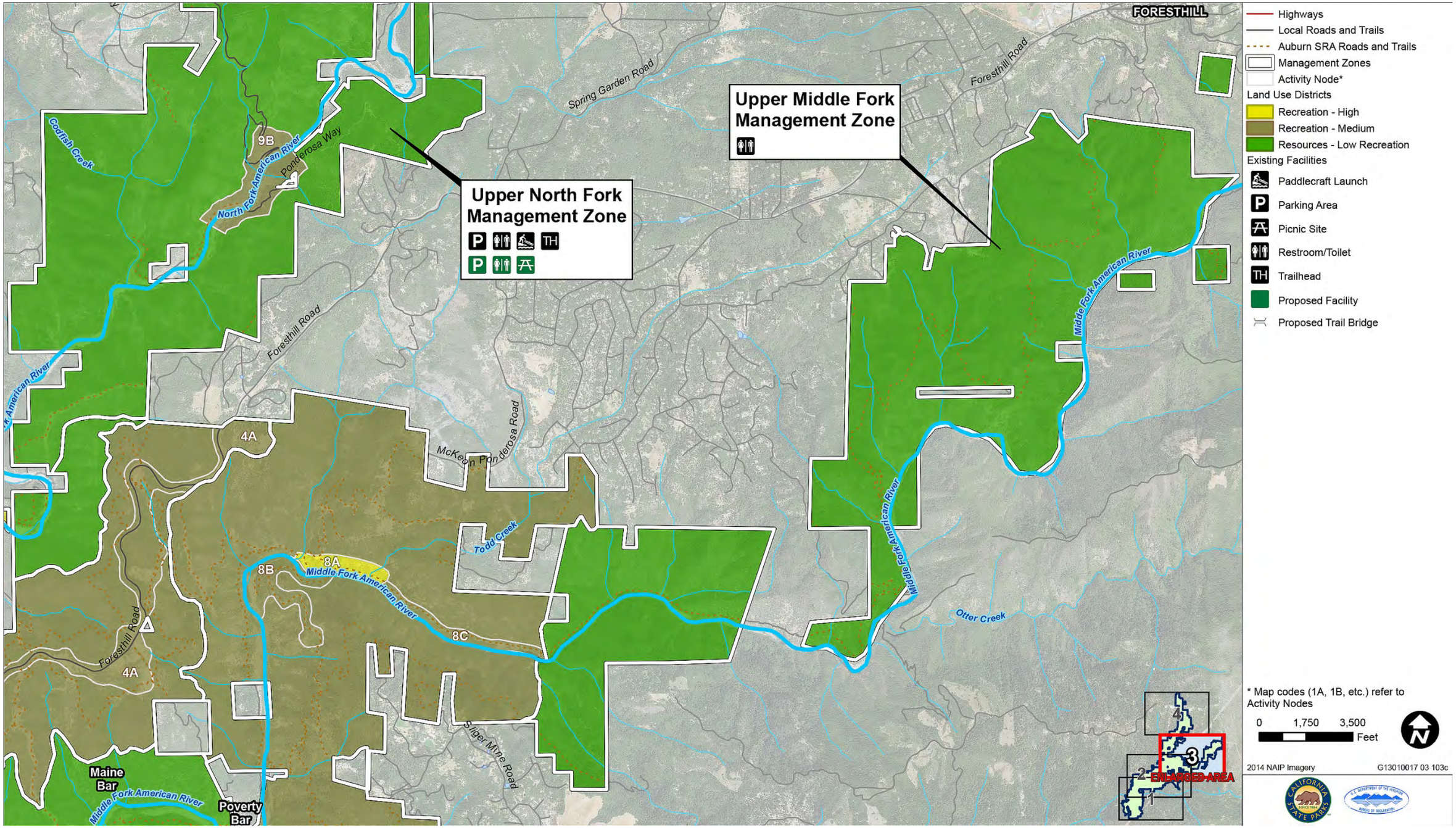
Source: Compiled by Ascent Environmental in 2017

Figure 2.6-1a Proposed Action (Increased Recreation and Resource Management Alternative) (1 of 4)



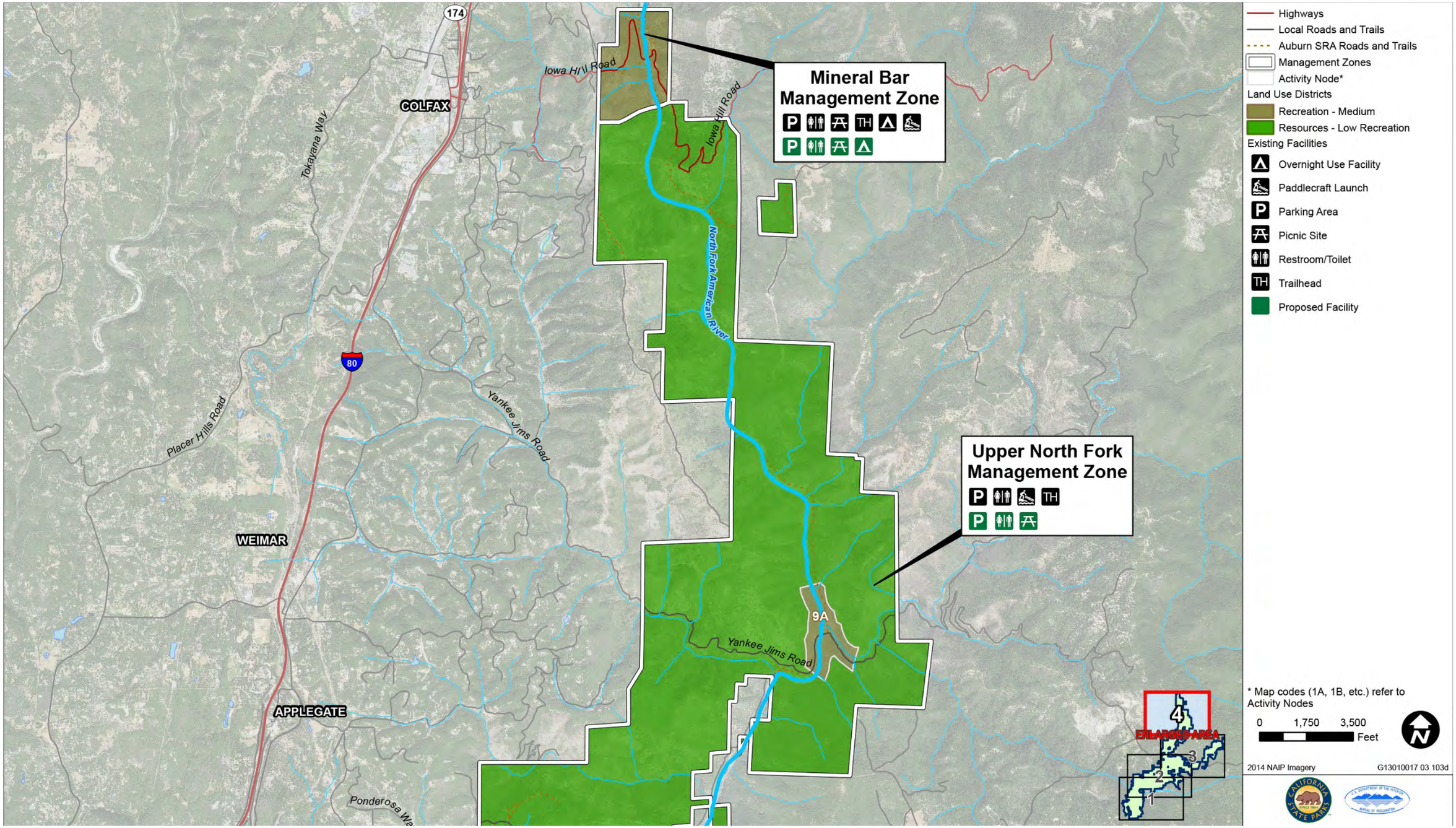
Source: Compiled by Ascent Environmental in 2017

Figure 2.6-1b Proposed Action (Increased Recreation and Resource Management Alternative) (2 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.6-1c Proposed Action (Increased Recreation and Resource Management Alternative) (3 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.6-1d Proposed Action (Increased Recreation and Resource Management Alternative) (4 of 4)

Under the Proposed Action, individual campsites could be added to the Cherokee Bar/Ruck-a-Chucky and Mineral Bar Management Zones. New campgrounds could be constructed in up to five management zones. A campground with up to 50 individual campsites and three group sites could be constructed in the Knickerbocker Management Zone, within the Knickerbocker Road Corridor (Node 1C) and outside of the Cool Staging Area. The campground could also include a small (up to 1 acre) maintenance yard and equipment storage area. Because of the close proximity of this area to utility services, such as water and electricity, this would be the only campground that could include restrooms with running water and lights. This campground would be anticipated to be open year-round. A campground with up to 50 individual developed campsites and one group campsite could be located at the Rocky Point/Salt Creek Activity Node (2B) in the Auburn Interface Management Zone. This campground could include alternative camping facilities such as camp cabins. This campground would be anticipated to be open year-round.

In the Mammoth Bar Management Zone, if the OHV tracks are removed or relocated to an upland location, a campground with up to 50 individual campsites could be constructed. In Cherokee Bar (Node 8B), a campground with up to 20 individual campsites and one group campsite could be constructed. In the Foresthill Divide Management Zone, a up to 20 individual campsites and a small (up to 1 acre) maintenance yard and equipment storage area could be constructed (Road Corridor Node 4A).

The Proposed Action would designate areas for primitive, backcountry camping. This component would not involve construction of any new primitive campsites, but would include a continuation of the existing primitive, backcountry camping permit program, which could be expanded if demand increases.

Trails

With implementation of the Proposed Action, a number of trail improvements and two trail bridges could be constructed. New technical mountain biking trails are proposed in the Auburn Interface and Mammoth Bar Management Zones.

Two trail bridges could be constructed in ASRA /APL. An Auburn-to-Cool trail bridge would connect trails on both sides of the river in the Auburn Interface Management Zone. Based on the best available information at this time, the preferred location for the bridge is the Upper Outlet Rapid location, downstream from the Auburn Dam site and in close proximity to the existing ACT crossing such that construction of new trail connecting the bridge to the existing trail would be minimal. A second trail bridge could be located at the Greenwood Bridge site on the Western States Trail in the Cherokee Bar/Ruck-a-Chucky Management Zone.

This alternative also provides guidance to prepare a Road and Trail Management Plan (RTMP) that would further define road and trail improvements, consider trail use designations to address potential trail user conflicts, and provide for a comprehensive trail maintenance program in ASRA/APL.

The Proposed Action identifies several major trail connections to be constructed, improved, or extended including:

- improved trail connections between Auburn and Cool,
- a trail from the Confluence to Ponderosa Road crossing, and
- a trail connecting the Olmstead Loop in the Knickerbocker Management Zone to Peninsula Campground in Folsom Lake State Recreation Area.

Day-use Facilities

Day-use facilities would include facilities that would meet the needs of visitors accessing ASRA/APL for a variety of reasons, including mountain bicycling, hiking, swimming, whitewater recreation, and horseback riding. The Proposed Action would install new picnic sites (i.e., picnic tables) that would be co-located with shade ramadas in some locations. Up to an estimated 140 picnic sites could be added to ASRA/APL, including in the Knickerbocker, Auburn Interface, Foresthill Divide, Cherokee Bar/Ruck-a-Chucky, Upper North Fork, and Mineral Bar Management Zones.

Parking and Access

The Proposed Action would increase day-use parking capacity in ASRA/APL by up to approximately 25 percent (i.e., 470 parking stalls) and could include modifying existing parking facilities to enhance public safety and reduce sensitive resource impacts. Additional parking and parking improvements would occur in the Confluence, Knickerbocker, Auburn Interface, Foresthill Divide, Lower Middle Fork, Cherokee Bar/Ruck-a-Chucky, Upper North Fork, and Mineral Bar Management Zones. Any new parking or improvements would consist of mostly gravel parking similar to that which currently exists in the park. The Proposed Action would also include a guideline to coordinate with the City of Auburn, Placer County, and El Dorado County to provide off-site parking with shuttle or transit service to popular areas with limited parking.

The Proposed Action would provide additional public river access by improving McKeon-Ponderosa Road and opening it up to public vehicle use in the Cherokee Bar/Ruck-a-Chucky Management Zone. It would also improve the Knickerbocker Road and open it to public vehicle access from near the town of Cool to the river in the Knickerbocker and Auburn Interface Management Zones. CSP or Reclamation would coordinate with appropriate agencies to improve Sliger Mine Road, Yankee Jims Road, and Drivers Flat Road to better accommodate recreation use and access. The improved river access is intended to increase opportunities for river access and reduce congestion at the existing limited number of river access points.

Interpretive Elements

The interpretive and education program is described in Chapter 4 of the GP/RMP. Implementation of the Proposed Action would establish interpretive themes to guide a cohesive interpretive program. It would continue operation of existing interpretive and education practices, such as guided hikes and water safety activities; and would retain, and periodically update, existing interpretive elements, such as information kiosks, panels and signage. This alternative would also allow for guided tours of the Mountain Quarries Mine in the Confluence Management Zone. The types of interpretive facilities that would be constructed under the Proposed Action include panels, signage, maps, and kiosks at locations such as trailheads and near parking areas. A collection of panels, signage, and maps could form a small interpretive center in ASRA/APL under this alternative. It would also improve wayfinding and directional signage throughout ASRA/APL.

Active Recreation

Active recreation facilities would be constructed in the Auburn Interface and Mammoth Bar Management Zones. The types of infrastructure for these activities could vary. Any active recreation facilities would be consistent with the purpose and visions for ASRA/APL, described in Section 4.1 of the GP/RMP. These facilities could require limited infrastructure but would be restricted to facilities

that emphasize outdoor recreation in the natural environment. For example, no playgrounds, swimming pools, or indoor recreation facilities would be constructed within ASRA/APL.

Watercraft Recreation

The Proposed Action would support and enhance watercraft recreation by improving access through renovating, modifying, or adding river launching and landing facilities for kayaks and whitewater rafts in the Auburn Interface, Confluence, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would increase boating concession opportunities at Lake Clementine and below the Confluence in the Auburn Interface Management Zone, including rafting and inflatable kayak trips, canoeing and kayaking trips, and stand-up paddleboard trips. It would permit commercial whitewater boating under existing authorities, but adaptively manage whitewater use and consider increases in the number of commercial outfitter launches in response to demand.

Administrative Facilities

Under the Proposed Action, CSP would maintain the existing administrative offices in the Confluence Management Zone, and would consider expanding or repairing facilities to better serve increased Auburn Sector staffing. The GP/RMP would also allow for maintenance yards and equipment storage areas that would be located in the Knickerbocker and Foresthill Divide Management Zones to more efficiently support ASRA/APL maintenance needs.

2.7 Resource Management Emphasis Alternative

The RME Alternative would provide increased resource protection and conservation as identified through comprehensive inventory, survey, or other mechanisms, such as CEQA/NEPA review. This alternative does not include substantial new facilities to accommodate increases in recreation use. It would:

- Proactively manage natural resources to protect, enhance, and restore ecological function and natural processes.
- Increase management of natural and cultural resources and prioritize ecosystem restoration in impacted areas.
- Modify visitor access and recreation facilities to enhance resource protection and public safety.
- Comprehensively inventory, survey, evaluate, and monitor natural and cultural resources to provide additional data needed for effective protection and management. Areas would be prioritized for survey or inventory using factors, including potential threats to resources, current level of impact, unique or special status resources, habitat diversity, and resource types.
- Manage risks associated with climate change. Such management approaches could include increasing water efficiency in existing facilities; planting drought tolerant vegetation; reducing fuel loads; constructing catchment systems for irrigation; and allowing natural processes (e.g., fire, flooding)—and resulting vegetation succession, to occur where life and property are not threatened.
- Provide robust educational and interpretive messages, programs, materials, features, and facilities to enhance visitor understanding and engagement in resource protection and stewardship.

The following provides an overview of the characteristics of the RME Alternative, including general descriptions of facilities that could be developed and improvements that could be made in ASRA/APL throughout buildout of the GP/RMP. Table 2.4-2 lists the types of facilities and improvements that would be planned for each management zone. Figures 2.7-1a through 2.7-1d, show where proposed land uses and facilities would occur. As identified for the Proposed Action, the RME Alternative would implement CSP Standard Project Requirements and the goals and guidelines of the GP/RMP to influence where and how development could occur within ASRA/APL, address critical planning issues, and avoid or minimize potential adverse environmental effects.

2.7.1 Goals and Guidelines

The goals and guidelines for the RME Alternative would be similar to the Proposed Action. It too would include goals and guidelines that address proposed development and operations, and designate appropriate land uses and resource management that would apply throughout ASRA/APL and within each management zone. The RME Alternative includes the same purpose and ASRA/APL vision and adaptive management elements as the Proposed Action. Visitor access and recreation facilities would be modified to enhance resource protection and restoration. The RME Alternative would include different management zone goals and guidelines than the Proposed Action, which would implement the specific elements of the RME Alternatives described here.

Camping

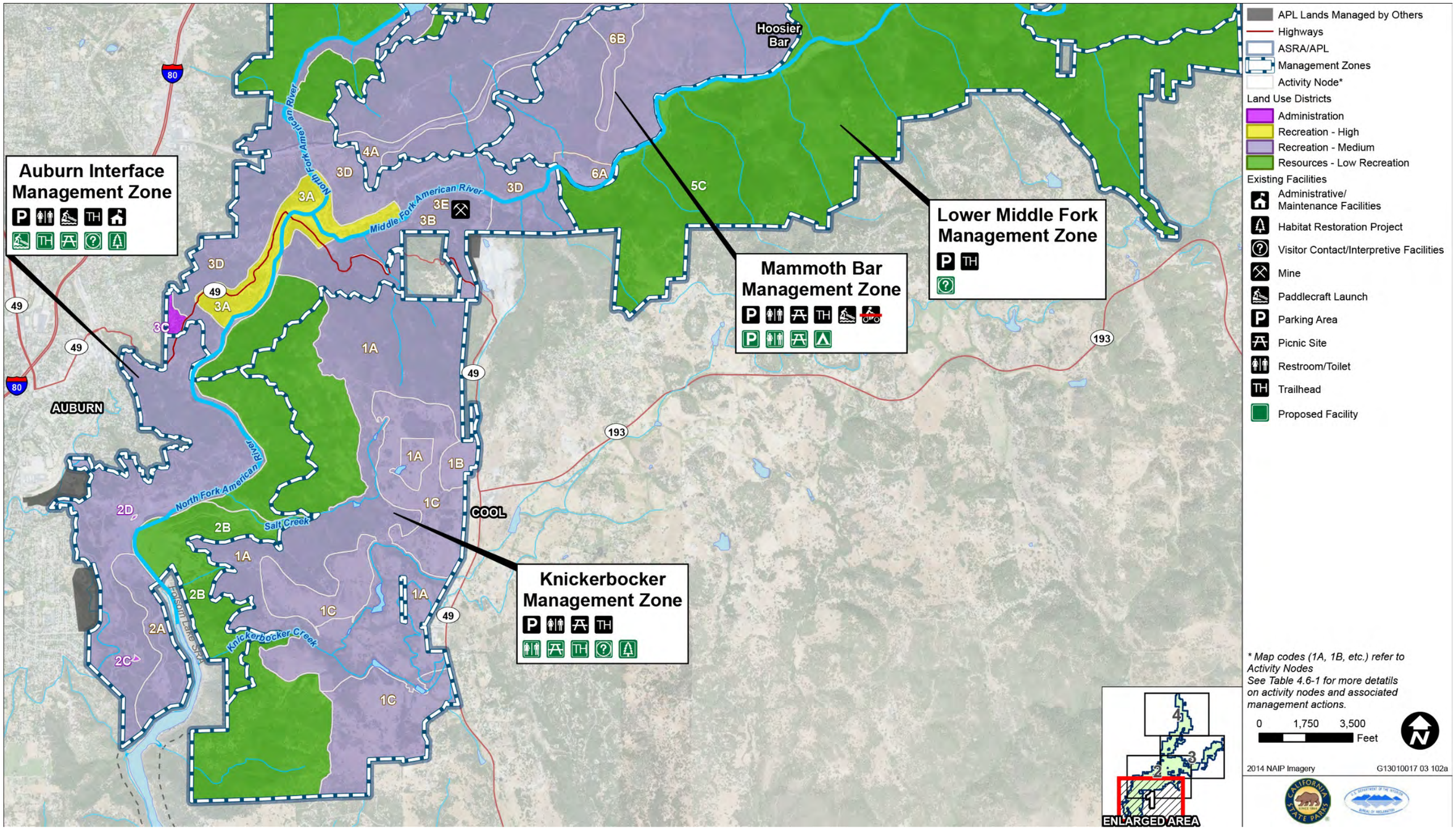
The RME Alternative would retain existing developed camping facilities at the Mineral Bar and Lake Clementine Management Zones and would retain the backcountry camping permit program. The Mineral Bar campground could be renovated but would retain the existing number of sites. This alternative proposes to phase out camping adjacent to the river at Ruck-a-Chucky by removing camping facilities and restoring the area to native habitat. If the OHV tracks in the Mammoth Bar Management Zone are removed or relocated to an upland location, this alternative could construct up to 50 campsites covering an estimated 33,600 sf (0.8 acres) in this area. Overall, it could result in the removal of 5 campsites at Ruck-a-Chucky and the addition of 50 sites at Mammoth Bar for a net increase of 45 campsites.

Trails

Trail improvements under the RME Alternative would be limited to realignment, reconstruction, or removal of existing trail routes that are not sustainable. In the Knickerbocker Management Zone, trail access and emergency vehicle access from Cool to the river would be improved. Similar to the Proposed Action, the RME Alternative would also result in preparation and implementation of a RTMP to determine which trail routes to retain, expand, re-align, improve or remove; and to consider changes in trail use designations and include a comprehensive trail maintenance program. The RME Alternative would phase out OHV use, including tracks and trails, and convert Mammoth Bar Management Zone to non-OHV uses.

Day-use Facilities

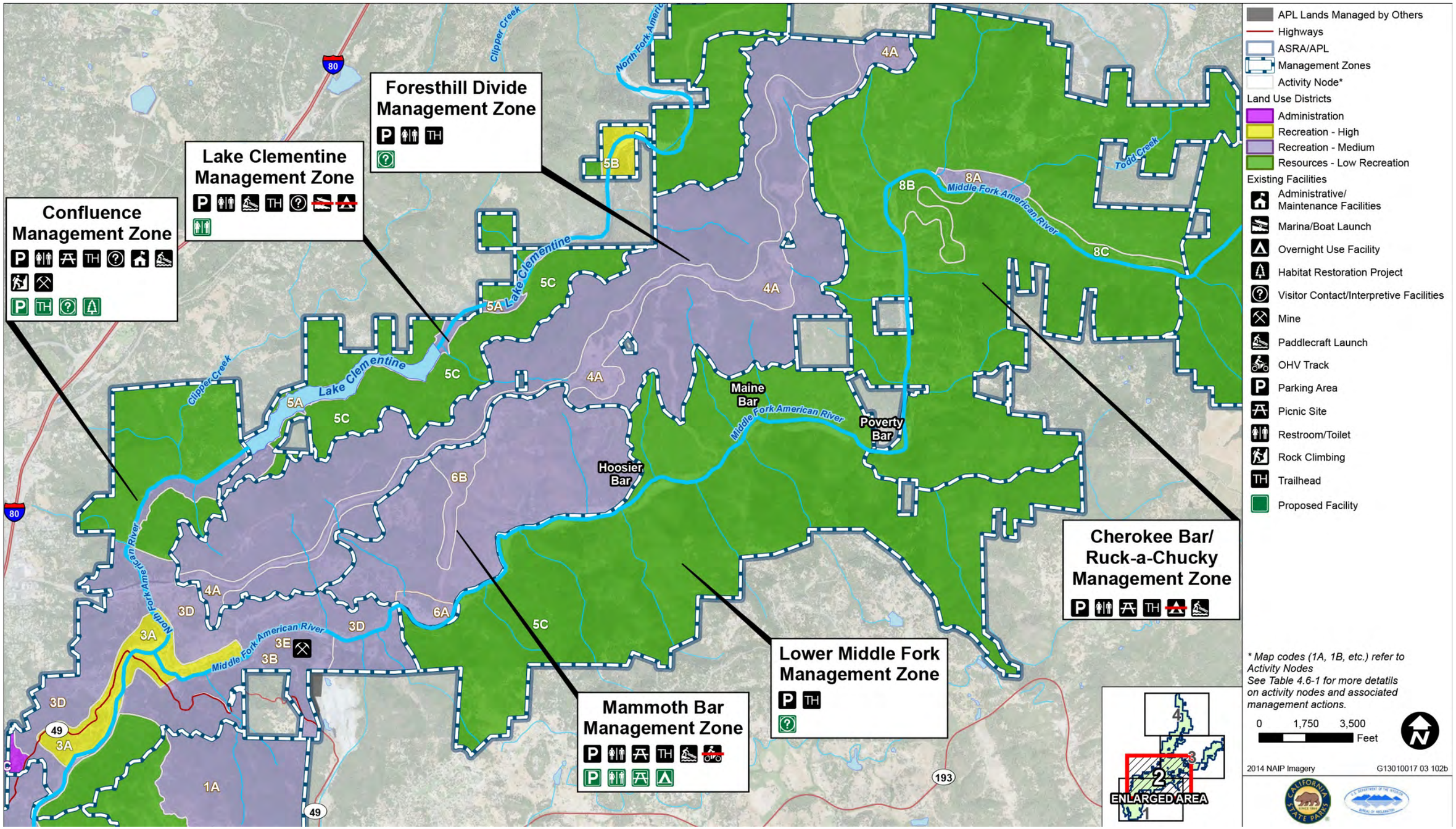
The RME Alternative would include some new day-use facilities, including parking, picnic sites, restrooms, trash receptacles, signage, vehicle barriers, and drainage features. It would include the installation new picnic sites that would be co-located with shade ramadas. This alternative would include 10 new picnic sites in the Knickerbocker Management Zone and 20 new picnic sites in the Mammoth Bar Management Zone if the OHV tracks are removed.



Source: Compiled by Ascent Environmental in 2017

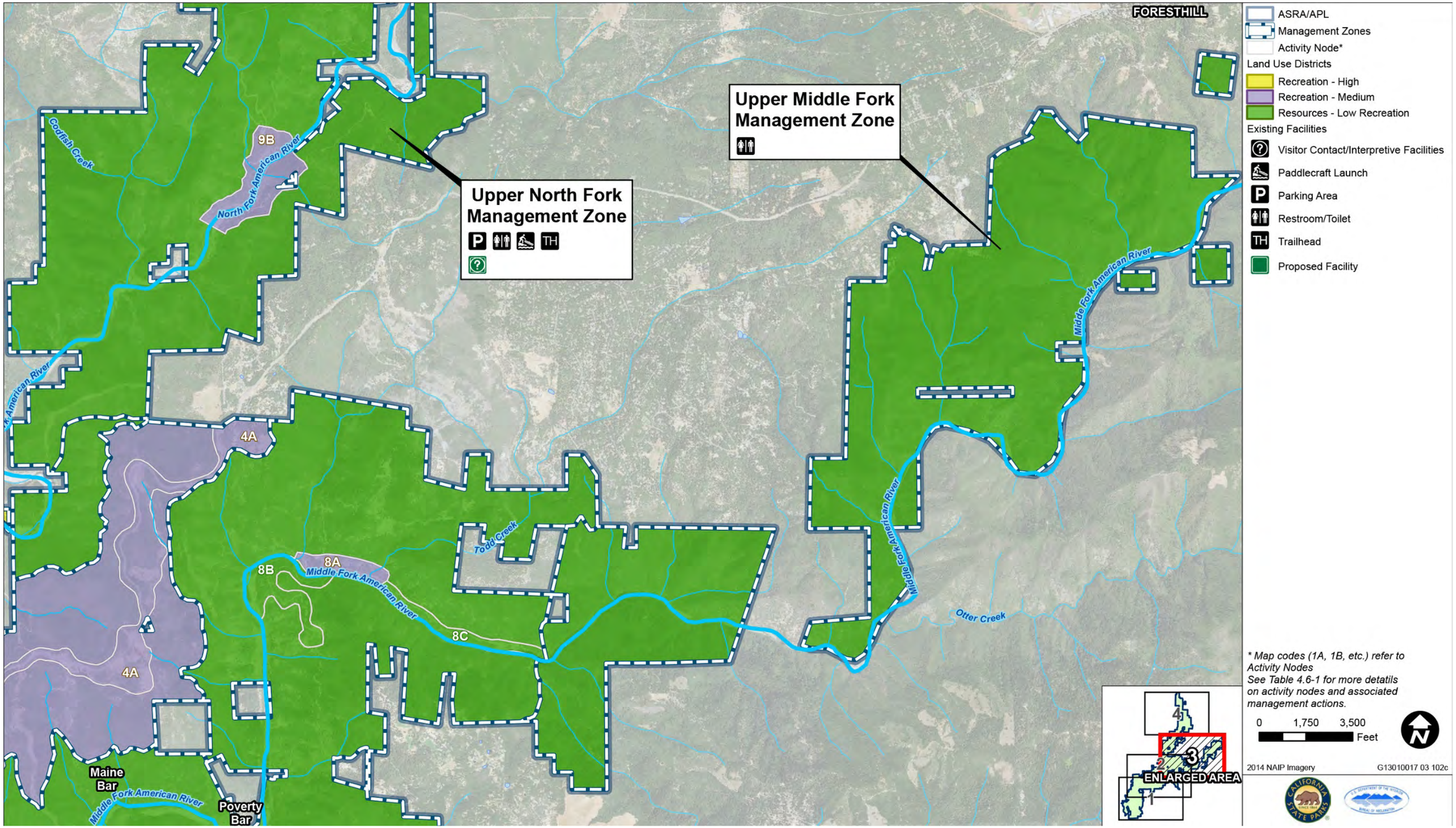
Figure 2.7-1a

Resource Management Emphasis Alternative (1 of 4)



Source: Compiled by Ascent Environmental in 2017

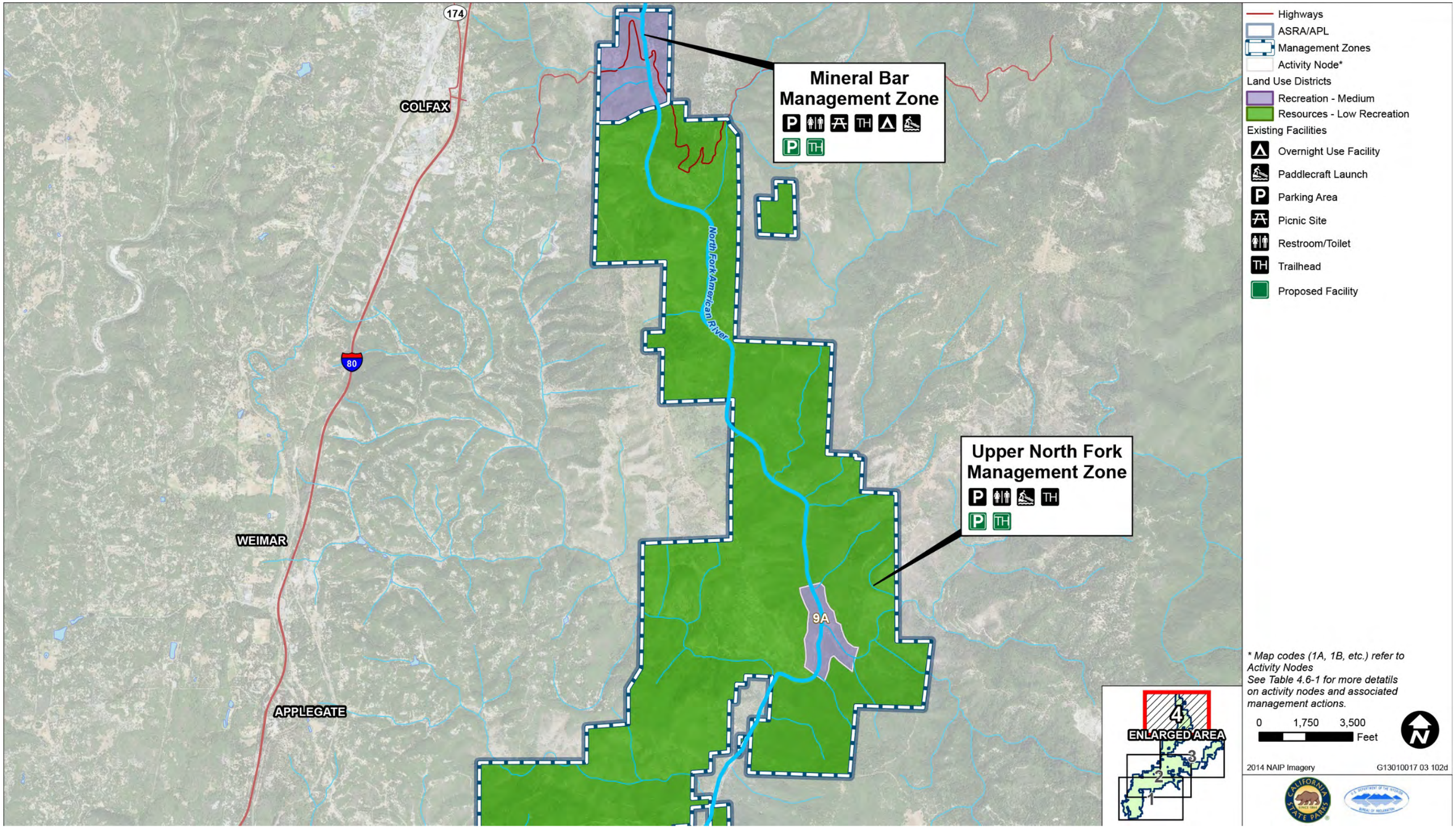
Figure 2.7-1b Resource Management Emphasis Alternative (2 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.7-1c

Resource Management Emphasis Alternative (3 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.7-1d Resource Management Emphasis Alternative (4 of 4)

Parking and Access

The RME Alternative would include some parking management strategies similar to those described above for the Proposed Action, including modifying existing parking to enhance public safety and reduce sensitive resource impacts and coordinating with local jurisdictions to provide off-site parking with shuttle or transit service to popular areas with limited parking. However, minimal new parking would be added and CSP would work with Caltrans, Placer County, and El Dorado County, to restrict or prohibit roadside parking on State Route (SR) 49 as needed to improve public safety. Construction of a new interpretive center in the Confluence Management Zone would include 20 parking spaces. If the OHV tracks are removed or relocated to an upland location, then up to 50 day-use parking stalls would be added in Mammoth Bar. The RME Alternative would not provide new vehicle access to the river.

Interpretive Elements

The RME Alternative would include a very similar interpretive program as described above for the Proposed Action, including the development of interpretive themes to guide a cohesive interpretive program. This alternative would also prepare and implement an Interpretation and Education Plan, which would provide more detailed guidance on programming and materials. Implementation of the RME Alternative would result in the construction of a moderate-sized interpretive center of about 3,000 sf and up to 20 parking spaces in the Confluence Management Zone. No public access into the Mountain Quarries Mine would be allowed, but interpretive elements could be provided outside of the mine.

Active Recreation

The RME Alternative would not include any active recreation facilities.

Watercraft Recreation

Commercial whitewater use levels and allocations would be similar to that which occurs under existing conditions with implementation of the RME Alternative or would be reduced if necessary to accommodate changing conditions and enhance resource protection. Noncommercial whitewater use levels would be anticipated to remain similar to existing levels. This alternative would include less infrastructure to support whitewater use than the other action alternatives because camping would be removed over time in the Cherokee Bar/Ruck-a-Chucky management zone, which is a popular area for whitewater recreationists. Additionally, this alternative would not improve river access like under the other action alternatives. This alternative would revise and/or prepare, plans, guidelines or standards, as needed, to make adjustments to a whitewater management system. Noncommercial whitewater recreation use would not be restricted.

Administrative Facilities

The RME Alternative would continue current administrative land uses. This alternative would retain and repair existing administrative Auburn Sector office complex within ASRA/APL. This alternative would construct facilities to support habitat restoration projects, with facilities that could include greenhouses, native plant nurseries, and rain water collection systems in the Knickerbocker, Auburn Interface, and Confluence Management Zones.

2.8 Recreation Emphasis Alternative

The Recreation Emphasis (RE) Alternative would anticipate and accommodate demographically relevant and diverse increases in regional and statewide visitor demand. This alternative would also increase resource protection and management to address this corresponding higher level of use and demand. It would:

- Provide new, expanded, and renovated facilities and programs to increase recreation access and opportunities, with a greater emphasis on overnight use (i.e., camping) and less day use, as compared to the Proposed Action.
- Manage natural and cultural resource to avoid or minimize impacts where threats are increasing, including areas where recreation use increases and where new facilities or uses are proposed. Surveys and inventories of resources would be focused in areas where threats are greatest.
- Monitor and report potential effects of climate change on natural and cultural resources.
- Provide interpretation and education messages, programs, materials, features, and facilities to inform the public of recreation opportunities, and to enhance awareness and stewardship of natural and cultural resources.

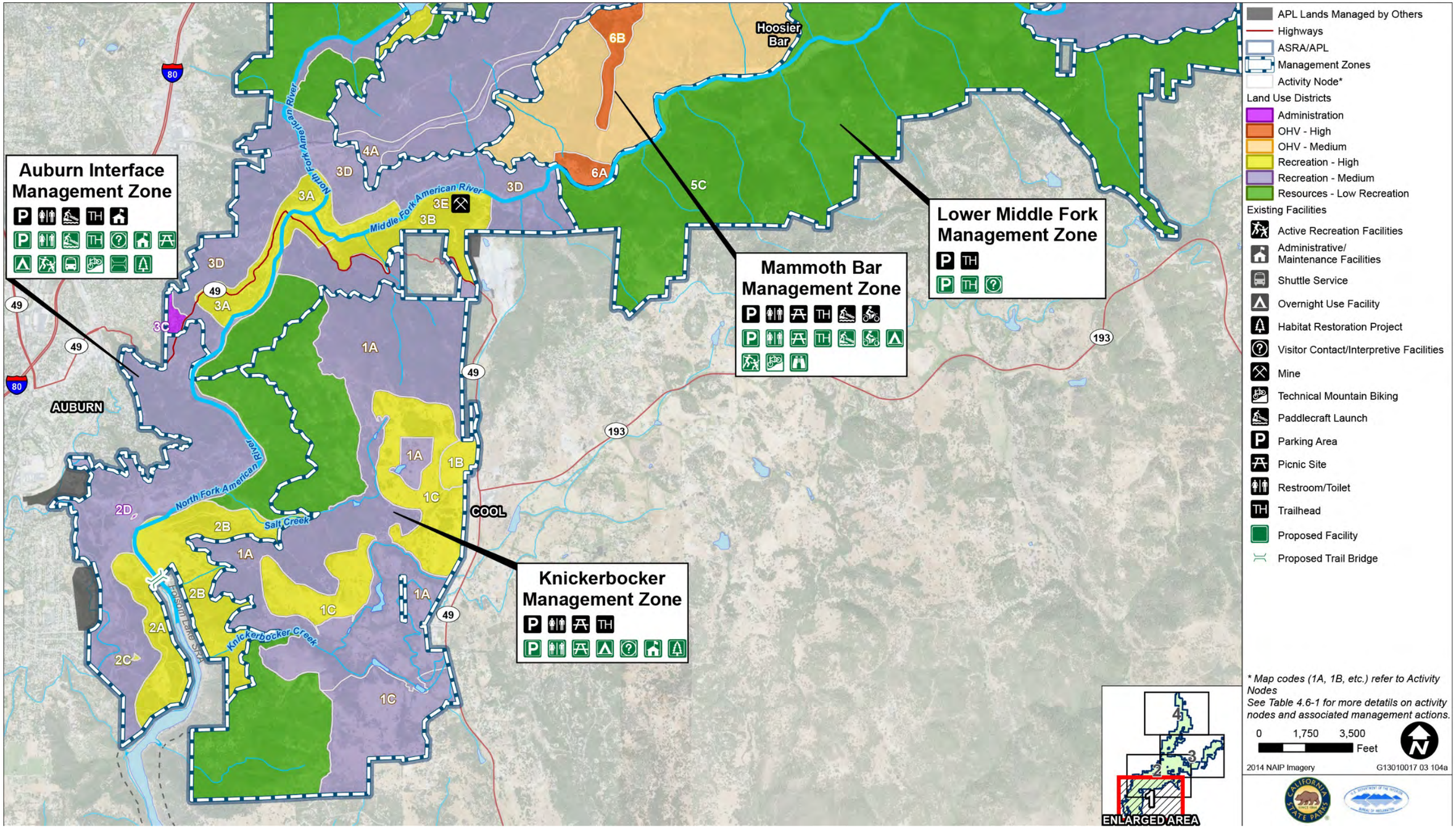
The following provides an overview of the characteristics of the RE Alternative, including general descriptions of facilities that could be developed and improvements that could be made throughout buildout of the GP/RMP. Table 2.4-2 lists the types of facilities and improvements that would be planned for each management zone. Figures 2.8-1a through 2.8-1d, show the locations of land use designations and allowable facilities. As described for the Proposed Action, the RE Alternative would implement CSP Standard Project Requirements, and goals and guidelines to influence where and how facility development could occur within ASRA/APL, address critical planning issues, and avoid or minimize the potential adverse environmental effects.

2.8.1 Goals and Guidelines

The goals and guidelines for the RE Alternative would be similar to the Proposed Action. It too would include goals and guidelines that address the proposed ASRA/APL development and operations, and designate appropriate land uses and resource management throughout ASRA/APL and within each management zone. The RE Alternative includes the same purpose and ASRA/APL vision and adaptive management elements as the Proposed Action. The RE Alternative would include different management zone goals and guidelines than the Proposed Action, which would implement the specific elements of the RE Alternatives described here.

Camping

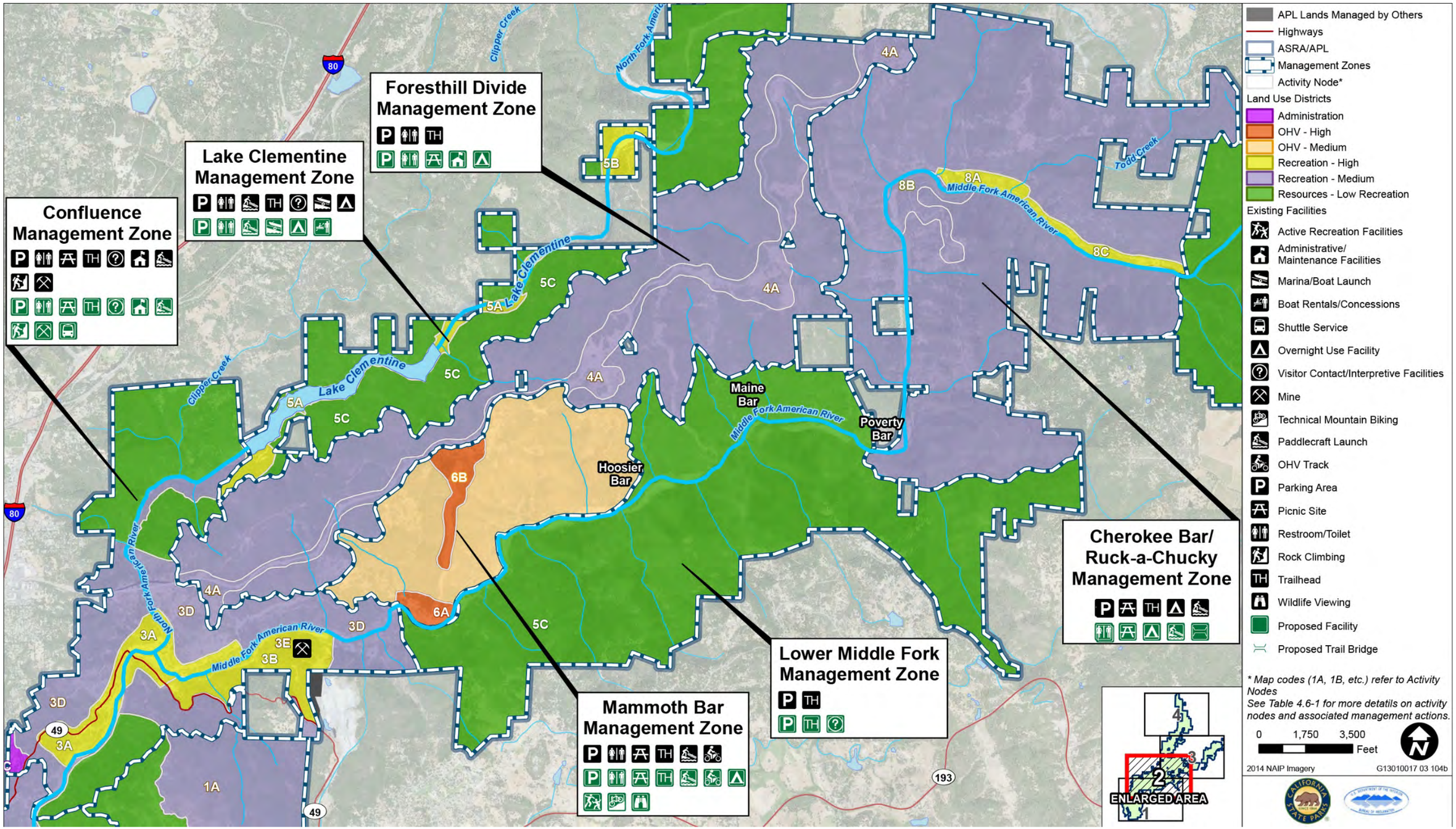
The RE Alternative would result in a greater increase in camping capacity than the Proposed Action with up to 390 individual campsites, seven group sites, five alternative sites, and five primitive sites. The estimated area of proposed campsites in ASRA/APL would be approximately 288,960 sf (6.6 acres). New campsites would also be constructed at existing campgrounds in the Mineral Bar and Lake Clementine Management Zones. New campgrounds would be constructed in the Knickerbocker, Auburn Interface, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Foresthill Divide Management Zones.



Source: Compiled by Ascent Environmental in 2017

Figure 2.8-1a

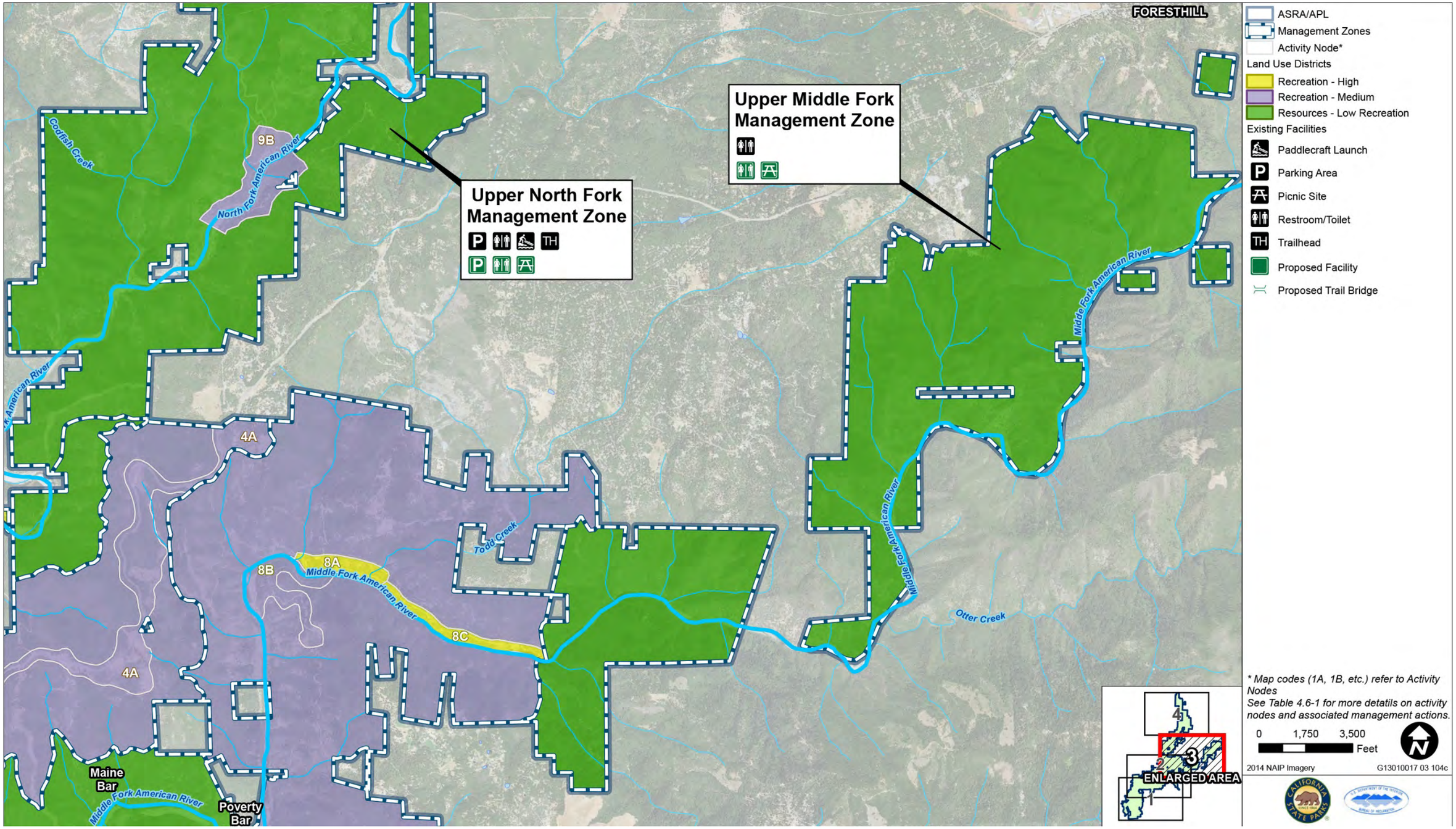
Recreation Emphasis Alternative (1 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.8-1b

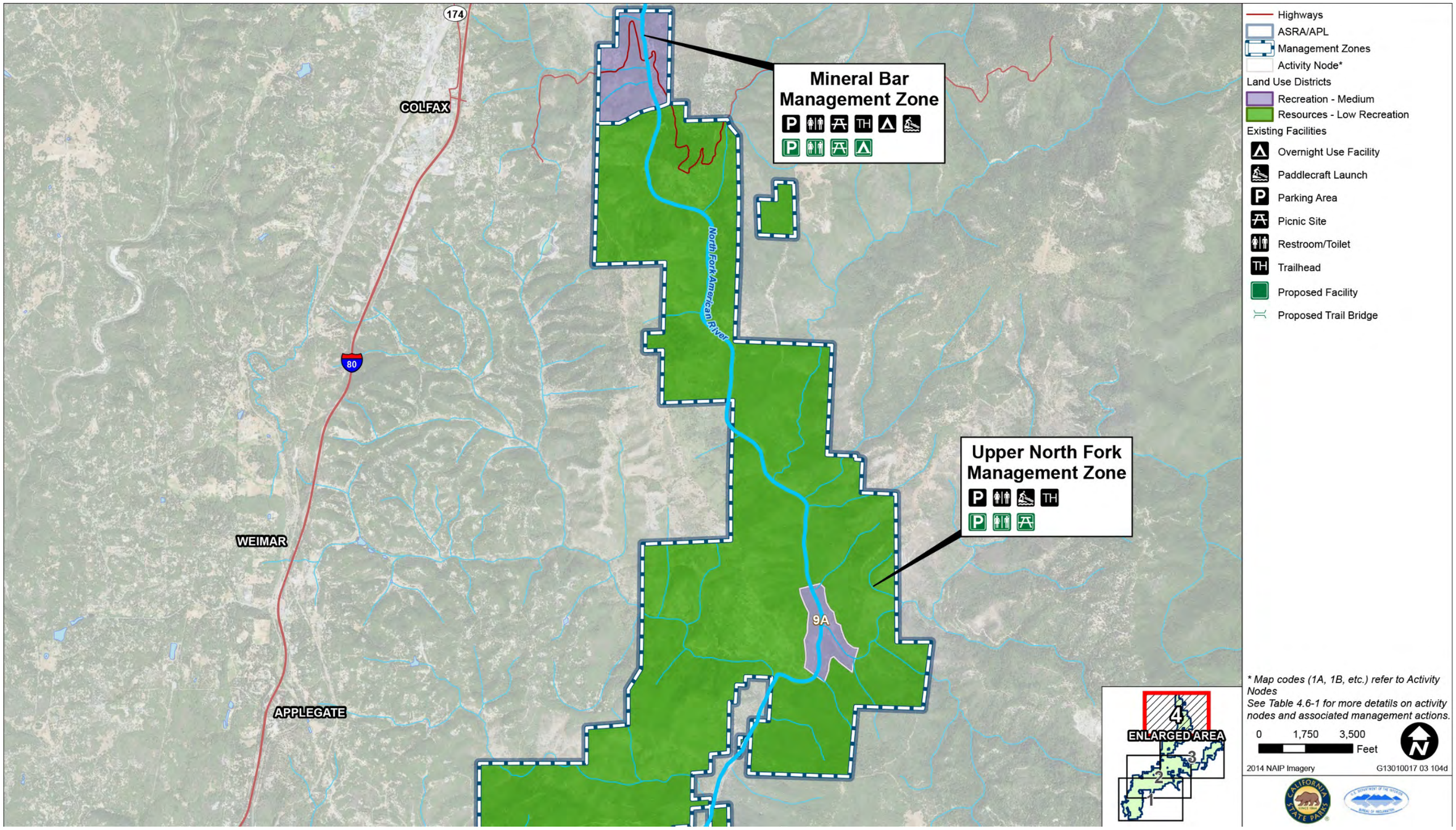
Recreation Emphasis Alternative (2 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.8-1c

Recreation Emphasis Alternative (3 of 4)



Source: Compiled by Ascent Environmental in 2017

Figure 2.8-1d

Recreation Emphasis Alternative (4 of 4)

Trails

The RE Alternative would include similar trail improvements as those described for the Proposed Action, including construction of the two trail bridges. In addition, expand the OHV area boundary and trail system in the Mammoth Bar Management Zone by up to 20 percent, and allow OHV use up to seven days a week. Similar to the Proposed Action, the RE Alternative would also result in preparation and implementation of a RTMP. This alternative would include new technical mountain bike trails in the Auburn Management Zone and the same new trail connections as the Proposed Action.

Day-use Facilities

The RE Alternative would include new day-use facilities, including parking, picnic sites, restrooms, trash receptacles, signage, vehicle barriers, and drainage features. It would include similar picnic sites as those described for the Proposed Action. In addition, the RE Alternative would add up to 20 picnic sites in the Confluence Management Zone near the Mountain Quarries Mine or Quarry Trailhead. In the Upper Middle Fork Management Zone, this alternative could result in additional river recreation facilities at lunch stop sites with restrooms and up to 10 picnic sites.

Parking and Access

The RE Alternative would increase day-use parking capacity by up to 35 percent (i.e., up to 570 new parking stalls) to better serve existing recreation use and respond to demand. It would include similar parking improvements as those described above for the Proposed Action, including modifying existing parking to enhance public safety and reduce sensitive resource impacts and coordinating with local jurisdictions to provide off-site parking with shuttle or transit service to popular areas where parking is limited. This alternative would also construct parking at the flat below the Mountain Quarries Mine with up to 100 parking stalls in the Confluence Management Zone. In the Lake Clementine Management Zone, the alternative would pave or grade the parking area for visitor safety and convenience.

The RE Alternative would increase public access to the river by improving the Quarry Trail road in the Confluence Management Zone, the McKeon-Ponderosa Road and the road to Canyon Creek in the Cherokee Bar/Ruck-a-Chucky Management Zone, and the Knickerbocker Road in the Knickerbocker and Auburn Interface Management Zones. These roads would be opened up to public vehicle use, which would provide additional river access opportunities and redirect some river access use from congested access points. Additionally, CSP would work with Placer County and El Dorado County to provide a road and/or multi-use trail corridor from I-80 in Applegate to SR 193 on the Georgetown Divide, generally following the historic Ponderosa and Sliger Mine road alignment. Like with the Proposed Action, under this alternative CSP would also work to improve Sliger Mine Road, Yankee Jims Road, and Drivers Flat Road to better accommodate recreation use and access.

Interpretive Elements

The RE Alternative would include elements similar to those described above for the Proposed Action. This alternative would also prepare and implement an Interpretation and Education Plan. Implementation of the RE Alternative would result in the construction of a small interpretive center of about 700 sf and up to six parking spaces in the Confluence Management Zone. A visitor center with space for educational programs and events could also be constructed in the Knickerbocker Management Zone.

Active Recreation

The RE Alternative would allow for active recreation facilities in the Auburn Interface and Mammoth Bar Management Zones. Any active recreation facilities would be consistent with the purpose and visions for ASRA/APL, described in Section 4.1 of the GP/RMP. These facilities could require limited infrastructure but would be restricted to facilities that emphasize outdoor recreation in the natural environment. No additional playgrounds, swimming pools, or indoor recreation facilities would be constructed within ASRA/APL, although existing facilities may be maintained, replaced or expanded.

Watercraft Recreation

The RE Alternative would include similar improvements that would increase watercraft-based recreation activities as described above for the Proposed Action. In addition, this alternative proposes to close or clear the blind chute on the right-hand side near the bottom of Murderers Bar Rapid in the Confluence Management Zone to increase safety and expand rafting opportunities. Under this alternative, the existing marina facilities in the Lake Clementine Management Zone would be renovated and the capacity for watercraft would be expanded.

Administrative Facilities

The RE Alternative would result in the same administrative facilities land uses and improvements in ASRA/APL as described for the Proposed Action. In addition, this alternative would construct facilities to support habitat restoration projects, such as a greenhouse, native plant nursery and rain water collection system in the Knickerbocker and Auburn Interface Management Zones.

3 Environmental Effects Eliminated from Further Analysis

As required by CEQA (CEQA Guidelines Section 15128), this section presents discussions related to environmental effects found not to be significant. The Council on Environmental Quality NEPA implementing regulations require that EISs include discussions of impacts in proportion to their significance, with only a brief discussion for issues that are not significant (40 CFR 1502.2[b]). At this first tier of planning and environmental analysis, some topical issues were found not to be significant and were not evaluated further in this EIR/EIS. These topical issues are identified and briefly discussed in this section. If the GP/RMP is amended in the future or conditions as presented herein change, these effects will have to be re-evaluated to ensure that they are still deemed to be not significant.

- **Agricultural and forest resources.** ASRA/APL does not contain any active agricultural uses. According to the California Department of Conservation (DOC), there are no lands considered to be important farmland on the project site (DOC 2017, 2018) or lands subject to Williamson Act contracts (DOC 2016a, 2016b). The Farmland Protection Policy Act (FPPA; Title 7, Section 4201 and subsequent sections of the U.S. Code [7 USC 4201 et seq.]) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The area within ASRA/APL does not meet the definition of "farmland" as provided for in 7 USC 4201(c)(1). Thus, the GP/RMP alternatives would not convert important farmland to other uses, conflict with Williamson Act contracts, or otherwise affect agricultural land. The GP/RMP alternatives would not substantially divert water resources or otherwise indirectly affect agricultural uses. There would be no impacts on agricultural resources.

  The GP/RMP could result in some new facilities in areas that are forested; however, facilities would be located in already disturbed areas and/or adjacent to the river, which would not require substantial removal of trees. Implementation of any of the alternatives would not convert forest or timberland to non-forest or non-timberland uses. There would be no impact on forest resources.

- **Hazards due to roadway design.** None of the action alternatives would install sharp curves or dangerous intersections, or result in incompatible uses of roadways, such as by slow-moving farm equipment. No hazards due to roadway design would result.

- **Vector-borne disease.** The proposed project does not include treatment wetlands or detention basins of sufficient capacity that could influence vector-borne disease risks. The GP/RMP does not propose any new facilities that could provide habitat for disease vectors, such as mosquitoes or rodents. Therefore, there would not be hazards associated with increased potential for vector-borne disease as a result of the project.

- **Population and housing.** Implementation of the GP/RMP could result in several new staff at ASRA/APL. However, the amount of employment generated by any of the action alternatives would be minimal, would not result in substantial population growth such that construction of additional housing would be required. Additionally, the action alternatives would not construct new roads or result in the extension of utilities that could allow for growth in the number of housing units. The action alternatives would not result in direct or indirect population growth. Furthermore, the project is located on public land that contains recreation facilities and, thus, implementation of any of the action alternatives would not displace any people or housing.

This page intentionally left bank.

4 Environmental Consequences and Mitigation

4.1 Assumptions and Methods for Assessing Impacts

4.1.1 Contents of Environmental Analysis Sections

This environmental document assesses the environmental consequences of all alternatives at a comparable level of detail. Discussion of each technical topic is contained in Sections 4.2 through 4.17. Each of these sections includes both a discussion of the direct and indirect consequences of implementing the GP/RMP alternatives, and the cumulative impacts in the context of other past, present, and reasonably foreseeable future projects near ASRA/APL and in the region, as appropriate. Sections 4.2 through 4.17 include the evaluation of all environmental topics originally identified for review in the Notice of Preparation (NOP) (CSP 2017) and Notice of Intent (Reclamation 2006). The NOP and public and agency input provided throughout the planning process is available for download on the plan website (https://www.parks.ca.gov/planASRA).

In accordance with CEQA and NEPA requirements, this environmental analysis examines 16 resource topics. The impact analyses in Sections 4.2 through 4.17 address the physical effects resulting from implementation of the No-Action Alternative, Proposed Action, Resource Management Emphasis Alternative, and Recreation Emphasis Alternative. Resource topic areas consist of the following:

- Section 4.2, Air Quality
- Section 4.3, Biological Resources
- Section 4.4, Cultural and Tribal Cultural Resources
- Section 4.5, Mineral Resources
- Section 4.6, Environmental Justice
- Section 4.7, Geology and Soils
- Section 4.8, Greenhouse Gas Emissions, Climate Change, and Energy
- Section 4.9, Hydrology and Water Quality
- Section 4.10, Hazards and Hazardous Materials
- Section 4.11, Land Use and Planning
- Section 4.12, Transportation and Circulation
- Section 4.13, Public Services and Utilities
- Section 4.14, Recreation
- Section 4.15, Scenic Resources
- Section 4.16, Noise
- Section 4.17, Wildfire

The resource analysis sections of this EIR/EIS are organized into the following major subsections:

Introduction: This subsection provides introductory text pertaining to each technical topic, including a summary of comments raised by the public. Chapter 2, Existing Conditions, of the ASRA/APL GP/RMP, and the *Auburn State Recreation Area Resources Inventory and Existing Conditions Report* provide detailed information on the environmental setting and affected environment that is pertinent to the

analysis in this chapter. Applicable sections of these documents are incorporated by reference into the resource analysis in Sections 4.2 through 4.17. Both documents are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. This subsection refers the reader to the applicable section(s) in Chapter 2 of the GP/RMP and/or the *Auburn State Recreation Area Resources Inventory and Existing Conditions Report* that contain setting information relevant to the resource topic.

Environmental Consequences and Mitigation: This subsection describes the methods and assumptions used in the environmental impact analysis, the criteria used to determine the level of significance of environmental impacts for the purposes of CEQA, the environmental effects of implementing the project alternatives, and feasible minimization and mitigation measures that could reduce potentially significant and significant impacts. For the purposes of CEQA, the impacts of the alternatives are determined by comparing the environmental effects of each alternative with the baseline, or existing, condition. For the purposes of NEPA, the analysis considers the context and intensity of environmental impacts relative to conditions that would occur under the No-Action Alternative. Project impacts are numbered sequentially in each section. A summary impact statement precedes a more detailed discussion of the environmental effects of the alternatives for the GP/RMP. The level of significance of each impact under CEQA is also defined for each alternative. The discussion is organized by alternative and includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. Some alternatives may have the same or similar impacts. In these instances, the reader is referred back to previous impact discussions to reduce redundancy.

Analysis Methodology: This subsection describes the methods, process, procedures, and/or assumptions used to formulate and conduct the impact analysis. For the purposes of NEPA, each of the action alternatives are analyzed equally, and in comparison to the effects of the No-Action Alternative. For the purposes of CEQA, each alternative is evaluated against baseline conditions, and in comparison to identified significance criteria.

Significance Criteria: This section provides the criteria by which an impact is considered significant, in accordance with CEQA. For NEPA and CEQA, the impact analysis also considers factual or scientific information and data and regulatory standards of federal, state, and local agencies. For the purposes of CEQA, the impact analyses are also based on the environmental checklist in Appendix G of the State CEQA Guidelines.

Under NEPA, the impact analysis for many resource topics is not guided by specific significance criteria. Significance is used to determine whether an EIS, or some lower level of documentation such as a Categorical Exclusion or Environmental Assessment, will be required. NEPA requires that an EIS be prepared when the proposed federal action as a whole has the potential to "significantly affect the quality of the human environment" (42 U.S. Code [USC] 4332). Once a decision to prepare an EIS is made, the magnitude of the impact is evaluated, and judgment of its significance is not required. Unlike CEQA, NEPA does not require that a determination of significance for individual resources be stated in the environmental documents. Once the proposal itself is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where feasible (40 Code of Federal Regulations [CFR] 1502.14(f), 1502.16(h), and 1508.14; Council on Environmental Quality [CEQ] 1981).

Environmental Impacts: For each alternative, environmental effects are listed numerically and sequentially throughout each subsection. Project impacts are arranged to address individual CEQA checklist questions and NEPA requirements. Some impact analyses may address multiple CEQA checklist questions that address similar topics. An impact statement heading and summary precedes the discussion of each impact. Each alternative is assessed at a programmatic level under each impact heading.

Both direct and indirect effects of the alternatives are evaluated for each environmental resource area. Direct effects are those that are caused by the action and occur at the same time and place. Indirect effects are reasonably foreseeable consequences that may occur later in time or at a distance that is removed from ASRA/APL, such as growth-inducing effects and other effects related to changes in land use patterns, population density, or growth rate, and related effects on the physical environment.

For the purposes of CEQA, the significance of an impact is determined by comparing environmental effects with baseline conditions. The existing setting normally constitutes the baseline point of comparison against which a significance determination is made. Alternative-specific analyses are conducted to evaluate each potential impact on the existing environment. This assessment also specifies why impacts are found to be significant, potentially significant, or less than significant, or why there would be no environmental impact. CEQA impact determinations are identified in **bold** in a concluding statement for each impact.

For NEPA, impact analyses characterize the context of the action and the intensity (severity) of its effects (40 CFR 1508.27). The environmental effects of the action alternatives are compared to those of the No-Action Alternative to determine the net effect or impact of each of the action alternatives (Reclamation 2012).

The significance of impacts, for the purposes of CEQA, and the magnitude of the environmental effects, for the purposes of NEPA, are determined after consideration of the extent that implementation of the proposed GP/RMP goals and guidelines and established U.S. Bureau of Reclamation Policies, and Directives and Standards; and Department of Parks and Recreation Operations Manual policies, Departmental Notice policies, and Standard Project Requirements would avoid, minimize, or reduce the severity of the impact. For the purposes of CEQA, a "potentially significant" impact and "significant" impact require feasible mitigation to reduce the impact. For the purposes of NEPA, where an "adverse" impact remains significant after implementation of the goals and guidelines of the GP/RMP, BMPs and compliance with state and federal policies and regulations mentioned above, the analysis must identify additional avoidance, minimization, and/or mitigation measures (40 CFR 1502.16[h]; CEQ and California Governor's Office of Planning and Research [OPR] 2014). A less-than-significant impact, for the purposes of CEQA, and a no adverse impact determination, for the purposes of NEPA, is one that would not result in a substantial adverse change in the physical environment.

Mitigation Measures: Mitigation measures are identified for significant or potentially significant impacts of the project alternatives, in accordance with the State CEQA Guidelines (Section 15126.4) and CEQ NEPA regulations (40 CFR 1502.16[h] and 1508.20). A level of significance after the application of mitigation measures is provided for the purposes of CEQA, as well as, including an indication of whether a significant, unavoidable effect would occur. For NEPA purposes, a determination is made as to whether additional avoidance or minimization measures are needed or feasible beyond the design features included in the alternatives.

4.1.2 Cumulative Impacts

Cumulative impacts are discussed in each resource section, following discussions of the project-specific impacts.

Cumulative Impact Analysis Methodology

Section 15130(a) of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a project's incremental effect is not cumulatively considerable, the effect need not be considered significant, but the basis for concluding the incremental effect is not cumulatively considerable must be briefly described. Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

NEPA implementing regulations require consideration of cumulative effects (40 CFR 1508.25) during environmental review. Cumulative effects are defined as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7, Reclamation 2012).

Cumulative Impact Approach

State CEQA Guidelines Section 15130 identifies two basic methods for establishing the cumulative environment in which a project is considered: the use of a list of past, present, and probable future projects; or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. The cumulative analyses in this EIR/EIS uses a combined approach. Projections from adopted plans are used to describe the cumulative setting. In addition, a list of reasonably foreseeable projects that may contribute to a cumulative effect are considered. The effects of past and present projects on the environment are reflected by the existing conditions in the project area. Probable future projects are those in the vicinity that have the possibility of interacting with the proposed project to generate a cumulative impact (based on proximity and construction schedule) and either:

- are partially occupied or under construction,
- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- are proposed projects that have been discussed publicly by an applicant or that otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

CEQ published a handbook and guidance for conducting cumulative effects analysis under NEPA that overlaps with that from CEQA, which recommends temporally and spatially bounding the analysis by establishing a geographic scope and time frame that addresses past, present, and reasonably foreseeable projects that could combine with the proposed action to create cumulative impacts (CEQ and OPR 2014, Reclamation 2012).

The GP/RMP would not have an expiration date and would be intended to provide long-term guidance for management of ASRA/APL. However, the cumulative impact analysis and the analysis in the EIR/EIS assumes all future projects in ASRA/APL would be built within 20 years. Thus, the cumulative list below considers related, reasonably foreseeable projects likely to be constructed over the course of buildout of the GP/RMP. This time period was selected because it coincides with the timing of the introduction of project impacts (project impacts would be introduced by construction and operational activities) and it would be speculative to forecast development beyond a 20-year timeframe.

Cumulative Setting

Geographic Scope

The geographic area that could be affected by the project varies depending on the environmental resource topic. When the effects of the project are considered in combination with those other past, present, and reasonably foreseeable future projects to identify cumulative impacts, the specific projects considered may also vary depending on the type of environmental effects being assessed. Table 4.1-1 presents the general geographic areas associated with the different resource topics addressed in this analysis.

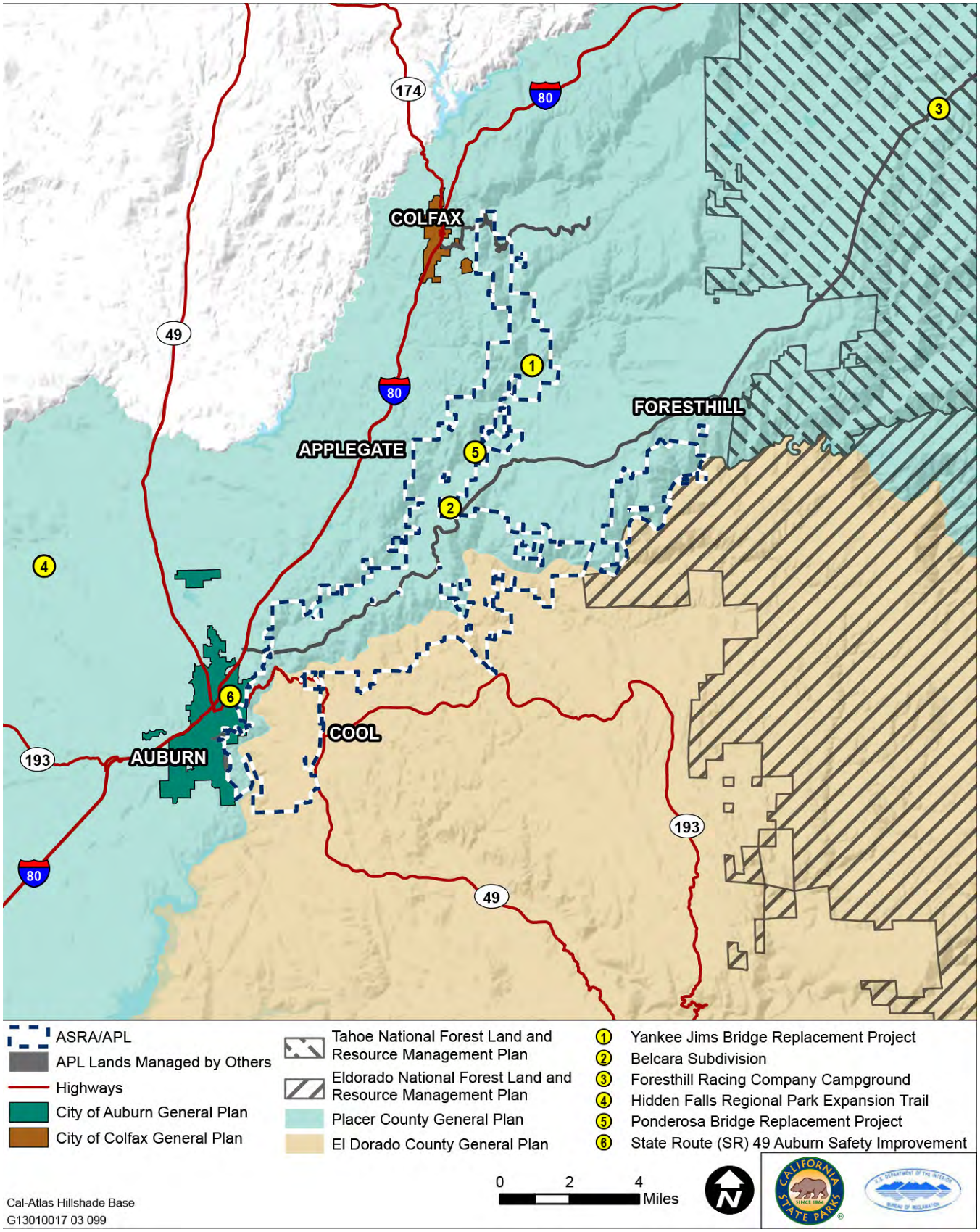
Table 4.1-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Air Quality	Regional (pollutant emissions that affect the applicable air basins) General Plan/Resource Management Plan boundary and immediate project vicinity (pollutant emissions that are highly localized)
Biological Resources	Defined differently for each species, based on species distribution, habitat requirements, and scope of impact from proposed activities
Cultural and Tribal Cultural Resources	General Plan/Resource Management Plan boundary
Mineral Resources	General Plan/Resource Management Plan boundary
Environmental Justice	Placer County and El Dorado County communities near ASRA/APL
Geology and Soils	General Plan/Resource Management Plan boundary for site grading and erosion potential
Greenhouse Gas Emissions, Climate Change, and Energy	Global/statewide/regional
Hydrology and Water Quality	Local and regional watersheds
Hazards and Hazardous Materials	General Plan/Resource Management Plan boundary
Land Use and Planning	General Plan/Resource Management Plan boundary and surrounding land uses
Transportation and Circulation	Regional and local roadways and freeways where the General Plan/Resource Management Plan could contribute traffic that could alter traffic conditions
Public Services and Utilities	Placer County and El Dorado County communities near ASRA/APL
Recreation	Placer County and El Dorado County communities near ASRA/APL
Scenic Resources	General Plan/Resource Management Plan boundary, ASRA/APL vicinity, and surrounding public viewpoints
Noise	Immediate project vicinity where project-generated noise could be heard concurrently with noise from other sources
Wildfire	Placer County and El Dorado County communities adjacent to the General Plan/Resource Management Plan boundary

Source: Compiled by Ascent Environmental in 2018

Plans and Projects List

Plans and probable future projects considered in the cumulative analysis meet the criteria described above: they are in the project vicinity and have the possibility of interacting with projects that would implement the GP/RMP to generate a cumulative impact (Table 4.1-2 and Figure 4.1-1). This list of plans and projects was considered in the development and analysis of the cumulative settings and impacts for most resource topics within the geographic scope of each resource topic (as listed in Table 4.1-1). Past and present projects in the vicinity were also considered as part of the cumulative setting, as they contribute to the existing conditions upon which the environmental effects of the proposed project and reasonably foreseeable future projects are compared.



Source: Data provided by CSP in 2016 and downloaded from USFS in 2016

Figure 4.1-1 Cumulative Projects

Table 4.1-2 Cumulative Plans/Projects List

Map Number	Project Name and Location	Relation to GP/RMP	Description	Project Status
Plans				
N/A	Placer County General Plan; Placer County, CA	Governs regional growth and the location and characteristics of adjacent development; does not govern ASRA/APL	The General Plan consists of the Countywide General Plan and a more detailed set of community plans. The Countywide General Plan is a regulatory framework for development of the county and protection of its natural and cultural resources. The community plans provide a more detailed focus on specific geographic areas within the unincorporated county and elaborate upon the Countywide General Plan.	Adopted by the Placer County Board of Supervisors on August 16, 1994 and updated on May 21, 2013.
N/A	El Dorado County General Plan; El Dorado County, CA	Governs regional growth and the location and characteristics of adjacent development; does not govern ASRA/APL	The General Plan provides long-range direction and policy for land use within El Dorado County. It provides initiatives for the County to focus on issues of greatest local concern while providing for growth in an environmentally balanced manner that preserves agricultural lands, forest and woodlands, and other natural resources.	Adopted by the El Dorado County Board of Supervisors on July 19, 2004. The last amendment for the General Plan was March 20, 2018.
N/A	City of Auburn General Plan; Auburn, CA	Governs regional growth and the location and characteristics of adjacent development; does not govern ASRA/APL	The General Plan contains goals and policies that will guide future growth in the Auburn area. These goals and policies will ensure that future development will contribute to preserving and improving the character of Auburn as a foothill community.	Adopted by the Auburn City Council on November 29, 1993.
N/A	City of Colfax General Plan; Colfax, CA	Governs regional growth and the location and characteristics of adjacent development; does not govern ASRA/APL	The General Plan is a long-range dynamic document that addresses the full range of issues that affect the city's physical development. The Plan serves as a rational decision-making guide for City staff to review new development and assure future development will maintain and enhance the character of Colfax.	Adopted by the Colfax City Council on September 22, 1998.
N/A	Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park General Plan/Resource Management Plan	Governs long-term management, development, operation, and future use and enjoyment of the unit.	The General Plan/Resource Management Plan is a long-range management document that identifies the desired future condition for the area, with goals, objectives, standards and guidelines with sufficient detail to direct future development, but flexible enough to allow resolution of day-to-day problems. Land management strategies include responsible management that balances resource development with public recreation and protection of natural and cultural resources and environmental values. Implementation of project-specific development plans will be carried out as funding allows.	Adopted by CSP on October 8, 2009. Record of Decision was approved by Reclamation on October 27, 2015.

Table 4.1-2 Cumulative Plans/Projects List

Map Number	Project Name and Location	Relation to GP/RMP	Description	Project Status
N/A	Eldorado National Forest (ENF) Land and Resource Management Plan (Forest Plan); Within portions of Alpine, Amador, El Dorado, and Placer counties and bordered on the north by the Tahoe National Forest, on the east by the Lake Tahoe Basin Management Unit, on the southeast by the Humboldt-Toiyabe National Forest, and to the south by the Stanislaus National Forest.	Governs resource management and use on public lands near ASRA/APL	The purpose of the Forest Plan is to direct the management of the Eldorado National Forest. The Forest Plan proscribes compatible sets of forest practices for the land and resources. Acres are assigned to different resource uses, and targets are set for the production of market and nonmarket goods and services. Environmental protection is gained by applying the management requirements to the approved forest activities. To accomplish its purpose, the Forest Plan: ◆ Names long-range goals and objectives; ◆ Schedules the location and occurrence of forest practices by management areas; ◆ Establishes standards and guidelines for forest practices; and ◆ Ties management activities directly to the Forest Service budgeting system.	Currently being updated.
N/A	BLM Sierra Resource Management Plan, 2007	Identifies BLM lands mapped within APL and describes respective policies within APL and on adjacent lands	The Sierra RMP guides management on approximately 300,000 acres of BLM-managed surface and subsurface land to: 1. Lead to land ownership and access patterns in response to urban growth issues and to consolidate BLM land management responsibilities; 2. Guide and focus recreational activities; 3. Protect significant natural and cultural resources; and 4. Make recommendations regarding the management of important river corridors.	Currently being implemented.
N/A	Tahoe National Forest (TNF) Land and Resource Management Plan (Forest Plan); Within portions of Nevada, Placer, Plumas, Sierra, and Yuba counties and bordered on the north by the Plumas National Forest, on the east by the Humboldt-Toiyabe National Forest, Lake Tahoe Basin Management Unit, and on the south by the ENF.	Governs resource management and use on public lands near ASRA/APL	The TNF Forest Plan provides forest-wide management direction consists of forest goals and desired future conditions, objectives, and forest-wide standards and guidelines. Specific management direction for each of the 106 management areas includes: management emphasis for the area, selected standards and guidelines, and compatible available management practices. Applicable amendments have included the Sierra Nevada Forest Plan Amendment.	Currently being implemented.

Table 4.1-2 Cumulative Plans/Projects List

Map Number	Project Name and Location	Relation to GP/RMP	Description	Project Status
Projects in Placer County				
1	Yankee Jims Bridge Replacement Project; American River between Colfax and Foresthill, CA	Temporary construction effects and long-term changes to transportation and access within ASRA/APL	The proposed project would replace a one-lane suspension bridge built in 1930.	Project is under review.
2	Belcara Subdivision; 18395 Foresthill Road, Foresthill, CA	Temporary construction effects and a long-term increase in population and development adjacent to ASRA/APL	The Belcara Subdivision is a proposed planned development on a 169.2-acre site in the Foresthill area. The proposed project consists of 39 single-family residential lots ranging from 0.83 acres to 6.35 acres, though most homes will be 1 to 1.5 acre lots, with three open space lots.	In early planning stages, being reviewed by Board of Supervisors.
3	Foresthill Racing Company Campground; APN 063-270-031-000; near Elliot Ranch Road and Foresthill Road, Foresthill, CA	Additional camping capacity in the region could affect recreation and transportation patterns in ASRA/APL	102 dry campsites on 13 of the 80 acres, at a maximum density of eight campsites per acre, with the remaining 89 acres left undisturbed.	Additional information is required before environmental determination can be made.
4	Hidden Falls Regional Park Trails Network Expansion Project; 7587 Mears Place, Auburn, CA	Regional recreation project that could affect visitation patterns	The project would expand the trail system into areas northeast, west, and east of the existing park, where Placer County holds existing trail easements or owns property. Approximately 30 miles of trails would be added, along with the construction of two bridges over Raccoon Creek between the existing regional park trail network and Taylor Ranch (as well as one additional bridge over Raccoon Creek within Hidden Falls Regional Park that was analyzed under the prior EIR), additional parking, access areas, and other improvements, and possible improvement of off-site access roads.	Revised Notice of Preparation of a Subsequent Environmental Impact Report released June 4, 2018.
5	Ponderosa Bridge Replacement Project; American River southeast of Weimar, CA	Temporary construction effects and long-term changes to transportation and access within ASRA/APL	The proposed project would replace a steel and wood bridge built in 1934.	Environmental review forthcoming and construction anticipated within a few years.

Table 4.1-2 Cumulative Plans/Projects List

Map Number	Project Name and Location	Relation to GP/RMP	Description	Project Status
Caltrans Highway Improvement Projects and Plans				
6	State Route (SR) 49 Auburn Safety Improvement (Roundabout); SR 49/Borland Avenue/Lincoln Way, Auburn, CA	Temporary construction effects and long-term changes to traffic flow.	Caltrans proposes to improve the safety conditions on SR 49 at the intersection of SR 49/Borland Avenue/Lincoln Way in the City of Auburn in Placer County. The project proposes to remove the signalized traffic control devices at the intersection and replace them with a roundabout traffic feature to increase traffic flow. In addition, the project will include curve realignment south of the intersection on SR 49 to increase line of sight and other safety features upon approach to the intersection.	Initial Study with Proposed Negative Declaration completed. Public comment period closed October 28, 2018.
N/A[1]	State Route 49 Transportation Concept Report; SR 49 from the Amador/El Dorado County line traveling north in El Dorado County, traversing Placer, Nevada, Yuba and Sierra counties, and ending at the Sierra/Plumas County line	Long-term changes to vehicle and pedestrian circulation through and adjacent to ASRA/APL	Planned Improvements and Programmed Improvements in the 2017 Transportation Corridor Concept Report for SR 49 in the vicinity of the project include construction of: Class II bike lanes; pedestrian safety improvements and traffic calming elements in the Town of Cool; roadway rehabilitation; and turnouts, pullouts, and shoulders.	Periodic construction through 2036.
N/A[1]	Transportation Concept Report, Interstate 80 (I-80); I-80 from the Yolo-Solano County line traveling east and traversing through Yolo, Sacramento, Placer, Nevada, and Sierra counties	Changes to roadway capacity and circulation patterns in the vicinity of ASRA/APL	Planned Improvements (those included in a long-term plan that can be funded) and Programmed Improvements (those included in a near-term programming document that identifies funding amounts by year) in the 2017 Transportation Corridor Concept Report for I-80 in the vicinity of the project include: new bus/carpool lanes from SR 65 to SR 49; widen Auburn Ravine Road overcrossing from two to four lanes; capacity and operational improvements on the Bell Road interchange; I-80/SR 174 interchange improvements; eastbound truck climbing lane from Colfax to east of Magra Road.	Periodic construction through 2036.

[1] The Transportation Concept Reports are not mapped.

Source: Compiled by Ascent Environmental in 2018 through review of available plans and documents and consultation with local agencies.

.

This page intentionally left blank.

4.2 Air Quality

This section describes the methodology, assumptions, and results of the analysis to identify potential significant impacts to local and regional air quality with the implementation of the GP/RMP alternatives. The analysis includes a quantitative evaluation of construction- and operational-generated emissions of criteria air pollutants and a qualitative discussion of toxic air contaminants (TACs) related to the implementation of the alternatives.

The methods of analysis for short-term construction, long-term regional (operational), local mobile-source, and toxic air emissions used in this section are consistent with the recommendations of the Placer County Air Pollution Control District (PCAPCD), the El Dorado County Air Quality Management District (EDCAQMD), and the U.S. Environmental Protection Agency (EPA).

Section 2.2.1 on pages 2-28 through 2-38 of the Existing Conditions Report provide details on the environmental setting related to air quality within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

The alternatives do not include facilities or uses that are commonly considered a source of odors (e.g., wastewater treatment plant, petroleum refineries, recycling facilities). Construction activity with heavy equipment is a temporary source of diesel emission odor, but due to the minimal, periodic and localized use of construction equipment under the GP/RMP, these odors would not be substantial. Operational activity associated with implementation of the GP/RMP would not result in any new sources of odor. Implementation of the GP/RMP would result in an increase in the amount of managed vegetation burning for fuel management and campfires. However, these activities occur under existing conditions and are not sources of odor complaints from the public. The issue of odor is dismissed from additional analysis and is not discussed further.

The project would not result in the development of any land uses with new sensitive receptors such as residential land uses, schools, hospitals, or transient lodging. As a result, no sensitive receptors will be placed in locations in which they could be potentially exposed to existing sources of air pollutants resulting in an air quality impact. This issue is dismissed from additional analysis and is not discussed further.

4.2.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

Construction

Each alternative would result in different levels of construction activity in the 11 management zones included in ASRA/APL. Construction activity would include the development of individual and group campsites, additional parking facilities, administrative facilities, and new trails. Short-term construction emissions were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (California Air Pollution Control Officers Association [CAPCOA] 2017).

Additionally, as part of the CSP Proposed Action and RE Alternative, a trail bridge would be constructed at the Greenwood Bridge site in the Cherokee Bar/Ruck-a-Chucky management zone and a second bridge (Auburn-to-Cool trail bridge) would be constructed in the Auburn Interface

Management Zone. Modeling was conducted for a reasonably foreseeable, conservative scenario year, which includes construction of Auburn-to-Cool trail bridge, the larger of the two bridges. Construction activity associated with the development of the Auburn-to-Cool trail bridge was modeled using the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Road Construction Emissions Model Version 8.1.0 (SMAQMD 2018a). With implementation of the CSP Proposed Action or RE Alternative, special construction techniques may be required for construction of the Auburn-to-Cool trail bridge, such as rock excavation, blasting, and drilling. Additional detail regarding construction activities would be reviewed at the time of project-level environmental analysis of the Auburn-to-Cool trail bridge. However, a general emission estimate for construction activity associated with the Auburn-to-Cool trail bridge has been provided in this analysis.

Construction activity under the alternatives would occur gradually over the next 20 to 30 years. However, it was conservatively assumed that all improvement in any one management zone would be upgraded in a single year. To model a reasonably foreseeable, conservative scenario to avoid understating potential impacts associated with annual emissions, it was assumed all facilities in the Auburn Interface Management Zone (the management zone with the greatest number of allowed facilities (with the development of 50 new campsites and 150 parking spaces) would occur within a single year. Construction modeling for the all facilities (new campsites and parking spaces) in the Auburn Interface Management Zone was conducted using CalEEMod. Details regarding construction emissions modeling are included in Appendix B.

Operations

Each project alternative would result in operational changes in the 11 management zones included in the project area (See Exhibit 2.2-1 in the Project Description). As discussed in Chapter 2, Project Description and Alternatives, estimated buildout of the project would likely occur over the next 20 to 30 years. Operational activities for each alternative were conservatively modeled for the year 2040 and assumed full buildout of the GP/RMP.

Direct operational mobile-source emissions were modeled based on vehicle miles traveled (VMT) for new trips generated as a result of increased visitor capacity under the alternatives. VMT generated by the project was calculated using survey results from California State Parks 2007 Visitor Survey for ASRA (CSP 2007) regarding the geographic origin of visitors to ASRA/APL and the percentage of visitors that came from each of these destinations. Average trip lengths for each of these locations were calculated using Google Earth Pro. A weighted average trip length was then calculated for the new trips generated by the alternatives. An annual emission estimate was calculated using average daily trip rates for new day-use parking facilities and new campsites provided in the project transportation study (Appendix D) and the average trip length. Based on ASRA/APL's characteristics as a recreation area, vehicle classes included in the emissions modeling included light-vehicles and light-duty trucks. Emissions estimates for this source were calculated using CalEEMod Version 2016.3.2 using vehicle emissions factors from CARB's EMFAC2017 database which is included in the CalEEMod software.

Emissions associated with changes in use of OHVs for all alternatives were calculated based on a daily use rate of 30 miles per day per visitor and emissions factors included in CARB's Final Analysis of the 2008 California Survey of Registered Off-Highway Vehicle Owners (CARB 2009).

Proposed wildfire fuel reduction activities would also generate emissions. The extent of fuels treatment would be similar across action alternatives. Fuel reduction actions that could be implemented within ASRA/APL could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Equipment used in fuel reduction activities

(such as chainsaws and woodchippers) and burning would generate emissions. Emissions associated with fuel management activity were estimated using CalEEMod for mechanical equipment associated with fuel management activity. For burning activities and associated fuel management activity, emissions were estimated using information about the proposed increase in acreage of fuel management under each action alternative, the total tonnage of fuel cleared per acre based on estimates in the Fuel Reduction Guide for Sierra Nevada Forest Landowners developed by University of California Cooperative Extension (UC Davis 2006) and emissions factors for prescribed burning included in the U.S. EPA AP-42 Emissions Factors Document (U.S. EPA 1996). Details regarding operational emissions modeling are included in Appendix B.

Emissions from the increased use of campfires was estimated using data from historical overnight visitation rates as part of the California State Parks attendance data (CSP 2018). Increases in emissions from campfire use under each of the alternatives was estimated by adjusting the annual overnight visitation rate to account for the annual percentage increase in visitation for each of the alternatives. Details regarding campfire emissions estimates are included in Appendix B.

Significance Criteria

Significance criteria for determining impacts to air quality are summarized below.

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact on air quality if it would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation; or
- expose sensitive receptors to substantial pollutant concentrations (including TACs).

As stated in Appendix G of the State CEQA Guidelines, the significance criteria established by the applicable air district may be relied on to make the above determinations. ASRA/APL is located both in Placer County and El Dorado County and, thus, is subject to the significance criteria of both air districts. The significance criteria for some criteria air pollutants are more stringent for PCAPCD than for EDCAQMD, while other significance criteria are congruent between the two districts. The significance criteria for both air districts have been combined to ensure all relevant significance thresholds are considered. Thus, as identified by the PCAPCD and EDCAQMD, an air quality impact is considered significant if implementation of the project would result in:

- construction-generated criteria air pollutants that would exceed the EDCAQMD- and PCAPCD-recommended threshold of 82 pounds per day (lb/day) for reactive organic gases (ROG), nitrogen oxides (NO_X), or particulate matter (PM_{10}). Note that, although PCAPCD and EDCAQMD do not have a significance threshold for $PM_{2.5}$, $PM_{2.5}$ is a subset of PM_{10} emissions. For this reason, if PM_{10} emissions are below the significance threshold, $PM_{2.5}$ emissions would also not be significant;
- operational phase project-level and cumulative-level criteria air pollutants that would exceed the PCAPCD-recommended threshold of 55 lb/day for ROG and NO_X, and 82 lb/day for PM_{10}; long-term operational local mobile-source carbon monoxide (CO) emissions that would exceed the CO standard as indicated by the following criteria:

- A traffic study for the project indicates that the peak-hour Level of Service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity will be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., LOS E or F); or
- A traffic study indicates that the project will substantially worsen an already existing unacceptable peak-hour LOS on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes situations where delay would increase by 10 seconds or more when project-generated traffic is included.

- exposure of sensitive receptors to TAC emissions would exceed 10 in 1 million for the carcinogenic risk (ten in one million if Best Available Control Technology for Toxics [T-BACT] are applied for stationary sources); or a noncarcinogenic Hazard Index of 1 for the maximally exposed individual.

NEPA Criteria

The U.S. EPA and the State of California have designated national and California Ambient Air Quality Standards, respectively, to protect public health and welfare. The California standards are more stringent than the national standards. "Attainment" status for a pollutant means that the air quality for that pollutant within a given air quality management district (in this case the EDCAQMD and PCAPCD) meet the standard set by the EPA or by the state. Under the national standards Placer and El Dorado Counties are in non-attainment status for ozone (NO_X and ROG) and PM2.5 (https://www3.epa.gov/airquality/greenbook/ancl.html). Therefore, the Federal General Conformity Rule would be applied to total emissions (direct and indirect) of the criteria air pollutant(s) or their precursors and any exceedance beyond *de minimis* emission levels, expressed in tons per year would need to be mitigated.

As shown in the GP/RMP in Table 2.2-2 of Chapter 2, Existing Conditions, certain portions of ASRA/APL are located in areas that are currently in nonattainment for National Ambient Air Quality Standards (NAAQS) for Ozone and $PM_{2.5}$, requiring a conformity analysis to demonstrate whether the project would generate emissions that would exceed the de minimis levels established for each pollutant.

Environmental Impacts

Impact 4.2-1: Short-term, construction-generated emissions of criteria air pollutants and precursor emissions.

Impact Summary

The short-term construction-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ resulting from implementation of the CSP Proposed Action, Resource Management Emphasis (RME), Recreation Emphasis (RE) Alternatives would not exceed the applicable daily significance thresholds for short-term, construction-generated emissions of criteria air pollutants and precursor emissions. This would be a **less-than-significant** impact, for the purposes of CEQA. The No-Action Alternative would not include substantial construction activities and would result in **no impact** under CEQA.

No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses in the ASRA/APL would be retained and the Interim Resource Management Plan (Interim RMP) would continue to provide management direction and guidance for ASRA/APL. Actions under the Interim RMP could include regular maintenance of existing transportation and parking infrastructure and modifying existing parking to enhance public safety and reduce sensitive resource impacts and realignment, reconstruction, or removal of existing trail routes. Construction activity occurring under the No-Action Alternative would be considered part of the routine maintenance of facilities and would not result in a change from existing conditions. Therefore, there would be **no impact**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – CSP Proposed Action

The CSP Proposed Action would include new recreational facilities similar to those currently provided in ASRA/APL, including campsites, active recreation facilities, day use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. The development of new facilities would occur at specific locations within the 11 Management Zones in ASRA/APL. See Table 2.3-2 in Chapter 2 for an overview of facilities within the 11 Management Zones. The CSP Proposed Action would also include the construction of the Auburn-to-Cool trail bridge within the Auburn Interface Management Zone and a trail bridge in the Cherokee Bar/Ruck-a-Chucky Management Zone.

Construction activity under the CSP Proposed Action would result in project-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ from site preparation (e.g., grading and clearing), off-road equipment, material delivery, worker commute exhaust emissions, and other miscellaneous activities (e.g., building construction, asphalt paving, application of architectural coatings). Emissions of ozone precursors of ROG and NO_X would be associated primarily with exhaust from construction equipment, haul truck trips, and worker trips. ROG would be emitted during any asphalt paving and the application of architectural coatings on new buildings. Given the long-term planning horizon (20 to 30 years) of the GP/RMP, it is assumed that construction of these facilities within different management zones would not occur simultaneously.

Maximum daily construction emissions for the project are summarized in Table 4.2-1. The table presents maximum daily emissions of ROG, NO_X, and PM_{10} for an assumed year in which the most intensive construction activity would occur.

Based on the modeling conducted for the CSP Proposed Action, construction activities during the most construction intensive period (i.e., development of 50 new campsites and 150 parking spaces in the Auburn Interface Management Zone) would result in emissions of ROG of 8.5 lb/day, NO_X of 45 lb/day, and PM_{10} of 12.7 lb/day. These emissions estimates would be below the applicable daily construction thresholds set by PCAPCD and EDCAQMD (i.e., ROG of 82 lb/day, NO_X of 82 lb/day, and PM_{10} of 82 lb/day). Additionally, mandatory CSP Standard Project Requirements (see Appendix A of this EIR/EIS) would be implemented to reduce air quality impacts. These include sweeping or washing paved streets adjacent to ASRA/APL at the end of each day to remove excess accumulations of dirt from roadways from construction activities, dust suppressant of all construction areas during dusty, dry conditions, two feet of freeboard required on all vehicles carrying soil, sand, and other loose materials on public roadways, maintenance of all gasoline-powered equipment to manufacturers specifications, and suspension of excavation and grading when wind speeds exceed 15 miles per hour (mph), instantaneous gusts exceed 25 mph, or when visible emissions (dust) cannot be controlled by watering or conventional dust abatement controls.

As shown in Table 4.2-2, project construction as part of the CSP Proposed Action would not exceed the Federal de minimis threshold for Ozone, $PM_{2.5}$, or CO. As such, the project would not result in short-term, construction-related emissions that violate any air quality standard or contribute substantially to an existing or projected air quality violation. This impact would be **less than significant**, for the purposes of CEQA. The effects of the CSP Proposed Action would be greater than the No-Project Alternative due to the greater amount of construction activity.

Resource Management Emphasis (RME) Alternative

The RME Alternative would provide increased resource protection and restoration. Under the RME Alternative, it is assumed that visitation at ASRA/APL would continue to increase due primarily to regional population growth. Trail construction under the RME Alternative would be limited to realignment, reconstruction, or removal of existing trail routes that are not sustainable. Existing administrative offices would be retained and repaired under this alternative. However, facilities would be expanded or added within certain management zones. Construction activities would include removal of the OHV tracks and development of up to 50 campsites and 50 parking spaces in the Mammoth Bar Management Zone as well as construction of a new interpretive center (up to 3,000 square feet) and 20 parking spaces in the Confluence Management Zone.

Construction activities would involve similar equipment types and activities as the CSP Proposed Action and, like the CSP Proposed Action, would result in emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$. Maximum daily construction emissions are summarized in Table 4.2-1. Based on the modeling conducted, construction activities during the most construction intensive period would result in emissions of ROG of 6.8 lb/day, NO_X of 21 lb/day, and PM_{10} of 6.7 lb/day. Additionally, mandatory CSP Standard Project Requirements (see Appendix A) and BMPs would be implemented to reduce air quality impacts of construction. As shown in the GP/RMP in Table 2.2-2 in Chapter 2, Existing Conditions, certain areas within ASRA/APL are currently in nonattainment or maintenance status for National Ambient Air Quality Standards (NAAQS) for Ozone, PM2.5, and CO, requiring a Federal conformity determination to demonstrate whether or not the project would generate emissions that would exceed the de minimis levels established for each criteria air pollutant based on the level of nonattainment. As shown in Table 4.2-2, project construction associated with the RME Alternative would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO. As such, the alternative would not result in short-term, construction-related emissions that violate any air quality standard or contribute substantially to an existing or projected air quality violation. This impact would be **less than significant**, for the purposes of CEQA. The effects of the RME Alternative would be greater than the No-Project Alternative due to the greater amount of construction activity.

Recreation Emphasis (RE) Alternative

The RE Alternative would accommodate increases in regional and statewide visitor demand. To accommodate visitor demand, the RE Alternative would allow increases in facilities such as campsites and parking spaces in ASRA/APL above levels proposed in the CSP Proposed Action. Construction would include development of up to 390 individual campsites, seven group sites, five alternative sites, and five primitive sites; trail improvements similar to those described for the CSP Proposed Action; construction of the two trail bridges; construction of new day-use facilities, including a small interpretive center about 700 sq. ft. in size. The RE Alternative would result in the same administrative facilities improvements as described for the CSP Proposed Action. Construction of these new facilities would require the use of off-road construction equipment and would result in emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$. Emissions would be generated from various construction activities including site preparation (e.g., grading and clearing), off-road equipment, material delivery, worker commute exhaust emissions, building construction, asphalt paving, and application of architectural coatings.

Maximum daily construction emissions for the project are summarized in Table 4.2-1. The table presents maximum daily emissions of ROG, NO_X, and PM_{10} for an assumed year in which the most intensive construction activity would occur.

Based on the modeling conducted, construction activities during the most construction intensive period (i.e., development of 89 new campsites and 150 parking spaces in the Auburn Interface Management Zone) would result in emissions of ROG would at 8.5 lb/day, NO_X at 45 lb/day, and PM_{10} at 13.1 lb/day. Additionally, mandatory CSP Standard Project Requirements (see Appendix A) would be implemented to reduce air quality impacts from construction. As shown in the GP/RMP in Table 2.2-2 of Chapter 2, Existing Conditions, certain areas within ASRA/APL are currently in nonattainment or maintenance status for National Ambient Air Quality Standards (NAAQS) for Ozone, $PM_{2.5}$, and CO, requiring a Federal conformity determination to demonstrate whether the project would generate emissions that would exceed the de minimis levels established for each criteria air pollutant based on the level of nonattainment. As shown in Table 4.2-2, project construction as part of each of the RE Alternative would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO.

As shown in Table 4.2-1 and Table 4.2-2, the RE Alternative would not result in short-term, construction-related emissions that violate any air quality standard or contribute substantially to an existing or projected air quality violation. This impact would be **less than significant**, for the purposes of CEQA. The effects of the RE Alternative would be greater than the No-Project Alternative due to the greater amount of construction activity.

Table 4.2-1 Summary of Unmitigated Maximum Daily Construction-Generated Emissions of Criteria Air Pollutants for all Alternatives

Alternative	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)
No-Action Alternative (Max Daily)	0	0	0
CSP Proposed Action (Max Daily)	8.5	45	12.7
RME Alternative (Max Daily)	6.8	21	6.7
RE Alternative (Max Daily)	8.5	45	13.1
PCAPCD Daily Thresholds of Significance (lb/day)	**82**	**82**	**82**
Exceeds Thresholds?	No	No	No

Notes: ROG = reactive organic gases; NO_X = nitrous oxides; PM_{10} = respirable particulate matter; lb/day = pounds per day; PCAPCD = Placer County Air Pollution Control District

Source: Modeling conducted by Ascent Environmental in 2018 based on using CalEEMod v. 2016.3.2 (see Appendix B)

Table 4.2-2 Summary of Annual Construction Emissions and Federal Conformity De Minimis Level for criteria air pollutants in National Nonattainment

Alternative	ROG[1] (Tons/Year)	NO_X[1] (Tons/Year)	$PM_{2.5}$ (Tons/Year)	CO[2] (Tons/Year) Maintenance Attainment level
No-Action Alternative	0.0	0.0	0.0	0.0
CSP Proposed Action	0.4	2.6	0.2	1.5
RME Alternative	0.2	1.1	0.1	0.9

Table 4.2-2 Summary of Annual Construction Emissions and Federal Conformity De Minimis Level for criteria air pollutants in National Nonattainment

Alternative	ROG[1] (Tons/Year)	NO_X[1] (Tons/Year)	$PM_{2.5}$ (Tons/Year)	CO[2] (Tons/Year) Maintenance Attainment level
RE Alternative	0.4	2.6	0.21	2.3
De Minimis Threshold	**25**	**25**	**100**	**100**
Exceeds De Minimis Threshold?	No	No	No	No

Notes: ROG = reactive organic gases; NO_X = nitrous oxides; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; tons/year = tons per year

Source: Modeling conducted by Ascent Environmental in 2018 (see Appendix B)

Source for De Minimis Threshold: https://www.epa.gov/general-conformity/de-minimis-tables (40 CFR 93.153(b)(1))

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.2-2: Long-term, operation-related emissions of criteria air pollutants and precursor emissions

Impact Summary

The long-term operational emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$, resulting from implementation of the No-Action, CSP Proposed Action, RME Alternative, and RE Alternative would not exceed the applicable daily significance thresholds. As a result, all alternatives would have a **less-than-significant** impact under CEQA.

No-Action Alternative

Under the No-Action Alternative the existing facilities and land uses in the ASRA/APL would be retained and the Interim RMP would continue to be implemented. The No-Action Alternative would include repairing existing administrative offices, including the Auburn Section office complex but not include the development of new administrative facilities or expansion of existing facilities. No substantial new day-use facilities would be constructed at any of the management zones. The No-Action Alternative would result in an increase in annual visitors to ASRA/APL based on population growth. The estimated increase in visitation is expected to be the same as under the RME Alternative., and thus operational emissions would be the same as the RME Alternative. As shown in Table 4.2-4, project operations as part of the RME Alternative would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO. As shown in Table 4.2-3 and Table 4.2-4, this alternative would not result in long-term operational emissions that violate any air quality standard or contribute substantially to an existing or projected air quality violation. For the same reasons as the REM Alternative, the No-Action Alternative would have a **less-than-significant** impact, for the purposes of CEQA

Increased Recreation and Resource Management Alternative – CSP Proposed Action

The CSP Proposed Action would include new recreational facilities similar to what is currently provided in ASRA/APL. Improvements would include up to 230 new campsites and 470 new parking stalls located at eight of the management zones. As discussed in Section 4.12, Transportation and Circulation, the additional visitor capacity provided by these new facilities would result in an increase in

daily vehicle trips. The increase in new trips would result in an increase in mobile source emissions from visitor vehicles (See Appendix B for emissions modeling calculations). The CSP Proposed Action would also include the installation of two maintenance yards and equipment storage areas at the Knickerbocker and Foresthill Divide Management Zones, which could include new electricity demand from lighting. Modeling included emissions estimates from increased vehicle trips to ASRA/APL, increased fuel management activity, and emissions generated from energy use at new facilities to be developed under the alternative. See the Analysis Methodology section for a full description on how modeling was conducted. See Appendix B for full details on modeling. Based on the modeling conducted, operational activity would result in emissions of ROG of 8.4 lb/day, NO_X of 41 lb/day, and PM_{10} of 29.4 lb/day. Maximum daily operational emissions for the CSP Proposed Action are summarized in Table 4.2-2 for the projected buildout year of 2040.

As shown in the GP/RMP in Table 2.2-2 in Chapter 2, Existing Conditions, certain areas within ASRA/APL are currently in nonattainment or maintenance status for the NAAQS for Ozone, PM2.5, and CO, requiring a Federal conformity determination as to whether the project would generate emissions that would exceed the de minimis levels established for each criteria air pollutant based on the level of nonattainment. As shown in Table 4.2-4, operations associated with the CSP Proposed Action would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO. As shown in Table 4.2-3 and Table 4.2-4, this alternative would not result in long-term operational emissions that violate any air quality standard for ROG or NO_X. The CSP Proposed Action alternative would not result in long-term operational emissions that violate any of the PCAPCD standards. This impact would be **less than significant**, for the purposes of CEQA. The effects from the CSP Proposed Action related to air quality would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would provide increased resource protection and restoration. A total of 50 campsites at the Mammoth Bar Management Zone and 70 total new parking spaces in the Confluence Management Zone the Mammoth Bar Management Zone could be developed. The RME Alternative would result in an increase in annual visitors to ASRA/APL based on population growth, but would not increase visitation as a result of actions taken by CSP or Reclamation. Maximum daily operational emissions for the RME Alternative are summarized in Table 4.2-2 for the projected buildout year of 2040. Based on the modeling conducted, operational activity would result in emissions of ROG of 7.3 lb/day, NO_X of 41 lb/day, and PM_{10} of 28.6 lb/day. As shown in the GP/RMP in Table 2.2-2 in Chapter 2, certain areas within ASRA/APL are in nonattainment or maintenance status for the NAAQS for Ozone, PM2.5, and CO, requiring a conformity determination as to whether the project would generate emissions that would exceed the de minimis levels established for each criteria air pollutant based on the level of nonattainment. As shown in Table 4.2-4, project operations as part of the RME Alternative would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO. As shown in Table 4.2-3 and Table 4.2-4, this alternative would not result in long-term operational emissions that violate any air quality standard or contribute substantially to an existing or projected air quality violation. As such, there would be a **less-than-significant** impact, for the purposes of CEQA. The effects from the RME Alternative related to operational air quality would be similar to those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The RE Alternative would accommodate increases in regional and statewide visitor demand to ASRA/APL. As such, the number of new campsites would be up to 390 individual campsites, seven group sites, five alternative sites, and five primitive sites, and it would increase day use parking capacity by up to 35 percent. These new facilities would result in an increase in daily vehicle trips and result in an increase in mobile source emissions. Additionally, the RE Alternative would expand the OHV area

boundary and trail system in the Mammoth Bar Management Zone by up to 20 percent, and allow OHV use up to seven days a week. This change would result in an anticipated increase in OHV use and subsequent emissions. Maximum daily operational emissions for the RE Alternative are summarized in Table 4.2-3 for the projected buildout year of 2040. Based on the modeling conducted, operational activity would result in emissions of ROG of 10.4 lb/day, NO_X of 42.1 lb/day, and PM_{10} of 50.6 lb/day. As shown in the GP/RMP in Table 2.2-2 in Chapter 2, certain areas within ASRA/APL are in nonattainment or maintenance status for the NAAQS for Ozone, PM2.5, and CO, requiring a conformity determination as to whether the project would generate emissions that would exceed the de minimis levels established for each criteria air pollutant based on the level of nonattainment. As shown in Table 4.2-4, project operations as part of the RE Alternative would not exceed the de minimis threshold for Ozone, $PM_{2.5}$, or CO.

Table 4.2-3 Summary of Unmitigated Maximum Daily Operational Emissions of Criteria Air Pollutants for all Alternatives

Year	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)
No-Action Alternative (Max Daily)	7.3	41	29.4
CSP Proposed Action (Max Daily)	8.4	41.5	41.5
RME Alternative (Max Daily)	7.3	41	29.4
RE Alternative (Max Daily)	10.4	42.1	50.6
PCAPCD Daily Thresholds of Significance (lb/day)	55	55	82
Exceeds Thresholds?	No	No	No

Notes: ROG = reactive organic gases; NO_X = nitrous oxides; PM_{10} = respirable particulate matter; lb/day = pounds per day; PCAPCD = Placer County Air Pollution Control District

Source: Modeling conducted by Ascent Environmental in 2018 (see Appendix B)

Table 4.2-4 Summary of Annual Operational Emissions and Federal Conformity De Minimis Level for criteria air pollutants in National Nonattainment

Alternative	ROG[1] (Tons/Year)	NO_X[1] (Tons/Year)	$PM_{2.5}$ (Tons/Year)	CO[2] (Tons/Year) Maintenance Attainment
No-Action Alternative	1.5	1.1	2.2	3.8
CSP Proposed Action	1.7	0.3	2.3	55
RME Alternative	1.5	1.1	2.2	3.8
RE Alternative	2.1	0.4	2.5	56
De Minimis Threshold	**25**	**25**	**100**	**100**
Exceeds De Minimis Threshold?	No	No	No	No

Notes: ROG = reactive organic gases; NO_X = nitrous oxides; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; tons/year = tons per year

Source: Modeling conducted by Ascent Environmental in 2018 (see Appendix B)

Source for De Minimis Threshold: https://www.epa.gov/general-conformity/de-minimis-tables (40 CFR 93.153(b)(1))

As shown in Table 4.2-3 and Table 4.2-4, this alternative would not result in long-term operational emissions that violate any air quality standard for ROG, NO_X or PM_{10}. This impact would be **less than significant**, for the purposes of CEQA. The effects from the CSP Proposed Action related to air quality would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.2-3: Mobile-source CO concentrations

Impact Summary

Implementation of the CSP Proposed Action, RME Alternative, and RE Alternative would result in additional daily vehicle trips to ASRA/APL. This level of additional trips would not contribute to increased concentrations of carbon monoxide (CO) that would expose sensitive receptors to unhealthy levels. The action alternatives would result in a **less-than-significant** impact under CEQA.

No-Action Alternative

Under the No-Action Alternative, existing facilities and land uses in the ASRA/APL would be retained and the Interim RMP would continue to be implemented. Under the No-Action Alternative, visitation would be expected to continue to increase due to regional population growth, resulting in additional vehicle trips. However, the increased volume in trips under this alternative would be less than that proposed under the CSP Proposed Action. As discussed below and shown in Table 4.12-10 in Section 4.12 of this EIR/EIS, the project-related vehicle trips under the CSP Proposed Action would not degrade existing streets or intersections near the project from an acceptable LOS to an unacceptable LOS. Therefore, because this alternative would result in less trips, it can be inferred that this alternative would not degrade existing streets or intersections near the project from an acceptable LOS to an unacceptable LOS. As such, the increase in vehicle trips under this alternative would not result in enough new peak-hour trips to contribute to a violation of the California 1-hour or 8-hour ambient air quality standards for CO. This impact would be less than significant, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – CSP Proposed Action

Implementation of the CSP Proposed Action would result in increased visitor capacity, which could generate additional vehicle trips. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. CO disperses rapidly with distance from the source under normal meteorological conditions; however, under certain specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and childcare facilities.

Full build out of the CSP Proposed Action would result in new visitor trips. Based on the transportation study conducted for this EIR/EIS (Appendix D) the CSP Proposed Action would generate up to 6,507 new daily trips on a peak weekend day. Based on PCAPCD's significance criteria for emissions of CO, a project would generate substantial localized CO emissions if project-generated vehicle trips would degrade an existing roadway or intersection from an acceptable LOS (i.e., A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F). As shown in Section 4.12, Transportation and Circulation, in Table 4.12-10, the vehicle trips resulting from the CSP Proposed Action would not degrade existing streets or intersections near the project from an acceptable LOS to an unacceptable LOS. As such, the increase in vehicle trips would not result in enough new peak-hour trips to

contribute to a violation of the California 1-hour or 8-hour ambient air quality standards for CO. Additionally, as shown in Table 4.2-2 and Table 4.2-4, total construction and operational CO emissions would not exceed the de minimis level of 100 tons per year. This impact would be **less than significant**, for the purposes of CEQA. The effects from the CSP Proposed Action related to CO emissions would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, the number of new campsites would be limited to the potential development of 50 campsites at the Mammoth Bar Management Zone and 70 total new parking spaces. These new facilities could result an increase in trips to ASRA/APL. However, the increased volume in trips under this alternative would be less than that proposed under the CSP Proposed Action. As discussed above and shown in Table 4.12-10 in Section 4.12 of this EIR/EIS, the project-related vehicle trips under the CSP Proposed Action would not degrade existing streets or intersections near the project from an acceptable LOS to an unacceptable LOS. Therefore, because this alternative would result in less trips, it can be inferred that this alternative would not degrade existing streets or intersections near the project from an acceptable LOS to an unacceptable LOS. As such, the increase in vehicle trips under this alternative would not result in enough new peak-hour trips to contribute to a violation of the California 1-hour or 8-hour ambient air quality standards for CO. This impact would be **less than significant**, for the purposes of CEQA. The effects from the RME Alternative related to CO emissions would be similar to those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Under the RE Alternative, up to 390 individual campsites, seven group sites, five alternative sites, and five primitive campsites could be developed; and day use parking capacity could be increased by up to 35 percent. This increase in campsites and parking capacity would result in new vehicle trips to ASRA/APL, affecting local roadways. PCAPCD has established screening levels to evaluate the potential for CO hotspots from increases in traffic. In accordance with the most recent PCAPCD guidance, projects that do not exceed 550 lb/day of CO from vehicle exhaust would not likely result in CO hotspots (PCAPCD 2017). As shown by the modeling conducted, project-generated increases in vehicle CO exhaust emissions would be 196 lb/day. In addition, other nearby air districts, such as the SMAQMD, have established screening criteria based on vehicle volumes per hour passing through an intersection. According to SMAQMD, a project would result in a less-than-significant CO impact if the project would not result in an affected intersection experiencing more than 31,600 vehicles per hour (SMAQMD 2018b). According to the traffic study conducted, under existing plus project conditions, the intersection with the most traffic would be at Elm Avenue and I-80 Eastbound Ramp with 1,504 vehicles per hour at the peak hour. Thus, no single intersection would experience increases in traffic that could result in CO hotspots. Given that vehicle CO emissions are well below the 550 lb/day screening level and the intersection experiencing the largest impact would be 1,504 vehicles per hour, the RE Alternative, would not result in CO hotspots at any intersection. Additionally, as shown in Table 4.2-2 and Table 4.2-4, total construction and operational CO emissions under the RE Alternative would not exceed the de minimis level of 100 tons per year. This impact would be **less than significant**, for the purposes of CEQA. The effects from the RE Alternative related to CO emissions would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.2-3: Exposure of sensitive receptors to toxic air contaminants

Impact Summary

Implementation of the CSP Proposed Action, RME Alternative, and RE Alternative would result in short-term construction-related Toxic Air Contaminants (TACs) associated with the use of heavy-duty diesel construction equipment/ All alternatives would result in long-term operational-related mobile-source emissions of TACs associated with increased traffic; however, such TAC emissions would not be substantial enough to trigger the PCAPCD threshold of significance for TAC concentrations. Consequently, the No-Action Alternative, CSP Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact under CEQA.

No-Action Alternative

Under the No-Action Alternative, no additional construction activity would occur outside of normal maintenance activities which take place under existing conditions. Existing operation and maintenance of the existing facilities in ASRA/APL would continue. Visitation under the No-Action alternative is expected to continue to increase due to regional population growth, which would result in additional vehicle trips. In accordance with available guidance from the California Air Resource Board (CARB), freeways or urban roadways experiencing 100,000 or more vehicles per day could expose sensitive receptors to adverse health risks from TACs. Based on the transportation study conducted for this EIR/EIS (See Appendix D), the roadway segment with the highest daily traffic under existing plus project conditions would be Foresthill Rd between Lincoln Way and Old Auburn Foresthill Road with an average daily traffic volume 9,130 vehicles and would be well below 100,000 vehicles per day. Further, the CSP Proposed Action does not include any additional stationary sources of TACs and therefore would not contribute substantially to existing health risk levels in the area. This impact would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – CSP Proposed Action

For construction activities, diesel PM is the primary TAC of concern. With regard to exposure to diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (Office of Environmental Health Hazard Assessment [OEHHA] 2015:11-3).

The nearest sensitive receptor (single-family residence) to any of the proposed facility improvements under the CSP Proposed Action is located approximately 550 feet to southeast of the Knickerbocker Road Corridor Activity Node in the Knickerbocker Management Zone. New facilities at this site would include up to 50 new campsites and three group sites, interpretive facilities, a maintenance facility, and up to 50 parking spaces. Based on the emissions modeling for construction of these facilities, maximum daily emissions of diesel exhaust PM_{10}, considered a surrogate for diesel PM, would not exceed 0.82 lb/day during construction. Furthermore, the use of off-road heavy-duty diesel equipment would be limited to the construction phases. Given the relatively short and temporary nature of construction activities and the level of daily emissions of diesel PM, existing or potential future sensitive receptors

would not be exposed to excessive levels of TAC emissions from construction activities based on the significance criteria for TAC used in this analysis.

Implementation of the CSP Proposed Action would result in increased visitors to ASRA/APL from expanded capacity and would generate additional vehicle trips. In accordance with available guidance from the California Air Resource Board (CARB), freeways or urban roadways experiencing 100,000 or more vehicles per day could expose sensitive receptors to adverse health risks from TACs. Based on the transportation study conducted for this EIR/EIS (See Appendix D), the roadway segment with the highest daily traffic under existing plus project conditions would be Foresthill Rd between Lincoln Way and Old Auburn Foresthill Road with an average daily traffic volume 9,130 vehicles and would be well below 100,000 vehicles per day. Further, the CSP Proposed Action does not include any additional stationary sources of TACs and therefore would not contribute substantially to existing health risk levels in the area. This impact would be **less than significant**, for the purposes of CEQA. The effects from the CSP Proposed Action related to TAC emissions would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would provide increased resource protection and restoration. The number of new campsites would be limited to the potential development of 50 campsites and 70 total new parking spaces in the Mammoth Bar Management Zone. There are no nearby sensitive receptors to any of the proposed facility improvements under the RME Alternative (i.e., within 1,000 feet). The use of off-road heavy-duty diesel equipment would be limited to the construction phases. Given the relatively short and temporary nature of construction activities and the level of daily emissions of diesel PM, existing or potential future sensitive receptors would not be exposed to excessive levels of TAC emissions from construction activities based on the significance criteria for TAC used in this analysis.

Implementation of the RME would result in increased visitors to ASRA/APL from expanded capacity and would generate additional vehicle trips. However, the RME Alternative would result in a smaller traffic increase then the CSP Proposed Action, as discussed above, and would therefore not result in traffic roadway volumes of 100,000 vehicles per day and potentially exposing sensitive receptors to adverse health risks from TACs. Further, the RME Alternative does not include any additional stationary sources of TACs and therefore would not contribute substantially to existing health risk levels in the area. This impact would be **less than significant**, for the purposes of CEQA. The effects from the RME Alternative related to TAC emissions would be greater than those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Similar to the CSP Proposed Action, the nearest sensitive receptor to any of the proposed facility improvements under the RE Alternative is located approximately 550 feet to southeast of the site for the Knickerbocker Road Corridor Activity Node in the Knickerbocker Management Zone. Based on the emissions modeling for construction of these facilities, maximum daily emissions of diesel exhaust PM_{10}, considered a surrogate for diesel PM, would not exceed 0.82 lb/day during construction. Furthermore, the use of off-road heavy-duty diesel equipment would be limited to the construction phases. Given the relatively short and temporary nature of construction activities and the level of daily emissions of diesel PM, existing or potential future sensitive receptors would not be exposed to excessive levels of TAC emissions from construction activities based on the significance criteria for TAC used in this analysis.

Implementation of the RE would result in increased visitors to ASRA/APL from expanded capacity and would generate additional vehicle trips. The RE Alternative would result in an increase in vehicle trips above the level proposed in CSP Proposed Action, with a potential 10 percent increase in visitors above the CSP proposed actions, as shown in Table 2.4-2 in Chapter 2. This increase could potentially increase average daily traffic along the roadway segment with the highest volumes (Foresthill Rd between Lincoln Way and Old Auburn Foresthill Road) to an average daily traffic volume of 10,043 vehicles which would still be well below 100,000 vehicles per day and would not expose sensitive receptors to adverse health risks from TACs. Further, the RE Alternative does not include any additional stationary sources of TACs and therefore would not contribute substantially to existing health risk levels in the area. This impact would be **less than significant**, for the purposes of CEQA. The effects from the RE Alternative related to TAC emissions would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Placer County is currently in nonattainment for the 1-hour and 8-hour California Ambient Air Quality Standards (CAAQS) for ozone and PM_{10}; unclassified for the CAAQS for $PM_{2.5}$, carbon monoxide, and hydrogen sulfide; and in nonattainment for the 8-hour NAAQS for ozone in the Sacramento Metropolitan air basin portion of the County and unclassified for CO, nitrogen dioxide (NO_2), PM_{10}, fine PM ($PM_{2.5}$), and lead. El Dorado County is currently in nonattainment for the 1-hour and 8-hour CAAQS for ozone and PM_{10}; unclassified for the CAAQS for $PM_{2.5}$, carbon monoxide, and hydrogen sulfide'; and in nonattainment for the 8-hour NAAQS for ozone in the Sacramento Metropolitan air basin portion of the County and unclassified for CO, nitrogen dioxide (NO_2), PM_{10}, $PM_{2.5}$, and lead.

Construction-generated and operational-generated emissions of criteria air pollutants from related projects could violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. Additionally, because the Placer County is currently designated as nonattainment for the CAAQS for ozone, construction- and operation-generated emissions of ROG, NO_X, and PM_{10} could contribute on a cumulative basis to pollutant concentrations that exceed the ambient air quality standards because of growth in the area. Construction- and operational-related emissions of ROG and NO_X from project implementation were determined to be less than significant because project emissions would not exceed the applicable operational and cumulative mass emissions thresholds set by PCAPCD. However, operational-related emissions of PM_{10} from project implementation were determined to be significant. According to PCAPCD (PCAPCD 2017), a project would have a cumulative contribution to an air quality violation if:

- Operational Phase Cumulative-levels of ROG and NO_X exceed 55 pounds per day (lb/day), or
- Operational Phase Cumulative-levels of PM_{10} exceed 82 lb/day.

These thresholds are numerically identical to the operational thresholds used to evaluate project-level emissions above. Operational-related emissions of ROG, NO_X or PM_{10} from project implementation would not exceed the Operational Phase Cumulative-Level threshold. Based on PCAPCD's guidance, a project that would exceed the aforementioned thresholds of significance would have a cumulatively considerable impact on regional air quality. The project would not produce emissions substantial enough to exceed these thresholds of significance. As such, construction- and operation-related emissions of ROG, NO_X, and PM_{10} would have a **less-than-significant cumulative effect**.

This page intentionally left blank.

4.3 Biological Resources

This section describes the biological resources within and near ASRA/APL and addresses potential impacts on biological resources that could result from implementation of the ASRA GP/APL RMP alternatives. This section describes the methods used for assessment, potential impacts associated with implementing the proposed project alternatives, and mitigation measures proposed to address significant impacts.

To determine potential impacts associated with implementation of the GP/RMP, biologists reviewed several existing data sources. The data reviewed included:

- *Auburn State Recreation Area Resource Inventory and Existing Conditions Report* (Existing Conditions Report; CSP and Reclamation 2016);
- a records search of the California Natural Diversity Database (CNDDB) (CDFW 2018);
- California Native Plant Society Online Inventory of Rare and Endangered Plants (CNPS 2018); and
- a database search of the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC) and a list of federally proposed, candidate, threatened, and endangered species that may occur in the project region (USFWS 2018).

Section 2.2.2, on pages 2-43 through 2-55, and Section 2.8.3, on pages 2-88 through 2-95 of the ASRA/APL GP/RMP, together with Section 5 on pages 5-1 through 5-44 of the Existing Conditions Report provides details on the environmental setting related to biological resources in ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. The summary of biological resources included in the GP/RMP is supplemented by additional detail in Appendix C, Biological Resources, of this EIR/EIS.

Two biological resource issues were initially evaluated but not analyzed in detail. The following summarizes those issues and rationale for not analyzing them in further detail.

As federal and state agencies, Reclamation and CSP are not subject to local land use plans, policies, and ordinances adopted by local agencies. However, a discussion of potential conflicts with local land use policies, including any potential conflicts with any local policies or ordinances protecting biological resources, is provided in Section 4.11, Land Use and Planning. This issue is not evaluated further in this section.

None of the action alternatives evaluated herein would include construction within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Therefore, the implementation of the GP/RMP would not conflict with the provisions of any currently adopted conservation plan and this issue is not evaluated further. Impacts to individual species listed under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA) are discussed below.

4.3.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The analysis of potential impacts on biological resources from implementation of the Plan alternatives is based on the data review, resource mapping, and technical studies referenced in the Existing Conditions Report (CSP and Reclamation 2016). The information obtained from these sources was reviewed and summarized to understand existing conditions and to identify potential environmental effects based on the significance criteria identified below. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and regional laws, regulations and ordinances.

Potential impacts of the project alternatives on biological resources can be classified as either temporary or permanent. Temporary impacts generally include ground disturbances associated with temporary construction activities including removal of existing structures; construction staging; minor cut and fill that would be restored to existing conditions after project completion; and noise, ground vibration, airborne particulate (dust), and turbidity caused by construction activities within waters.

Permanent impacts generally include effects associated with conversion of land use and cover (e.g., permanent vegetation removal) as a result of excavation associated with construction of trails and other facilities, landscaping, and installation of new structures. In addition, permanent impacts include long-term changes to management activities and recreational uses that can result in disturbances to wildlife and vegetation.

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- listed as threatened or endangered under the federal ESA or CESA, or rare under the California Native Plant Protection Act;
- a candidate for state or federal listing as endangered, threatened, or rare;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations (CCR) Section 15380 of the State CEQA Guidelines;
- species identified by the California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- plants considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR) of 1A - Plants presumed to be extinct in California; 1B - Plants that are rare, threatened, or endangered in California and elsewhere; or 2 - Plants that are rare, threatened, or endangered in California but more common elsewhere.

A preliminary list of special-status botanical and animal species with potential to occur in ASRA/APL was developed based on a review of the existing data sources described previously. An analysis of special-status animal and plant species was conducted using the distribution of documented occurrences in or near ASRA/APL, the presence of suitable habitat in ASRA/APL, and other factors. This analysis identified a subset of 20 special-status animal species and 15 special-status plant species that are known to occur or could/are expected to occur within ASRA/APL (Appendix C, Biological Resources, Table C-1 and Table C-2).

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact on biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the U.S. Fish and Wildlife Service (USFWS);
- 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 CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or
- 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.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. NEPA does not require determinations of significance for individual resources (i.e., there will be no individual summary of impacts listed under NEPA). Once the proposed action is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where it is feasible to do so. NEPA requires documentation and discussion of any beneficial effects of a project in addition to its negative impacts. Where appropriate, these beneficial effects are discussed and called out specifically for the purposes of NEPA in the following impact analysis.

Environmental Impacts

Impact 4.3-1: Loss of special-status plants

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would facilitate construction of new and expanded facilities within ASRA/APL. Each alternative would result in different amounts of facility construction that could result in loss of special-status plants, with the RME Alternative resulting in the smallest area of potential impact. The RE Alternative would result in the largest area of potential impact of the three action alternatives. The GP/RMP includes guidelines, an adaptive management framework, and CSP Standard Project Requirements (SPRs) that would avoid or reduce impacts for all action alternatives. The CSP SPRs are included as Appendix A of this EIR/EIS. Additionally, potential adverse environmental effects associated with the action alternatives would be subject to applicable regulatory requirements. With the implementation of the guidelines and CSP SPRs, the Proposed Action, RME Alternative, and RE Alternative would each result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would each result in a greater potential impact to special-status plants than the No-Action Alternative.

Because some improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes or disturbances to land in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA.

Three special-status plants are known to occur and 20 special-status plants may occur within ASRA/APL; and a subset of these either have no known occurrence (historical data suggests habitat may be suitable) or limited occurrence (nearby recorded occurrences) (Appendix C, Biological Resources, Table C-1). The upland vegetation types (e.g., chaparral, oak woodland, grassland, conifer forests) that occur within all management zones of ASRA/APL are potentially suitable habitat for special-status plant species (eleven species) that are known to or could occur in ASRA/APL. The remaining four special-status plants would likely be restricted to small wetlands, seeps, springs, riparian habitat, lake margins, and other, more mesic habitats within ASRA/APL.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan would remain unchanged, and no new recreation facilities would be constructed. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements, and visitation would only increase as a result of population growth in the region (see Section 2.4.2, Key Differences among the Alternatives). Any construction activities would comply with applicable laws and regulations. For these reasons, this alternative would not result in substantial adverse effects on the persistence or abundance of local populations of special-status plants that differ from existing conditions. Therefore, this alternative would result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

While some facilities that would be constructed, maintained, and improved as part of the Proposed Action (see Section 2.6, Proposed Action - Increased Recreation and Resource Management Alternative) occur within existing disturbed areas not likely to support special-status plants, others would occur in potentially suitable habitat for special-status plants. Implementation of the Proposed Action would result

in an estimated 160 to 185 acres of land treated annually to reduce fuel loading. The Proposed Action would allow for an overall increase in recreation visitation of approximately 35 percent compared to existing conditions (see Section 2.4.2, Key Differences among the Alternatives).

Construction of new facilities and improvements to existing facilities would include vegetation removal and grading that would potentially remove, crush, or trample special-status plants if they occur within the construction zone. Construction of new facilities also may result in the permanent loss of special-status plant habitat within the footprint of these facilities. In addition to direct habitat removal and mortality of special-status plants, construction and fuels reduction activities could introduce invasive plants and create dust that may result in death or decreased vigor of special-status plants. Increased recreational use also may result in increased dust production; increased introduction and spread of invasive plants; and increased crushing or trampling of plants by hikers, mountain bikers, and OHV users.

Although the implementation of the Proposed Action could result in loss of habitat, crushing or trampling of plants, and decreased vigor, GP/RMP guidelines, Best Management Practices (BMPs), and CSP SPRs would avoid and minimize the potential impacts from construction, fuels management, and increases in recreation. Guidelines RES 2.2, RES 2.3, RES 2.4, RES 2.6, and RES 3.3 and CSP SPRs (Appendix A) would require Reclamation and CSP to respond rapidly to new invasive plant infestations; survey for special-status plants; site new trails and facilities outside occupied habitat when feasible; flag, fence, and avoid special-status plant locations during construction activities; and provide BMPs to reduce dust from construction. For plants listed as endangered under the CESA or rare under the California Native Plant Protection Act, any "take" (i.e., removal or loss) would require authorization by CDFW through a California Fish and Game Code Section 2081 incidental take permit. Also, the removal of federally listed plants from federal lands that are part of ASRA/APL is prohibited by the ESA. Individual project-specific NEPA analysis would evaluate to what extent impacts to federally-listed species could be minimized or avoided in consultation with USFWS.

Through implementation of the GP/RMP guidelines, CSP SPRs, and BMPs, as well as compliance with existing state and federal regulations, loss of individuals and habitat would be minimized and there would be no substantial reduction in local or regional populations of special-status plants. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and restoration with a small increase in visitor capacity (approximately four percent). This increased visitor capacity, along with an expected increase in demand for recreation due to regional population growth is estimated to result in an approximately 30 percent increase in visitation under the RME Alternative.

Potential adverse effects from construction and improvements to existing facilities, fuels treatments, and recreation activities on special-status plants would be the same as those described above for the Proposed Action. Although fewer new facilities would be constructed, the removal of additional facilities would result in restoration opportunities that could provide a benefit to special-status plants by increasing available habitat. Under the RME Alternative, the same GP/RMP guidelines, CSP SPRs, and BMPs would be applied to avoid and minimize the potential impacts on special-status plants.

Through implementation of the GP/RMP guidelines, CSP SPRs, and BMPs discussed for the Proposed Action, and compliance with existing state and federal regulations, implementation of the RME

Alternative would not substantially reduce or threaten the persistence of any population of special-status plants. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative (see Section 2.8, Recreation Emphasis Alternative) would result in new recreational facilities and day-use facilities similar to those described for the Proposed Action. In addition, the RE Alternative would also involve constructing new campsites in the Lake Clementine Management Zone and constructing picnic sites in multiple management zones. Under this alternative, 100 parking spots would be added to the Confluence Management Zone, and the OHV trail system in the Mammoth Bar Management Zone would be expanded. As discussed for the Proposed Action, implementation of the RE Alternative would result in an increase in the average number of acres receiving fuel reduction treatments per year and would result in an overall increase in recreation visitation of approximately 45 percent compared to existing conditions.

Construction activities and their potential adverse effects on special-status plants would be the same as those described above for the Proposed Action. However, the RE Alternative may result in a larger area of impact because of the increased number of campsites, trails, and other facilities compared to the Proposed Action. Under the RE Alternative, the same GP/RMP guidelines and CSP SPRs would be applied to avoid and minimize the potential impacts on special-status plants.

Through implementation of the GP/RMP guidelines, CSP SPRs, and BMPs as discussed for the Proposed Action and compliance with existing state and federal regulations, implementation of the RE Alternative would not substantially reduce the local or regional populations of any special-status plant species. Therefore, implementation of the RE Alternative would result in a **less-than-significant** impact on special-status plants, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.3-2: Loss of special-status animals or habitat

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would facilitate construction and operation of new and expanded facilities that could disturb foraging behavior and reproduction, cause mortality of individuals, and remove or degrade habitat for special-status animals. Thirteen special-status animals are known to occur, two special-status animals are expected to occur, and five special-status animals could occur within ASRA/APL (Appendix C, Biological Resources, Table C-2). Each alternative would result in different amounts of facility construction within suitable habitat for special-status animals resulting in different areas of potential impact, with the RME Alternative resulting in the smallest area of potential impact. The RE Alternative would result in the largest area of potential impact of the three action alternatives. The GP/RMP includes guidelines, CSP SPRs, and BMPs that would avoid or reduce impacts for all action alternatives. Additionally, potential impacts associated with the action alternatives would be subject to applicable regulatory requirements for species listed under the ESA and the CESA. With implementation of the guidelines and CSP SPRs, and BMPs, the Proposed Action, RME Alternative, and RE Alternative would each result in a **less-than-significant** impact on special-status animals, for the

purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would each result in a greater potential impact to special-status animals than the No-Action Alternative.

Because some improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes or disturbances to land in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact related to effects on special-status animals, for the purposes of CEQA.

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) is federally listed as threatened under the ESA. This species is associated with elderberry (*Sambucus* spp.), which is its larval host plant (USFWS 2018a). Elderberry shrubs are commonly found within riparian habitats but may also be found in upland habitat types (e.g., oak woodland, chaparral) in more moist locations. Elderberry shrubs are known to occur within ASRA/APL in multiple management zones, including Mammoth Bar and Mineral Bar (Appendix C, Biological Resources, Table C-2); however, only the Auburn Interface and Knickerbocker Management Zones are within the known range of the VELB (USFWS 2018a).

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the viability of VELB populations that differ from existing conditions, and would result in a **less-than-significant** impact on VELB, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would occur in all areas of ASRA/APL; however, only the construction of facilities and other activities within the Auburn Interface and Knickerbocker Management Zones would be within the known range of VELB. Implementation of the Proposed Action within riparian habitat (e.g., construction of new trails or improving existing trails that are used for river access, construction or improvement of existing river access points, and construction of a trail bridge) has the greatest likelihood to affect VELB. Other activities (e.g., improvements to existing roads and trails, construction of new trails, expansion of the Cool Staging Area, and new camping facilities in the Knickerbocker and Auburn Interface Management Zones) that occur outside of mapped riparian habitat (Appendix C, Biological Resources) may also affect VELB, though the presence of elderberry shrubs is less likely.

Construction and improvements to existing facilities and trails would include vegetation removal and grading that would potentially remove, crush, or trample VELB host plants and larvae if they occur within the construction zone. In addition, construction activities and increased recreational use could introduce invasive plants and create dust that may result in death or decreased vigor of elderberry shrubs, thereby reducing VELB habitat. Implementation of the Proposed Action would result in approximately 160 to 185 acres treated annually to reduce fuel loading. These fuel reduction treatments could remove elderberry shrubs and together with increased trail use may result in the introduction and spread of invasive plants, which can displace elderberry shrubs further reducing habitat for VELB. Although implementation of the Proposed Action could remove and decrease the vigor of VELB host plants, GP/RMP guidelines and CSP SPRs would avoid and minimize the potential impacts from construction and increases in fuels management and recreation on VELB. Guidelines RES 2.2, RES 2.3, RES 2.4, RES 2.6, RES 3.1, RES 3.3, RES 3.4, RES 3.5, RES 3.6, and RES 24.2 and CSP SPRs (Appendix A) would require Reclamation and CSP to respond rapidly to new invasive plant infestations; monitor impacts to sensitive species habitat, which could include surveying for elderberry shrubs with signs of VELB; site new trails and facilities outside of

occupied habitat when feasible; develop appropriate measures to protect sensitive species and habitat, which could include flagging, fencing, and avoiding VELB locations during construction activities; and provide BMPs to reduce dust from construction. In addition, for activities that have the potential for take of VELB, Reclamation and CSP would consult with USFWS to obtain take authorization under the ESA and comply with any recommended minimization and avoidance measures.

With implementation of the GP/RMP guidelines, CSP SPRs, BMPs, and compliance with the requirements of the ESA, the Proposed Action would not substantially reduce suitable habitat or cause mortality that would adversely affect the viability of any population of VELB. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on VELB, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include new day-use facilities and other improvements. This alternative would also include the removal of existing facilities and trails that would result in additional restoration opportunities throughout ASRA/APL. Within the known range of VELB, the RME Alternative would result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones some of which may occur within riparian habitat. However, no trail bridge would be built across the North Fork American River from Auburn to Cool, no new camping facilities would be constructed, and the Cool Staging Area would not be expanded.

Potential impacts from construction, fuels management, and recreation on VELB under the RME Alternative would be similar to those described above for the Proposed Action. However, the area of potentially suitable habitat that would be disturbed by construction would be less. Under the RME Alternative, the same GP/RMP guidelines and CSP SPRs would be applied to avoid and minimize the potential impacts on VELB as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, CSP SPRs, BMPs and compliance with the requirements of the ESA, the RME Alternative would not substantially reduce suitable habitat or cause mortality that would adversely affect the viability of any population of VELB. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on VELB, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action. However, a greater number of camping facilities and expansion of OHV trails are proposed. Within the Auburn Interface and Knickerbocker Management Zones, this alternative also includes activities that have the potential to occur within riparian habitat for VELB such as construction of new trails or improving existing trails that are used for river access, construction or improvement of existing river access points, and construction of a trail bridge. Similar to the Proposed Action, other activities such as improvements to existing roads and trails, construction of new trails, expansion of the Cool Staging Area, and new camping facilities in the Knickerbocker and Auburn Interface Management Zones may also have impacts on VELB. Also, as discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year.

Potential impacts from construction, fuels management, and recreation on VELB from the RE Alternative would be similar to those described above for the Proposed Action. However, the area of potentially suitable habitat that would be disturbed by construction would likely be greater, because additional

facilities are proposed under this alternative. The RE Alternative would implement the same GP/RMP guidelines and CSP SPRs as discussed for the Proposed Action to avoid and minimize the potential impacts on VELB.

Through implementation of the GP/RMP guidelines, CSP SPRs, BMPs and compliance with requirements of the ESA, the RE Alternative would not substantially reduce suitable habitat or cause mortality that would adversely affect the viability of any population of VELB. Therefore, implementation of the RE Alternative would result in a **less-than-significant** impact on VELB, for the purposes of CEQA, and the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Hardhead

Hardhead (*Mylopharodon conocephalus*) is a native fish and listed as a CDFW Species of Special Concern that is typically found in undisturbed areas of larger middle- and low- elevation streams. Hardhead prefer clear, deep pools with sand-gravel-boulder substrates and slow water velocities (CSP and Reclamation 2016). They tend to be absent from streams that have been severely altered by human activity (CDFW 1995). Hardhead are known to occur in the area of the confluence of the North and Middle Forks of the American River (CSP 2002). For this analysis hardhead habitat within ASRA/APL is assumed to be the North Fork American River upstream to the North Fork Dam, and throughout the Middle Fork American River.

No-Action Alternative

The implementation of the No-Action Alternative would be the same as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the persistence and abundance of the local population of hardhead that differs from existing conditions, and would result in a **less-than-significant** impact on hardhead, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would include construction activities within the Confluence, Cherokee Bar/Ruck-a-Chucky, Lower Middle Fork, Upper Middle Fork, Mineral Bar, and Auburn Interface Management Zones that border sections of the American River where hardhead may occur. Most of this construction would occur in upland areas away from the river; however, some construction would occur within or adjacent to suitable hardhead habitat. Two trail bridges are part of the Proposed Action. One bridge is located in the Cherokee Bar/Ruck-a-Chucky Management Zone and the second would cross the North Fork American River in the Auburn Interface Management Zone. In addition, construction of new, or improvement of existing, watercraft access points would occur in the Auburn Interface, Confluence, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management. Zones. Also, construction of new trails or improvement of existing trails that are used for river access in the Auburn Interface, Confluence, Cherokee Bar/Ruck-a-Chucky, Lower Middle Fork and Mineral Bar Management Zones would occur adjacent to the river. Within the Mammoth Bar Management Zone, the Proposed Action would involve repairing, re-constructing, re-routing, closing or adding OHV trails, and potentially relocating the OHV tracks and staging area to an upland location.

The repair, re-construction, and potential relocation of the OHV tracks and staging area within the Mammoth Bar Management Zone to an upland location from the current location adjacent to the Middle Fork American River would likely result in long-term improvement in hardhead habitat. This

improvement would occur due to a reduction in runoff into the river that can result in degradation of potential spawning habitat. Construction of trail bridges and launching facilities within the bed and bank of the river could result in loss of spawning habitat within the construction footprint. Construction of these structures could also result in disturbance of spawning behavior and result in loss of eggs in spawning gravels if construction occurs during the spawning season, which generally occurs in April–May, but may extend until August in foothill streams (Moyle et al. 2015). The construction and improvements to trails and other facilities and the continued use of these trails and facilities adjacent to suitable hardhead habitat could result in runoff to the river. This runoff could carry sediment and pollutants, which degrade spawning habitat.

Although implementation of the Proposed Action could degrade suitable spawning habitat, the GP/RMP guidelines and CSP SPRs would avoid and minimize the potential impacts on hardhead. Guidelines RES 3.4, RES 3.5, RES 3.6, and RES 3.9 and CSP SPRs (Appendix A) would require Reclamation and CSP to minimize direct habitat loss and degradation; avoid impacts from construction during the spawning season; and minimize impacts from the discharge of soil, surface water runoff, and pollutants though implementation of a Stormwater Pollution Prevention Plan (SWPPP).

Through implementation of the GP/RMP guidelines, BMPs, and CSP SPRs, which would avoid and minimize impacts on spawning habitat, the Proposed Action would not substantially reduce or threaten the persistence of the local population of hardhead. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on hardhead, for the purposes of CEQA, and the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

As discussed above for the Proposed Action, most construction under the RME Alternative would occur in upland areas away from suitable hardhead habitat. Under the RME Alternative there would be no construction of trail bridges across the American River and construction, renovation, and improvement of watercraft access points would occur only within the Confluence Management Zone. While some of the construction activities adjacent to suitable hardhead habitat that would occur under the RME Alternative would be the same as those for the Proposed Action, activities adjacent to the river within the Mammoth Bar and Cherokee Bar/Ruck-a-Chucky Management Zones would change. Within the Mammoth Bar Management Zone, the RME Alternative would facilitate the phase out of OHV use on the current tracks and staging area near the river and the phase out and restoration of the campground near the river in the Cherokee Bar/Ruck-a-Chucky Management Zone.

Construction activities at watercraft access points would result in impacts similar to those discussed for the Proposed Action; although, the area of impact would be less. Construction activities to improve trails near the river, remove OHV trails in Mammoth Bar, and restore the previously used camping area in the Cherokee Bar/Ruck-a-Chucky Management Zone could result in runoff, which may cause sedimentation of spawning habitat for hardhead. However, these activities would likely reduce runoff to suitable habitat in the long term. The RME Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts on hardhead as discussed for the Proposed Action.

Due to the limited construction in potential spawning habitat, habitat restoration, and implementation of the GP/RMP guidelines, BMPs, and CSP SPRs, which would further minimize and avoid impacts on spawning habitat, the RME Alternative would not substantially reduce or threaten the persistence of the local population of hardhead. Therefore, implementation of the RME Alternative would result in a

less-than-significant impact on hardhead, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action. However, a greater number of camping facilities and trails are proposed. Under the RE Alternative, construction, repair, and other activities within and adjacent to hardhead habitat would also be similar to those under the Proposed Action. In addition, the OHV boundary and trail system within Mammoth Bar Management Zone would be expanded.

Potential effects on hardhead from the RE Alternative would be similar to those described above for the Proposed Action. However, the area of potentially suitable spawning habitat that could be degraded by sedimentation would be greater. The RE Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts on hardhead as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs and CSP SPRs, which would minimize and avoid impacts on spawning habitat, the RE Alternative would not substantially reduce or threaten the persistence of the local population of hardhead. Therefore, implementation the RE Alternative would result in a **less-than-significant** impact on hardhead, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Special-status reptiles and amphibians

Two special-status amphibians are known or expected to occur within ASRA/APL. Foothill yellow-legged frog (*Rana boylii*) (FYLF) is a candidate for listing as threatened under the CESA. FYLF are known to occur within and along creeks and rivers in multiple management areas within ASRA/APL (Appendix C, Biological Resources, Table C-2), and are not likely to occur far from those waters. California red-legged frog (*Rana draytonii*) (CRLF) is federally listed as threatened and is also a California Species of Special Concern. While CRLF was not detected during amphibian surveys of the North Fork American River and Brushy Creek in 1998 (Appendix C, Biological Resources, Table C-2), due to the presence of suitable aquatic habitat and known occurrences within the vicinity, CRLF could occur within ASRA/APL. The forks of the American River, creeks, ponds, and adjacent terrestrial habitats within ASRA/APL are potentially suitable habitat for CRLF. Two reptile special-status species are also known to occur within ASRA/APL, coast horned lizard (*Phrynosoma blainvillii*) and western pond turtle (*Emys marmorata*), both of which are California Species of Special Concern. Coast horned lizard is most likely to occur within chaparral and other open habitats within ASRA/APL. Western pond turtle habitat consists of the American River, Lake Clementine, creeks, ponds, riparian habitats, and adjacent uplands within ASRA/APL (Appendix C, Biological Resources, Table C-2).

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the local populations of special-status amphibians and reptiles that differ from existing conditions, and would result in a **less-than-significant** impact on special-status amphibian and reptiles, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include activities in multiple management zones that have the potential to occur within special-status amphibian and reptile habitat. Activities that would occur within potentially suitable habitat for coast horned lizard include, construction and improvement of trails, construction and expansion of campgrounds, work associated with OHV trails in Mammoth Bar Management Zone, and construction and improvement other facilities throughout ASRA/APL. Activities that would occur in potentially suitable habitat for CRLF include, trail construction and improvement, trail bridge construction, improvement of landing access points, and construction and improvement of other facilities that occur within aquatic habitat or within approximately 1-2 miles of aquatic habitat (USFWS 2018b). The construction activities that would occur within suitable habitat for western pond turtle are similar to those for CRLF; however, western pond turtle upland habitat does not extend far from aquatic habitats. Activities within FYLF habitat would be limited to those that occur within and along the banks of the North Fork American River, Middle Fork American River, its tributaries, and associated riparian habitats. Implementation of the Proposed Action would result in an increase the area treated for fuel reduction within potentially suitable upland habitat for special-status amphibians and reptiles.

During construction activities, injury or death of special-status amphibians and reptiles could result from being crushed by construction equipment, buried by fill, and trapped in open trenches. Loss of reproduction could also occur due to disturbance of egg masses of CRLF and FYLF. Similarly, disturbance of the nests of coast horned lizard and western pond turtle would also result in loss of reproduction. Loss of suitable aquatic and upland habitat for special-status amphibians and reptiles would also likely occur within the footprint of new construction.

Although implementation of the Proposed Action could result in mortality, loss of habitat, and loss of reproduction, GP/RMP guidelines, BMPs, and CSP SPRs would avoid and minimize the impacts on special-status amphibians and reptiles. GP/RMP Guidelines RES 3.1, RES 3.4, RES 3.5, RES 3.6, and RES 3.9 and CSP SPRs (Appendix A) would require Reclamation and CSP to conduct pre-construction surveys throughout ASRA/APL, monitor worksites, cover holes and trenches, stop work when special-status amphibians and reptiles are present, site facilities to minimize direct habitat impacts where feasible, and implement a SWPPP. In addition, for activities that have the potential for individual take of CRLF, CRLF or their habitat, CSP would consult with USFWS to obtain take authorization under the ESA and comply with any minimization and avoidance measures. For activities with the potential to result in loss of FYLF, CSP would consult with CDFW to obtain an incidental take permit under Section 2081 of the California Fish and Game Code and comply with any conservation measures.

With implementation of the GP/RMP guidelines, BMPs and CSP SPRs, which would avoid and minimize impacts on suitable habitat and individuals, the Proposed Action would not substantially reduce suitable habitat or threaten the persistence of any local population of special-status amphibians or reptiles. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on special-status amphibians and reptiles, for the purposes of CEQA; though, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, each management zone would include some new day-use facilities or improvements to existing facilities. These would include trailhead improvements, parking, restrooms, interpretive elements, and improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. These activities would occur within potential habitat for special-status amphibians and reptiles. Under the RME Alternative, there would be no construction of trail bridges across the North Fork American River or Middle Fork American River.

Construction, renovation and improvement of river access points would occur only within the Confluence Management Zone. This alternative would also include the removal of OHV tracks and trails in the Mammoth Bar Management Zone, removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, and removal and restoration of campsites along the river in the Cherokee Bar/Ruck-a-Chucky Management Zone.

Construction activities under the RME Alternative would result in the same potential impacts as those discussed for the Proposed Action. However, the area of impact would be less because fewer projects are proposed. Construction is proposed to improve trails near the river in multiple management zones. In addition, the RME Alternative proposes removing and restoring OHV trails in Mammoth Bar. Activities to restore riparian habitat could result in runoff to suitable aquatic habitat for CRLF, FYLF and western pond turtle. However, these activities would likely reduce runoff to suitable aquatic habitat in the long term. The RME Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts on special-status amphibians and reptiles as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs, and CSP SPRs, which would avoid and minimize impacts on suitable habitat and individuals, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any population of special-status amphibians or reptiles. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on special-status amphibians and reptiles, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities, trails, and river access similar to those described above for the Proposed Action. These facilities would be constructed in multiple management zones of ASRA/APL in potentially suitable habitat for special-status amphibians and reptiles. The RE Alternative would also facilitate construction of new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would also facilitate the addition of 100 parking spots the Confluence Management Zone and expansion of the OHV trail system in the Mammoth Bar Management Zone. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year.

The potential effects on special-status amphibians and reptiles from activities under the RE Alternative would be the same as those described for the Proposed Action. However, the RE alternative may result in a larger area of impact due the increased number of campsites, trails, and other facilities compared to the Proposed Action. The RE Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts on special-status amphibians and reptiles as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs and CSP SPRs, which would avoid and minimize impacts on suitable habitat and individuals, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any population of special-status amphibians or reptiles. Therefore, the RE alternative would result in a **less-than-significant** impact on special-status amphibians and reptiles; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Special-status birds

The special-status birds that are known to occur within ASRA/APL are golden eagle (*Aquila chrysaetos*), yellow warbler (*Dendroica petechial*), American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), yellow-breasted chat (*Icteria virens*), and willow Flycatcher (*Empidonax traillii*). However, it is unlikely that willow flycatcher would nest in ASRA/APL. Additionally, tricolored blackbird (*Agelaius tricolor*), black swift (*Cypseloides niger*), Vaux's swift (*Chaetura vauxi*), and white-tailed kite (*Elanus leucurus*) are not known to occur within ASRA/APL. However, suitable nesting habitat for special-status birds occurs throughout ASRA/APL in multiple habitats (e.g., oak woodland, montane conifer forests). Some species utilize more specific habitat types, such as yellow warbler and yellow-breasted chat, which nest in riparian habitats. American peregrine falcon also utilizes more specific nesting habitat on cliffs and similar structures and has been documented nesting at the Cave Valley Climbing Area. While no nesting has been documented at Robber's Roost adjacent to the Lake Clementine Management Zone, the location is also known to be used by American peregrine falcon, golden eagle, and bald eagle (Appendix C, Biological Resources, Table C-2).

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in a substantial adverse effects on the persistence or abundance any local population of special-status birds that differ from existing conditions, and would result in a **less-than-significant** impact on special-status birds from construction, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Construction activities implemented as part of the Proposed Action would occur within suitable foraging and nesting habitat for special-status bird species in multiple management zones. Under the Proposed Action trail bridges would be constructed across the Middle Fork American River in the Cherokee Bar/Ruck-a-Chucky Management Zone and the North Fork American River in the Auburn Interface Management Zone. These trail bridges may occur within riparian habitat for Vaux's swift, yellow warbler, yellow-breasted chat, and willow flycatcher. In the Auburn Interface, Confluence, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones, construction or improvement of trails and watercraft access points would also occur within riparian habitat. Under the Proposed Action, climbing events at Cave Valley Climbing Area would be increased and climbing would be expanded to other areas within the Confluence Management Zone that could provide suitable nesting habitat for American peregrine falcon and golden eagle. Implementation of the Proposed Action would result in an increase in fuel reduction treatments. The Proposed Action also includes restoration of riparian habitat associated with the relocation of the campground in the Lake Clementine management Zone and the OHV Tracks in the Mammoth Bar Management Zone.

Construction of facilities and other activities under the Proposed Action could result in disruption of foraging/nesting behavior and removal of suitable foraging/nesting habitat for special-status birds; however, the area of habitat that would be removed or disrupted would not be substantial compared to the amount of available foraging/nesting habitat within ASRA/APL. Exceptions to this would be nesting habitat for American peregrine falcon and golden eagle at Cave Valley Climbing Area and other cliffs in the Confluence Management Zone that may be disturbed by expansion of climbing activities. In addition to disturbances and loss of suitable habitat, loss of special-status bird nests and young may occur as a result of construction and other activities in multiple management zones within ASRA/APL.

Although implementation of the Proposed Action could potentially result in disturbances to breeding activities and loss of suitable habitat for special-status birds, GP/RMP guidelines, BMPs and protections afforded under the Migratory Bird Treaty Act (MBTA), and CSP SPRs would avoid and minimize the impacts from the Proposed Action on these species. GP/RMP Guidelines RES 2.1, RES 3.1, RES 3.4, RES 3.5, RES 3.6, RES 3.7, RES 3.8, RES 3.9, RES 8.1 and CSP SPRs (Appendix A) would require Reclamation and CSP to conduct pre-construction surveys throughout ASRA/APL; monitor impacts on sensitive species habitat in heavily used recreation areas and repair any damage; implement a Fire Management Plan that identifies implementation measures to maintain and restore native vegetation communities; decommission, relocate, or repair existing facilities that contribute to habitat degradation; prevent the introduction and spread of invasive plants; minimize disturbance to native wildlife-habitat areas, including, riparian, wetlands, and native shoreline habitats; develop and implement vegetation management plans, programs, and actions to protect sensitive vegetation communities; implement worksite monitoring; and establish nest buffers and nesting season restrictions. In addition, for activities with the potential to result in loss of tricolored blackbird and willow flycatcher, CSP would consult with CDFW to obtain an incidental take permit under Section 2081 of the California Fish and Game Code and comply with any conservation measures.

With the implementation of GP/RMP guidelines, BMPs and protections afforded under the MBTA, and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the Proposed Action would not substantially reduce suitable habitat or threaten the persistence of any local population of special-status birds. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on special-status birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include some new day-use facilities or improvements to existing facilities, including improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. These activities would occur within potential nesting and foraging habitat for special-status birds. Construction, renovation and improvement of river access points would occur only within the Confluence Management Zone and there would be no construction of trail bridges across the Middle Fork American River and North Fork American River. Climbing within Cave Valley Climbing Area and elsewhere in the Confluence Management Zone would not be expanded. This alternative would result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone, removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, and removal and restoration of campsites from along the river in the Cherokee Bar/Ruck-a-Chucky Management Zone.

With implementation of the RME Alternative, construction activities would result in the same potential impacts on special-status birds as those discussed for the Proposed Action. However, the area of impact under the RME Alternative would likely be less, because fewer projects are proposed. In addition, potential impacts on special-status birds in specific habitats such as the Cave Valley Climbing Area would not occur under this alternative. The RME Alternative would implement the same GP/RMP guidelines and CSP SPRs to avoid and minimize the potential impacts as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs and protections afforded under the MBTA, and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any local population of special-status birds. Therefore, implementation of the RME Alternative would result in a

less-than-significant impact on special-status birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities, trails, river access, and expanded climbing as described above for the Proposed Action. These activities would occur in potentially suitable nesting and foraging habitat for special-status birds. The RE Alternative would also construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would also add 100 parking spots the Confluence Management Zone, and the Mammoth Bar Management Zone would have an expanded OHV trail system. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year.

Under the RE Alternative, construction activities and their potential effects on special-status birds would be the same as described above for the Proposed Action. However, the RE Alternative may result in a larger area of impact due the increased number of campsites, trails, and other facilities compared to the Proposed Action. The RE Alternative would implement the same GP/RMP guidelines and CSP SPRs to avoid and minimize the potential impacts on special-status birds as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs and protections afforded under the MBTA, and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any population of special-status birds. Therefore, implementation of the RE alternative would result in a **less-than-significant** impact on special-status birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW Species of Special Concern. This species is known to occur within ASRA and has been historically documented to use the lime caves south of Mammoth Bar. Townsend's big-eared bat roosts are found in caves, tunnels, mines, and abandoned buildings. The species is known to be extremely sensitive to disturbance of roosting sites (Appendix C, Biological Resources, Table C-2).

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 IRMP would remain unchanged, no new recreation facilities would be constructed, and access to the Mountain Quarries Mine would remain closed. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Any construction activities would be implemented to comply with applicable laws and regulations. Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the persistence and abundance of the local population of Townsend's big-eared bat that differ from existing conditions, and would result in a **less-than-significant** impact on Townsend's big-eared bat from construction, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include construction of trails, campgrounds, and other facilities in multiple management zones within suitable foraging habitat for Townsend's big-eared bat. However, the implementation of the Proposed Action would not likely have a substantial effect on foraging habitat for Townsend's big-eared bat, because any loss of habitat would be minor compared with the amount of foraging habitat in ASRA/APL. Roosting habitat for Townsend's big-eared bat is limited to caves, tunnels, mines, and abandoned buildings. Only the proposed change in access to the Mountain Quarries Mine would occur in roosting habitat. The opening of the Mountain Quarries Mine to guided tours under the Proposed Action would increase the presence of visitors within the mine, which is likely to result in loss of habitat, potentially introduce pathogens such as white-nosed fungus, and disturb any roosts of Townsend's big-eared bat that may occur, resulting in the potential loss of individual bats. Although, disturbance of roosts could occur under the Proposed Action, the alternative would also include implementation of GP/RMP Guidelines RES 3.1, RES 3.5, and MZ 11.2, which would require that surveys for Townsend's big-eared bat be completed within the mine and a strategy be implemented to protect the species.

The implementation of the Proposed Action would not have a substantial adverse effect on the abundance and persistence of the local population of Townsend's big-eared bat, because implementation of applicable GP/RMP guidelines would avoid impacts on roosts of Townsend's big-eared bat, and any adverse effect on foraging habitat would be limited. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on Townsend's big-eared bat, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include construction and improvement of facilities within foraging habitat for Townsend's big-eared bat. As discussed for the Proposed Action, the RME Alternative is not likely to have a substantial adverse effect on foraging habitat. Under the RME Alternative, the Mountain Quarries Mine would remain closed and no additional disturbance within the mine or other roosting habitat is proposed.

Due to the limited effect on foraging habitat and no effect on roosting habitat, the implementation of the RME Alternative would not have an adverse effect on the persistence or abundance of the local population of Townsend's big-eared bat. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on Townsend's big-eared bat, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The RE Alternative would include construction and improvement of facilities within foraging habitat for Townsend's big-eared bat. As discussed for the Proposed Action, the RE Alternative is not likely to have a substantial adverse effect on foraging habitat. Also, as discussed for the Proposed Action, the opening of the Mountain Quarries Mine would have the potential to cause the abandonment of roosts within the mine should they occur. However, the RE Alternative would also implement GP/RMP Guidelines RES 3.6 and MZ 11.2 as discussed for the Proposed Action.

The implementation of the RE Alternative would not have a substantial adverse effect on the local population of Townsend's big-eared bat, because implementation of GP/RMP guidelines would avoid impacts on roosts of Townsend's big-eared bat and any adverse effect on foraging habitat would be limited. Therefore, implementation of the RE Alternative would result in a **less-than-significant**

impact on Townsend's big-eared bat, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Ringtail

In addition to Townsend's big-eared bat, discussed above, ringtail (*Bassariscus astutus*) is known to occur within ASRA/APL. Habitat for this species is found throughout ASRA/APL (Appendix C, Biological Resources, Table C-1 and Maps).

No-Action Alternative

Implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the persistence or abundance of any local population of ringtail that differ from existing conditions, and would result in a **less-than-significant** impact on ringtail from construction, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include new and improved recreational facilities, trails, and river access in multiple management zones within foraging and denning habitat for ringtail. In addition, implementation of the Proposed Action would result in an increase in the annual average amount of fuel reduction treatments, which would also occur within suitable foraging and denning habitat for ringtail.

Construction of new facilities would likely result in loss of denning and foraging habitat for ringtail. In addition, construction or modification of facilities and implementation of fuels reduction treatments would temporarily increase disturbance within suitable habitat, which could cause ringtail to avoid the construction area. When these activities occur within potential denning habitat, this could result in abandonment of dens. Destruction of dens through tree removal and ground disturbance may also occur. If destruction or abandonment of dens occurs during the breeding season, this could result in the injury or death of young.

Although the implementation of the CSP Alternative could result in loss of suitable denning and foraging habitat for ringtail, GP/RMP guidelines, BMPs and CSP SPRs would avoid and minimize the impacts from the Proposed Action. GP/RMP Guidelines RES 3.1, RES 3.4, RES 3.5, RES 3.6, RES 3.7, RES 3.8, RES 3.9, and RES 8.1 and CSP SPRs (Appendix A) would require Reclamation and CSP to conduct pre-construction surveys throughout ASRA/APL; monitor impacts on sensitive species habitat in heavily used recreation areas and repair any damage; implement a Fire Management Plan that maintains and restores native vegetation communities; decommission, relocate, or repair existing facilities that contribute to habitat degradation; minimize disturbance to native wildlife-habitat areas; develop and implement vegetation management programs and actions to protect sensitive vegetation communities; implement worksite monitoring; establish den site buffers; and implement breeding season restrictions.

With the implementation of GP/RMP guidelines, BMPs and CSP SPRs, which would avoid and minimize impacts on suitable habitat and dens, the Proposed Action would not substantially reduce suitable habitat or threaten the persistence of any population of other special-status mammals. Therefore, implementation of the CSP Proposed would result in a **less-than-significant** impact on ringtail, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include construction of fewer new facilities and improvements to existing facilities than the Proposed Action. Under the RME Alternative there would be no construction of trail bridges and construction, renovation, and improvement of river access points would occur only within the Confluence Management Zone. This alternative would also result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone, removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, and removal and restoration of campsites along the river in the Cherokee Bar/Ruck-a-Chucky Management Zones.

Potential impacts from construction and facility improvement activities would be similar to those discussed for the Proposed Action. However, under the RME alternative the area of impact would be less as fewer projects are proposed. The RME Alternative would implement the same GP/RMP guidelines and CSP SPRs to avoid and minimize the potential impacts on ringtail as discussed for the Proposed Action. Through implementation of the GP/RMP guidelines, BMPs and CSP SPRs, which would avoid and minimize impacts on suitable habitat, individuals, and dens, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any local population of ringtail. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on ringtail, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new and improved recreational facilities, trails, and river access similar to those for the Proposed Action. The RE Alternative would also construct new campsites, parking, and an expanded OHV trail system in the Mammoth Bar Management Zone. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year. All of these activities would occur in potentially suitable foraging and denning habitat for ringtail.

Construction activities and their potential effects on ringtail would be the same as those described above for the Proposed Action. However, the RE alternative may result in a larger area of impact due the increased number of facilities and trails compared to the Proposed Action. The RE Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts on ringtail as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs and CSP SPRs, which would avoid and minimize impacts on suitable habitat, individuals, and dens, the RE Alternative would not substantially reduce suitable habitat or threaten the persistence of any local population of ringtail. Therefore, implementation of the RE alternative would result in a **less-than-significant** impact on ringtail, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.3-3: Loss of nests of common raptors and other nesting birds

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would facilitate construction of new and expanded facilities in most or all of the management zones in ASRA/APL. Each alternative would result in different amounts of facility construction that could result in loss of nests of common

raptors and other nesting birds, with the RME Alternative resulting in the smallest area of potential impact. The RE Alternative would result in the largest area of potential impact of the three action alternatives. The GP/RMP includes Guidelines and SPRs that would avoid or reduce impacts for all action alternatives. With the implementation of the guidelines, BMPs and CSP SPRs the Proposed Action, RME Alternative, and RE Alternative would each result in a **less-than-significant** impact on nests of common raptors and other nesting birds, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would each result in a greater impact than would occur under the No-Action Alternative.

Because some improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes or disturbances to land in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact on nests of common raptors and other nesting birds, for the purposes of CEQA.

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). While visitation is anticipated to increase with regional population growth under the No-Action Alternative, visitors would continue to use existing facilities and trails and potential nest disturbance would not be introduced into new habitats. Therefore, implementation of the No-Action Alternative would not result in substantial adverse effects on the persistence or abundance of any local population of common raptors or other nesting birds that differ from existing conditions, and would result in a **less-than-significant** impact on common raptors and other nesting birds from construction, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include construction and other activities within multiple management zones. Under the Proposed Action, climbing events at Cave Valley Climbing Area would be increased and climbing would be expanded to other areas within the Confluence Management Zone. Implementation of the Proposed Action would result in an increase in the average annual amount of fuel reduction treatments. All of these activities would likely occur within suitable nesting habitat for common raptors and other nesting birds.

Fuels reduction treatments and the construction or modification of facilities and trails would remove vegetation and temporarily increase noise and human disturbance. This increase in disturbance could cause loss of nests and young. In addition, new facilities and trails would result in the loss of nesting habitat for common raptors and other nesting birds; although the loss of habitat would not likely be substantial given the relatively small area of these new facilities and trails compared to the amount of suitable nesting habitat within ASRA/APL for common species. Although the Proposed Action could result in the loss of habitat and nests, implementation of GP/RMP guidelines, BMPs, MBTA protections and CSP SPRs would avoid and minimize the impacts on habitat and nests of common raptors and other nesting birds. GP/RMP Guidelines RES 3.1, RES 3.6, RES 3.8, and RES 3.9 and CSP SPRs (Appendix A) would require Reclamation and CSP to minimize disturbance to native wildlife-habitat areas where feasible, restore native habitats, conduct pre-construction surveys, implement nest buffers, and require nesting season restrictions.

With the implementation of GP/RMP guidelines, BMPs, MBTA protections, and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the Proposed Action would not substantially reduce suitable habitat or threaten the persistence of any local population of common raptors or other nesting birds. Therefore, implementation of the Proposed Action would result in a **less-than-**

significant impact on common raptors and other nesting birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include limited new day-use facilities or improvements to existing facilities, including improvements to trail and emergency vehicle access in the Knickerbocker and Auburn Interface Management Zones. These activities would occur within potential nesting habitat for common raptors and other nesting birds. Under the RME Alternative there would be no construction of trail bridges. Construction, renovation and improvement of river access points would occur only within the Confluence Management Zone, and climbing within Cave Valley Climbing Area and elsewhere in the Confluence Management Zone would not be expanded. This alternative would also facilitate removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, removal of OHV tracks and trails in the Mammoth Bar Management Zone, and removal and restoration of campsites along the river in the Cherokee Bar/Ruck-a-Chucky Management Zone.

Construction activities under the RME Alternative would result in the same potential impacts on common raptors and other nesting birds as those discussed for the Proposed Action. However, under the RME Alternative the area of impact would likely be less, because fewer projects are proposed. The RME Alternative would also implement the same GP/RMP guidelines, BMPs, MBTA protections and CSP SPRs to avoid and minimize the potential impacts on nests of common raptors and other nesting birds as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs, MBTA protections and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the RME Alternative would not substantially reduce suitable habitat or threaten the persistence of any local population of common raptors or other nesting birds. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on nests of common raptors and other nesting birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities, trails, and river access similar to those described above for the Proposed Action. In addition, the RE Alternative would construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would also add 100 parking spots the Confluence Management Zone and expand the OHV trail system in the Mammoth Bar Management Zone. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year. All of these activities would occur in potentially suitable habitat for common raptors and other nesting birds.

The potential effects of implementing the RE Alternative on nests of common raptors and other nesting birds would be similar to those described above for the Proposed Action. However, the RE Alternative may result in a larger area of impact due the increased number of facilities and trails. The RE Alternative would also implement the same GP/RMP guidelines, BMPs, MBTA protections and CSP SPRs to avoid and minimize the potential impacts on nests of common raptors and other nesting birds as discussed for the Proposed Action.

Through implementation of the GP/RMP guidelines, BMPs, MBTA protections and CSP SPRs, which would avoid and minimize impacts on suitable habitat and nests, the RE Alternative would not substantially reduce suitable habitat or threaten the persistence of any local population of common raptors or other nesting birds. Therefore, implementation of the RE alternative would result in a **less-than-significant** impact on nests of common raptors and other nesting birds, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.3-4: Loss or degradation of waters of the United States, waters of the state, and sensitive habitats

Impact Summary

Each of the action alternatives would result in different amounts of facility construction that could result in dredge or fill of waters of the United States or state, and removal or degradation of sensitive habitats, with the RME Alternative resulting in the smallest area of potential impact. The RE Alternative would result in the largest area of potential impact of the three action alternatives. The GP/RMP includes guidelines and CSP SPRs that would avoid or reduce impacts for all action alternatives. Additionally, potential adverse environmental effects associated with the action alternatives would be subject to applicable regulatory requirements. With the implementation of the guidelines, BMPs and CSP SPRs the Proposed Action, RME Alternative, and RE Alternative would each result in a **less-than-significant** impact on waters of the United States, waters of the state, and sensitive habitats, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would each result in a greater impact than would occur under the No-Action Alternative.

Because some improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes or disturbances to land in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact on waters of the United States, waters of the state, and sensitive habitats, for the purposes of CEQA.

Potential waters of the United States include the North Fork American River and Middle Fork American River, tributary streams, ponds, Lake Clementine, and associated wetlands. Waters of the state include waters of the Unite States and any other surface or ground waters such as ponds and associated wetlands. The Existing Conditions Report (CSP and Reclamation 2016) identified four riparian vegetation associations and valley oak woodland as sensitive natural communities. Isolated stands of valley oak (*Quercus lobata*) occur in the Mammoth Bar OHV area (CSP and Reclamation 2016). This analysis considers all riparian vegetation sensitive due to its value to many types of special-status and common wildlife (e.g., yellow warbler, river otter [*Lontra canadensis*] and common songbirds). Because of their value to wildlife, two other sensitive habitats were identified by the Existing Conditions Report (CSP and Reclamation 2016): Cave Valley Climbing Area and Robber's Roost, although Robber's Roost is on adjacent private land.

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse impacts on waters of the United States, waters of the state, or sensitive habitats that differ from existing conditions. Therefore, the No-Action Alternative would

result in a **less-than-significant** impact on waters of the United States, waters of the state, or sensitive habitats from construction, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include construction and improvements to facilities within waters of the United States, waters of the state, and sensitive habitats. Both existing roads and trails where improvements are proposed, and construction of new trails may cross small drainages that are potential waters of the United States and state. Two trail bridges are also proposed that may occur within waters of the United States, waters of the state, and riparian habitat. In the Auburn Interface, Confluence, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones, construction or improvement of trails that are used for river access, and construction, or improvement of watercraft access points could also occur within waters of the United States, waters of the state, and riparian habitat. Within the Mammoth Bar Management Zone, the Proposed Action would include repairing, re-constructing, re-routing, closing or adding OHV trails that may occur within valley oak woodland. The Proposed Action would also result in an increase in the average annual acreage treated for fuels reduction, and some of these additional acres of vegetation treatment may occur within riparian and valley oak woodland. The Proposed Action also includes restoration of riparian habitat associated with the relocation of the OHV tracks and Lake Clementine campground.

Construction and improvement of roads and trails, river access facilities, and trail bridges could result in the discharge of dredge and fill materials in waters of the United States and waters of the state. In addition, construction of campgrounds, parking, and other facilities adjacent to waters of the United States and waters of the state could increase polluted runoff into these waters. Construction of roads, trails and facilities within riparian habitat may also result removal of riparian vegetation. The repairing, re-routing or addition of OHV trails within the Mammoth Bar Management Zone may result in removal or damage to individual valley oaks that would reduce the amount of sensitive valley oak woodland within ASRA/APL. Fuels management activities that occur within sensitive riparian habitats may remove understory vegetation that could temporarily degrade those habitats. Fuels management, construction, and ongoing recreation may also introduce and spread invasive weeds into sensitive habitats. While climbing events within Cave Valley Climbing Area would be expanded, this is not likely to reduce the overall quality of the habitat, because climbing events and active mining at the quarry currently occur (CSP and Reclamation 2016). Although the discharge of dredge and fill materials, the spread of invasive plants, and removal or degradation of sensitive habitats could occur under the Proposed Action, GP/RMP guidelines, BMPs, and CSP SPRs would be implemented to reduce impacts. Guidelines RES 1.1, RES 1.3, RES 2.1, RES 2.2, RES 2.3, RES 2.4, RES 2.5, RES 2.6, RES 3.4, RES 3.5, RES 3.6, RES 3.7, and RES 8.1 and CSP SPRs (Appendix A) would require Reclamation and CSP to implement a Fire Management Plan; decommission, relocate, or repair existing facilities that contribute to habitat degradation; prevent the introduction and spread of invasive plants; minimize disturbance to native wildlife-habitat areas, including, riparian, wetlands, and native shoreline habitats; develop and implement vegetation management plans, programs, and actions to protect sensitive vegetation communities; and implement a SWPPP. In addition, for activities that have the potential to result in the discharge of dredge or fill materials into waters of the United States, Reclamation and CSP would apply for permits under Section 404 and 401 of the Clean Water Act. For activities that modify the bed or bank of rivers or streams and associated riparian habitat within ASRA/APL, where applicable, CSP would apply for a Streambed Alteration Agreement under Section 1602 of the California Fish and Game Code.

Implementation of the Proposed Action would not substantially reduce or degrade waters of the United States, waters of the state, and sensitive habitats, because implementation of GP/RMP guidelines, BMPs, CSP SPRs, and existing federal and state regulations would avoid, minimize, and

compensate for the discharge of dredge and fill materials into waters of the United States and waters of the state. The Proposed Action would restore sensitive habitat, and implementation of GP/RMP guidelines, BMPs, CSP SPRs, and existing state regulations would avoid and minimize disturbance of sensitive habitats. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on waters of the United States, waters of the state, and sensitive habitats, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Within the Knickerbocker and Auburn Interface Management Zones, the RME Alternative (would include improvements to trail and emergency vehicle access that may cross drainages that are waters of the United States or state. Under the RME Alternative, there would be no construction of trail bridges and renovation of river access points would occur only within the Confluence Management Zone. This alternative would facilitate the removal of OHV tracks and trails in the Mammoth Bar Management Zone, the removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, and the removal and restoration of campsites along the river in the Cherokee Bar/Ruck-a-Chucky Management Zone; all of which would increase riparian habitat.

The potential impacts on waters of the United States, waters of the state, and sensitive habitats from implementation of the RME Alternative would be the same as those discussed for the Proposed Action but reduced in size. The RME Alternative would implement the same GP/RMP guidelines and CSP SPRs to avoid and minimize the potential impacts as discussed for the Proposed Action.

Implementation of the RME Alternative would not substantially reduce or degrade waters of the United States, waters of the state, and sensitive habitats, because the GP/RMP guidelines, BMPs, CSP SPRs, and existing federal regulations would avoid, minimize and compensate for the discharge of dredge and fill material into waters of the United States and waters of the state. The RME Alternative would restore sensitive habitat, and implementation of GP/RMP guidelines, BMPs, CSP SPRs, and existing state regulations would avoid and minimize disturbance of sensitive habitats. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on waters of the United States, waters of the state and sensitive habitats, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new trails and river access similar to those described above for the Proposed Action. In addition, the RE Alternative would construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. The Mammoth Bar Management Zone would also have an expanded OHV trail system, which may occur within valley oak woodland. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year.

The potential impacts on waters of the United States, waters of the state, and sensitive habitats from implementation of the RE Alternative would be the same as those discussed for the Proposed Action. However, the potential area of impact would be greater due to the increased number of individual projects proposed. The RE Alternative would implement the same GP/RMP guidelines, BMPs and CSP SPRs to avoid and minimize the potential impacts as discussed for the Proposed Action.

Implementation of the RE Alternative would not substantially reduce or degrade waters of the United States, waters of the state, and sensitive habitats, because the GP/RMP guidelines, BMPs, CSP SPRs, and existing federal and state regulations would avoid, minimize, and compensate for the discharge of dredge and fill materials into waters of the United States and waters of the state and minimize disturbance of sensitive habitats. Therefore, implementation of the RE Alternative would result in a **less-than-significant** impact on waters of the United States, waters of the state, and sensitive habitats, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.3-5: Disruption of movement corridors for terrestrial and aquatic species

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would facilitate construction of new and expanded facilities in movement corridors for terrestrial and aquatic species. Each alternative would result in different amounts of facility construction that could result in the degradation of movement corridors for terrestrial and aquatic species, with the RME Alternative resulting in the smallest area of potential impact. The RE Alternative would result in the largest area of potential impact of the three action alternatives. The GP/RMP includes guidelines and CSP SPRs that would avoid or reduce impacts for all action alternatives. With the implementation of the guidelines and CSP SPRs the Proposed Action, RME Alternative, and RE Alternative would each result in a **less-than-significant** impact on movement corridors for terrestrial and aquatic species, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would each result in a greater impact than would occur under the No-Action Alternative.

Because some improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes or disturbances to land in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact on movement corridors for terrestrial and aquatic species, for the purposes of CEQA.

ASRA/APL is positioned within natural landscape blocks and wildlife linkages identified and mapped in two different studies (CSP and Reclamation 2016). ASRA/APL is an important east-west and north-south movement corridor, but some potential wildlife movements are expected to be limited by existing roads within ASRA/APL (e.g., SR 49). The Middle Fork American River and North Fork American River provide movement corridors for aquatic species, though the North Fork Dam is considered a barrier to movement (CSP and Reclamation 2016). The riparian corridors along the river also provide important movement habitat for many species common and special-status species [e.g., black bear and ringtail].

No-Action Alternative

The implementation of the No-Action Alternative would be as discussed for special-status plants (see Impact 4.3-1, Loss of special-status plants). Therefore, implementation of the No-Action Alternative would not result in substantial adverse impacts on movement corridors for aquatic and terrestrial species that differ from existing conditions. Therefore, the No-Action Alternative would result in a **less-than-significant** impact on movement corridors for aquatic and terrestrial species, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include improvements to existing roads and trails and construction of new trails, as well as construction of campsites and day-use facilities in multiple Management Zones. Implementation of the Proposed Action would result in an increase in the average amount of fuel reduction implemented annually. All of these facilities and activities under the Proposed Action would occur within upland habitat that is used as movement corridors for terrestrial species. Under the Proposed Action, other specific facilities are proposed to occur within riparian and aquatic corridors. Two trail bridges are proposed along with construction or improvement of trails and river access points.

Construction of new facilities and trails, modification of existing facilities and trails, and fuels reduction treatments would temporarily increase noise and human disturbance. This increased disturbance could cause wildlife to avoid the construction area degrading the use of the area for movement. However, given the total area of movement habitat in ASRA/APL any temporary disturbance to wildlife within a construction area would not result in a substantial degradation in the ability of species to move through ASRA/APL. In addition, the anticipated overall increase in recreation together with new facilities and trails within upland habitats may limit some movement by terrestrial species. However, given the overall area of ASRA/APL compared to the overall number and area of new facilities, it is not likely that the Proposed Action would result in a substantial effect on movement for terrestrial species. The construction of new trail bridges and river access points would increase fragmentation of the riparian corridors along the Middle Fork American River and North Fork American River; however, these projects would not create barriers to aquatic movement. Also, the proposed relocation of the Mammoth Bar OHV tracks to an upland location would provide for restoration of riparian habitat that would facilitate movement of wildlife. In addition, GP/RMP guidelines, BMPs, CSP SPRs, would avoid and minimize the impacts from the Proposed Action on aquatic and terrestrial wildlife corridors. Guidelines RES 1.2, RES 1.3 RES 3.4, RES 3.5, and RES 3.6 and CSP SPRs would require Reclamation and CSP to minimize habitat fragmentation from new facilities, decommission existing facilities that contribute to habitat fragmentation, minimize disturbance to native wildlife-habitat areas where feasible, and restore native habitats.

The Proposed Action would not substantially reduce or degrade movement corridors for aquatic and terrestrial species, because implementation of GP/RMP guideline, BMPs, and CSP SPRs would avoid and minimize barriers to movement and fragmentation of corridors. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact on movement corridors for aquatic and terrestrial species, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would include some new day-use facilities or improvements to existing facilities, trailhead improvements, parking, restrooms, interpretive elements, and improvements to trail and emergency vehicle access in the Knickerbocker and Auburn Interface Management Zones. These activities would occur within upland habitats that provide movement corridors for wildlife. The RME Alternative would construct a limited number of new trails and facilities within riparian and aquatic corridors. There would be no construction of trail bridges and construction or improvement of river access points would occur only within the Confluence Management Zone. This alternative would also facilitate the removal of OHV tracks and trails in the Mammoth Bar Management Zone, the removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable, and the removal and restoration of campsites along the river in the Cherokee Bar/Ruck-a-Chucky Management Zones.

The construction of new facilities and management actions under the RME Alternative would result in the same potential impacts as those discussed for the Proposed Action. However, for the RME Alternative the area of impact would be less, because fewer projects are proposed and the area of restoration opportunities is greater. The RME Alternative would implement the same GP/RMP guidelines to avoid and minimize the potential impacts on movement corridors as discussed for the Proposed Action.

Implementation of the RME Alternative would not substantially reduce or degrade movement corridors for aquatic or terrestrial species, because the GP/RMP guidelines would avoid and minimize barriers to movement and fragmentation of corridors. Therefore, implementation of the RME Alternative would result in a **less-than-significant** impact on movement corridors for aquatic and terrestrial species, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new trails and river access similar to those described above for the Proposed Action In addition, the RE Alternative would also construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. The Mammoth Bar Management Zone would also have an expanded OHV trail system. As discussed for the Proposed Action, implementation of the RE Alternative would result in an anticipated increase in the average acres of fuel reduction treatments per year.

The potential impacts on movement corridors from the RE Alternative would be the same as those discussed for the Proposed Action; however, the area of impact would likely be greater. The RE Alternative would implement the same GP/RMP guidelines to avoid and minimize the potential impacts as discussed for the Proposed Action.

Implementation of the RE Alternative would not substantially reduce or degrade movement corridors for aquatic or terrestrial species, because the GP/RMP guidelines would avoid and minimize barriers to movement and fragmentation of corridors. Therefore, implementation of the RE Alternative would result in a **less-than-significant** impact on movement corridors for terrestrial and aquatic species, for the purposes of CEQA; although, the impact would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

The geographic scope of cumulative impacts for biological resources is western Placer and El Dorado Counties. The biological resources issues discussed for each action alternative where the project has the potential to contribute to impacts generated by other projects and plans are special-status plants; special-status animals; loss of nests of common raptors and other nesting birds; loss or degradation of waters of the United States, waters of the state, and sensitive habitats; and disruption of movement corridors for terrestrial and aquatic species. However, all action alternatives would be subject to the GP/RMP guidelines, BMPs and CSP SPRs that would avoid or minimize impacts on these biological resources and would be subject to project-level environmental review and regulations. Past, present, and foreseeable future activities that have affected or may affect biological resources in the western

Placer and El Dorado Counties include mining, logging, grazing, fuels management, recreational development and activities, urban and commercial development, road improvements, and right-of-way maintenance. Other projects and plans that may interact with the proposed project on a cumulative basis are listed in Table 4.1-2. The individual projects in Table 4.1-2 and projects implemented under the plans in Table 4.1-2, many of which would occur in existing developed areas, would all be subject to environmental review and laws and regulations limiting their effects on biological resources. Therefore, through compliance with existing regulations, which is a requirement of project approval and permitting, impacts on biological resources under the action alternatives would be less-than-significant, and the project would result in a **less-than-significant** cumulative effect on biological resources in western Placer and El Dorado Counties.

4.4 Cultural and Tribal Cultural Resources

This section analyzes and evaluates the potential impacts from implementation of the ASRA GP/APL RMP on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons.

The existing conditions related to cultural and tribal cultural resources are summarized in Section 2.2.3, Cultural, Tribal, and Paleontological Resources, and Section 2.8.3, ASRA/APL Regulatory Influences, in Chapter 2, Existing Conditions, of the GP/RMP. A more detailed description of the existing cultural and tribal cultural resources setting, and a summary of pertinent regulations are included in the Existing Conditions Report. Relevant goals and guidelines are summarized in the following sections of Chapter 4, The Plan, of the GP/RMP: Section 4.3.1, Resource Management and Protection, and Section 4.3.4, Interpretation and Education. Those sections of the existing conditions report are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. The primary issues raised during scoping that pertain to cultural resources include general concerns related to protecting cultural resources and the lack of documentation of cultural resources throughout ASRA/APL.

Paleontological resources are addressed in Section 4.7, Geology and Soils.

4.4.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

This analysis identifies the potential impacts of implementation of the ASRA GP/APL RMP on archaeological, historical, and tribal cultural resources within ASRA/APL. The impact analysis considers the known archaeological and historical resource environmental setting that have been documented in the 4.7 percent of the plan area that has been surveyed. The analysis also considers the potential for undocumented resources and the physical effects (i.e., disturbance, trenching, demolition) to these resources that could result from implementation of the GP/RMP. The analysis is also informed by the provisions and requirements of federal and state laws and regulations that apply to cultural resources.

As described in Chapter 1, Introduction, this EIR/EIS evaluates the GP/RMP at a programmatic level. Because of the programmatic nature of the analysis, neither an archaeological nor built-environment survey were conducted for the entire plan area. Future projects implemented under the GP/RMP would be subject to subsequent project-level environmental review, cultural resource identification efforts, and resource protection measures.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact on cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;

- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- disturb any human remains, including those interred outside of dedicated cemeteries; or
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.

NEPA Criteria

The federal process for evaluating significance and assessing effects are detailed in 36 CFR 800. Consistent with this process, an effect would be considered significant if it would cause an adverse effect to a historic property as defined and determined through the Section 106 process outlined in 36 CFR 800.

Additionally, based on Section 8.8, Environmental Consequences, of the Reclamation NEPA Handbook all EISs shall address the potential effects of alternatives upon Indian sacred sites, consistent with Executive Order 13007.

Environmental Impacts

Impact 4.4-1: Cause a substantial adverse change in the significance of a historical resource

Impact Summary

Implementation of any of the action alternatives would result in facility development and visitor use on properties that could contain known or unknown historical resources or result in adverse physical or aesthetic effects to a significant historical site, structure, object, or building. Because each alternative would result in some new construction and visitation, each has the potential to disturb, disrupt, or destroy historical resources through implementation of specific projects. The GP/RMP includes goals and guidelines that would avoid or reduce impacts to historical resources. Additionally, potential changes in the significance of a historical resource would be avoided or reduced through compliance with applicable regulatory requirements, including Section 106 of the National Historic Preservation Act (NHPA) and PRC 5024.5, and implementation of CSP's Department Operations Manual, Departmental Notice 2004-02, and CSP Standard Project Requirements (SPRs; see Appendix A of this EIR/EIS). For these reasons, implementation of all alternatives, including the No-Action Alternative, would result in a **less-than-significant** impact on historical resources, for the purposes of CEQA.

No-Action Alternative

As described in Section 2.3.4, Cultural, Tribal, and Paleontological Resources, of the GP/RMP, historic sites recorded in ASRA/APL are mainly the remains of mining camps and activities; remnants of way stations, homesteads, ranches, orchards, and towns; bridge remnants; and linear features, such as old roads and water conveyance systems. Only 4.7 percent of ASRA/APL have been surveyed; therefore, only two bridges, No Hands Bridge and Colfax-Foresthill Bridge, have been evaluated as eligible for the National Register of Historic Places (NRHP). The site of Grizzly Bear House is a listed California Point of Historical Interest. Because less than 5 percent of ASRA/APL has been surveyed, it is likely that additional historic sites exist throughout ASRA/APL. The demolition, alteration, or disturbance of sites, buildings, and structures that are designated historical resources, eligible for listing as historical

resources, or that have not yet been subject to survey and evaluation, could result in change in a resource's historical significance.

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic maintenance, and infrastructure and operational improvements. Without the implementation of protective measures, these construction activities would have the potential to result in the demolition, alteration, or disturbance of historical resources.

Construction activities occurring on Reclamation lands would be subject to consultation under Section 106 of the NHPA (Section 106), which requires federal agencies to consider the effects of their undertakings on historic properties. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

Additionally, PRC Section 5024 requires State agencies (including CSP) to take a number of actions to ensure preservation of State-owned historical resources under their jurisdictions. These actions include evaluating buildings and structures over 50 years of age for NRHP eligibility and California Historical Landmark eligibility, and managing these historical resources so that that they will retain their historic characteristics. Specifically, PRC Section 5024.5 states:

> (a) No state agency shall alter the original or significant historical features or fabric, or transfer, relocate, or demolish historical resources on the master list maintained pursuant to subdivision (d) of Section 5024 without, early in the planning processes, first giving notice and a summary of the proposed action to the [SHPO] officer who shall have 30 days after receipt of the notice and summary for review and comment.
>
> (b) If the [SHPO] officer determines that a proposed action will have an adverse effect on a listed historical resource, the head of the state agency having jurisdiction over the historical resource and the [SHPO] officer shall adopt prudent and feasible measures that will eliminate or mitigate the adverse effects.

The CSP historic preservation procedures are outlined in CSP's Department Operations Manual and Departmental Notice 2004-02 and include identifying known and potential historical resources in the project area, understanding what effects the project would have on historical resources, and communicating any concerns or suggested project modifications. Additionally, CSP SPRs include measures to avoid or protect known historical resources, such as pre-planning and surveying of the project area for sensitive resources, scheduling a Cultural Resource Specialist to monitor construction-related activities to ensure that removal and reconstruction of historic fabric on historical buildings or structures would occur in a manner consistent with the Secretary of the Interior's Standards (see Cultural Resources Requirements in Appendix A). These procedures reduce potential impacts to historical resources because actions would be taken to record, evaluate, and otherwise treat the resource appropriately in accordance with pertinent laws and regulations.

This alternative would have a **less-than-significant** impact related to the adverse change in the significance of a historical resource, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 230 individual, five group, and five alternative campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural resource protection. The Proposed Action would result in additional visitor capacity, which could accommodate up to a 35 percent increase in visitation. Without the implementation of protective measures, the construction activities and additional visitation associated with these recreation facilities would have the potential to result in the demolition, alteration, or disturbance of historical resources.

In addition to the historic preservation procedures contained in CSP's Department Operations Manual, Departmental Notice 2004-02, Section 106 for Reclamation lands and PRC 5024.5 for State Parks lands, and CSP SPRs described above under the No-Action Alternative, the GP/RMP includes goals and guidelines that protect historic and prehistoric resources. Guideline RES 5.1 prioritizes areas for surveys and cultural resource documentation based on the importance, uniqueness or density of resources and areas that have the potential to be impacted by visitor use, management activities or other threats. Guideline RES 5.2 calls for the identification and nomination of those cultural resources that are eligible for inclusion in the National Register for Historic Places and/or California Register of Historical Resources. Guideline RES 6.1 calls for the preparation of a comprehensive Cultural Resources Management Plan that includes a cultural resource identification, evaluation, and protection program. Guideline RES 6.2 prioritizes areas that have the potential to be impacted by visitor use and natural erosion for analysis and protection. Guideline RES 6.3 states that if areas with exceptionally sensitive or large amounts of archaeological resources are identified that visitor access would be limited. Guideline RES 6.4 requires the use of applicable professional standards to determine appropriate uses for all historic properties to provide for long-term preservation. Guideline 6.5 calls for avoiding or minimizing significant impacts to cultural resources within ASRA/APL. Guidelines I&E 4.4, I&E 4.5, and I&E 5.3 require the interpretation and education program at ASRA/APL to incorporate the connections between natural, cultural and historical resources and to coordinate with local Native Americans and other parks to integrate the story of the Native Americans. These procedures and guidelines would identify, document, manage, protect, and avoid, or otherwise treat cultural resources appropriately, in accordance with pertinent laws and regulations.

In addition, the majority of the Knickerbocker Management Zone (an area with proposed new facilities and a high potential for cultural resources) was surveyed for cultural resources as part of the development of the GP/RMP. The activity nodes that would include new facilities in this zone have been specifically delineated to avoid known cultural resources. By avoiding disturbance, disruption, or destruction of historical resources, implementation of the Proposed Action would result in a **less-than-significant** impact related to the adverse change in the significance of a historical resource, for the purposes of CEQA. The Proposed Action would include more construction and ground disturbance than the No-Action Alternative, however it would include additional guidelines that provide specific protections for historic resources. Therefore, it would have an effect similar to that of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and conservation of cultural resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA/CEQA review. Implementation of this alternative could result in the removal of some recreation-related facilities, such as roadside parking in the Confluence Management Zone. This

alternative would result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone. It would remove the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable. Campsites would also be removed in the Cherokee Bar/Ruck-a-Chucky Management Zone and the existing campground would be restored to native habitat. Each management zone would include some new day-use facilities or improvements to existing facilities, such as trailhead improvements, parking, restrooms, interpretive elements. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. A medium-sized visitor center would be constructed under the RME Alternative and would contain elements of design to highlight and educate the public on ASRA/APL's unique historic attributes and artifacts.

This alternative would result in the construction of fewer recreational facilities than the Proposed Action; thus, construction activities and their potential effects on historical resources would be less than those described above for the Proposed Action. This alternative would also result in a smaller increase in visitor capacity than the Proposed Action, although visitation is expected to increase by approximately 30 percent by 2040 due to regional population growth. Additionally, as described for the Proposed Action, implementation of the RME Alternative would comply with CSP's Department Operations Manual, Departmental Notice 2004-02, CSP SPRs, Section 106 and PRC 5024.5, and the same goals and guidelines, resulting in a **less-than-significant** impact related to historical resources, for the purposes of CEQA. The RME Alternative would include slightly more construction and ground disturbance than the No-Action Alternative, however it would include additional guidelines that provide specific protections for historic resources. Therefore, it would have an effect similar to that of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities.

The RE Alternative would result in the construction of more recreational facilities than the Proposed Action; thus, construction activities and their potential effects on historical resources could be slightly greater than those described above for the Proposed Action. The RE Alternative would also result in greater visitor capacity than the Proposed Action (up to an estimated 45 percent increase), which would result in a greater potential for resource disturbance. However, as described for the Proposed Action, implementation of the RE Alternative would comply with CSP's Department Operations Manual, Departmental Notice 2004-02, CSP SPRs, Section 106 and PRC 5024.5, and the same goals and guidelines, resulting in a **less-than-significant** impact related to historical resources, for the purposes of CEQA. The RE Alternative would include more construction and ground disturbance than the No-Action Alternative, however it would include the same guidelines as the Proposed Action that provide specific protections for historic resources. Therefore, it would have an effect similar to that of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.4-2: Cause a substantial adverse change in the significance of an archaeological resource

Impact Summary

Implementation of any of the action alternatives would result in facility development and recreational use that could take place in areas that contain, could be associated with, or result in adverse effects to unknown archaeological resources. Because each alternative would result in some new improvements and ground disturbance, each has the potential to disturb, disrupt, or destroy unknown archaeological resources through implementation of specific projects. The GP/RMP includes goals and guidelines that would avoid or reduce impacts to all cultural resources, including archaeological resources. Additionally, potential adverse changes in the significance of an archaeological resource would be reduced through compliance with applicable regulatory requirements, including Section 106, PRC 5024.5, and implementation of CSP's Department Operations Manual, Departmental Notice 2004-02, and CSP SPRs. For these reasons, implementation of all alternatives, including the No-Action Alternative, would result in a **less-than-significant** impact on the significance of archaeological resources, for the purposes of CEQA.

No-Action Alternative

As described in Section 2.3.4, Cultural, Tribal, and Paleontological Resources, of the GP/RMP, the majority of documented prehistoric archaeological sites in ASRA/APL are milling stations and habitation sites, some with more than a dozen bedrock mortars and additional features. Other known prehistoric sites include surface artifact scatters, subsurface archaeological deposits rockshelters, rock art and a chert toolstone quarry. Historic archaeological sites recorded in ASRA/APL, as noted under Impact 4.4-1, include the remains of mining camps and activities; remnants of way stations, ranches and orchards, homesteads, and towns; bridge remnants; and linear features, such as old roads and water conveyance systems. Sites also include the foundation of Grizzly Bear House, a listed California Point of Historical Interest.

With implementation of the No-Action Alternative, the IRMP would remain unchanged. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Without the implementation of protective measures, these construction activities could result in adverse effects to unknown archaeological resources.

Construction activities occurring on Reclamation lands would be subject to consultation under Section 106, which requires federal agencies to consider the effects of their undertakings on historic properties. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

Additionally, PRC Section 5024 requires State agencies (including CSP) to take a number of actions to ensure preservation of State-owned historical resources under their jurisdictions. These actions include evaluating buildings and structures over 50 years of age for NRHP eligibility and California Historical Landmark eligibility, and managing these historical resources so that that they will retain their historic characteristics. See PRC Section 5024.5 described above under Impact 4.4-1.

Additional CSP archaeological preservation procedures are outlined in CSP's Department Operations Manual and Departmental Notice 2004-02 and include identifying known and potential archaeological resources in the project area, understanding what effects the project would have on these resources, and communicating any concerns or suggested project modifications. Additionally, CSP SPRs (see Appendix A) include certain measures to protect archaeological resources, such as pre-construction testing to determine specific avoidance areas, halting work if previously undocumented archaeological resources are discovered during project construction, and having an archaeologist design and implement the appropriate treatments in accordance with the Secretary of the Interior's Standards and Guidelines for archaeological resource protection.

For these reasons, implementation of the No-Action Alternative would have a **less-than-significant** impact related to unknown archaeological resources, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

As described under Impact 4.4-1, implementation of the Proposed Action would result in new recreational facilities, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural resource protection. Construction activities associated with these recreation facilities may include clearing vegetation, widening roads or trails, grading, and the installation of vehicle barriers, signage, fencing, and drainage features. Ground-disturbing construction activities could uncover previously unknown archaeological resources, the damage of which could be significant. Additional visitation could also result in an increased risk of intentional or unintentional archeological resource degradation.

In addition to the preservation procedures contained in CSP's Department Operations Manual, Departmental Notice 2004-02, Section 106, PRC 5024.5, and CSP SPRs described above under the No-Action Alternative, the ASRA GP/APL RMP includes goals and guidelines that protect archaeological resources. Guideline RES 5.1 prioritizes areas for surveys and cultural resource documentation based on the importance, uniqueness or density of resources and areas that have the potential to be impacted by visitor use, management activities or other threats. Guideline RES 5.2 calls for the identification and nomination of those cultural resources that are eligible for inclusion in the NRHP and/or California Register of Historical Resources. Guideline RES 6.1 calls for the preparation of a comprehensive Cultural Resources Management Plan that includes a cultural resource identification, evaluation, and protection program. Guideline RES 6.2 prioritizes areas that have the potential to be impacted by visitor use and natural erosion for analysis and protection. Guideline RES 6.3 states that if areas with exceptionally sensitive or large amounts of archaeological resources are identified, visitor access would be limited. Guideline 6.5 calls for avoiding or minimizing significant impacts to cultural resources within ASRA/APL. Guidelines I&E 4.4, I&E 4.5, and I&E 5.3 require the interpretation and education program at ASRA/APL to incorporate the connections between natural, cultural and historical resources and to coordinate with local Native Americans and other parks to integrate the story of the Native Americans. These procedures and guidelines would avoid, record, or otherwise treat a discovered archaeological resource appropriately, in accordance with pertinent laws and regulations. By implementing these measures to avoid disturbance, disruption, or destruction of archaeological resources, implementation of the Proposed Action would result in a **less-than-significant** impact related to archaeological resources, for the purposes of CEQA. The Proposed Action would include more construction and ground disturbance than the No-Action Alternative, however it would include additional guidelines that provide specific protections for archeological resources. Therefore, it would have an effect similar to that of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

As described under Impact 4.4-1, the RME Alternative would result in increased resource protection and preservation of cultural resources. Implementation of this alternative could result in the removal of some facilities as well as construction of some new day-use facilities or improvements to existing facilities, such as access and trailhead improvements, parking, restrooms, and interpretive elements (e.g., visitors center).

The RME Alternative would result in the construction of fewer recreational facilities than the Proposed Action; thus, construction activities, increased visitation, and their potential effects to archaeological resources would be less than those described above for the Proposed Action. As described for the Proposed Action, compliance with CSP's Department Operations Manual, Departmental Notice 2004-02, PRC 5024.5, Section 106, CSP SPRs, and the GP/RMP goals and guidelines would result in a **less-than-significant** impacts to archaeological resources, for the purposes of CEQA. The RME Alternative would include slightly more construction and ground disturbance than the No-Action Alternative, however it would include additional guidelines that provide specific protections for archeological resources. Therefore, it would have a similar effect as the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities.

This alternative would result in the construction of more recreational facilities and provide more capacity for visitors than the Proposed Action (up to an estimated 45 percent increase in visitor capacity),; thus, construction activities, recreational use, and their potential effects on archaeological resources could be greater than those described above for the Proposed Action. As described for the Proposed Action, compliance with CSP's Department Operations Manual, Departmental Notice 2004-02, PRC 5024.5, Section 106, CSP SPRs, and the GP/RMP goals and guidelines would be required, resulting in a **less-than-significant** impact to archaeological resources, for the purposes of CEQA. The RE Alternative would include more construction and ground disturbance than the No-Action Alternative, however it would include the same guidelines as the Proposed Action that provide specific protections for archeological resources. Therefore, it would have a similar effect as the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.4-3: Disturbance of human remains

Impact Summary

Previously undocumented human remains could be discovered during ground-disturbing activities that could occur with implementation of the alternatives. Compliance with federal Native American Graves Protection and Repatriation Act (NAGPRA), Reclamation LND 07-10, California Health and Safety Code Sections 7050.5 and 7052, PRC Section 5097, and CSP SPRs would result in a **less-than-significant** impact, for the purposes of CEQA, under all of the alternatives, including the No-Action Alternative.

No-Action Alternative

With implementation of the No-Action Alternative, the IRMP would remain unchanged. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Grave sites and Native American remains can occur outside of dedicated cemeteries or known burial sites. Ground-disturbing construction activities of infrastructure and operational improvements could uncover previously unknown human remains, which could be archaeologically or culturally significant. Therefore, the potential exists for previously undocumented human remains to be discovered when soils are disturbed.

Federal and California law recognize the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. In the case of federal lands, the provisions of the NAGPRA of 1990 (43 CFR Part 10) and Reclamation LND 07-10 define the processes to be followed. NAGPRA requires that Native American tribes be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items, including human remains, or when such items are unexpectedly discovered on Federal or tribal lands. This NAGPRA requirement is likely to encourage the in situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items.

In the case of non-federal lands, the procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097. These statutes require that if human remains are discovered during any construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Placer or El Dorado County coroner, as appropriate, and Native American Heritage Commission (NAHC) shall be notified immediately, in accordance with PRC Section 5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner would notify the NAHC and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the Cultural Resource Specialist, and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.

Any construction activities would be implemented to comply with applicable laws and regulations related to the discovery of human remains. Additionally, the CSP SPRs (see Appendix A) include a measure that, upon discovery of human remains, requires that work be halted and the proper personnel be notified. Therefore, the No-Action Alternative would result in a **less-than-significant** impact related to the disturbance of human remains, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

As described under Impact 4.4-1, implementation of the Proposed Action would result in new recreational facilities, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural resource protection. Construction activities associated with these recreation facilities may include, but are not limited to, clearing vegetation, widening roads or trails, grading, and the installation of vehicle barriers, signage, fencing, and drainage features. Ground-disturbing construction activities could uncover previously unknown human remains, which could be archaeologically or culturally significant. Therefore, the potential exists for previously undocumented human remains to be discovered when soils are disturbed.

Construction activities associated with new or expanded recreation facilities would be required to implement applicable construction best management practices included in the CSP SPRs (i.e., upon discovery of human remains, cease work and notify the proper personnel). Compliance with NAGPRA, California Health and Safety Code Sections 7050.5 and 7052, and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance to human remains, and to appropriately treat any remains that are discovered. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact related to the disturbance of human remains, for the purposes of CEQA. Because the Proposed Action would include more ground disturbance than the No-Action Alternative, it would result in a greater potential for the disturbance of human remains.

Resource Management Emphasis (RME) Alternative

As described under Impact 4.4-1, the RME Alternative would result in increased resource protection and conservation of cultural resources. Implementation of this alternative could result in the removal of some facilities as well as construction of some new day-use facilities or improvements to existing facilities, such as access and trailhead improvements, parking, restrooms, and interpretive elements, including construction of the medium-sized Visitor Center.

The RME Alternative would result in the construction of fewer recreational facilities than the Proposed Action; thus, construction activities and their potential effects on previously undocumented human remains could be slightly less than those described above for the Proposed Action. As described for the Proposed Action, compliance with NAGPRA, California Health and Safety Code Sections 7050.5 and 7052, PRC Section 5097, and CSP SPRs would be required, resulting in a **less-than-significant** impact related to the disturbance of human remains, for the purposes of CEQA. Because the RME Alternative would include slightly more ground disturbance than the No-Action Alternative, it would result in a slightly greater potential for the disturbance of human remains.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses (e.g., visitors center), along with ASRA/APL operations and maintenance facilities.

The RE Alternative would result in the construction of more recreational facilities than the Proposed Action; thus, construction activities and their potential effects on human remains would be greater than those described above for the Proposed Action. As described under the Proposed Action,

compliance with NAGPRA, California Health and Safety Code Sections 7050.5 and 7052, PRC Section 5097, and CSP SPRs would be required, resulting in a **less-than-significant** impact related to the disturbance of human remains, for the purposes of CEQA. Because the RE Alternative would include more ground disturbance than the No-Action Alternative, it would result in a greater potential for disturbance to human remains.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.4-4: Cause a substantial adverse change in the significance of a tribal cultural resource

Impact Summary

On October 8, 2015, pursuant to PRC 21080.3.1 and Section 106 of the NHPA, CSP and Reclamation sent notification letters to the representatives of five different Native American Tribes. Shingle Springs Rancheria and United Auburn Indian Community of the Auburn Rancheria provided responses to the letters and requested consultation. For all alternatives, including the No-Action Alternative, compliance with Section 106 of the NHPA, PRC Section 21080.3.2, Section 21084.3(a), Executive Order 13007, and Reclamation and CSP's continuing notification of affiliated tribes of all projects would be required, resulting in a **less-than-significant** impact related to the change in the significance of a tribal cultural resource, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged. This alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Ground-disturbing construction activities have the potential to cause a substantial adverse change in the significance of a tribal cultural resource.

Section 106 of the NHPA, NAGPRA, Archeological Resources Protection Act (ARPA), NEPA, American Indian Religious Freedom Act, and Executive Order 13007 require Reclamation to consult with Indian tribes and individual Native Americans, as appropriate, on complex and culturally sensitive issues. Section 106 review for federal undertakings requires consultation with interested parties, including government-to-government consultation with federally recognized Indian tribes (36 CFR 800.2(c)). Consultation is an active exchange of ideas and information between a federal agency and other Section 106 participants that seeks consensus about what eligible or listed cultural resources may be affected by an undertaking, why those properties are significant and of value, and to whom; and how any adverse effect to them might be avoided, minimized, or mitigated.

CSP's tribal consultation procedures are outlined in CSP's Department Operations Manual and Departmental Notice 2007-05, which require consultation with Native American tribes or groups during the general plan process and/or development of management plans, during planning and implementation of facility development projects, and when issues of concern are identified by the tribes. Also, under the Managing Partner Agreement, CSP personnel would coordinate with Reclamation to ensure that Reclamation's compliance with Section 106 is completed prior to individual project implementation. These procedures would ensure that any improvements under the No-Action Alternative would comply with both federal and state regulations. Therefore, this alternative would

have a **less-than-significant** impact related to the change in the significance of a tribal cultural resource, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

On October 8, 2015, pursuant to PRC 21080.3.1, CSP sent 13 notification letters to the representatives of five different Native American Tribes:

- Shingle Springs Band of Miwok Indians (Shingle Springs Rancheria), Nicholas Fonseca, Chairperson; Hermo Olanio, Vice Chairperson; and Daniel Fonseca, Cultural Resource Director;
- United Auburn Indian Community (UAIC) of the Auburn Rancheria, Gene Whitehouse, Chairperson; and Marcos Guerrero, Tribal Preservation Committee;
- Washoe Tribe of Nevada and California, Darrel Kizer, Chairperson; and Darrel Cruz, Tribal Historic Preservation Officer;
- Colfax – Todds Valley Consolidated Tribe, Judith Marks, Pamela Cubbler, and April Wallace Moore; and
- T'si - Akim Maidu, Don Ryberg, Chairperson; Eileen Moon, Vice Chairperson; and Grayson Coney, Cultural Director.

Shingle Springs Rancheria and UAIC provided responses and requested consultation with CSP. CSP has provided records search results, draft cultural resource survey reports, updated archaeological site records, and GIS data, as requested by both tribes. Both tribes indicated that ASRA/APL likely includes tribal cultural resources, but the exact location of resources that would be affected by the GP/RMP cannot be known at this time due to the lack of survey data and the GP/RMP. Both tribes requested consultation during the planning and design of individual projects pursuant to the GP/RMP. This project-level consultation is required by Section 106 of the NHPA and PRC 21080.3, and would occur under the Proposed Action. It is possible that tribal cultural resources could be identified during project-level environmental analysis of subsequent projects. Federal and state law recognizes the need to protect tribal cultural resources from inadvertent destruction and the procedures for the treatment of tribal cultural resources are contained in PRC Section 21080.3.2 and Section 21084.3(a).

Compliance with section 106 of the NHPA, PRC Section 21080.3.2, Section 21084.3(a), Executive Order 13007, and Reclamation and CSP's continuing notification of affiliated tribes of all projects (under CSP's Department Operations Manual and Departmental Notice 2007-05) would provide an opportunity to avoid or minimize the disturbance of tribal cultural resources, and to appropriately treat any tribal cultural resources that are discovered. Additionally, the GP/RMP includes goals and guidelines that protect tribal cultural resources. Guideline RES 6.1 calls for the preparation of a comprehensive Cultural Resources Management Plan that includes a cultural resource identification, evaluation, and protection program. Guideline RES 6.2 prioritizes areas that have the potential to be impacted by visitor use and natural erosion for analysis and protection. Guideline RES 6.3 states that if areas with exceptionally sensitive or large amounts of archaeological resources are identified then visitor access would be limited. Guideline I&E 5.3 requires the interpretation and education program at ASRA/APL to coordinate with local Native Americans and other parks to integrate the story of the Native Americans. Therefore, implementation of the Proposed Action would result in a **less-than-significant** impact related to the change in the significance of a tribal cultural resource, for the purposes of CEQA. Because the Proposed Action would include more new facilities and construction

activity than the No-Action Alternative, the risk of a change in the significance of a tribal cultural resource would be greater under the Proposed Action than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

As described under Impact 4.4-1, the RME Alternative would result in increased resource protection and preservation of cultural resources. This alternative would result in the construction of fewer recreational facilities than the Proposed Action; thus, construction activities and their potential effects on tribal cultural resources could be slightly less than those described above for the Proposed Action. As with the Proposed Action, compliance with NHPA, PRC Section 21080.3.2, Section 21084.3(a), Executive Order 13007, implementation of the GP/RMP goals and guidelines, and CSP's continuing notification of affiliated tribes of all projects, would be required, resulting in a **less-than-significant** impact related to the change in the significance of a tribal cultural resource, for the purposes of CEQA. Because the RME Alternative would include more new facilities and construction activity than the No-Action Alternative, the risk of a change in the significance of a tribal cultural resource would be greater under the RME Alternative than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL.

This alternative would result in the construction of more recreational facilities than the Proposed Action, therefore construction activities and their potential effects on tribal cultural resources would be greater than those described above for the Proposed Action. As described for the Proposed Action, compliance with NHPA, PRC Section 21080.3.2, Section 21084.3(a), Executive Order 13007, implementation of the GP/RMP goals and guidelines, and Reclamation and CSP's continuing notification of affiliated tribes of all projects would be required, resulting in a **less-than-significant** impact related to the change in the significance of a tribal cultural resource, for the purposes of CEQA. Because the RE Alternative would include more new facilities and construction activity than the No-Action Alternative, the risk of a change in the significance of a tribal cultural resource would be greater under the RE Alternative than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Development and visitor use under all alternatives, including reasonably foreseeable development projects and currently known and unknown subsequent projects, would have the potential to result in a cumulative loss or destruction of cultural resources in the region. With regards to cumulative impacts from the action alternatives, the intensity of development would be lowest under the RME Alternative and highest under the RE Alternative. The potential to disturb cultural resources would be greater for alternatives with higher levels of development, such as the RE Alternative. As described in Impacts 4.4-1 through 4.4-4, impacts to known and unknown historical and archaeological resources, human remains, and tribal cultural resources would be avoided and minimized through compliance with federal and state law, Reclamation and CSP policies, CSP SPRs (Appendix A), and the GP/RMP goals and guidelines. These requirements would offset the GP/RMP's contribution by requiring cultural resource significance evaluations before ground disturbing activities begin and requiring protective measures for significant resources identified before or during activities that have the potential to degrade cultural resources. By

implementing measures to avoid disturbance, disruption, or destruction of known and unknown historical and archaeological resources, human remains, and tribal cultural resources, the alternatives would result in a **less than significant cumulative impact** on cultural resources.

4.5 Mineral Resources

This section includes a discussion of mineral resources in ASRA/APL and an analysis of potential impacts related to mineral resources that could result from implementation of the ASRA GP/APL RMP. The primary issues raised during scoping pertain to the regulations governing recreational mineral collection.

The existing conditions and significant resource values related to mineral resources in ASRA/APL are summarized under the "Mineral Resources" section of Section 2.2.1 in Chapter 2, Existing Conditions, of the GP/RMP. A more detailed description of the existing mineral resources conditions at the project site and a summary of pertinent regulations are included in Section 13 (pages 13-1 through 13-8) of the Existing Conditions Report (CSP and Reclamation 2016). Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. Relevant project goals and guidelines are summarized in Section 4.3, Goals and Guidelines, in Chapter 4, The Plan, of the GP/RMP.

4.5.1. Environmental Impacts and Mitigation Measures

Analysis Methodology

The evaluation of impacts to mineral resources is based on a review of documents pertaining to the project study area. The information obtained from these sources was reviewed and summarized to understand existing conditions and to identify potential environmental effects, based on the significance criteria identified below. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant, federal, state, and local laws, regulations, and ordinances.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, an alternative would result in a potentially significant impact on mineral resources if it would:

- result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- 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.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared.

Environmental Impacts

Impact 4.5-1: Result in the loss of availability of mineral resources

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would provide additional or expanded facilities, including campsites, trail improvements, and day-use facilities in most of the management zones in ASRA/APL. Construction of some features may preclude collection of mineral resources. However, state and federal laws prohibit commercial mining in ASRA/APL and tools for recreational collection are limited to gold pans. No changes to these policies would result from implementation of the action alternatives. The effects of the action alternatives would be the same as the No-Action Alternative. For these reasons, implementation of the No-Action Alternative, Proposed Action, RME Alternative, and RE Alternative would result **no impact** on the availability of mineral resources, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (IRMP) would remain unchanged and no new facilities would be constructed. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Any construction activities would be implemented to comply with applicable laws and regulations. This alternative would have **no impact** from construction related to the availability of mineral resources, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 230 individual, five group, and five alternative campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural and biological resource protection. In addition to overnight camping, day-use recreational activities within ASRA/APL would continue to include hiking, trail running, mountain biking, and horseback riding on trails throughout ASRA/APL as well as whitewater boating, swimming, sunbathing, wildlife and nature viewing, painting, and photography. The Proposed Action would also continue to support special events.

ASRA/APL contains both state and federal lands, though the vast majority of ASRA/APL is federal land either owned or administered by Reclamation and managed by CSP. Commercial mining on federal lands is governed by the Federal Mining Act. The federal lands within ASRA/APL have been withdrawn from commercial mining claims. Additionally, absent any mineral property rights or valid mining claim or lease, commercial mining is prohibited on CSP lands. The U.S. Army Corps of Engineers, through the Regulatory Program, administers and enforces Section 10 of the Rivers and Harbors Act of 1899 (RHA) and Section 404 of the Clean Water Act (CWA). Under RHA Section 10, a permit is required for work or structures in, over or under navigable waters of the United States. Under CWA Section 404, a permit is required for the discharge of dredged or fill material into waters of the United States. Many waterbodies and wetlands in the nation are waters of the United States and are subject to the Corps' regulatory authority. Suction dredging in streams and rivers is also governed through the California Fish and Game Code (Section 5653) and is currently prohibited throughout California, including ASRA/APL.

The California Code of Regulations (CCR) permits recreational mineral collection, or rockhounding, which is defined as the recreational gathering of stones and minerals found occurring naturally on the undisturbed surface of the land, including panning for gold in the natural water-washed gravel of streams (14 CCR Section 4301). The CCR further limits rockhounding in state recreation areas to beaches within the wave action zone on lakes, bays, reservoirs, or on the ocean, and to the beaches or gravel bars which are subject to annual flooding on streams and is prohibited in areas designated for swimming or boat launching (14 CCR Section 4611). Rock or mineral collection is limited to 15 pounds per day and cannot be sold for profit. The collection of artifacts, such as arrow heads or other archaeological or historic specimens is prohibited. The CCR is clear that, except for the use of goldpans, no other tools may be used for rockhounding (14 CCR Section 4611).

The IRMP acknowledged and permitted recreational mineral collection within the limitations of federal and state laws, and subsequent federal and state laws and regulations have superseded portions of the IRMP, such as the state prohibition on suction dredging and current Reclamation regulations prohibiting metal detectors (43 CFR Section 423.29 [f]). Under the Proposed Action, policies would not be altered, and thus, would not affect the availability of a mineral resource in ASRA/APL.

Implementation of the Proposed Action would include construction of parking lots, campsites, and some buildings that could prohibit the excavation of a mineral resource. This could result in the loss of availably of known mineral resources deposited in areas other than the river. However, as discussed above, a goldpan is the only tool available for recreational rockhounding and commercial mining is not permitted within ASRA/APL. Thus, methods of mineral recovery that include excavation are prohibited under existing conditions and under the Proposed Action.

Because policies and regulations pertaining to the availability of mineral resources would not be changed under the Proposed Action, the effects from the Proposed Action would be similar to the No Action Alternative. This alternative would result in **no impact** for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and conservation of resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA and/or CEQA review. Implementation of this alternative could result in the removal of some recreation-related facilities, such as roadside parking in the Confluence Management Zone. This alternative would result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone. It would remove the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable. Campsites would also be removed in the Cherokee Bar/Ruck-a-Chucky Management Zone and the existing campground would be restored to native habitat. Each management zone would include some new day-use facilities or improvements to existing facilities, such as trailhead improvements, parking, restrooms, interpretive elements. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones.

Policies related to collection of mineral resources would not be changed under the RME Alternative. The effects from the RME Alternative would be similar to the No Action Alternative. Thus, for the reasons described above under the Proposed Action, this alternative would result in **no impact.**

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities.

Policies related to collection of mineral resources would not be changed under the RE Alternative. The effects from the RE Alternative would be similar to the No Action Alternative. Thus, for the reasons described above under the Proposed Action, this alternative would result in **no impact.**

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

The cumulative context related to the availability of mineral resources is generally site-specific and related to the presence of economically viable deposits. Thus, impacts would not combine such that a cumulative impact could occur. Thus, there would be no cumulative impact associated with mineral resources.

4.6 Environmental Justice

This section evaluates the effects of the alternatives related to environmental justice, as defined by NEPA and federal regulations. The existing conditions for demographics such as population growth, age, ethnicity, education, and income are summarized in Section 2.8.4, Demographics, Trends, and Projections, of Chapter 2, Existing Conditions, of the ASRA GP/APL RMP. Section 2.8.4, Demographics, Trends, and Projections, of the GP/RMP and Chapter 4, Demographics and Disadvantaged Populations, on pages 4-1 through 4-9 of the Existing Conditions Report provide details on the environmental setting related to demographics near ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. U.S. Census data is used to support the analysis. Only one comments was received during the planning process and scoping period related to environmental justice, which suggested providing discounted visitor passes for low-income families and suggested that recreational opportunities be distributed throughout the region in a fair and equitable way, so the type and placement of recreation facilities does not favor any one sport and that residents of all socio-economic classes have equal access to public recreation.

4.6.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

According to the Council on Environmental Quality's (CEQ's) Environmental Justice Guidance Under the National Environmental Policy Act (1997) and the U.S. Environmental Protection Agency (EPA; EPA 1998), agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the locally preferred action, and if so, whether there may be disproportionately high and adverse environmental effects. Communities may be considered "minority" under Executive Order (EO) 12898 if any of the following characteristics apply:

- the cumulative percentage of minorities within the affected community is greater than 50 percent (this is the primary method of determining whether a community is a minority community), or
- the cumulative percentage of minorities within the affected community is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (this is a secondary method of determining whether a community is a minority community).

According to EPA, either the county or state percentages can be used when considering the scope of the "general population." A definition of "meaningfully greater" is not given by CEQ or EPA. EPA notes, however, that any affected area with a percentage of minorities greater than the state's percentage is potentially a minority community, and any affected area with a minority percentage at least double that of the state is definitely a minority community under EO 12898.

This environmental justice analysis applies the "meaningfully greater" methodology and determines whether or not minority populations in the study area are meaningfully greater than those populations in El Dorado and Placer Counties:

- The study area is considered to be a minority community if the percentage of minority residents within the study area is more than 10 percentage points higher than those for the two counties.

Communities may be considered "low income" under EO 12898 if one of the following characteristics applies:

- A person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines (this is the primary method of determining whether a community is low income), or
- Other conditions indicate that a low-income community is present within the census tract (this is the secondary method of analysis determining whether a community is low income); examples may include limited access to health care, overburdened or aged infrastructure, and dependence on subsistence living.

In this analysis, the primary method is applied to determine whether a low-income community exists.

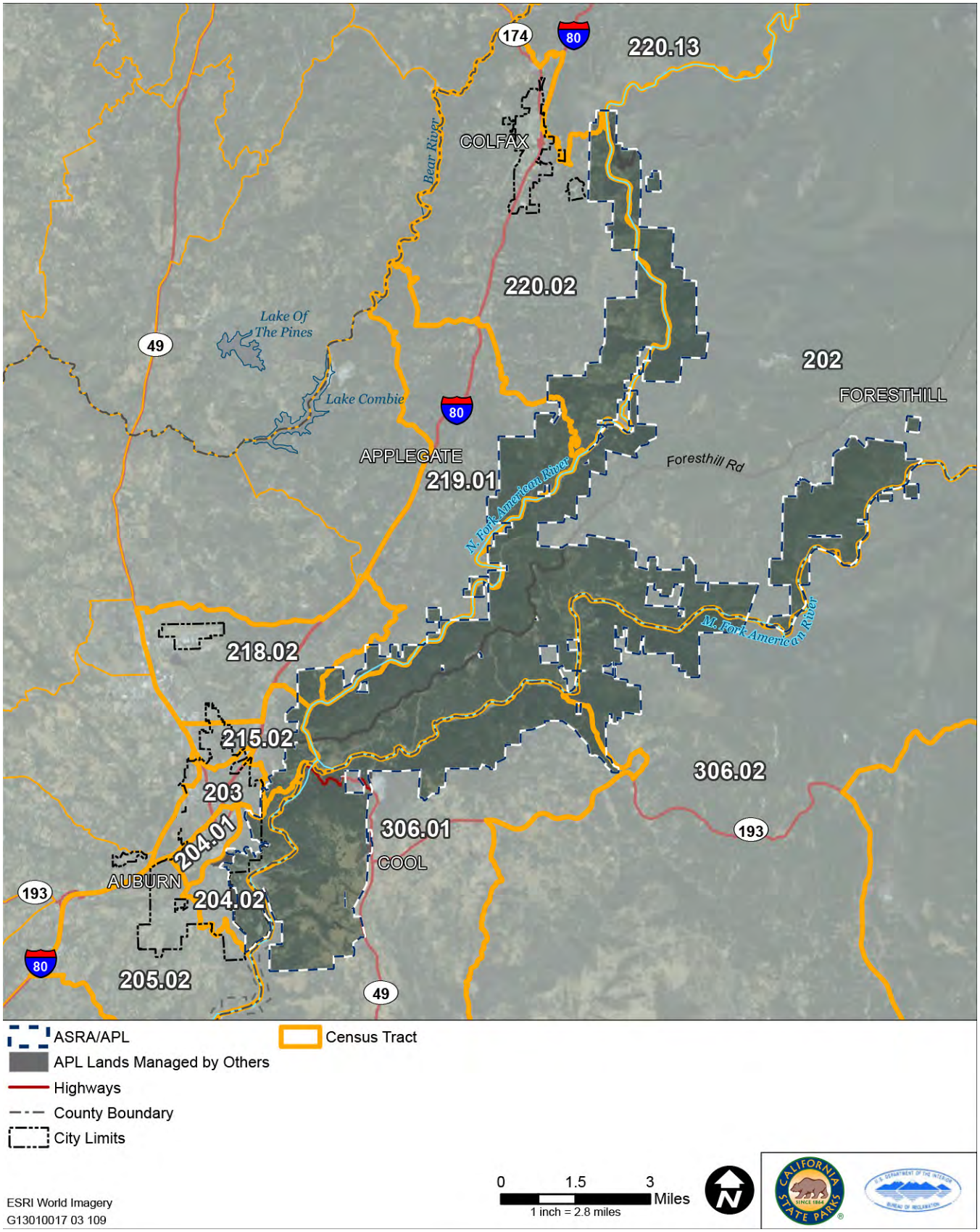
This environmental justice analysis applies the following methodology to determine the presence of a low-income community:

- The study area is considered to have low-income populations if the percentage of residents within the study area who are living below the U.S. Department of Health and Human Services defined poverty threshold is equal to or greater than that for El Dorado and Placer Counties.

EO 12898 requires that the analysis of environmental effects that would disproportionately affect the environmental justice population consider only adverse environmental effects to the human population (e.g., transportation effects). Accordingly, the resource sections of the EIR/EIS were reviewed to determine applicable impacts related to environmental justice.

The study area for the purposes of the environmental justice analysis includes the following census tracts that are also shown in Figure 4.6-1:

- Placer County
  - Census Tract 202
  - Census Tract 203
  - Census Tract 204.01
  - Census Tract 204.02
  - Census Tract 205.02
  - Census Tract 215.02
  - Census Tract 218.02
  - Census Tract 219.01
  - Census Tract 220.02
  - Census Tract 220.13
- El Dorado County
  - Census Tract 306.01
  - Census Tract 306.02



Source: Data provided by CSP in 2016; downloaded from the U.S. Census Bureau in 2018

Figure 4.6-1 Census Tracts in the Vicinity of ASRA/APL

Significance Criteria

CEQA Criteria

The State CEQA Guidelines do not include significance criteria for determining potential significant impacts related to environmental justice.

NEPA Criteria

Based on CEQ and EPA guidelines (CEQ 1997, EPA 1998), an alternative was determined to result in an environmental justice issue if the project would cause impacts to low-income or minority populations that are disproportionately high and adverse, either directly, indirectly, or cumulatively.

No formal, commonly accepted significance criteria have been adopted for Environmental Justice impacts. However, the Presidential Memorandum accompanying the Executive Order directs federal agencies to include measures to mitigate disproportionately high and adverse environmental effects of proposed federal actions on minority and low-income populations. Federal agencies are also required to give affected communities opportunities to provide input into the NEPA process, including identification of mitigation measures. Application of Executive Order 12898 to NEPA documentation suggests that the following two questions be examined to determine if an action would cause impacts to low-income or minority populations that are disproportionately high and adverse, either directly, indirectly, or cumulatively:

- Is a federal project with significant adverse environmental impacts being proposed in a community comprised largely of minority or low-income persons?
- Would any significant adverse human health or environmental effects of the project disproportionately affect minority or low-income persons?

The CEQ guidance indicates that, when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact are significant (as defined by NEPA) or above generally accepted norms.

Environmental Impacts

Impact 4.6-1: Environmental justice effects

Impact Summary

The resource sections in this EIR/EIS, Sections 4.2 through 4.17, did not identify any significant and unavoidable effects from any of the alternatives. The Proposed Action, RME Alternative, and RE Alternative would result in a cumulative intersection impact related to traffic that would be reduced to a less-than-significant level with implementation of Mitigation Measure 4.12-7a. Several other significant impacts from the RE Alternative related to traffic and noise were identified that would be reduced to less-than-significant levels with implementation of Mitigation Measures 4.12-1, 4.12-2, 4.12-7a, 4.12-7b, 4.16-2, and 4.16-3. The locations of most of these impacts are in census tracts that do not contain a substantial proportion of the population that is living below poverty level; and the percent of the population in this area that is living below poverty level is less than the proportion living in Placer County. Additionally, some of the intersections and roadway segments are located within ASRA/APL where pass through traffic or ASRA/APL visitors in this area would be most affected. None of the census tracts in the vicinity of ASRA/APL contain minority populations greater than the proportion of the

counties' populations that are minority. Thus, the alternatives **would not result in a disproportionately high and adverse human health or environmental effect** on any minority or low-income population. The effects from the Proposed Action, the RME Alternative, and RE Alternative would be greater than those of the No-Action Alternative.

The environmental justice analysis focuses on the areas that are adjacent to ASRA/APL where human health and environmental effects could have the greatest potential for occurring and are analyzed in Sections 4.2 through 4.17 of this EIR/EIS.

First, the analysis must determine if a minority population is present and is meaningfully greater than the proportion of the county population that are minorities such that an alternative could result in an adverse human health or environmental impact that disproportionately affects a minority population. In El Dorado and Placer Counties, minorities constitute 21 percent and 26 percent of the population, respectively (Table 4.6-1). None of the census tracts in the vicinity of ASRA/APL contain minority populations greater than the proportion of the counties' populations that are minority. Thus, any potential human health or environmental effects of the alternatives would not disproportionately affect any minority populations in the vicinity of ASRA/APL. Therefore, potential for a disproportionate and high adverse human health or environmental effect on minority populations is not discussed further for any of the alternatives.

Table 4.6-1 Minority Population

Geographic Area	Hispanic/ Latino	Black or African American	American Indian/Alaska Native	Asian	Native Hawaiian/Other Pacific Islander	Some Other Race/Two or More Races	Total Population	Total Minority Population (% of the Total Population)
El Dorado County	22,868	1,576	1,203	7,542	331	5,411	183,000	38,931 (21%)
Placer County	49,904	5,162	1,252	24,485	529	14,019	370,571	95,351 (26%)
Census Tracts in El Dorado County								
Census Tract 306.01	113	0	29	17	0	106	5,412	265 (5%)
Census Tract 306.02	629	30	54	27	0	187	7,083	927 (13%)
Census Tracts in Placer County								
Census Tract 202	503	36	16	17	0	161	6,390	733 (11%)
Census Tract 203	797	24	0	54	0	243	4,399	1,118 (25%)
Census Tract 204.01	146	12	0	19	0	80	2,272	257 (11%)
Census Tract 204.02	198	0	40	28	0	97	3,836	363 (9%)
Census Tract 205.02	150	50	16	209	0	54	4,396	479 (11%)
Census Tract 215.02	333	0	0	57	0	186	3,634	576 (16%)
Census Tract 218.02	776	185	0	113	0	177	6,221	1,251 (20%)
Census Tract 219.01	206	29	28	42	0	60	2,478	365 (15%)
Census Tract 220.02	776	118	93	0	0	159	7,582	1,146 (15%)
Census Tract 220.13	81	0	9	48	0	43	2,594	181 (7%)

Source: U.S. Census Bureau 2017a

The analysis must also determine the presence of a low-income population that is equal to or greater than the proportion of the El Dorado and Placer Counties that are considered to be low-income. In El Dorado and Placer Counties, 10 percent and 9 percent of the population, respectively, are living below poverty level (i.e., low-income population) (Table 4.6-2). Census Tracts 202, 203, 204.01, 218.02, 220.02, and 220.13 contain a greater proportion of the population that are living below poverty level than the proportion of the county populations that are living below poverty level. For these reasons, an environmental justice concern arises because low-income populations could disproportionately experience adverse effects from implementation of one of the alternatives. Each of the alternatives are analyzed below to determine if an adverse effect of the alternatives would disproportionately affect a low-income population near ASRA/APL.

Table 4.6-2 Poverty Level

Geographic Area	Total Population	Population Below Poverty Level	Percent of Population Below Poverty Level
El Dorado County, California	181,369	17,839	10%
Placer County, California	367,202	31,932	9%
El Dorado County			
Census Tract 306.01	5,412	163	3%
Census Tract 306.02	6,975	482	7%
Placer County			
Census Tract 202	6,291	799	13%
Census Tract 203	4,272	747	18%
Census Tract 204.01	2,192	500	23%
Census Tract 204.02	3,836	223	6%
Census Tract 205.02	4,396	383	9%
Census Tract 215.02	3,629	264	7%
Census Tract 218.02	6,055	749	12%
Census Tract 219.01	2,407	199	8%
Census Tract 220.02	7,546	1,006	13%
Census Tract 220.13	2,570	373	15%

Source: U.S. Census 2017b

Sections 4.2 through 4.17 of this EIR/EIS analyze potential environmental effects from implementation of each of the four alternatives. This analysis identifies less-than-significant impacts from the alternatives related to biological resources, cultural and tribal cultural resources, mineral resources, geology and soils, greenhouse gas emissions and climate change, hydrology and water quality, hazards, land use, public services and utilities, recreation, scenic resources, and wildfire. Many of these impacts would be localized to within ASRA/APL. Less-than-significant impacts that could affect areas outside of ASRA/APL would be related to water supply, air quality, greenhouse gas emissions and climate change, and wildfire. Any potential construction-related effects would generally be associated with small construction projects and the effects would be somewhat more site-specific, short-term, minor, and compliance with SPRs and BMPs would further minimize any potential adverse effects. Larger construction projects, such as construction in the Cool Staging Area Activity Node or construction of

the Auburn-to-Cool trail bridge, would not be located in census tracts containing a greater proportion of the population that are living below poverty level than the proportion of the county populations that are living below poverty level. These resource impacts would not necessarily be focused in one area such that there would not be a high and adverse human health or environmental effect on a low-income population. The analysis below focuses on traffic and noise-related impacts.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan would remain unchanged and no new recreation facilities would be constructed. Visitation to ASRA/APL would be anticipated to increase by an estimated 30 percent over existing conditions as a result of continuing population growth in the region. This alternative retains current facilities and land uses according to current practices as specified in the Interim Resource Management Plan. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. The resource sections of the EIR/EIS were reviewed to determine applicable impacts related to environmental justice and no adverse effects from implementation of the No-Action Alternative were identified. For these reasons, implementation of this alternative **would not result in any disproportionate direct or indirect effects** on a low-income population.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in an increase in recreational facilities, day-use facilities, river access improvements, and other improvements that would enhance recreation offerings for visitors that live near ASRA/APL as well as those that travel from outside the area. The Proposed Action proposes to add parking and overnight campsites, which would allow for an increase in the number of visitors and associated vehicle traffic. Implementation of the Proposed Action would result in two significant impacts for the purposes of CEQA that would be reduced to a less-than-significant level for the purposes of CEQA.

As discussed under "Intersection Operations" in the "Cumulative Impacts" headings in Section 4.12, Transportation and Circulation, the increase in traffic generated from buildout of the GP/RMP would result in a significant cumulative impact on LOS at the SR 49/SR 193/Old Foresthill Road intersection. This intersection is located within Census Tract 202. Implementation of Mitigation Measure 4.12-7a would require CSP and Reclamation to coordinate with Caltrans to facilitate the installation of a traffic signal at the intersection of SR 49/SR 193/Old Foresthill Road at the time when the applicable signal warrant is met, which would improve the intersection LOS to acceptable operating conditions and, thus, the Proposed Action would not result in a significant cumulative impact related to intersection operations. Although Census Tract 202 includes a proportion of residents that are living below poverty at a greater proportion than for Placer County (see Table 4.6-2), this intersection is located within ASRA/APL and would more directly affect through traffic or ASRA/APL visitors in this area and would not disproportionately affect the residents in this area.

For the reasons described herein, the Proposed Action **would not result in a disproportionate high and adverse human health or environmental effect** on a low-income population. The effects from the Proposed Action related to disproportionate high and adverse human health or environmental effect on a low-income population would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and conservation of resources, which could include the removal of some recreation-related facilities, such as roadside parking in the Confluence Management Zone, campsites in the Cherokee Bar/Ruck-a-Chucky Management Zone, and the marina in the Lake Clementine Management Zone. However, the RME Alternative would include some additional parking and overnight campsites, which would allow for a relatively small increase in the number of visitors and associated vehicle traffic compared to the Proposed Action. Implementation of the RME Alternative would result in one significant impact for the purposes of CEQA, which would be reduced to a less-than-significant level with mitigation.

The RME Alternative would not increase the visitor capacity in ASRA/APL to the same magnitude as would occur for the Proposed Action. However, similar to the impact described above for the Proposed Action, the RME alternative would result in a significant cumulative impact on LOS at the SR 49/SR 193/Old Foresthill Road intersection (see "Intersection Operations" under the "Cumulative Impacts" section in Section 4.12, Transportation and Circulation). Implementation of this alternative would also be required to implement Mitigation Measure 4.12-7a. For the same reasons described above for the Proposed Action, the RME Alternative **would not result in a disproportionate high and adverse human health or environmental effect** on a low-income population. The effects from the RME Alternative related to disproportionate high and adverse human health or environmental effect on a low-income population would be similar to those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities, day-use facilities, river access improvements, and other improvements similar to those of the Proposed Action that would enhance recreation offerings for visitors that live near ASRA/APL as well as those that travel from outside the area. However, the RE alternative would include a greater amount of additional parking and overnight campsites, which would allow for a greater increase in the number of visitors and associated vehicle traffic compared to the number of visitors that would be generated by the Proposed Action. Implementation of the RE Alternative would result in several significant impacts for the purposes of CEQA that would be reduced to a less-than-significant level for the purposes of CEQA.

As discussed under Impact 4.12-1 and "Intersection Operations" in the "Cumulative Impacts" section of Section 4.12, Transportation and Circulation, the increase in traffic generated from buildout of the RE Alternative would result in a potentially significant project-level impact and a significant cumulative impact on LOS at the SR 49/SR 193/Old Foresthill Road intersection and other study intersections. These intersections are located within Census Tracts 202, 203, 204.01, 204.02, 215.02, and 306.01. Census Tracts 202, 203, and 204.01 contain a proportion of the population that is living below poverty level that is greater than the percent of the population living below poverty level in Placer County and El Dorado County. Implementation of Mitigation Measures 4.12-1, 4.12-7a, and 4.12-7b would reduce any potentially significant intersection LOS impacts from the RE Alternative, including limiting the number of trip-generating amenities if a project-specific analysis of study intersections and roadway study segments determines the new amenity would degrade operating conditions to unacceptable levels and by requiring CSP and Reclamation to coordinate with Caltrans to facilitate the installing a traffic signal at the SR 49/SR 193/Old Foresthill Road intersection at the time when the applicable signal warrant is met. For these reasons, the RE Alternative would not result in a project-level impact or a significant cumulative impact related to intersection operations. Although Census Tracts 202, 203, and 204.01 include a proportion of residents that are living below poverty level at a greater proportion than for Placer County and El Dorado County, impacts in these areas would be reduced to a less-than-significant level and some of the intersections are located within ASRA/APL where pass through traffic

or ASRA/APL visitors in this area would be most affected. For these reasons, the RE Alternative would not result in a disproportionate effect on residents related to intersection operations.

As identified in Impact 4.12-2 in Section 4.12, Transportation and Circulation, all roadway segments would operate acceptably with implementation of the RE Alternative, except for Riverview Drive from Skyridge Drive to Maidu Drive adjacent to the southwest portion of ASRA/APL, which is located within Census Tract 204.02. Riverview Drive from Skyridge Drive to Maidu Drive is not traffic-dominated under existing conditions. With the addition of project trips, this segment would change to a traffic-dominated index, which would be a significant impact under CEQA. Additionally, cumulative impacts on the segment of Riverview Drive between Skyridge Drive and Maidu Drive could result in significant effects on other roadway segments (see Impact 4.12-2 and the "Roadway Segment Operations" discussion under the "Cumulative Impacts" section in Section 4.12, Transportation and Circulation). These impacts from the RE Alternative could occur in Census Tracts 202, 203, 204.01, 204.02, 215.02, and 306.01. Census Tracts 202, 203, and 204.01 contain a proportion of the population that is living below poverty level that is greater than the percent of the population living below poverty level in Placer County and El Dorado County. With implementation of Mitigation Measures 4.12-2 and 4.12-7b, the project-level and cumulative impacts on roadway segments would be reduced to a less-than-significant level. Although Census Tracts 202, 203, and 204.01 include a proportion of residents that are living below poverty level at a greater proportion than for Placer County and El Dorado County (see Table 4.6-2), impacts in these areas would be reduced to a less-than-significant level and some of the roadway segments are located within ASRA/APL where pass-through traffic or ASRA/APL visitors in this area would be most affected. For these reasons, the RE Alternative would not result in a disproportionate effect on residents related to roadway segment operations.

Implementation of the RE Alternative would result in an increase in operational traffic noise that could be a potentially significant noise impact on receptors near the segment of SR 49 between Lincoln Way and Old Foresthill Road (see Impact 4.16-2 in Section 4.16, Noise). This impact would also be a significant cumulative impact (see the "Cumulative Impacts" section in Section 4.16, Noise). This area includes Census Tracts 204.01 and 204.02. Census Tract 204.01 contains a proportion of the population that is living below poverty level that is greater than the percent of the population living below poverty level in Placer County. Implementation of Mitigation Measures 4.16-2 and 4.16-3 would reduce the project-level and cumulative traffic noise exposure in these areas to a less-than-significant level. Because the impact to these areas would be reduced to within the established noise standards, residents in Census Tract 204.01 would not be exposed to a disproportionate adverse effect of the project.

For the reasons described above, the potential impacts of the RE Alternative in areas containing a low-income population greater than that in Placer or El Dorado Counties would be reduced to less-than-significant levels such that this alternative **would not result in a disproportionate high and adverse human health or environmental effect** on a low-income population. The effects from the RE Alternative related to disproportionate high and adverse human health or environmental effect on a low-income population would be greater than those of the No-Action Alternative.

Mitigation Measures

No additional mitigation measures aside from those mentioned above, which are included in Section 4.12, Transportation, and 4.16, Noise, are required for any of the alternatives.

Cumulative Impacts

A review of the cumulative impacts in Sections 4.2 through 4.17 of the EIR/EIS did not identify any significant cumulative impacts of the project aside from the cumulative traffic and noise impacts discussed above under Impact 4.6-1. No other significant cumulative impacts were identified.

4.7 Geology and Soils

This section includes a discussion of geological and soil conditions of ASRA/APL, and an analysis of potential short-term and long-term geological and soil impacts that could result from implementation of the ASRA GP/APL RMP. The primary issues raised during scoping that relate to geology and soils included general concerns related to protecting and preserving existing geological and paleontological resources and improving erosion control.

The existing conditions, environmental setting, affected environment, and significant resource values related to geology and soils are summarized in the "Soils, Geology, and Topography" section under Section 2.2.1 of the ASRAGP/APL RMP and Section 7 on pages 7-1 through 7-7 of the Existing Conditions Report. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. Relevant project goals and guidelines are summarized in Section 4.3, Unit-Wide Goals and Guidelines, Chapter 4, The Plan, of the GP/RMP.

4.7.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The evaluation of potential geologic and soil impacts is based on a review of documents relevant to the soil and geologic conditions in the vicinity of ASRA/APL, including California Geologic Survey (CGS) and U.S. Geologic Survey (USGS) technical guides, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey, environmental documents, background reports prepared for plans and projects in the vicinity, and published and unpublished geologic literature. The information obtained from these sources was reviewed and summarized to understand existing conditions and to identify potential environmental effects, based on the significance criteria identified below. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant, federal, state, and local laws, regulations, and ordinances.

Potential soil and geologic effects associated with the GP/RMP alternatives can be classified as temporary or permanent. Temporary impacts generally include effects associated with construction activities, such as ground disturbance and short-term increases in erosion potential. Permanent impacts would be associated with operation of proposed facilities, such as new impervious land coverage and deep soil and geologic disturbance. Serpentine soils and Naturally-Occurring Asbestos are analyzed in Section 4.10 Hazards.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, a project would result in a potentially significant impact on soils and geology if it would:

- 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; or be located on expansive soil creating direct or indirect risks to life or property;
- result in substantial soil erosion or the loss of topsoil;

- directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault or strong seismic ground shaking and associated secondary seismic effects;
- have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or
- directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. Mitigation measures are specified to minimize potentially adverse or adverse impacts from the proposed action.

Environmental Impacts

Impact 4.7-1: Risk of loss, injury, or death due to unstable soil or geologic unit or other soil hazards

Impact Summary

Development and expansion of recreational and administrative facilities in ASRA/APL have the potential to cause risk of loss, injury, or death due to unstable soils or geologic unit or other soil hazards, including lateral spreading, subsidence, liquefaction, collapse, expansion, or landslide. Lateral spreading, subsidence, liquefaction, and collapse are not likely in ASRA/APL due to loamy soil types, high depths to groundwater, and generally low linear extensibilities (i.e., potential for soil to swell when moist or crack when dry). There is a risk of landslide and slope instability in ASRA/APL due to steep slopes and evidence of past landslides. Due to GP/RMP Guideline FAC 2.5, which requires a geotechnical investigation prior to siting of structures depending on the project footprint and location, implementation of the Proposed Action and RME and RE Alternatives would result in a **less-than-significant** impact due to unstable soil or geologic unit or other soil hazards for the purposes of CEQA. The No-Action Alternative would have **no impact** due to soil or geologic hazards from construction of recreational facilities for the purposes of CEQA.

No-Action Alternative

The No-Action Alternative would retain and maintain current facilities and land uses according to current practices and as specified in the 1992 Interim Resource Management Plan (IRMP) and would not include substantial new development that could cause impacts due to unstable soil or geologic units or other soil hazards. This alternative would have **no impact**, for the purposes of CEQA, related to soil or geologic hazards.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 230 camp sites, including five group, and five alternative campsites) totaling approximately 3.9 acres; day-use facilities, including 140 picnic sites, river access, watercraft launch improvements, two trail bridges, other trail improvements and facility enhancements throughout ASRA/APL. Implementation of the Proposed Action would increase parking by 25 percent from existing conditions.

The improvements associated with the Proposed Action would result in an increase in 3,962 acres of Recreation – High and Recreation – Medium land uses in ASRA/APL over existing conditions and the No-Action Alternative. Improvements that would be implemented in each management zone by node are listed in Table 2.4-3 in section 2.4.3, Key Differences among the Alternatives, in Chapter 2, Project Description and Alternatives, of this document.

Lateral spreading, subsidence, liquefaction, and collapse are often related to water content or groundwater conditions in the soil. Soil types present in ASRA/APL are discussed in the, Soils and Erosion Potential, section under section 2.2.1, Physical Resources, in the GP/RMP. In ASRA/APL, most of the soils are loams, not fine sands, which reduces the risk of liquefaction. The depth to water table is over 200 cm in all soils in ASRA/APL except "mixed alluvial land," which has a depth to water table of 84 cm and makes up only 0.1 percent of ASRA/APL (NRCS 2015). The soil types and high depth to groundwater in most of ASRA/APL reduces the risk of lateral spreading, liquefaction, and collapse. Very limited groundwater pumping could occur under the Proposed Action, which would not result in subsidence. In ASRA/APL, linear extensibilities of soil, or the capacity of the soil to swell when moist or crack when dry, between low (88.5 percent of ASRA/APL) and moderate (11.5 percent of ASRA/APL) (NRCS 2018). Due to loamy soil types, high depths to groundwater, and generally low linear extensibilities, risk associated with soils hazards (Lateral spreading subsidence, liquefaction and collapse) is low in ASRA/APL.

ASRA/APL generally includes rugged terrain with rock outcrops and steep slopes. Two thirds of the land in ASRA/APL exceeds a slope of 40 percent (U.S. Bureau of Reclamation 1992). Several types of slope failure have been mapped in ASRA/APL, including landslides, rockfall, and mass wasting (CSP 2007). Human activity can increase the risk of slope failure by rerouting drainage patterns along roads and trails, leading to oversaturated soils. Because these conditions exist in ASRA/APL, there is a risk of landslide and slope instability and therefore development associated with implementation of the GP/RMP could cause risk of loss, injury, or death due to unstable soils or geologic units.

The exact location of facilities within each node is not yet determined but it is possible that they could be located on an unstable soil or area at risk for landslide. Recreational facilities, campsites, launch improvements, and bridges have the potential to contribute to slope instability due to grading, deep excavation, cut and fill slopes, and concentration of stormwater runoff. Generally, permanent structures would be proposed in flatter locations due to ease of construction and accessibility, which would decrease soils hazard risks. However, as stated above, the steep slopes covering two thirds of ASRA/APL may be subject to landsides. Because the exact locations where development would occur are unknown, it is assumed that more development would increase the risk that the structures would be located in a soil hazard area where landslide could occur. Department of Parks and Recreation Operations Manual (DOM) Section 0307.3.1.1 states that that CSP will strive to site facilities where they will not be damaged or destroyed by natural physical processes (DPR 2004). Additionally, GP/RMP Guideline FAC 2.5 states that a geotechnical investigation will be conducted before siting, designing, and approving permanent structures, campgrounds, and roads to avoid or minimize potential damage that could be caused by landslides. Due to these guidelines, implementation of the RME Alternative result in a **less-than-significant** impact due to unstable soils or soil hazards including risks associated with landslides for the purposes of CEQA. The effects from the Proposed Action related to unstable soils and geologic units or soil hazards would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative proposes the least development of the action alternatives and includes the removal of OHV tracks and trails in the Mammoth Bar Management Zone, the marina in the Lake Clementine Management Zone, and campsites from the Cherokee Bar/Ruck-a-Chucky Management Zone. Each management zone would include some new day-use facilities or improvements to existing facilities, such as trailhead improvements, parking, restrooms, and interpretive elements. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. Overall there would be a conversion of 1,366 acres of High and Medium OHV use and high recreation development to medium recreation development use compared to the No-Action Alternative. Recreational facilities and improvements to existing facilities have the potential to contribute to slope instability due to grading, deep excavation, cut and fill slopes, and concentration of stormwater runoff. Generally, permanent structures would be proposed in flatter locations due to ease of construction and accessibility, which would decrease soil hazard risks. For the same reasons discussed above, lateral spreading, subsidence, liquefaction, collapse, and expansion are not likely to cause risk of loss, injury, or death in ASRA/APL. Due to the lack of new facilities proposed with this alternative, CSP's intention to site facilities outside of areas where landslide could occur, and the GP/RMP guideline to require geotechnical investigations before siting of permanent structures, implementation of the RME Alternative would result in a **less-than-significant** impact due to unstable soils or soil hazards, including landslide for the purposes of CEQA. The effects from the RME Alternative related to unstable soils and geologic units or soil hazards would be greater than those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in the most development of any of the alternatives, including 520 parking spaces, campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. There would be a conversion of 89 acres from Medium- OHV use to High- OHV use and an increase of 3,963 acres in medium and high recreation development over the No-Action Alternative. This would result in the highest risk of any alternative for loss, injury, or death due to unstable soil or landslide. Recreational facilities, campsites, launch improvements, and bridges have the potential to contribute to slope instability due to grading, deep excavation, cut and fill slopes, and concentration of stormwater runoff. In general, permanent structures would be proposed in flatter locations due to ease of construction and accessibility, which would decrease soil hazard risks. For the same reasons discussed above, lateral spreading, subsidence, liquefaction, collapse, and expansion are not likely to cause risk of loss, injury, or death in ASRA/APL. Very limited groundwater pumping could occur under the RE Alternative, which would not result in subsidence. DOM Section 0307.3.1.1 states that that CSP will strive to site facilities where they will not be damaged or destroyed by natural physical processes (DPR 2004). Additionally, GP/RMP Guideline FAC 2.5 states that a geotechnical investigation will be conducted before siting, designing, and approving permanent structures, campgrounds, road, and trails to avoid or minimize potential damage that could be caused by landslides. Due to these guidelines, implementation of the RE Alternative would result in a **less-than-significant** impact due to unstable soils or soil hazards, including landslide for the purposes of CEQA. The effects from the RE Alternative related to unstable soils and geologic units or soil hazards would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.7-2: Potential for substantial soil erosion or loss of topsoil

Impact Summary

The GP/RMP associated with the Proposed Action and RME and RE Alternatives would encourage construction of recreational improvements that would result in ground disturbance. The GP/RMP includes goals and guidelines that would avoid or reduce construction-related erosion impacts. Additionally, potential adverse environmental effects associated with construction of recreation facilities would be reduced through compliance with applicable regulatory requirements, BMPs and implementation of CSP Standard Project Requirements (SPRs; see Appendix A of this EIR/EIS). For these reasons, implementation of the Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact due to soil erosion or loss of topsoil, for the purposes of CEQA. The No-Action Alternative would have **less than significant impact** due to erosion or loss of topsoil, given the existing conditions discussed in the Plan (Chapter 2, page 2-17) for the purposes of CEQA, from construction or operation of recreational facilities. Thus, the effects of the action alternatives would be similar to the effects associated with the No-Action Alternative.

No-Action Alternative

The No-Action Alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP and would not include any permanent new construction related disturbance. to Existing conditions underlying soil erosion or loss of topsoil are in some cases rated as very severe. Under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Any construction activities would be implemented to comply with applicable laws and regulations. Given current conditions within ASRA/APL, there would be **less than significant** impacts from the implementation of this alternative, for the purposes of CEQA, related to construction of basic infrastructure or operation related activities.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 220 individual, five group, and five alternative campsites), day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. Construction activities associated with these recreation facilities may include, but are not limited to, clearing vegetation, widening roads or trails, grading, and the installation of vehicle barriers, signage, fencing, and drainage features. Where feasible, construction of new facilities would be located in existing disturbed and flat areas within ASRA/APL. Within ASRA/APL erosion hazard classifications are generally high due to soil type and topography (NRCS 2015). This alternative would result in 41 percent of the land in ASRA/APL being designated for medium-intensity uses (Recreation-Medium or OHV-Medium), and 2.4 percent of the land in ASRA/APL being designated for high-intensity uses (OHV-High or Recreation-High), which would allow more intensive uses such as off-road vehicle use, parking, utilities, and infrastructure that are more likely to result in erosion. Under this alternative, the OHV track area would not increase from current conditions. If track is relocated, the original track would be restored. These construction activities could potentially result in adverse physical effects on the environment. While new construction would comply with requirements that would reduce the potential for erosion or loss of topsoil, the potential area of disturbance would be greater than the RME Alternative, but less than the RE Alternative.

Construction activities associated with new or expanded recreation facilities would be required to implement applicable construction best management practices included in the CSP SPRs, including preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP) when required, suspending construction during precipitation, winterizing construction sites in the rainy season, implementing dust suppression measures, avoiding equipment operation over saturated soils, and rehabilitating and blocking decommissioned trails. New facilities would incorporate stormwater management best management practices (BMPs) so that the operation of facilities would not concentrate runoff and cause substantial erosion or loss of topsoil. By implementing applicable CSP SPRs during construction and complying with guidelines regarding erosion and loss of topsoil during construction activities, implementation of the Proposed Action would result in a **less-than-significant** impact, for the purposes of CEQA, related to construction-related disturbance. The effects from the Proposed Action related to soil erosion and loss of topsoil would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in the smallest construction disturbance footprint of any of the alternatives. Additionally, implementation of this alternative could result in the removal of some recreation-related facilities, such as roadside parking in the Confluence Management Zone, which would reduce the potential for erosion and loss of topsoil. This alternative would also result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone and the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable. Campsites would also be removed and restored in the Cherokee Bar/Ruck-a-Chucky Management Zone. Each management zone would include some new day-use facilities or improvements to existing facilities, such as trailhead improvements, parking, restrooms, and interpretive elements. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. This alternative would result in 30 percent of the land in ASRA/APL being designated for medium-intensity uses (Recreation-Medium or OHV-Medium) and 1 percent of the land in ASRA/APL being designated for high-intensity uses (OHV-High or Recreation-High). These types of land uses are more likely to result in accelerated erosion.

Construction activities and their potential effects on the environment would be similar to those described above for the Proposed Action. As described above, construction activities associated with new recreation facilities would be required to implement applicable construction best management practices included in the CSP SPRs and comply with other relevant GP/RMP goals and guidelines that would reduce construction-related impacts due to erosion and loss of topsoil. As with the Proposed Action, new facilities would be constructed to address stormwater runoff so that the operation of facilities would not concentrate runoff and cause erosion. By implementing applicable CSP SPRs during construction and complying with guidelines regarding erosion and loss of topsoil during construction activities, implementation of the RME Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, related to construction or operation of new facilities. The effects from the RME Alternative related to soil erosion and loss of topsoil would be greater than those of the No-Action Alternative, but less than the other action alternatives.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in the largest area of construction related disturbance of any of the alternatives. This alternative would result in new recreational facilities similar to those described above for the Proposed Action, including 520 parking spaces, campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), maintenance facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements

throughout ASRA/APL. This alternative would result in 38 percent of the land in ASRA/APL being designated for medium-intensity uses (Recreation-Medium or OHV-Medium), and 6.4 percent of the land in ASRA/APL being designated for high-intensity uses (OHV-High or Recreation-High), which are the types of land uses most likely to result in accelerated erosion.

Construction activities and their potential effects on erosion and loss of topsoil would be similar to those described above for the Proposed Action. As described above, future projects would be required to implement applicable construction best management practices included in the CSP SPRs and implement other relevant GP/RMP goals and guidelines that would reduce construction-related impacts. As with the Proposed Action, with implementation of the RE Alternative, new facilities would be constructed to address stormwater runoff so that the operation of facilities would not concentrate runoff and create accelerated erosion.

By implementing applicable CSP SPRs during construction and complying with guidelines for the protection of environmental resources during construction activities, implementation of the RE Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, related to construction or operation of new facilities. The effects from the RE Alternative related to soil erosion and loss of topsoil would be greater than those of the No-Action Alternative, and greater than the other action alternatives.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.7-3: Directly or indirectly cause adverse effects involving seismic hazards or secondary seismic hazards

Impact Summary

The GP/RMP associated with the Proposed Action and RME and RE Alternatives would replace the existing IRMP and allow for the future construction of additional parking areas, administrative/maintenance facilities, picnic sites, restrooms, campgrounds, and other recreational areas. These structures and their users could be susceptible to earthquake damage or secondary seismic hazards due to the underlying risk of seismic activity in ASRA/APL, but development associated with the GP/RMP would not worsen existing seismic hazards. Structures would comply with current seismic design requirements of the California Building Standards Code and CSP SPRs (see Appendix A) and would be designed to withstand seismic shaking without structural failure. For this reason, the potential for the Proposed Action and RME and RE Alternatives to directly or indirectly cause adverse effects, including the risk of loss, injury, or death involving seismic and secondary seismic hazards would be a **less-than-significant** impact for the purposes of CEQA. The No-Action Alternative would not cause adverse effects involving seismic and secondary seismic hazards and would have **no impact** for the purposes of CEQA**.** The effects of the action alternatives would be similar to, but greater than, the No-Action Alternative.

No-Action Alternative

The No-Action Alternative would retain current facilities and land uses according to current practices and as specified in the IRMP and would not include any construction of new facilities and therefore would not cause adverse effects involving seismic and secondary seismic hazards. This alternative would have **no impact** for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Placer County does not contain any Alquist-Priolo Earthquake Fault Zones (CDC 2008), however ASRA/APL is located in a seismically active area that could experience strong seismic shaking and or secondary seismic hazards such as landslide in the event of a large earthquake (see Chapter 2 of the GP/RMP, page 2-7). ASRA/APL is crossed by the Melones, Bear Mountain, and Foresthill fault zones. There is a risk of seismic hazard in ASRA/APL and, therefore, the facilities proposed by the Proposed Action could be exposed to earthquake or secondary seismic damage. However, implementation of this alternative would not exacerbate existing seismic hazards. The potential for future projects to directly or indirectly cause substantial adverse effects resulting from strong seismic shaking would be reduced through compliance with the current seismic design requirements of the California Building Standards Code and the applicable CSP SPRs. The CSP SPRs state that after a large earthquake event (i.e., magnitude 5.0 or greater within 50 miles of a project site), all project structures and features will be inspected for damage, as soon as is possible after the event. Any damaged structures or features would be closed to ASRA/APL visitors, volunteers, residents, contractors, and staff. By implementing applicable California Building Standards Code and CSP SPRs, implementation of the Proposed Action would result in a **less-than-significant** impact involving seismic and secondary seismic hazards, resulting in risk of loss, injury or death for the purposes of CEQA. The effects from the Proposed Action related to seismic or secondary seismic hazards would be greater than, those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The potential seismic and secondary seismic risks associated with the RME Alternative would be slightly less than those discussed for the Proposed Action above because fewer facilities are proposed by this alternative. For the same reasons as described above for the Proposed Action, the potential for future development implemented under the RME Alternative to directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic and secondary seismic hazards would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the RME Alternative related to seismic or secondary seismic hazards would be similar to, but greater than, those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The potential seismic and secondary seismic risks associated with the RE Alternative are greater than those discussed for the Proposed Action and RME Alternative described above because more facilities are proposed under this alternative. For the same reasons as described in the Proposed Action, the potential for future development implemented through the RE Alternative to directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving to seismic and secondary seismic hazards would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the RE Alternative related to seismic or secondary seismic hazards would be greater than, those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.7-4: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems

Impact Summary

A new campground proposed at the Knickerbocker Management Zone for the Proposed Action and RE Alternative would involve construction of restroom facilities that would be supported by a new septic system. All new septic tanks are required to comply with the standards contained in the Reclamation Facilities Design Guidelines (Reclamation 2013) and 2007 California Code of Regulations (CCR)(CCR 2007). Additionally, the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) regulates septic tanks through the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy; SWRCB 2012). Any proposed septic tanks or alternative wastewater disposal systems in ASRA/APL would be required to comply with the CCR and Central Valley RWQCB regulations; therefore, the impact associated with soils incapable of adequately supporting septic tanks would be a **less-than-significant** impact for the purposes of CEQA**.**

The RME Alternative and No-Action Alternative would not include construction of any septic tanks. Thus, these alternatives would result in **no impact**, for the purposes of CEQA, related to soils that are incapable of adequately supporting the use of septic tanks. The effects of the Proposed Action and RE Alternative would be greater than those of the No-Action Alternative. The effects of the RME Alternative would be the same as the No-Action Alternative.

No-Action Alternative

The No-Action Alternative retains current facilities and land uses according to current practices and as specified in the IRMP and would not include any construction of new facilities and, therefore, would not have soils incapable of inadequately supporting the use of septic tanks or alternative waste disposal systems. This alternative would have **no impact** for the purposes of CEQA, related to soils that are incapable of adequately supporting the use of septic tanks.

Increased Recreation and Resource Management Alternative – Proposed Action

A new campground proposed at the Knickerbocker Management Zone for the Proposed Action would involve construction of restroom facilities that would be supported by a new septic system. The soil types that make up most of Node 1C in the Knickerbocker Management Zone where the septic tank is proposed are well drained with a depth to water table more than 80 inches. These soils include the Auburn silt loam, Auburn very rock silt loam, and Sobrante silt loam. These qualities are adequate to support the use of septic tanks. Each of these soil types also has a very shallow depth to bedrock (14-18 inches for the Auburn soil types and 24-34 inches for the Sobrante soil type), which could prevent the installation of septic tanks. The shallow soil could be incapable of adequately supporting the use of the septic system. All new septic tanks are required to comply with the Reclamation design guidelines (Reclamation 2013) and standards contained in Sections K5(b), K5(c), K5(d), K5(e), K5(k), K5(m)(1), and K5(m)(3)(ii) of Appendix K, of Part 5, Title 24 of the 2007 California Code of Regulations (CCR 2007). Additionally, the Central Valley RWQCB regulates septic tanks through OWTS Policy (SWRCB 2012). Central Valley RWQCB requires that a qualified professional perform soil evaluations to assess soil depth, depth to groundwater, rates of percolation, distance from unstable land masses, and distance from surface water bodies. The septic tank proposed by the Proposed Action would comply with CCR, Reclamation guidelines, and Central Valley RWQCB regulations regarding siting of septic tanks, which would ensure adequate depth to bedrock and would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the Proposed Action related to soils incapable of

supporting septic tanks or alternative wastewater disposal systems would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would not include any construction of septic tanks or alternative waste water disposal systems and therefore would not cause adverse effects involving soils incapable of adequately supporting the use of septic tanks. This alternative would have **no impact** for the purposes of CEQA. The effects from the RME Alternative related to soils incapable of supporting septic tanks or alternative wastewater disposal systems would be the same as those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

For the same reasons stated above for the Proposed Action, the proposed septic tank would have to comply with California Code of Regulations and Central Valley RWQCB regulations regarding siting of septic tanks, which would require that adequate conditions are in place for the siting of a septic tank, including adequate depth to bedrock, and would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the RE Alternative related to soils incapable of supporting septic tanks or alternative wastewater disposal systems would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.7-5: Potential for destruction of a unique paleontological resource or site or unique geologic feature

Impact Summary

ASRA/APL contains unique paleontological resources and geologic features, including caves and outcrops in the Calaveras Formation. There are also unique geological features in ASRA/APL where rock climbing could take place. Implementation of the GP/RMP associated with the Proposed Action and RME and RE Alternatives has the potential to result in the destruction of these unique paleontological resource or geologic features. With implementation of GP/RMP Guideline FAC 2.6, expansion and/or development of additional facilities would avoid disturbance to the unique geologic or paleontological features. For this reason, the potential for additional disturbance to unique geological and paleontological resources would be a **less-than-significant** impact for the purposes of CEQA. The No-Action Alternative would have **no impact** for the purposes of CEQA.

No-Action Alternative

The No-Action Alternative retains current facilities and land uses according to current practices and as specified in the IRMP and would not include any construction of new facilities and, therefore, there would be no impact on unique paleontological resources or sites or unique geologic features. This alternative would have **no impact** for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action proposes new facilities within management zones with unique paleontological and geological resources, such as remnants of the Hawver Cave (the site of the Mountain Quarries Mine). Hawver Cave is located in the Confluence Management Zone and includes limited limestone stalactites, stalagmites, as well as flowstone formations, however historic mining removed most of the original geologic features in the cave. This formation has yielded fossils dating back 5.3 million years, including dire wolf, saber-tooth cats, ground sloths, mammoth, and bison (Sierra College 2018). There are also unique geological features in ASRA/APL where rock climbing could take place

such as in the Cave Valley Climbing Area. Implementation of the Proposed Action would replace the existing IRMP to allow for the future construction of additional parking areas, administrative/maintenance facilities, picnic sites, restrooms, campgrounds, and other recreational facilities that have the potential to result in the destruction of these unique paleontological resource or geologic features. The Proposed Action proposes guided tours of Mountain Quarries Mine, which may require improvements in the Mountain Quarries Mine to be in compliance with the Americans with Disability Act. Additionally, this alternative expands rock climbing opportunities, which could include bolt placement on unique geological resources. Implementation of Guidelines FAC 2.5 and MZ 11.1, which require that expansion and/or development of additional facilities at Mountain Quarries Mine/Hawver Cave and/or other unique paleontological or geological features would avoid disturbance to the unique geologic or paleontological features and consider geotechnical stability. Due to this Guideline, the potential for additional disturbance to unique geological and paleontological resources would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the Proposed Action related to paleontological resources or unique geological features would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative does not propose guided tours of Mountain Quarries Mine or any additional rock climbing within management zones with unique paleontological and geological resources. Therefore, the potential for additional disturbance to unique geological and paleontological resources would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the RME Alternative related to paleontological resources or unique geological features would be the same as those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The RE Alternative proposes new facilities within management zones with unique paleontological and geological resources such as Hawver Cave. As with the Proposed Action, the RE Alternative proposes guided tours of Mountain Quarries Mine, which may require improvements in the mine to be in compliance with the Americans with Disability Act. Additionally, this alternative expands rock climbing opportunities, which could include bolt placement on unique geological resources. Due to implementation of Guideline FAC 2.6, the potential for additional disturbance to unique geological and paleontological resources would be a **less-than-significant** impact for the purposes of CEQA**.** The effects from the RE Alternative related to paleontological resources or unique geological features would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Cumulative impacts related to erosion are considered in the context of the geographic area of the GP/RMP boundary for site grading and erosion potential. Seismic effects are localized by nature and are not cumulative. The cumulative projects listed in Table 4.1-2 of Chapter 4, Environmental Consequences and Mitigation, as well as the GP/RMP alternatives would create soil disturbance that could lead to increased exposure to soil and geologic hazards as well as erosion. However, all of these projects would be required to comply with the stringent regulatory protections enforced by CSP and Reclamation. These protections include temporary and permanent erosion control BMPs and other regulatory requirements. Therefore, because stringent regulations are in place to safeguard geologic and soil resources for all cumulative projects within the ASRA/APL watersheds, the GP/RMP alternatives and the cumulative projects would result in a **less-than-significant** cumulative effect.

This page intentionally left blank.

4.8 Greenhouse Gas Emissions, Climate Change, and Energy

This section evaluates the potential impacts to global climate change and energy demand from implementation of the ASRA GP/APL RMP alternatives as well impacts of climate change on ASRA/APL. The analysis includes a quantitative evaluation of greenhouse gases emissions (GHGs) and energy use associated with construction and operation of the alternatives. A description of the analysis methodology and the thresholds of significance for determining significant impacts are also described in this section.

The methods of analysis for short-term construction and long-term operational GHG emissions used in this section are consistent with the recommendations of the Placer County Air Pollution Control District (PCAPCD), the El Dorado County Air Quality Management District (EDCAQMD), and the U.S. Environmental Protection Agency (EPA).

Section 2.2.1, Physical Resources; Section 2.8.3, ASRA/APL Regulatory Influences; and Section 4.3.1, Resource Management and Protection, of the GP/RMP, and Section 9, Climate and Climate Change, of the Existing Conditions Report provide details on the environmental setting related to climate change within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

4.8.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

Short-Term Construction

GHG Emissions

Each project alternative would result in different levels of construction activity in the 11 management zones included in ASRA/APL (see Figure 2.2-1 in Chapter 2, Project Description and Alternatives). The types of improvements that could generate emissions during construction could include the development of individual and group campsites, parking facilities, interpretive features, administrative facilities, and new or rerouted trails. Short-term construction emissions associated with these improvements were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (California Air Pollution Control Officers Association [CAPCOA] 2016).

Construction activities associated with the GP/RMP could occur over the next 20 to 30 years. While construction activities would occur gradually in response to demonstrated demand and availability of funding, it was conservatively assumed that an entire management zone would be upgraded annually. Additionally, as part of the Proposed Action and RE Alternative, a trail bridge would be constructed at the Greenwood Bridge site in the Cherokee Bar/Ruck-a-Chucky Management Zone and a second bridge (Auburn-to-Cool trail bridge) would be constructed in the Auburn Interface Management Zone. Modeling was conducted for a worst-case scenario that involves construction of the Auburn-to-Cool trail bridge (the larger of the two bridges) simultaneously with construction activities within one of the management zones. Emissions related to construction of the Auburn-to-Cool trail bridge were modeled using the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Road Construction

Emissions Model Version 8.1.0 (SMAQMD 2018) rather than CalEEMod. The SMAQMD Road Construction Emissions Model provides a more accurate estimate of construction activity associated with linear roadway projects such as bridges, which cannot be accurately modeled in CalEEMod. Details regarding construction emissions modeling are included in Appendix B.

Energy

Construction-related energy consumption (including fuel use) associated with the development of new facilities within the various management zones was calculated using CalEEMod. CalEEMod default values were adjusted based on the characteristics of proposed new land uses and the location of the project site. Transportation fuel consumption associated with construction worker commute trips for all phases of construction were estimated using the California Air Resources Board's (CARB) EMFAC2017 database (i.e., average fuel use by vehicle class for passenger vehicles). Off-road vehicle fuel consumption was estimated using CalEEMod default off-road equipment used for each phase of construction and fuel use rates derived from the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook (SCAQMD 1993).

Operations

GHG Emissions

Each action alternative would result in operational changes in the 11 management zones. As discussed in Chapter 2, Project Description and Alternatives, estimated buildout of the GP/RMP would likely occur over the next 20 to 30 years. Operational activities for each alternative were conservatively modeled for the year 2040 and assumed full buildout of the GP/RMP. Indirect emissions (i.e., from electricity use) associated with operation of the proposed administrative facilities were estimated using CalEEMod.

Direct operational mobile-source emissions were modeled based on the projected increase in vehicle miles traveled (VMT) associated with new trips generated by increased visitation associated with additional parking and camping capacity under each of the action alternatives. VMT was calculated based on the 2007 CSP visitor survey results (CSP 2007) regarding the geographic origin of visitors to ASRA/APL, the percentage of visitors that came from each location, and the percentage of visitors who were not visiting ASRA/APL as their primary destination. Average trip lengths for each location were estimated using aerial imagery software (Google Earth Pro). A weighted average trip length was then calculated for the new trips generated by the GP/RMP. An annual VMT emission estimate was calculated using average daily trip rates for the proposed day-use parking facilities and campsites derived from the project transportation study (Appendix D) and the weighted average trip length. Annual VMT estimates were adjusted based on data provided by CSP regarding monthly visitation rates from 2001 through 2017 to account for monthly fluctuations in visitation rates throughout the year. Based on the project's characteristics as a recreation area for visitors, vehicle classes used in the emissions modeling included light-vehicles and light-duty trucks. Emissions estimates for this source were calculated using CalEEMod with vehicle emissions factors from the EMFAC2017 database, which are included in the CalEEMod software.

GHG emissions would be generated from wood burning for campfires at new campsites. Campfire emissions were estimated using CalEEMod, information provided by CSP regarding annual campsite visitors to ASRA/APL for the year 2002 through 2016, and the total number of new campsites proposed under each action alternative.

Emissions associated with changes in use of OHVs for all alternatives were calculated based on a daily use rate of 30 miles per day per visitor, which is based on average use rates identified in CARB's Final Analysis of the 2008 California Survey of Registered Off-Highway Vehicle Owners (CARB 2008). Emissions factors for OHV use were derived from CARB's OFFROAD model, which includes emissions rates for various types of OHVs.

Proposed wildfire fuel reduction activities would also generate emissions. The extent of fuels treatment would be similar across action alternatives. Fuel reduction actions that could be implemented within ASRA/APL could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Equipment used in fuel reduction activities (such as chainsaws and woodchippers) and burning would generate emissions. Emissions associated with fuel management activity were estimated using CalEEMod for mechanical equipment associated with fuel management. For burning activities associated with fuel management, emissions were estimated using information about the proposed increase in acreage of fuel management under each action alternative (see Section 4.17, Wildfire), the total amount of fuel cleared per acre based on estimates in the Fuel Reduction Guide for Sierra Nevada Forest Landowners developed by the University of California (UC) Division of Agriculture and Natural Resources (UC Division of Agriculture and Natural Resources 2006), and emissions factors for prescribed burning included in the EPA AP-42 Emissions Factors document (EPA 1996). Details regarding the above-described emissions modeling are included in Appendix B.

Energy

Transportation-related energy consumption includes the use of fuels and electricity to power cars, trucks, and public transportation. Energy use was estimated based on the projected annual increase in VMT, by alternative. Transportation fuel consumption was calculated by applying average fuel use rates per vehicle mile to the total annual VMT. EMFAC2017 includes average fuel use rates by vehicle class, fuel type (e.g., diesel, gasoline, natural gas, and electricity), speed, calendar year, and county. EMFAC2017 average fuel use rates for light-duty automobiles and light-duty trucks for Placer County were used. Building-related energy consumption (e.g., electricity use, natural gas use, water consumption) from new facilities was modeled using CalEEMod based on the square footage of new facilities under each alternative. See Appendix B for energy calculation details.

Significance Criteria

CEQA Criteria

Greenhouse Gas Emissions

The issue of global climate change is inherently a cumulative issue, as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, a project's impact on climate change is inherently a cumulative impact.

CEQA Guidelines Section 15064 and relevant portions of CEQA Guidelines Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G of the State CEQA Guidelines, two questions are provided to help assess if the project would result in a potentially significant impact on climate change. These questions ask whether a project would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

EDCAQMD does not currently have adopted thresholds of significance for GHG emissions. Therefore, PCAPCD thresholds of significance are used to evaluate GHG impacts, including for those portions of the project that are located in El Dorado County and under the jurisdiction of EDCAQMD.

Based on Appendix G of the State CEQA Guidelines and PCAPCD thresholds of significance for construction- and operational-related emissions of GHGs, impacts to global climate change would be significant if a project would:

- generate construction emissions exceeding 10,000 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year); or
- generate operational emissions that exceed the Brightline Threshold of 10,000 $MTCO_2e$/year.

Energy

CEQA Guidelines Section 15064 and relevant portions of CEQA Guidelines Appendix G recommend that a lead agency consider a project's potential energy impacts. In Appendix G of the State CEQA Guidelines, two questions are provided to help assess if a project would result in a potentially significant impact on energy use. These questions ask whether a project would:

- result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. Climate change effects on the ASRA/APL, and the surrounding region, as well as the ability to operate and maintain the lands and facilities in light of these changes, is also a consideration under NEPA (project resilience and implications for desired environmental outcomes).

Environmental Impacts

Impact 4.8-1: Direct and indirect short-term construction-generated and long-term operational emissions of GHGs

Impact Summary

The short-term construction-generated and long-term operational emissions of GHGs associated with all alternatives would not exceed the threshold of significance of 10,000 $MTCO_2e$ for construction and the Brightline Threshold of 10,000 $MTCO_2e$ for operational emissions. As such, the action alternatives would not result in a cumulatively considerable contribution to global climate change. Therefore, the alternatives would result in a **less-than-significant** impact, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the existing facilities and land uses in ASRA/APL would be retained and the 1992 Interim Resource Management Plan (Interim RMP) would continue to provide the management direction and guidance for ASRA/APL. Actions under the Interim RMP could include regular maintenance of existing transportation facilities and parking capacity, modifying existing parking to enhance public safety and reduce sensitive resource impacts, and realignment, reconstruction, or removal of existing trail routes in certain areas of ASRA/APL. Construction activity occurring under the No-Action Alternative would be considered part of the routine maintenance of ASRA/APL facilities and would not result in a change from existing conditions.

Operational activity under the No-Action Alternative would include repairing existing administrative offices, including the Auburn Section office complex but would not include the development of new administrative facilities or expansion of existing facilities. No new day-use facilities would be constructed at any of the management zones, and facility maintenance activities would not increase from existing levels. The No-Action Alternative would result in a 30 percent increase in annual visitors to ASRA/APL based on population growth, resulting in an increase in transportation-related GHG emissions. As shown in Table 4.8-2, maximum annual operation-related GHG emissions under the No-Action Alternative would be the same as the RME Alternative (966 $MTCO_2e$/year). This level of emissions would be below the applicable GHG operational threshold used for this analysis of 10,000 $MTCO_2e$/year. The No-Action Alternative would result in a **less-than-significant** impact related to emissions of GHGs, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include new recreational facilities similar to what is currently provided in ASRA/APL, including individual and group campsites, additional parking facilities, additional administrative facilities, new trails, and construction of the Auburn-to-Cool trail bridge and the Greenwood Bridge trail bridge. Construction activity under the Proposed Action would result in GHG emissions from site preparation (e.g., grading and clearing), off-road equipment use, material delivery, exhaust from worker commute trips, and other miscellaneous activities (e.g., building construction, asphalt paving). As shown in Table 4.8-1, maximum annual construction-related GHG emissions under the Proposed Action would be 380 $MTCO_2e$/year. This level of emissions would be below the applicable GHG construction threshold used for this analysis of 10,000 $MTCO_2e$/year.

The Proposed Action would include the development of new recreational facilities similar to what is currently provided in ASRA/APL. Improvements would include up to 230 new campsites and 470 new parking stalls located at eight of the management zones. The development of these facilities would result in an increase in daily vehicle trips to ASRA/APL. Annual visitation is anticipated to increase by 35 percent under the Proposed Action resulting in an increase in mobile source GHG emissions. The Proposed Action would expand the OHV area boundary and trail system in the Mammoth Bar Management Zone and allow OHV use up to six days per week. The expansion in OHV use would increase energy consumption and related GHG emissions. The Proposed Action would also result in an increase in the average amount of vegetation management treatments per year to reduce the risk of wildfire, which would result in GHG emissions from hand and mechanical fuel thinning, pile burning, controlled burns, and onsite chipping. The Proposed Action also includes the installation of two maintenance yards and equipment storage areas at the Knickerbocker and Foresthill Divide Management Zones, which could include new electricity demand from lighting. Goals RES 17 and RES 18 and Guidelines RES 17.1 through RES 18.5 included in the GP/RMP are specifically focused on reducing GHG emissions from ASRA/APL operations and visitor uses, including the use of renewable energy and energy efficiency design strategies in new facilities and use of alternative fuel or other very

low or zero-emission vehicles for ASRA/APL operations. Additionally, Guideline RES 20.1 recommends that a Climate Action Plan be prepared as a management plan to identify more specific strategies, actions, and funding needed for operating ASRA/APL in a manner that is consistent with state legislation, regulations, executive orders, and relevant policies to help reach GHG reduction goals consistent with state targets, while remaining resilient to the effects of climate change in future plans to build and offer increased recreational opportunities in ASRA/APL.

As shown in Table 4.8-2, maximum annual operation-related GHG emissions under the Proposed Action would be 2,198 $MTCO_2e$/year. This level of emissions would be below the applicable GHG operational threshold used for this analysis of 10,000 $MTCO_2e$/year. Therefore, the Proposed Action would result in a **less-than-significant** impact related to emissions of GHGs, for the purposes of CEQA. The Proposed Action would result in up to 1,232 MTCO2e more than the No-Action Alternative for operational emissions in a single year.

Table 4.8-1 Summary of Maximum Annual Construction-Generated Increase in GHG Emissions for each Alternative

Alternative	GHG Emissions ($MTCO_2e$/year)	PCAPCD Threshold of Significance ($MTCO_2e$/year)	Exceeds Thresholds?
No-Action Alternative	0	10,000	No
Proposed Action	380		No
RME Alternative	148		No
RE Alternative	390		No

Note: See Appendix B for detail on model inputs, assumption, and project specific modeling parameters.

Source: Modeling conducted by Ascent Environmental in 2018 based on CalEEMod Version 2016.3.2

Table 4.8-2 Summary of Maximum Annual Operation-Generated Increase in GHG Emissions for each Alternative

Alternative	GHG Emissions ($MTCO_2e$)	PCAPCD Threshold of Significance ($MTCO_2e$/year)	Exceeds Thresholds?
No-Action Alternative	966	10,000	No
Proposed Action	2,198		No
RME Alternative	966		No
RE Alternative	2,519		No

Note: See Appendix B for detail on model inputs, assumption, and project specific modeling parameters.

Source: Modeling conducted by Ascent Environmental in 2018 based on CalEEMod Version 2016.3.2

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, some facilities within certain management zones would be upgraded. Proposed new facilities include the potential development of up to 50 campsites and up to 50 day-use parking spaces at the Mammoth Bar Management Zone, construction of 20 parking spaces at the Confluence Management Zone, and an interpretive center (approximately 3,000 square feet [sf]). Development of these improvements would result in construction-generated GHG emissions at levels similar to those associated with the Proposed Action. As shown in Table 4.8-1, maximum annual construction-related GHG emissions under the RME Alternative would be 148 $MTCO_2e$/year. This

level of emissions would be below the applicable GHG construction threshold used for this analysis of 10,000 $MTCO_2e$/year.

As discussed under Section 2.6 in Chapter 2, Project Description and Alternatives, the RME Alternative would provide increased resource protection and conservation for ASRA/APL. The number of new campsites would be limited to up to 50 campsites within the Mammoth Bar Management Zone. Additional parking facilities would be limited to up to 70 new parking spaces in the Confluence Management Zone and the Mammoth Bar Management Zone. Annual visitation is anticipated to increase by 30 percent under the RME Alternative resulting in an increase in mobile source GHG emissions. The RME Alternative would also result in an increase in the average amount of vegetation management treatments per year to reduce the risk of wildfire, which would result in GHG emissions from hand and mechanical fuel thinning, pile burning, controlled burns, and onsite chipping. Under the RME Alternative, the GP/RMP would still include specific goals and guidelines focused on reducing GHG emissions from park operations and visitor uses highlighted above in the Proposed Action discussion. The RME Alternative would also remove the OHV tracks and trails and prohibit OHV use, which would result in an incremental decrease from this source of operational emissions.

As shown in Table 4.8-2, maximum annual operation-related GHG emissions under the RME Alternative would be 966 $MTCO_2e$/year. This level of emissions would be below the applicable GHG operational threshold used for this analysis of 10,000 $MTCO_2e$/year. The RME Alternative would result in a **less-than-significant** impact related to emissions of GHGs, for the purposes of CEQA. The RME Proposed Action would result in the same level of operational emissions when compared to the No-Action Alternative in a single year.

Recreation Emphasis (RE) Alternative

The RE Alternative would be guided to accommodate demographically relevant and diverse increases in regional and statewide visitor demand and would increase the number of new campsites and parking spaces in ASRA/APL greater than the increase proposed by the Proposed Action. The RE Alternative would include development of up to 390 individual campsites, seven group sites, five alternative sites, five primitive sites, and construction of the two trail bridges and a small interpretive center (approximately 700 sf). As shown in Table 4.8-1, maximum annual construction-related GHG emissions under the RE Alternative would be 547 $MTCO_2e$/year. This level of emissions would be below the applicable GHG construction thresholds.

With respect to operational emissions, development of the proposed new campsites and parking facilities would increase visitation to ASRA/APL and related daily vehicle trips. Annual visitation is anticipated to increase by 45 percent under the RE Alternative resulting in an increase in mobile source GHG emissions. The RE Alternative would expand the OHV area boundary and trail system in the Mammoth Bar Management Zone and allow OHV use up to seven days per week. The expansion in OHV used would increase energy consumption and related GHG emissions. This alternative would also result in an increase in the average amount of vegetation management treatments per year to reduce the risk of wildfire, which would result in GHG emissions from hand and mechanical fuel thinning, pile burning, controlled burns, and onsite chipping. Under the RE Alternative, the GP/RMP would still include specific goals and guidelines focused on reducing GHG emissions from ASRA/APL operations and visitor uses highlighted above in the Proposed Action discussion.

As shown in Table 4.8-2, maximum annual operation-related GHG emissions under the RE Alternative would be 2,519 $MTCO_2e$/year. This level of emissions would be below the applicable GHG operational threshold used for this analysis of 10,000 $MTCO_2e$/year. The RE Alternative would result in a **less-**

than-significant impact related to emissions of GHGs, for the purposes of CEQA. The Proposed Action would result in up to 1,533 MTCO2e more than the No-Action Alternative for operational emissions in a single year.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.8-2: Increased risks from climate change on the project

Impact Summary

Climate change is expected to result in a variety of effects that would influence conditions at ASRA/APL. These effects include increased temperatures and increased wildfire risk, changes to the timing and intensity of precipitation, and increased flooding hazards. However, numerous federal, state, and county programs and policies are in place to protect implementation of the GP/RMP at ASRA/APL against climate change-related physical effects. Therefore, GP/RMP action alternatives would result in a **less-than-significant** impact related to increased risks from climate change, for the purposes of CEQA.

The vulnerability of ASRA/APL would not be exacerbated with the implementation of the No-Action Alternative. The No-Action Alternative would result in **no impact** related to increased risks from climate change, for the purposes of CEQA.

No-Action Alternative

As discussed in detail in Section 2.2.1, Physical Resources, in Chapter 2, Existing Conditions, of the GP/RMP, ASRA/APL will experience an increase in temperature, predicted rates and sizes of wildfire, and reduction in snowpack as a result of climate change in the coming century. Under the No-Action Alternative, operation of facilities would remain the same under existing conditions and would not result in an increase in annual visitors to ASRA/APL. The existing facilities and visitors to the project site would continue to be subject to the physical effects of climate change; however, their vulnerability would not be increased or exacerbated with the implementation of the No-Action Alternative. The No-Action Alternative would result in **no impact** related to increased risks from climate change, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action would include new recreational facilities similar to what is currently provided in ASRA/APL, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. The type of new facilities would vary depending on the management zone. New or reconstructed facilities at ASRA/APL, including campsites, administrative buildings, and bridges, could be subject to potential hazards (such as increased risk of wildfire and flooding) that could be exacerbated by climate change. Although uncertainty exists to the precise levels of these impacts, there is consensus regarding the range, frequency, or intensity of these impacts that can be expected.

ASRA/APL is located within Moderate to High Fire Hazard Severity Zones, depending on specific locations (California Department of Forestry and Fire Protection [CAL FIRE] 2007a, 2007b). As projected by Cal-Adapt, the risk of wildfire in ASRA/APL is projected to increase over the next century (CEC 2018), which could affect new facilities built as part of the GP/RMP. As discussed in detail in Section 2.3.3, Fire Protection and Emergency Services, in Chapter 2, Existing Conditions, of the GP/RMP and in Fire Management Plan (FMP) for APL, including ASRA/APL, Reclamation has

contractual agreements with CAL FIRE's Nevada-Yuba-Placer Unit and Amador-El Dorado Unit to provide fire suppression responses and coordinate emergency actions as initial responders to all wildfires. CAL FIRE has three nearby stations to provide suppression response in the Auburn, Cool, and Foresthill areas. Additionally, there are three local fire stations that serve the areas surrounding ASRA/APL in communities of Cool, Pilot Hill, and Foresthill. The "Wildfire Fuel Management" section under Section 2.4.2, Elements Common to Each of the Alternatives, in Chapter 2, Project Description and Alternatives, discusses fire management activities that would be taken as part of implementation of the GP/RMP, including fuel reduction treatments to decrease the risk of fire hazards along roadways, around existing facilities including parking areas, trailheads, and campgrounds. This topic is evaluated in greater detail in Section 4.17, Wildfire.

The GP/RMP includes a set of goals and guidelines specific to forestry and fire protection, including Guideline RES 8.1 requiring adoption of a FMP for ASRA/APL consistent with Reclamation, CSP, and CAL FIRE policies and requirements and Guideline RES 8.4, which guides the agencies to respond to and assist communities with their requests for fuel reduction on the ASRA/APL boundary. Although projected climate change impacts may increase the risk of wildfire in ASRA/APL, the GP/RMP includes policies to reduce this overall risk. Additionally, there are existing CAL FIRE response stations and local fire stations in close proximity to ASRA/APL to respond to fire hazards, reducing the risk of fire incidents becoming larger wildfire hazards.

As discussed in detail in Section 2.2.1 of the GP/RMP, ASRA/APL is expected to experience changes in precipitation patterns caused by climate change, specifically increases in annual average precipitation and shifts in the snowpack runoff period from the Sierra Nevada mountains. Rising temperatures have already begun to accelerate the rate of snow melt in the Sierra Nevada mountains and are projected to continue to result in earlier and more rapid melting periods, resulting in higher volumes of runoff that will likely increase risk of flooding along affected rivers, including the North and Middle Forks of the American River (Governor's Office of Planning and Research et al. 2018). These impacts have the potential to result in increased flooding hazards within the FEMA 100-Year Flood Zone in ASRA/APL. Additionally, increases in annual average precipitation in ASRA/APL could result in impacts on trail systems, including increased erosion and increased risk of landslides. The GP/RMP includes a number of specific goals and guidelines that address flood hazards. Guideline RES 17.3 specifically states that the agencies should consider changes in hydrology, including reduced snowpack, altered precipitation patterns, changes in water demand, and increased water temperature, when planning facilities or management actions affected by hydrology. Guideline FAC 3.2 recommends that the agencies locate or relocate facilities, trails and other heavily used recreation sites outside of areas that are at high risk of flooding, landslides, rock fall, naturally occurring asbestos, or other natural hazards. Guideline RES 13.1 recommends avoiding placement of permanent structures or uses within floodplains when developing new or modified facilities. Although ASRA/APL is projected to experience climate change impacts related to changes in precipitation patterns and increased risk of flooding, the GP/RMP includes several goals and guidelines that would help reduce the over risk of these impacts under the Proposed Action.

In addition to specific goals and guidelines that would help mitigate the future impacts of climate change, the GP/RMP includes a set of goals and guidelines specific to climate change impacts and appropriate adaptation strategies. Specifically, Goal RES 17 and Guidelines RES 17.1 through RES 17.4 of the GP/RMP are focused on ensuring that management decisions for ASRA/APL factor in long-term climate change trends and that management decisions are suited to adapt to the long-term climate change impacts projected for ASRA/APL. Additionally, Guideline RES 20.1 recommends that a Climate Action Plan be prepared as a management plan to define climate risks and vulnerabilities and identify more specific strategies, actions, and funding needed for operating ASRA/APL in manner

that is consistent with state legislation, regulations, executive orders, and relevant policies to prepare for climate change impacts on recreation uses and ASRA/APL resources. These goals and guidelines in the GP/RMP ensure that ASRA/APL would be adequately prepared to adapt to both the near-term and long-term impacts of climate change. As such, the Proposed Action would result in a **less-than-significant** impact related to increased risks from climate change, for the purposes of CEQA. The risks from climate change would be less under the Proposed Action than under the No-Action Alternative, because the Proposed Action includes specific guidelines to mitigate and adapt to the effects of climate change.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, it is assumed that current levels of recreation at ASRA/APL would continue with only minor increases in visitation. Facilities within certain management zones would include updates and development of new facilities including the potential development of up to 50 campsites and up to 50 day-use parking at the Mammoth Bar Management Zone and construction of 20 parking spaces at the Confluence Management Zone. The physical impacts of climate change projected for ASRA/APL would not differ between the RME Alternative and the Proposed Action. However, compared to the Proposed Action, the RME Alternative would result in fewer facilities being built at ASRA/APL and fewer annual day use and campsite visitors to ASRA/APL, which would decrease the number of persons and structures exposed to the projected effects of climate change. Under the RME Alternative, the same goals and guidelines to help mitigate the risk from future climate change impacts discussed above would still be included in the GP/RMP and would ensure that ASRA/APL would be adequately prepared to adapt to both the near-term and long-term impacts of climate change. As such, the RME Alternative would result in a **less-than-significant** impact related to increased risks from climate change, for the purposes of CEQA. The risks from climate change would be less under the RME Alternative than under the No-Action Alternative, because the RME Alternative includes specific guidelines to mitigate and adapt to the effects of climate change.

Recreation Emphasis (RE) Alternative

The RE Alternative would accommodate increases in regional and statewide visitor demand and would increase in the number of new campsites and parking spaces in ASRA/APL greater than the increase proposed by the Proposed Action. The RE Alternative would include development of up to 390 individual campsites, seven group sites, five alternative sites, five primitive sites, and construction of two trail bridges and a small interpretive center. The physical impacts of climate change projected for ASRA/APL would not differ between the RME Alternative and the Proposed Action. However, compared to the Proposed Action, the RE Alternative would result in more facilities (e.g., campsites, parking spaces) being built at ASRA/APL and a greater number of annual day use and campsite visitors, which would result in a greater number of persons and structures being exposed to the projected effects of climate change. However, under the RE Alternative, the same goals and guidelines to help mitigate the risk from future climate change impacts discussed above would still be included in the GP/RMP and would ensure that ASRA/APL would be adequately prepared to adapt to both the near-term and long-term impacts of climate change even with an increase in new facilities and visitors. Therefore, the RE Alternative would result in a **less-than-significant** impact related to increased risks from climate change, for the purposes of CEQA. The risks from climate change would be less under the RE Alternative than under the No-Action Alternative, because the RE Alternative includes specific guidelines to mitigate and adapt to the effects of climate change.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.8-3: Wasteful, inefficient, or unnecessary consumption of energy

Impact Summary

The short-term construction-generated and long-term operational-related activities associated with all alternatives would not result in wasteful, inefficient, or unnecessary consumption of energy. All energy use associated with each action alternative would be considered necessary for implementation of the alternative. Additionally, GP/RMP Guideline RES 15.1 in the Proposed Action, RME Alternative, and RE Alternative recommends the design of new facilities and retrofit of existing facilities to maximize energy efficiency, resulting in an increase in energy efficiency. Therefore, the alternatives would result in a **less-than-significant** impact related to energy use, for the purposes of CEQA.

No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses in ASRA/APL would be retained and the IRMP would continue to be the document which provides management direction and guidance for ASRA /APL. Some construction activity could occur with implementation of the No-Action Alternative related to routine maintenance of ASRA/APL facilities consistent with existing conditions. Therefore, the No-Action Alternative would not result in an increase in energy use over existing conditions due to increased facility operations or maintenance.

Under the No-Action Alternative, visitation is expected to continue to increase due to regional population growth. This increased visitation could result in additional energy consumption due to vehicle trips. Table 4.8-4 shows the amount of energy use resulting from operational activity under the No-Action Alternative. ASRA/APL, as a regional recreational area, attracts regional visitors primarily from locations across northern California. Considering ASRA/APL's rural location, travel by personal automobile is the most feasible and appropriate means of traveling to ASRA/APL. The additional energy use resulting from additional vehicle trips to ASRA/APL would not be considered a wasteful use of energy. As such, the No-Action Alternative would result in a **less-than-significant** impact related to energy use, for the purposes of CEQA

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would include new recreational facilities similar to what is currently provided at ASRA/APL, including campsites, active recreation facilities, day-use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. New facilities under the Proposed Action would result in energy use associated with heavy-duty construction equipment used for various stages of construction, as discussed in detail under Impact 4.8-1. Table 4.8-3 shows the estimated amount of energy that would be consumed during construction under the Proposed Action. Energy used during construction activity is considered a necessary part of the development of new facilities and would not be considered wasteful or inefficient.

The development of these new facilities would result in an increase in daily vehicle trips to management zones where new campsites or parking facilities are built, resulting in an increase in energy use from vehicle fuel consumption. The Proposed Action would also include the installation of two maintenance yards and equipment storage areas at the Knickerbocker and Foresthill Divide Management Zones, which could result in new electricity demand from lighting. Guideline RES 15.1 included in the GP/RMP recommends the design of new facilities and retrofit of existing facilities to maximize energy efficiency; thus, increasing energy efficiency associated with this alternative. Table 4.8-4 shows the amount of energy use resulting from operational activity under the Proposed Action.

Operational energy associated with the Proposed Action would largely be attributed to increases in visitor vehicle trips. ASRA/APL, as a regional recreational area, attracts regional visitors primarily from locations across northern California. Considering ASRA/APL's rural location, travel by personal automobile is the most feasible and appropriate means of traveling to ASRA/APL. The additional energy use resulting from additional vehicle trips to ASRA/APL would not be considered a wasteful use of energy. As such, the Proposed Action would result in a **less-than-significant** impact related to energy use, for the purposes of CEQA. Energy use under the Proposed Action would be greater than under the No-Action Alternative.

Table 4.8-3 Summary of Construction-Generated Increase in Energy Use for each Alternative

Alternative	Gasoline Use (Gallons)	Diesel Use (Gallons)
No-Action Alternative	0	0
Proposed Action	3,666	23,277
RME Alternative	780	9,476
RE Alternative	1,816	11,234

Note: See Appendix B for detail on model inputs, assumption, and project specific modeling parameters.

Source: Modeling conducted by Ascent Environmental in 2018 based on using CalEEMod Version 2016.3.2

Table 4.8-4 Summary of Annual Operation-Generated Increase in Energy Use for each Alternative

Alternative	Gasoline Use (Gallons)	Diesel Use (Gallons)	Electricity Use (kWh/year)
No-Action Alternative	198,635	1,413	0
Proposed Action	231,741	1,648	30,030
RME Alternative	198,635	1,413	0
RE Alternative	297,952	2,119	30,030

Note: See Appendix B for detail on model inputs, assumption, and project specific modeling parameters.

Source: Modeling conducted by Ascent Environmental in 2018 based on using CalEEMod Version 2016.3.2

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, it is assumed that visitation could increase by up to four percent and facilities within certain management zones would include facility improvements and development of 50 campsites at the Mammoth Bar Management Zone and 70 total new parking spaces in the Confluence Management Zone the Mammoth Bar Management Zone. Development of these facilities would result in energy use from operation of heavy-duty equipment during various stages of construction discussed in detail as part of the RME Alternative under Impact 4.8-1. Energy used during construction activity is considered a necessary part of the development of new facilities and would not be considered a wasteful or inefficient use of energy.

The development of the new recreation facilities would result in an increase in daily vehicle trips, resulting in an increase in energy use from fuel consumption. Table 4.8-4 shows the amount of estimated energy use what would be required from operational activity under the RME Alternative. Operational energy associated with the RME Alternative would largely be attributed to increases in vehicle trips by visitors to ASRA/APL. ASRA/APL, as a regional recreational area, attracts regional visitors primarily from locations across northern California, resulting in energy use from vehicle fuel. Considering ASRA/APL's rural location, travel by personal automobile is the most feasible and appropriate means of traveling to

ASRA/APL. The additional energy use resulting from additional vehicle trips to ASRA/APL would not be considered a wasteful use of energy. As such, implementation of the RME Alternative would result in a **less-than-significant** impact related to energy use, for the purposes of CEQA. Energy use under the RME Alternative would be greater than under the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The RE Alternative accommodates demographically relevant and diverse increases in regional and statewide visitor demand and would increase the number of new campsites and parking spaces in ASRA/APL, compared to the Proposed Action. Implementation of the RE Alternative would include development of up to 390 individual campsites, seven group sites, five alternative sites, five primitive sites, and construction of two trail bridges and a small interpretive center. Development of these facilities would result in energy use from the operation of heavy-duty equipment during various stages of construction discussed in detail as part of the RE Alternative under Impact 4.8-1. Energy used during construction is considered a necessary part of the development of new facilities and would not be considered a wasteful or inefficient use of energy.

The development of new facilities, under the RE Alternative, would result in an increase in daily vehicle trips to certain management zones, resulting in an increase in energy use from fuel consumption. The RE Alternative would expand the OHV area boundary and trail system in the Mammoth Bar Management Zone and allow OHV use up to seven days per week, which would increase energy use related to increased OHV activity and fuel consumption. Guideline RES 15.1 included in the GP/RMP recommends the design of new facilities and retrofit of existing facilities maximize energy efficiency and would increase energy efficiency associated with this alternative. Table 4.8-4 shows the amount of energy use resulting from operation of the RE Alternative. Operational energy associated with the RE Alternative would largely be attributed to increases in vehicle trips by visitors to ASRA/APL. ASRA/APL, as a regional recreational area, attracts regional visitors primarily from locations across northern California, resulting in energy use from vehicle fuel. Considering ASRA/APL's rural location, travel by personal automobile is the most feasible and appropriate means of traveling to ASRA/APL. The additional energy use resulting from additional vehicle trips to ASRA/APL would not be considered a wasteful use of energy. As such, implementation of the RE Alternative would result in a **less-than-significant** impact related to energy use, for the purposes of CEQA. Energy use under the RE Alternative would be greater than under the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Due to the nature of global climate change, GHG analyses in Impacts 4.8-1 and 4.8-2 are inherently cumulative. The effects of global climate change are not the result of one project's GHG emissions but a collective inventory of many projects worldwide. The alternatives **would not result in a cumulatively significant impact** related to climate change.

Table 4.1-2 under Section 4.1.2, Cumulative Impacts, in Chapter 4, Environmental Consequences and Mitigation, includes a list of plans and probable future projects considered in the cumulative analysis for this project. Implementation of these projects would result in an increase in energy use within the geographic scope of ASRA/APL. As discussed above under Impact 4.8-3, energy use associated with construction and operational activities under each alternative analyzed would not result in wasteful, inefficient, or unnecessary use of energy. Additionally, Tables 4.8-3 and 4.8-4

demonstrate that aside from energy use associated with use of heavy-duty equipment during construction, operational energy use would primarily be associated with visitor vehicle trips to ASRA/APL for each action alternative and would not be considered wasteful, inefficient, or unnecessary. Therefore, energy use associated with all alternative analyzed **would not be a significant cumulative impact**.

4.9 Hydrology and Water Quality

This section evaluates the potential effects from implementation of the ASRA GP/APL RMP on hydrology and water quality. The analysis identifies the potential impacts of the plan, including cumulative impacts, on hydrology and water quality and identifies mitigation measures, when available, to reduce the level of impact to less than significant. Scoping comments requested that the hydrology and water quality analysis evaluate potential effects to surface water quality. These issues are addressed in the analysis below. Sources of information used to evaluate impacts include regulatory documents, agency specific guidance, and existing planning and water resource documents for the surrounding area.

The "Hydrology and Water Quality" section under Section 2.2.1 of the GP/RMP and Section 8 on pages 8-1 through 8-21 of the Existing Conditions Report provide details on the environmental setting related to hydrology and water quality within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

Impacts related to riparian and wetland habitats are discussed in Section 4.3, Biological Resources, and water supply is addressed in Section 4.13, Public Services and Utilities, in this EIR/EIS.

4.9.1. Environmental Impacts and Mitigation Measures

Analysis Methodology

Evaluation of potential hydrologic and water quality effects is based on a review of existing information from documents and studies that address water resources in the vicinity of ASRA/APL. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental impacts, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the all future development implemented through the ASRA GP/APL RMP would comply with relevant federal, state, and local ordinances and regulations.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact on hydrology or water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream of river or through the addition of impervious surfaces, in a manner which would:
    - result in substantial erosion or siltation on or off-site;

  - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
  - create or contribute runoff water which would exceed the capacity of exiting or planned stormwater drainage system or provide substantial additional sources of polluted runoff; or
  - impede or redirect flood flows.
- in flood hazard zones, risk release of pollutants due to project inundation; or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the GP/RMP alternatives. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared.

Environmental Impacts

Impact 4.9-1: Potential for construction activities to degrade water quality

Impact Summary

The action alternatives would involve varying degrees of construction-related ground disturbance resulting from the expansion and addition of recreation amenities, trail improvements, and administrative or maintenance facilities.

The RE Alternative would generate the greatest amount of construction activity and the RME Alternative would create the least. Implementation of the improvements included under each alternative would require construction activities that could expose soils to wind and water erosion and potentially transport pollutants to surface water bodies. Additionally, accidental spills of construction-related hazardous substances could contaminate stormwater flows, resulting in the potential degradation of surface or groundwater quality. However, all future projects would be required to comply with the water quality protections included in the CSP Standard Project Requirements (SPRs), NPDES permitting, stormwater BMPs, and U.S. Army Corps of Engineers permit requirements, where applicable. Therefore, the potential for construction activities implemented through the Proposed Action, RME Alternative, and RE Alternative to adversely affect water quality would be a **less-than-significant** impact for the purposes of CEQA. The action alternatives would have a greater effect than the No-Action Alternative.

The No-Action Alternative would result in a **less-than-significant** impact from construction-related water quality effects, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged and no new recreation facilities would be constructed. The Interim RMP includes guidelines and programs that would provide for public health and safety, resource protection, volunteerism, and recreation enhancement. This alternative would retain

current facilities and land uses according to current practices and as specified in the Interim RMP. The types of facilities most likely to be added at ASRA/APL include garbage cans and restrooms. The addition of these facilities and any others would comply with applicable CSP policies, Reclamation's *Recreation Facility Design Guidelines* (2013), and any other applicable federal or state regulations related to protecting water quality. Ground disturbance would continue at existing levels for routine maintenance of existing facilities and as part of any improvements allowed by the Interim RMP. These activities would continue to comply with applicable laws and regulations. This alternative would result in a **less-than-significant** impact from construction-related affects to water quality, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in the construction of new recreational and management facilities including campsites, parking areas, active recreation facilities, restrooms, two trail bridges, river access and watercraft launch improvements, trail improvements and maintenance, and three administrative or maintenance facilities. Implementation of these improvements would require multiple phases and seasons of construction activities that involve vegetation removal, grading, earth moving, excavation, temporary stockpiling of soils, infrastructure installation, and building construction. The Proposed Action would also include management activities, including wildfire fuel management that would include vegetation removal, prescribed fire, and potential soil disturbance. These activities could expose soils to wind and water erosion and potentially transport pollutants to surface water bodies, particularly during storm events. Furthermore, accidental spills of construction-related fuels, oils, hydraulic fluid, and other hazardous substances could contaminate stormwater flows, resulting in the potential degradation of surface water quality downstream of the disturbance area. Construction activities have the potential to adversely affect the water quality of the North and Middle Forks of the American River, tributary stream within the project area, and groundwater beneath the construction sites. They may also have the potential to increase erosion or undermine stability in areas rated as severe or very severe (GP/RMP Chapter 2, pages 2-17 through 2-18; Figures 2.2-4a through 2.2-4d).

The CSP SPRs (included as Appendix A of this EIR/EIS) contain policies designed to safeguard water quality during construction and operation. These requirements apply to all ground disturbing activities and include: implementation of temporary and permanent stormwater Best Management Practices (BMPs); designating temporary and long-term heavy equipment parking and maintenance areas outside of the 100-year floodplain; compliance with the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) Basin Plan; suspending ground disturbing activities when heavy precipitation events are forecast; winterizing construction sites in the rainy season; and installing energy dissipaters at water discharge points to minimize erosion. Additionally, all projects would be required to comply with Central Valley RWQCB water quality protections, including the Statewide Construction General National Pollutant Discharge Elimination System (NPDES) Permit. Adherence to Guideline RES 16.1 would require that wildfire fuel management activities adhere to BMPs developed by the State Water Resources Control Board. Among other things, these BMPs address the establishment of fire lines along contours, provide revegetation guidance, and require runoff controls such as waterbars.

Preparation of a Storm Water Pollution Prevention Plan (SWPPP) is a condition of the NPDES permit as well as a CSP SPR for construction projects involving ground disturbing activities for all construction projects greater than 1 acre. A SWPPP has two major objectives: (1) to identify the sources of sediment and other pollutants that affect the quality of stormwater discharges and (2) to describe and ensure the implementation of Best Management Practices (BMPs) to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. The SWPPP would be prepared by a qualified SWPPP practitioner and/or a qualified SWPPP developer and would identify water quality

controls consistent with Central Valley RWQCB requirements and would ensure that runoff quality meets water quality objectives and maintains the beneficial uses of the plan area streams. The SWPPP would describe the site controls, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of postconstruction sediment and erosion control measures, and management controls unrelated to stormwater. The BMPs identified in the SWPPP would be implemented during all site development activities.

The types of BMPs included in a SWPPP could include temporary 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., 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.

A SWPPP required by Central Valley RWQCB would have the following required elements at minimum and may include other elements depending on the site:

- Temporary BMPs would be identified to prevent the transport of earthen materials and other construction waste materials from disturbed land areas, stockpiles, and staging areas during periods of precipitation or runoff. BMPs could include using filter fences, fiber rolls, erosion control blankets, mulch (such as wood chips), temporary drainage swales, settling basins, and other erosion-control methods.

- Temporary BMPs would be identified to prevent the tracking of earthen materials and other waste materials from the project site to off-site locations. BMPs could include using stabilized points of entry/exit for construction vehicles/equipment and designated vehicle/equipment rinse stations, and sweeping.

- Temporary BMPs would be identified to prevent wind erosion of earthen materials and other waste materials from the project site. BMPs could include routine application of water to disturbed land areas and covering of stockpiles with plastic or fabric sheeting.

- A spill prevention and containment plan would be prepared and implemented. Project contractors would be responsible for storing on-site materials and implementing temporary BMPs capable of capturing and containing pollutants from fueling operations, fuel storage areas, and other areas used for the storage of hydrocarbon-based materials. This would include maintaining materials on-site (such as oil absorbent booms and sheets) for the cleanup of accidental spills, using drip pans beneath construction equipment, training site workers in spill response measures, immediately cleaning up spilled materials in accordance with directives from Central Valley RWQCB, and properly disposing of waste materials at an approved off-site location that is licensed to receive such wastes.

- Temporary BMPs would be identified to capture and contain pollutants generated by concrete construction, including using lined containment for rinse water to collect runoff from washing of concrete delivery trucks and equipment.

- Protective fencing would be used to prevent damage to trees and other vegetation that would remain after construction, including tree protection fencing and individual tree protection, such as wood slats strapped along the circumference of trees, construction safety fencing, or environmentally sensitive area fencing.

- Temporary BMPs would be identified for the containment and removal of drilling spoils generated from construction of bridge foundations and abutments.
- Daily inspection and maintenance of temporary BMPs would be required. The prime contractor would be required to maintain a daily log of temporary construction BMP inspections and keep the log on site during project construction for review by Central Valley RWQCB.
- Tree removal activities, including the dropping of trees, would be confined to the construction limit boundaries.
- Construction boundary fencing would be required to limit disturbance and prevent access to areas not under active construction.
- Post-construction BMPs and the BMP maintenance schedule would be identified. Postconstruction BMPs must address water quality, channel protection, overbank flood protection, and extreme flood protection.
- Disturbed areas would be revegetated with approved native seed mixes.

The SWPPP would be submitted Central Valley RWQCB. During construction, qualified site inspectors would conduct regular site visits to verify that effective stormwater BMPs are implemented and maintained.

The Proposed Action includes future improvement and development projects that would create ground disturbance during construction activities and have the potential to degrade water quality. Because of the water quality protections included in the CSP SPRs and built into NPDES permitting, the potential for construction activities implemented through the Proposed Action to adversely affect water quality would be a **less-than-significant** impact for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would include the realignment or removal of unsustainable trail routes, restoration of degraded habitats, construction of a moderately sized interpretive center, construction of a greenhouse and native plant nursery, trail and trail access improvements, and watercraft launching improvements. The potential effects of these ground disturbing activities would be similar to those described for the Proposed Action. As described above for the Proposed Action, water quality protections are included in the guidelines, CSP SPRs and built into the NPDES permitting system. Through compliance with these protections, ground disturbance resulting from implementation of the RME Alternative would have a **less-than-significant** impact on water quality, and would have a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

When compared to the Proposed Action, implementation of the RE Alternative would include the construction of a greater number of new and expanded camping and day-use facilities, additional active recreation facilities, renovation and expansion of the Lake Clementine Marina, additional road improvements, construction of a greenhouse and native plant nursery, and would have a larger total area dedicated to administrative and maintenance facilities. The potential effects of these ground disturbing activities would be similar to those described for the Proposed Action. As described above to the Proposed Action, water quality protections are included in the guidelines, CSP SPRs and built into the NPDES permitting system. Through compliance with these protections, ground disturbance resulting

from implementation of the RE Alternative would have a **less-than-significant** impact on water quality, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.9-2: Potential for recreation activities to degrade water quality

Impact Summary

The Proposed Action and the RE Alternative would expand recreational infrastructure and capacity within ASRA/APL. Drainage and waste management improvements to trailheads, trails, and access routes would positively affect water quality, and new or expanded facilities would comply with water quality protection goals and guidelines. Recreational use would be managed consistent with goals and guidelines that protect water quality. For these reasons, the operation and use of the facilities proposed by the Proposed Action and the RE Alternative would have a **less-than-significant** impact on water quality for the purposes of CEQA. Because of its focus on habitat restoration and reduced recreation in sensitive areas the RME Alternative would have a **less-than-significant** impact for the purposes of CEQA. The No-Action Alternative would maintain existing facilities and uses resulting in a **less-than-significant** effect under CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged and no substantial new recreation facilities would be constructed. The Interim RMP includes guidelines and programs that would provide for public health and safety, resource protection, volunteerism, and recreation enhancement. Although the Interim RMP would not construct new facilities to support expanded recreation opportunities or visitor capacity, visitation at ASRA/APL under the No-Action Alternative would continue to grow by an estimated 30 percent (from 1 million visitors to 1.3 million visitors) based on continuing population growth in the region. This alternative would retain current facilities and land uses according to current practices and as specified in the Interim RMP. Existing recreation sites would continue in their current locations and conditions without modification other than general maintenance and management. Changes at existing facilities would comply with applicable CSP policies, Reclamation's *Recreation Facility Design Guidelines* (2013), and any other applicable federal or state regulations related to protecting water quality. This alternative would have **a less-than-significant** impact related to recreation-related affects to water quality, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would increase recreation facilities and opportunities throughout ARSA, with new recreation use focused primarily in existing medium to high intensity use areas or previously disturbed areas. Although this alternative creates an overall expansion in recreation facilities and capacities, well designed recreation improvements with water quality protections incorporated can create a water quality benefit by replacing unofficial or unauthorized features. For example, the Proposed Action includes the potential relocation of the Mammoth Bar OHV track to an upland area where it would not be subject to flooding and would be less likely to contribute sediment laden runoff to surface waters. Additionally, improvements to trailheads would include the addition of restrooms and trash containers, which would reduce the potential for water quality degradation from uncontained human waste and litter. Improvements to trail access and trails would include stormwater drainage infrastructure where necessary. Trail projects would also follow the CSP Trails Handbook (1994), CSP Off-highway Motor Vehicle Recreation Division *2008 Soil*

Conservation Standard and Guidelines (OHV Soil Conservation Standards 2008), and other applicable policies, handbooks, and guidance that include standards for sustainable recreation facility development, construction, and maintenance.

The design and use of the proposed improvements would avoid sensitive water resources and protect water quality. All future projects implemented under the Proposed Action would comply with Resource Management and Protection goals and guidelines, including Goal RES 15, "Manage existing, new, or expanded facilities and uses so they do not degrade water quality." Applicable guidelines include:

- **Guideline RES 15.2:** Limit visitor access to sensitive surface water features and watershed lands, such as wetlands or steep erodible slopes, to prevent water quality degradation.
- **Guideline RES 15.3:** Establish appropriate buffers and site-specific measures for siting new or relocated use areas or facilities away from wetlands and watercourses, prior to the development or relocation of facilities.
- **Guideline RES 15.4:** Reduce existing trail crossings through riparian corridors. Build bridges boardwalks or other appropriate crossings through such corridors, where appropriate.
- **Guideline RES 15.5:** Improve visitor education to reduce transport of pollutants from animal waste to wetlands and other watercourses.
- **Guideline RES 15.6:** Restore degraded shorelines and riparian corridors to support native vegetation and minimize accelerated erosion.
- **Guideline RES 15.7:** When designing or modifying facilities, limit or otherwise mitigate impervious surfaces to minimize runoff and infiltrate stormwater on site. Consider the use of permeable materials for new or expanded pedestrian and vehicular surfaces, especially in close proximity to surface water.
- **Guideline RES 15.8:** Provide toilet facilities where the need exists to protect water quality.

Recreation improvements and use included in the Proposed Action would be designed and managed in compliance with ASRA/APL water quality protection goals and guidelines. Additionally, this alternative includes features to reduce water quality degradation from recreation in ASRA/APL. For these reason, the implementation of the CSP Propose Action would have a **less-than-significant** impact, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative is focused on limiting recreational development in sensitive areas and actively restoring degraded sites. This alternative includes proactive management to protect natural resources and restore degraded habitats, including degraded aquatic habitats and disturbed and eroding areas. New restrooms would be added at Cave Valley Climbing Area and Lake Clementine to protect water quality, but not at other use areas. Additionally, the RME Alternative would phase out the Mammoth Bar OHV track and trail system and would eliminate river-side camping in the Cherokee/Ruck-A-Chucky Management Zone.

The RME Alternative's focus on restoration of disturbed areas and limitations on recreation near sensitive aquatic areas would result in benefits to water quality. Additionally, all new development projects included in this alternative would comply with the water quality protection goals and

guidelines described for the CSP Preferred Alternative above. For these reason, implementation of the RME Alternative would have a **less-than-significant** impact, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would expand recreational facilities and capacity in many areas of ASRA/APL. As described for the CSP Preferred Alternative, this expansion would include drainage improvements to day-use areas and trails, and installation of restrooms and trash containers at trailheads. The RE Alternative would expand OHV trails in the Mammoth Bar Management Zone but would also consider relocating the OHV track to an upland area to reduce sediment impacts on water quality. It would also renovate and expand the Lake Clementine Marina. As discussed above, all recreation improvements and uses implemented under the RE Alternative would be designed and managed consistent with water quality protection goals and guidelines. For these reasons, implementation of the RE Alternative would have a **less-than-significant** impact, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.9-3: Potential for alteration of drainage patterns in a way that creates flooding or generates substantial untreated runoff

Impact Summary

The action alternatives include the construction of new impervious surfaces that would create localized increases in stormwater runoff. Additionally, some structures included in the action alternatives may, by their very nature (e.g., a trail bridge), require placement within the 100-year floodplain. The GP/RMP goals and guidelines require stormwater infiltration design measures to be included in new facilities and buffers to avoid degradation of water quality. They also require avoiding placing permanent structures within the floodplain. Structures that must be placed in the floodplain would be designed to avoid adverse effects on the ecosystem. Because these protections are in place, implementation of the Proposed Action, the RME Alternative, and the RE Alternative would have a **less-than-significant** impact relative to drainage patterns and flooding, for the purposes of CEQA. The action alternatives would have a greater effect than the No-Action Alternative

The No-Action Alternative would have a **less-than-significant** impact relative to drainage patterns and floodplains, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged and no new recreation facilities would be constructed. This alternative would retain current facilities and land uses according to current practices and as specified in the Interim RMP. Existing recreation sites would continue in their current locations and conditions without modification other than general maintenance and management. The types of facilities most likely to be added at ASRA/APL include garbage cans and restrooms. The addition of these facilities and any others would comply with applicable CSP policies, Reclamation's *Recreation Facility Design Guidelines* (2013), and any other applicable federal or state regulations related to drainage and floodplains. No substantial habitat restoration or drainage improvements would occur. This alternative would have a **less-than-significant** impact related to drainage patterns or flooding, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The peak flow and volume of stormwater runoff generated from an area is affected by development through conversion of vegetated and otherwise pervious surfaces to impervious surfaces (e.g., roads, roofs, driveways, walkways) and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate and volume of runoff and eliminate storage and infiltration that would naturally occur along drainage paths.

Implementation of the Proposed Action would alter drainage patterns through the addition of impervious surfaces such as parking lots, active recreation facilities, campgrounds, and buildings. This increase would create a localized increase in stormwater runoff volume. However, all future projects would comply with GP/RMP Guideline RES 15.7, which limits impervious surfaces in new development to minimize runoff and requires new facilities to be designed to infiltrate stormwater on site. Stormwater management tools for large impervious areas, such parking lots, may include rain gardens, drainage swales, or other similar infiltration systems. Additionally, the proposed structures and impervious areas would be isolated features surrounded by natural areas where excess stormwater could infiltrate naturally. Furthermore, Guideline 15.3 requires appropriate buffers and site-specific measures for siting new facilities away from watercourse to protect water quality.

The possibility exists that some features or improvements included in the Proposed Action, such as the proposed campsites at Mineral Bar, bridge at the Greenwood Trail crossing, relocation of the OHV track at Mammoth Bar, and watercraft launch facilities, may be partially within the 100-year flood plains of the North and Middle Forks of the American River or tributary streams. GP/RMP Guideline RES 13.1 requires avoiding placement of permanent structures or uses within the floodplain. However, some structures (such as launching facilities and some bridges) may, by their very nature, require placement within the 100-year floodplain. These structures would comply with CSP Department Operation Manual Section 0307.1.1, Siting Facilities to Avoid Natural Hazards Policy. This policy requires that structures that cannot avoid placement in hazardous areas be designed with a thorough understanding of the environments physical process and designed to avoid or mitigate risks to life and property and the effects of the facility on the ecosystem.

Implementation of the CSP Proposed Alternative would include the construction of new impervious surfaces that would create localized increases in stormwater runoff. Additionally, some structures may, by their very nature, require placement within the 100-year floodplain. The GP/RMP goals and guidelines require stormwater infiltration design measures to be included in new facilities and buffers to avoid degradation of water quality. They also require that CSP avoid placing permanent structure within the floodplain. Structures that must be placed in the floodplain would be designed to avoid adverse effects on the ecosystem. Because these protections are in place, the implementation of the Proposed Action would have a **less-than-significant** impact relative to drainage patterns and flooding, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would create additional impervious surfaces such as those described above for the Proposed Action, but to a lesser extent. As described above, all new facilities would comply with GP/RMP goals and guidelines for stormwater management and floodplain protections. The RME Alternative is focused on protection and restoration of sensitive resources, and limiting recreational development. Under the RME Alternative, the size or extent of facilities in sensitive or degraded areas would be reduced and the associated habitat restored. For example, the habitat restoration component of this alternative would restore natural drainage patterns and remove abandoned roads and site features in the Auburn Interface and would phase out riverside camping in

Cherokee/Ruck-a-Chucky and restore natural drainage in the area. Because new development would protect drainage patterns and floodplains and degraded habitats would be restored the RME Alternative would have a **less-than-significant** impact relative to drainage patterns and flooding, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would allow more recreation facilities than the Proposed Action, including a 10 percent increase in day-use facilities, additional roads and trails, an additional approximately 170 developed campsites, an expansion of the Mammoth Bar OHV track and trail system, restrooms at rafting lunch stops in the Middle Fork Management Zone, and new visitor centers near the Foresthill Bridge and in the Knickerbocker Management Zone. These new facilities would create additional impervious surfaces resulting in a corresponding increase in stormwater runoff. However, as described above, all new facilities would comply with GP/RMP goals and guidelines for stormwater management. Drainage for the proposed expansion of the Mammoth Bar OHV area would be managed as directed by the CSP OHV Best Management Practices Manual (CSP 2007) and the OHV Soil Conservation Standards to prevent concentration and channeling of stormwater, including design features to encourage trail drainage, runoff control, and surface stabilization. Additionally, GP/RMP goals and guidelines require that CSP avoid placing permanent structures within the 100-year floodplain. Structures that must be placed in the floodplain would be designed to avoid adverse effects on the ecosystem in accordance with CSP Department Operation Manual Section 0307.1.1.

Because existing protections are in place to protect drainage patterns and adverse effect of flooding, the implementation of the RE Alternative would have a **less-than-significant** impact relative to drainage patterns and flooding, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.9-4: Potential for the project to substantially decrease groundwater supplies or interfere with groundwater recharge

Impact Summary

The Action Alternatives would include new recreation facilities, however only the Proposed Action and the RE Alternative would include the construction of a new groundwater well to serve the proposed Rocky Point campground. Water use at this facility would be minor and a project-level environmental review would include assessment of water demand and groundwater sustainability. Additionally, runoff from new impervious areas created through the action alternatives would infiltrate in adjacent natural areas so no substantial interference with groundwater recharge would occur. Therefore, the implementation of the Proposed Action, the RME Alternative, and the RE Alternative would have a **less-than-significant** impact relative to groundwater recharge and supply, for the purposes of CEQA. The action alternatives would have a greater effect than the No-Action Alternative.

The No-Action Alternative would have **no impact** relative to drainage patterns and floodplains, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged and no new recreation facilities would be constructed. This alternative would retain current facilities and land uses according to current practices and as specified in the Interim RMP. No new wells would be installed, or additional groundwater use would occur. This alternative would have **no impact** related to groundwater supplies or groundwater recharge for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the CSP Proposed Alternative would expand recreation facilities, including those that provide water to users such a campgrounds, day-use facilities, and visitors centers. Where possible, water would be supplied by existing municipal water services. However, the proposed Rocky Point campground in the Auburn Interface could require the construction of a new groundwater well.

As discussed in Impact 4.13-1 (which addresses potential effects related to water demand and supply), the type of recreation facilities included in the CSP Prosed Action require relatively minor amounts of water per user. Additionally, water provided through municipal infrastructure, which is predominantly sourced from surface waters, would have no effect on local groundwater conditions. The construction of a potential well at Rocky Point would use groundwater resources; however, the projected use at this facility would be minor. Well design and construction would comply with a project-level environmental review that would occur when the specific location and characteristics of a proposed well are known. This environmental review would require an assessment of water demand relative to groundwater sustainability. Although the Proposed Action would create new areas of impervious surfaces such as parking lots and rooftop, these improvements would be surrounded by natural environments where stormwater would be allowed to infiltrate, and thus, would not interfere with groundwater recharge.

The Proposed Action would include new recreation facilities, including a possible new groundwater well for the Rocky Point campground. However, water use at this facility would be minor and would comply with a project level environmental review and groundwater assessment when the specific location and characteristics of the well are known. Additionally, runoff from new impervious areas created through the Proposed Action would infiltrate in adjacent natural areas so no interference with groundwater recharge would occur. Therefore, the implementation of the Proposed Action would have a **less-than-significant** impact relative to groundwater recharge and supply, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would not include the construction of facilities that provide water to users. As discussed for the Proposed Action, new areas of impervious surfaces such as parking lots and rooftop would be surrounded by natural environments where stormwater would be allowed to infiltrate and thus would not interfere with groundwater recharge. Therefore, the implementation of the RME Alternative would have a **less-than-significant** impact relative to groundwater recharge and supply, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

The RE Alternative would include new recreation facilities similar to those discussed for the Proposed Action, including a possible new groundwater well for the proposed Rocky Point Campground. Water use at this facility would be minor. Furthermore, the design and construction of a proposed well would comply with a project-level environmental analysis once the specific location and characteristics of a

well are known. This review would require assessment of water demand and groundwater sustainability. Additionally, runoff from new impervious areas created through the RE Alternative would infiltrate in adjacent natural areas so no interference with groundwater recharge would occur. Therefore, the implementation of the RE Alternative would have a **less-than-significant** impact relative to groundwater recharge and supply, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Cumulative effects related to hydrology and water quality should be considered in the context of the American River watershed and groundwater basin. The cumulative plans and projects listed on Table 4.1-2 would implement projects that generate construction-related discharges of sediment and pollutants to receiving waters. Cumulative development projects may include uses that generate pollutants that could be carried into surface or groundwaters. Each cumulative project would be subject to Central Valley RWQCB water quality protections and BMPs, which would protect water resources at the individual project level. In the same way, the potential for cumulative projects to increase stormwater runoff or alter floodplains is controlled by state and federal regulation and agency specific guidance. Groundwater conditions in the American River basin and throughout much of California are in an existing cumulative adverse condition, which could be aggravated through climate change and continued development (Reclamation 2017). Actions would be taken at the regional level to address groundwater sustainability, which could affect projects implemented through the cumulative planning documents. Because the action alternatives would have less-than-significant effects on hydrologic resources, they would also have a **less-than-significant cumulative impact**.

4.10 Hazards and Hazardous Materials

This section evaluates the risk of upset associated with the routine use, storage, and transport of hazardous materials and the potential health consequences that could occur with implementation of the ASRA GP/APL RMP. The following discussion addresses potential impacts posed by these hazards to the environment, as well as to workers and visitors within ASRA/APL; and workers, visitors, and residents adjacent to ASRA/APL.

The analysis of hazards, hazardous materials, and risk of upset, considers published databases containing lists of known and significant hazardous waste/hazardous material sites, such as records from the State Water Resources Control Board (SWRCB) GeoTracker and Department of Toxic Substances Control (DTSC) EnviroStor. The "Naturally Occurring Asbestos" section under Section 2.2 of the GP/RMP and Section 10 on pages 10-5 through 10-8, 10-10 through 10-11, and Exhibits 10-1a through 10-1d of the Existing Conditions Report provide details on the environmental setting related to naturally occurring asbestos (NOA) within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. This section also relies on federal and state laws and regulations regarding the handling of hazardous materials.

One hazardous waste and substances site is located within ASRA/APL (DTSC 2018, SWRCB 2018). The Ruck-A-Chucky Dam military cleanup site was constructed by the U.S. Army Corps of Engineers (USACE) as a civil works project for El Dorado and Placer Counties, beginning in 1938. The dam was never completed. Although the cleanup status is open and inactive as of August 14, 2018, DTSC issued a concurrence with finding of No Department of Defense Actions Indicated (NDAI). No site investigations were ever performed at the former Ruck-A-Chucky Dam and the historical documents do not identify potential sources of contamination (USACE 2011). Therefore, no such hazards to the public or the environment regarding hazardous waste and substances sites would result from implementation of the GP/RMP. This issue is not discussed further.

Several schools are located within 0.25 mile of ASRA/APL. Skyridge Elementary School, located at 800 Perkins Way in Auburn, is 0.25 mile from ASRA/APL. Northside Elementary School, located at 860 Cave Valley Road in Cool, is adjacent to ASRA/APL. Implementation of the GP/RMP would not result in hazardous emissions or the handling of hazardous or acutely hazardous materials other than those typically used in landscaping and used for routine maintenance (such as servicing restrooms). These substances would not pose a hazard to schools. Furthermore, although the two schools are within 0.25 mile of ASRA/APL, construction and operational activities implemented under the GP/RMP would take place farther than 0.25 mile from schools. There would be no impact and this issue is not discussed further.

The Auburn Municipal airport is located approximately 1.75 miles east of ASRA/APL and the Georgetown Airport is located approximately 2 miles south of ASRA/APL. The plan area is outside of the Auburn Municipal Airport's land use compatibility and height review zones, where potential noise, safety, and overflight hazards may occur (Placer County Airport Land Use Commission 2014). ASRA/APL is outside of the Georgetown Airport's airport influence area (El Dorado County Airport Land Use Commission 2012). Furthermore, the GP/RMP does not introduce permanent residents in the plan area, nor would it change existing air traffic patterns or exacerbate airport-related hazards. Therefore, the GP/RMP would not result in a safety hazard related to people residing or working within the vicinity of an airport. This issue is not discussed further.

Geologic hazards, including natural hazards associated with seiches, landslides, and faulting, are discussed in Section 4.7, Geology and Soils. Risks associated with flooding are discussed in Section 4.9, Hydrology and Water Quality. Impacts regarding wildland fires and emergency response and evacuation are discussed in Section 4.17, Wildfire.

4.10.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The impact analysis considers the potential for changes in the nature, extent, and presence of hazardous conditions to occur on site as a result of project construction and operation, including increased potential for exposure to hazardous materials and hazardous conditions. Potential for hazards and hazardous conditions were reviewed in light of existing hazardous materials management laws, emergency response plans, and applicable regulatory requirements.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, a GP/RMP alternative would result in a significant impact regarding hazards, hazardous materials, and risk of upset if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

NEPA Criteria

An environmental document prepared to comply with the National Environmental Policy Act (NEPA) must consider the context and intensity of the environmental effects that would be caused by or result from an alternative. Under NEPA, the significance of an effect is used solely to determine whether an environmental impact statement (EIS) must be prepared.

Environmental Impacts

Impact 4.10-1: Expose the public or environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset

Impact Summary

Implementation of the Proposed Action, RME Alternative, and RE Alternative would involve varying levels of storage, use, and transport of hazardous materials and could result in accidental release of hazardous materials construction of new recreational facilities or infrastructure. During operation, hazardous materials could be used in limited quantities for landscape maintenance and cleaning. Given that the use of hazardous materials in project construction and operation would be typical for recreation land uses and associated construction projects; and because the project would be required to implement and comply with existing federal and state hazardous materials regulations, Guideline FAC 3.2, CSP Standard Project Requirements (SPRs), and the CSP Department Operations Manual (DOM) policies related to hazardous materials, the project would not create significant hazards to the

public or environment through the routine transport, use, and disposal of hazardous materials or from reasonably foreseeable upset and accident conditions.

Portions of ASRA/APL are identified as areas likely to contain NOA. Construction activities in these areas would implement Guideline RES 24.1 and comply with Placer County Air Pollution Control District (PCAPCD), El Dorado County Air Quality Management District (EDCAQMD), and state regulations to reduce hazards associated with NOA.

For the reasons described herein, the action alternatives would result in a **less-than-significant** impact related to hazardous materials, for the purposes of CEQA. The effects from the action alternatives related to hazardous materials would be greater than those of the No-Action Alternative.

Some improvements under the 1992 Interim Resource Management Plan could occur in ASRA/APL resulting in minimal increase in the transport, use, and disposal of hazardous materials or reasonably foreseeable upset and accident conditions in ASRA/APL similar to that which could occur under existing conditions. Therefore, the No-Action Alternative would result in a **less-than-significant** impact, for the purposes of CEQA.

No-Action Alternative

Because the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged and existing facilities and land uses would be retained in the No-Action Alternative. This alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements, and visitation would only increase as a result of population growth in the region (see Section 2.4.2, Key Differences among the Alternatives). Any construction activities would comply with applicable laws and regulations; thus, the potential to create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials or from reasonably foreseeable upset and accident conditions would be similar to existing conditions. Therefore, implementation of the No-Action Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, related to exposing the public or environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in the construction and operation of new recreational facilities and infrastructure, as well as ongoing management activities (i.e., fire management, maintenance, resource protection activities), which would require the routine use, storage, or transport of hazardous materials.

The construction activities associated with implementation of the GP/RMP may involve vegetation removal, grading, excavation, paving, temporary stockpiling of soils, on-site staging of construction equipment and vehicles, and construction-related vehicle trips. These activities would require the use of potentially hazardous materials such as fuels, oils, paints, and solvents. Hazardous materials would generally be used for construction equipment and vehicles and would be contained within vessels engineered for safe storage. Paint would be used on new buildings. Spills during on-site fueling of equipment (i.e., puncture of a fuel tank through operator error or slope instability) could result in a release of hazardous materials into the environment. Storage of large quantities of these materials during construction is not anticipated. However, accidental release of these materials could result in an adverse effect. Additionally, as shown in Exhibits 10-1a through 10-1d of the Existing Conditions Report, portions of ASRA/APL are identified as areas likely to contain NOA and areas within a

quarter mile buffer for found NOA. Ground disturbance activities associated with implementation of the GP/RMP could cause NOA to be released into the air, resulting in health risks. During operation, hazardous materials could be used in limited quantities for landscape maintenance and cleaning.

The potential for hazardous materials-related impacts would be highest in management zones where more intensive construction activities would take place, such as the new campgrounds and trail bridges. New campsites could be constructed in the Knickerbocker, Auburn Interface, Foresthill Divide, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. Two trail bridges are proposed in the GP/RMP: one located at the Greenwood Bridge site in the Cherokee Bar/Ruck-a-Chucky Management Zone and the Auburn-to-Cool trail bridge that would connect trails on both sides of the river in the Auburn Interface Management Zone.

CSP, Reclamation, and their contractors would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations, including Cal/OSHA and DTSC requirements and manufacturer's instructions. Transportation of hazardous materials on area roadways is also regulated by the California Highway Patrol and the California Department of Transportation (Caltrans). Construction activities that would use hazardous materials on site would be required to obtain any required permits and comply with appropriate regulatory agency standards including 22 California Code of Regulations (CCR) Chapter 20 and 24 CCR Chapter 31B, designed to ensure proper use and storage and avoid hazardous materials releases. Compliance with these state hazardous materials regulations provide for safe handling, transport, and storage to avoid accidental release of hazardous materials.

The policies in DOM Chapter 0800, Hazardous Materials, would also be implemented. The DOM is available for review on the general plan website: www.parks.ca.gov/PlanASRA/. These policies would apply to construction activities and operations at ASRA/APL and focus on safe and healthful working conditions for employees, address hazardous spills, and require employee training on hazardous materials handling, spill prevention, and release reporting.

Construction activities associated with new or expanded recreation facilities would be required to implement the mandatory CSP Standard Project Requirements (SPRs) (see Appendix A), tailored specifically for the proposed project. The CSP SPRs include inspecting equipment for leaks before and during construction activities, containment and disposal of contaminated water or other hazardous substances, and preparation of a Storm Water Pollution Prevention Plan (SWPPP), where applicable. The SWPPP would require the implementation of a hazardous materials Spill Prevention and Response Plan (SPRP), which would provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants during construction. Additionally, CSP and/or its contractor would designate and/or locate staging and stockpile areas within an existing maintenance yard area or existing paved areas, such as a parking lot, to prevent leakage of oil, hydraulic fluids, etc.

Regarding NOA, Guideline FAC 3.2 specifies that facilities, trails and other heavily used recreation sites would be located outside of areas that are at high risk for NOA. Guideline RES 24.1 requires future projects that disturb an area greater than 1 acre to comply with Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (Title 17 California Code of Regulations [CCR] Section93105), The El Dorado County Air Quality Management District (EDCAQMD) and Placer County Air Pollution Control District (PCAPCD) regulate fugitive dust emissions, including asbestos dust emissions. EDCAQMD rule 223-2, Fugitive Dust – Asbestos Hazard Mitigation, applies to construction activities in areas where NOA is present and requires an Asbestos

Dust Mitigation Plan and implementation of best management practices (BMPs), such as construction vehicle speed limits, watering of unpaved surfaces, and wet sweeping visible-track out, to reduce and control fugitive dust. PCAPCD also requires that an Asbestos Dust Mitigation Plan be prepared pursuant to contain BMPs. Therefore, it is unlikely that ground disturbance activities would result in the release of NOA into the air. Furthermore, CSP SPRs require development of a Material Management Plan, which would include protocols and procedures that will protect human health and the environment during ground disturbing activities that could result in exposure to metals, dust, and contaminated soil.

Given that the use of hazardous materials in project construction and operation would be typical for recreation land uses; and because future projects would be required to implement and comply with existing federal and state hazardous materials regulations, Guideline FAC 3.2, CSP SPRs, and CSP policies related to hazardous materials, the Proposed Action would not create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials or from reasonably foreseeable upset and accident conditions. In addition, Guideline RES 24.1 would be implemented to minimize the potential for significant affects related to construction-related fugitive dust and NOA dust control. In conclusion, implementation of the Proposed Action would result in a **less-than-significant** impact, for the purposes of CEQA, related to exposing the public or environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset. The effects from the Proposed Action related to hazardous materials would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and conservation of resources. Although fewer new recreational facilities and infrastructure would be constructed as compared to the Proposed Action, implementation of this alternative could result in the construction and removal of some recreation-related facilities, which would involve heavy construction equipment and the use of hazardous materials. Facilities to be removed would include roadside parking in the Confluence Management Zone, OHV tracks and trails in the Mammoth Bar Management Zone, the marina in the Lake Clementine Management Zone, and campsites in the Cherokee Bar/Ruck-a-Chucky Management Zones, which would be restored to native habitat. Given that the types of construction activities are similar to those described above for the Proposed Action, use of hazardous materials and risk of encountering NOA would be similar as well. During operation, hazardous materials could be used in limited quantities for landscape maintenance and cleaning. Because there are fewer new facilities than those proposed in the Proposed Action, the RME Alternative would have a slightly lower potential for accidental release or upset of hazardous materials during the operational phase.

As described above for the Proposed Action, future projects would be required to implement and comply with existing federal and state hazardous materials regulations, Guideline FAC 3.2, CSP SPRs, and CSP policies related to hazardous materials. Therefore, the RME Alternative would not create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials or from reasonably foreseeable upset and accidental conditions. In addition, Guideline RES 24.1 would be implemented, to minimize the potential for significant affects related to construction-related fugitive dust and NOA dust control. In conclusion, implementation of the RME Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, related to exposing the public or environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset. The effects from the RME Alternative related to hazardous materials would be greater than those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in the construction and operation of new recreational facilities and infrastructure, as well as ongoing management activities (i.e., fire management, maintenance, resource protection activities), which would require the routine use, storage, or transport of hazardous materials. In addition to the management zones mentioned for the Proposed Action, the RE Alternative would also construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. Construction activities, operational activities, and the types of hazardous materials used would be similar to those described above for the Proposed Action, however, because of the increased number of new facilities and infrastructure, the RE Alternative would have an increased risk for hazardous materials impacts and risk of encountering NOA compared to the Proposed Action.

As described above for the Proposed Action, future projects would be required to implement and comply with existing federal and state hazardous materials regulations, Guideline FAC 3.2, CSP SPRs, and CSP policies related to hazardous materials. Therefore, the RE Alternative would not create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials or from reasonably foreseeable upset and accidental conditions. In addition, Guideline RES 24.1 would be implemented, to minimize the potential for significant affects related to construction-related fugitive dust and NOA dust control. In conclusion, implementation of the RE Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, related to exposing the public or environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset. The effects from the RE Alternative related to hazardous materials would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Hazards and hazardous materials impacts are project-specific and highly localized because there is low risk for a geographically large and dispersed hazardous material spill or release as a result of the GP/RMP. Therefore, the cumulative hazards and hazardous materials analysis uses the list approach and includes the Maidu Bike Park Project, which is within the APL but outside of ASRA, and the Yankee Jims and Ponderosa Bridge Replacement Projects, which are within ASRA/APL (see Table 4.1-2 in Section 4.1.2, Cumulative Impacts).

The Proposed Action, RME Alternative, and RE Alternative would involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts related to these activities with these alternatives are considered less than significant because the storage, use, disposal, and transport of hazardous materials and accidental release of hazardous materials are extensively regulated by various federal, state, and local agencies, such as Cal/OSHA, DTSC, California Highway Patrol, and Caltrans. The cumulative projects listed in Table 4.1-2 could result in similar activities and resulting hazards. The agencies and applicants involved with the cumulative projects would implement and comply with all applicable hazardous materials regulations. In addition, hazards impacts from the action alternatives would be further reduced with implementation of CSP SPRs, Guideline FAC 3.2, and Guideline RES 24.1, that would minimize the potential for significant affects related to construction activities in areas containing NOA and the use, transport, and disposal of hazardous materials during construction and operation. Because these laws and regulations would also apply to each related cumulative project, this impact would be considered a **less-than-significant cumulative effect**.

4.11 Land Use and Planning

This section includes a discussion of existing land uses and evaluates the potential for implementation of the ASRA GP/APL RMP to conflict with local and regional plans. Although state and federal lands are exempt from city or county land use and zoning regulations, a discussion of potential conflicts with local land use policies is provided, per CEQA and NEPA guidelines.

ASRA/APL is in Placer and El Dorado counties and is designated within the respective general plan documents as Greenbelt/Open Space by Placer County, and Natural Resources and Open Space by El Dorado County (Placer County 2013, El Dorado County 2018). A small portion of the southwestern corner of ASRA/APL is within the City of Auburn, which designates these lands as Open Space and Conservation (City of Auburn 2009). However, ASRA/APL consists of state and federal lands, which are not subject to county or city land use policies or zoning. Section 2.1, Regional Land Uses and Facilities, and Section 2.3, ASRA/APL Land Uses and Facilities, of the GP/RMP provide details on the environmental setting related to land use and planning within ASRA/APL. Section 2 on pages 2-1 through 2-22 of the Existing Conditions Report provide a comprehensive description of the existing land use and planning framework for ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

Certain issues have been eliminated from further investigation in this EIR/EIS where it has been determined that they would either have no impact, or where the threshold is not applicable to this project. Implementation of the GP/RMP would not physically divide an established community because there are no established communities within ASRA/APL. Therefore, this issue is not addressed further. Approximately 106 acres of the APL are outside of ASRA and managed by other entities through separate MPAs. The GP/RMP would not alter land uses within these areas, and therefore these portions of the APL are not discussed in detail.

4.11.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

Although ASRA/APL consists of state and federal lands, which are not subject to local land use policies, CEQA guidelines and NEPA regulations require a discussion of inconsistencies or conflicts between a proposed action and local and regional plan goals and policies. To this end, the GP/RMP was reviewed vis a vis the Placer County General Plan, the El Dorado County General Plan, and City of Auburn General Plan.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact on land use and planning if it would:

- cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the alternatives. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. Where necessary, mitigation measures are specified to minimize potentially adverse or adverse impacts.

Environmental Impacts

Impact 4.11-1: Consistency with adopted plans and policies

Impact Summary

ASRA/APL consists of state and federal lands administered by Reclamation and CSP. The purpose of the GP/RMP is to preserve and make available to the public the recreational, scenic, natural, and cultural values of ASRA/APL, while recognizing that Congress may determine that an Auburn Dam and Reservoir may be constructed at some time in the future. Reclamation's purpose is to preserve APL for potential future construction of the Auburn Dam and Reservoir for water supply and hydropower generation. This would be consistent with Reclamation and CSP policies and actions related to providing recreation opportunities; improving the use, safety, and condition of existing parks; and consideration of a full range of land management uses including protection of cultural resources, public access, recreation, and resource conservation. ASRA/APL is designated as Greenbelt/Open Space by Placer County, Natural Resources and Open Space by El Dorado County, and Open Space and Conservation by the City of Auburn.

The GP/RMP alternatives identify land use designations for each management zone and activity node in ASRA/APL. Although the acreage of lands under each land use classification would vary depending on alternative, ASRA/APL land uses would allow various levels of recreation use and facilities such as campgrounds, picnic areas, administrative and maintenance facilities, paddlecraft launch areas, restrooms, visitor contact/interpretive facilities, trailheads, trail bridges, and parking, which are consistent with the typical uses and facilities allowed within Placer County, El Dorado County, and the City of Auburn's land use designations and would not be incompatible with adjacent land uses, which are generally low- to medium-density residential, agriculture/forestry, and natural resources.

It is possible that implementation of the alternatives could conflict with specific general plan policies. However, a conflict with a specific policy does not alone constitute an "inconsistency" with a land use plan, nor does it indicate that a significant environmental impact would occur. The environmental effects of any policy conflicts are addressed in the individual resource sections in Chapter 4, Environmental Consequences and Mitigation, of this EIR/EIS. ASRA GP/APL RMP goals and guidelines, CSP Standard Project Requirements (SPRs), BMPs and mitigation is incorporated to avoid or minimize significant effects. Furthermore, local agencies have been involved in the preparation of the GP/RMP and would continue to coordinate with Reclamation and CSP throughout project implementation to maintain consistency with local land use policies to the extent feasible. For these reasons, implementation of the No-Action Alternative, Proposed Action, RME Alternative, and RE Alternative would have a **less-than-significant** impact related to conflicts with any land use plan, policy, or regulation, for the purposes of CEQA. The effects from the Proposed Action, RME Alternative, and RE Alternative related to land use and planning would be the same as those of the No-Action Alternative.

ASRA/APL consists of mostly federal lands administered by Reclamation as well as a smaller amount of state fee title lands. As described in the Existing Conditions Report (CSP and Reclamation 2016), the *Reclamation Manual* contains mandatory policies relating to land use, and CSP's *Statewide Comprehensive Outdoor Recreation Plan* (SCORP) contains statewide actions to address California's park and recreation needs (CSP 2015).

The purpose of the GP/RMP is to preserve and make available to the public for their enjoyment and inspiration the outstanding recreational, scenic, natural, and cultural values of the North and Middle Forks of the American River, Lake Clementine, the steep river canyons, and associated upland areas, while recognizing that Congress may determine that an Auburn Dam and Reservoir may be constructed at some time in the future. Reclamation's purpose for the ASRA GP/APL RMP is to preserve ASRA/APL for potential future construction of the Auburn Dam and Reservoir for water supply and hydropower generation. The GP/RMP would be consistent with Reclamation and CSPs policies and actions regarding provisioning of recreation opportunities; improving the use, safety, and condition of existing parks; and consideration of a full range of land management uses including cultural, public access, recreation, and resource conservation. Reclamation Policy LND P04, Recreation Program Management, requires consideration of other planning documents and adjacent land uses. Thus, although state and federal lands are exempt from city or county land use designations, a comparison to the Placer County, El Dorado County, and City of Auburn's land use designations is provided below for each alternative.

The land use classifications in the GP/RMP alternatives include Administration, OHV (High and Medium Intensity), Recreation (High and Medium Intensity), and Resources (Low Recreation Intensity-). Specific definitions of these land use classifications are provided in Chapter 4, The Plan, of the GP/RMP. The acreage of each land use type within ASRA/APL would vary based on the alternative selected.

Although Placer County's *General Plan Land Use* map does not provide a land use designation for ASRA/APL because it is state and federal land, the *Generalized Land Use* map categorizes ASRA/APL as Greenbelt/Open Space. The Greenbelt/Open Space generalized land use category encompasses multiple land use designations including Greenbelt and Open Space, Resorts and Recreation, and Water Influence, which are intended to identify and protect lands in Placer County for the purposes of watershed preservation, recreation, and wilderness or wildlife/environmental preserves. GP/RMP land use classifications would consist of recreation uses and facilities such as campgrounds, picnic areas, administrative and maintenance facilities, paddlecraft launch areas, restrooms, visitor interface/interpretive facilities, trailheads, trail bridges, and parking. These uses would be consistent with the typical land uses allowed within Placer County's Greenbelt/Open Space generalized land use category, which are limited to low-intensity public recreational uses, public utility and safety facilities, parks, camping facilities, resort facilities, marinas, and boat launching areas.

El Dorado County designates portions of ASRA/APL as Natural Resources and as Open Space. The Natural Resource designation identifies areas that contain economically viable natural resources and protects the managed conservation of these resources. The Open Space designation is for public lands under governmental title (e.g., county, CSP, Reclamation, U.S. Forest Service), where no development other than that specifically needed for government-related open space uses is desired. This land use includes state parks, ecological preserves, and public lands acquired specifically for open space uses. ASRA GP/APL RMP land uses would be consistent with El Dorado County's land use designations because it is a state park where recreational uses would be balanced with managed conservation of natural resources.

The City of Auburn designates the portions of ASRA/APL as Open Space and Conservation. This designation is for lands that should be generally maintained in an open or undeveloped state, or be developed for permanent open uses, such as parks or greenbelts. Permitted uses include agricultural uses, wildlife sanctuaries, and parks. GP/RMP land uses would be consistent with the City of Auburn's zoning because it would balance recreational uses with managed conservation of natural resources.

No-Action Alternative

The No-Action Alternative retains current facilities and land uses within ASRA/APL as specified in the 1992 Interim Resource Management Plan and would not stimulate land use changes or construction of new recreational amenities. As shown in Table 2-1 in Chapter 2 of this EIR/EIS, under the No-Action Alternative, land use within ASRA/APL would consist of 19 acres of Administration, 47 acres of OHV - High, 1,123 acres of OHV - Medium, 547 acres of Recreation-High, 7,863 acres of Recreation - Medium, and 21,013 acres of Resources - Low Recreation. These types of land uses are intended to support various intensities of outdoor recreation as well as resource management and conservation, which would be consistent with Placer County, El Dorado County, and the City of Auburn's land use designations.

It is possible that implementation of the No-Action Alternative may conflict with specific general plan policies. However, a conflict with a specific policy does not alone constitute an "inconsistency" with a land use plan, nor does it indicate that a significant environmental impact would occur. The environmental effects of any policy conflicts are addressed in the individual resource sections in Chapter 4, Environmental Consequences and Mitigation, of this EIR/EIS. ASRA GP/APL RMP goals and guidelines, CSP Standard Project Requirements (SPRs), BMPs and mitigation is incorporated and/or implemented as necessary to avoid or minimize significant effects. Furthermore, local agencies have been involved in the preparation of the ASRA GP/APL RMP and Reclamation and CSP would continue to coordinate with local agencies throughout project implementation to maintain consistency with local land use policies to the extent feasible while recognizing that state and federal lands are exempt from city or county land use and zoning regulations. Consequently, the No-Action Alternative would have a **less-than-significant** impact due to conflicts with any land use plan, policy, or regulation, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in recreational uses and facilities similar to what is currently provided in ASRA/APL. As shown in Table 2-1 in Chapter 2 of this EIR/EIS, under the Proposed Action, land use within ASRA/APL would consist of 18 acres of Administration, 136 acres of OHV - High, 1,034 acres of OHV - Medium, 756 acres of Recreation - High, 11,616 acres of Recreation - Medium, and 17,052 acres of Resources - Low Recreation. In addition, there are 106 acres of APL outside of ASRA that are managed by other agencies, the land uses of which would not be altered by the GP/RMP. This would result in a decrease in land used for Administration, OHV - Medium, and Resources - Low Recreation; and an increase in land used for OHV - High, Recreation - High, and Recreation - Medium relative to existing land uses. Although the land use designations of certain areas and acreage would change, the overall types of land use within ASRA/APL would remain the same. These types of land uses are intended to support various types of outdoor recreation as well as resource management and conservation, which would be consistent with Placer County, El Dorado County, and the City of Auburn's land use designations.

It is possible that implementation of the Proposed Action may conflict with specific general plan policies. However, a conflict with a specific policy does not alone constitute an "inconsistency" with a land use plan, nor does it indicate that a significant environmental impact would occur.

Furthermore, local agencies have been involved in the preparation of the GP/RMP, and Reclamation and CSP would continue to coordinate with local agencies throughout project implementation to maintain consistency with local land use policies to the extent feasible while recognizing that state and federal lands are exempt from city or county land use and zoning regulations. For the reasons stated in the No-Action Alternative above, the Proposed Action would have a **less-than-significant** impact due to conflicts with any land use plan, policy, or regulation, for the purposes of CEQA. The effects from the Proposed Action related to land use and planning would be the same as those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would result in both the removal of and construction of new recreational facilities, as well as changes in land use acreage. As shown in Table 2-1 in Chapter 2 of this EIR/EIS, under the RME Alternative, land use within ASRA/APL would consist of 19 acres of Administration, 0 acres of OHV-High, 0 acres of OHV-Medium, 351 acres of Recreation-High, 9,229 acres of Recreation-Medium, and 21,013 acres of Resources-Low Recreation. Implementation of the RME Alternative would result in no land designated as OHV - High or OHV - Medium. Compared to existing conditions, implementation of this alternative would result in a decrease in land used for OHV - High, OHV - Medium, and Recreation - High with an increase in land used for Recreation - Medium. Although the land use designations of certain areas and acreage would change, the overall types of land use within ASRA/APL would remain the same. These types of land uses are intended to support various types of outdoor recreation as well as resource management and conservation, which would be consistent with Placer County, El Dorado County, and the City of Auburn's land use designations.

It is possible that implementation of the RME Alternative may conflict with specific general plan policies. However, a conflict with a specific policy does not alone constitute an "inconsistency" with a land use plan, nor does it indicate that a significant environmental impact would occur. Furthermore, local agencies have been involved in the preparation of the GP/RMP, and Reclamation and CSP would continue to coordinate with local agencies throughout project implementation to maintain consistency with local land use policies to the extent feasible while recognizing that state and federal lands are exempt from city or county land use and zoning regulations. For the reasons stated in the No-Action Alternative above, the RME Alternative would have a **less-than-significant impact** due to conflicts with any land use plan, policy, or regulation, for the purposes of CEQA. The effects from the RME Alternative related to land use and planning would be the same as those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to what is currently provided in ASRA/APL, as well as changes in land use acreage. As shown in Table 2-1 in Chapter 2 of this EIR/EIS, under the RE Alternative, land use within ASRA/APL would consist of 18 acres of Administration, 136 acres of OHV - High, 1,034 acres of OHV - Medium, 1,797 acres of Recreation - High, 10,575 acres of Recreation - Medium, and 17,052 acres of Resources - Low Recreation. This would result in a decrease in land used for Administration, OHV - Medium, and Resources - Low Recreation; and an increase in land used for OHV - High, Recreation - High, and Recreation - Medium relative to existing land uses. Although the land use designations of certain areas and acreage would change, the overall types of land use within ASRA/APL would remain the same. These types of land uses are intended to support various types of outdoor recreation as well as resource management and conservation, which would be consistent with Placer County, El Dorado County, and the City of Auburn's land use designations.

It is possible that implementation of the RE Alternative may conflict with specific general plan policies. However, a conflict with a specific policy does not alone constitute a "inconsistency" with a land use plan, nor does it indicate that a significant environmental impact would occur. Furthermore, local agencies have been involved in the preparation of the GP/RMP, and Reclamation and CSP would continue to coordinate with local agencies throughout project implementation to maintain consistency with local land use policies to the extent feasible while recognizing that state and federal lands are exempt from city or county land use and zoning regulations. For the reasons stated in the No-Action Alternative above, the RE Alternative would have a **less-than-significant** impact related to conflicts with any land use plan, policy, or regulation, for the purposes of CEQA. The effects from the RE Alternative related to land use and planning would be the same as those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Because land use designations are inherently long-term cumulative designations, there would be no cumulative impacts associated with land use and planning in addition to the impacts discussed above.

4.12 Transportation and Circulation

This section includes a discussion of existing transportation and circulation conditions, a summary of applicable transportation regulations, and an analysis of potential transportation and circulation impacts that could result from implementation of the ASRA GP/APL RMP. This section is based on the *Transportation Study for the Auburn State Recreation Area General Plan and Auburn Project Lands Resource Management Plan (2019)* (Transportation Study) completed by Fehr & Peers and provided in Appendix E.

The existing conditions within the study area are described in detail in Appendix E. Section 2.1.3, Regional Transportation System, and Section 2.3.4, Transportation and Circulation, of the ASRA/APL GP/RMP and Section 11, Transportation and Circulation, on page 11-1 of the Existing Conditions Report provide details on the environmental setting related to transportation and circulation within and adjacent to ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

None of the alternatives would result in the construction of new roads. All improvements to existing roadways associated with future projects within ASRA/APL would be constructed in accordance with applicable design and safety standards. Thus, the project would not increase hazards because of a design feature or incompatible uses. The nearest airports to ASRA/APL are the Auburn Municipal Airport and the Georgetown Airport located approximately 2 miles northwest and southeast of the project site, respectively. ASRA/APL is not located within the airport land use compatibility plan for either airport. Thus, the project would not have impacts on air traffic, and would not result in incompatible uses in the study area. Therefore, these topics are not analyzed in detail.

4.12.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The following scenarios are analyzed in this EIR/EIS:

- Existing Conditions – represents the baseline condition, upon which project impacts are measured.
- Existing Plus Project Conditions – reflects changes in travel conditions associated with implementation of the GP/RMP relative to the baseline condition.
- Cumulative Conditions – reflects conditions for a cumulative (year 2036) scenario, which includes planned development and transportation improvement projects in and around ASRA/APL, without implementation of the GP/RMP.
- Cumulative Plus Project Conditions – represents conditions for a cumulative (year 2036) scenario, which includes planned development and transportation improvement projects in and around ASRA/APL, with implementation of the GP/RMP.

Figure 4.12-1 shows the study area and the associated intersections and roadway segments analyzed in this section.

Traffic operations are analyzed using level of service (LOS) as the primary measure of performance. Automobile LOS is a qualitative description of traffic flow from the perspective of motorists. The *Highway Capacity Manual (HCM) 6th Edition* defines six levels of service from LOS A representing the least congested traffic conditions to LOS F representing the most congested traffic conditions (Transportation Research Board 2016). These grades are an indication of the comfort and convenience from the perspective of the driver, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

All intersections were analyzed using procedures and methodologies contained in the HCM 6th Edition. These methodologies were applied using Synchro (Version 10), a traffic operations analysis software package. Synchro considers traffic volumes, lane configurations, signal timings, signal coordination, and other pertinent parameters of intersection operations.

Intersection Operations

Intersection LOS is based on the control delay experienced by motorists traveling through the intersection.

Signalized Intersections

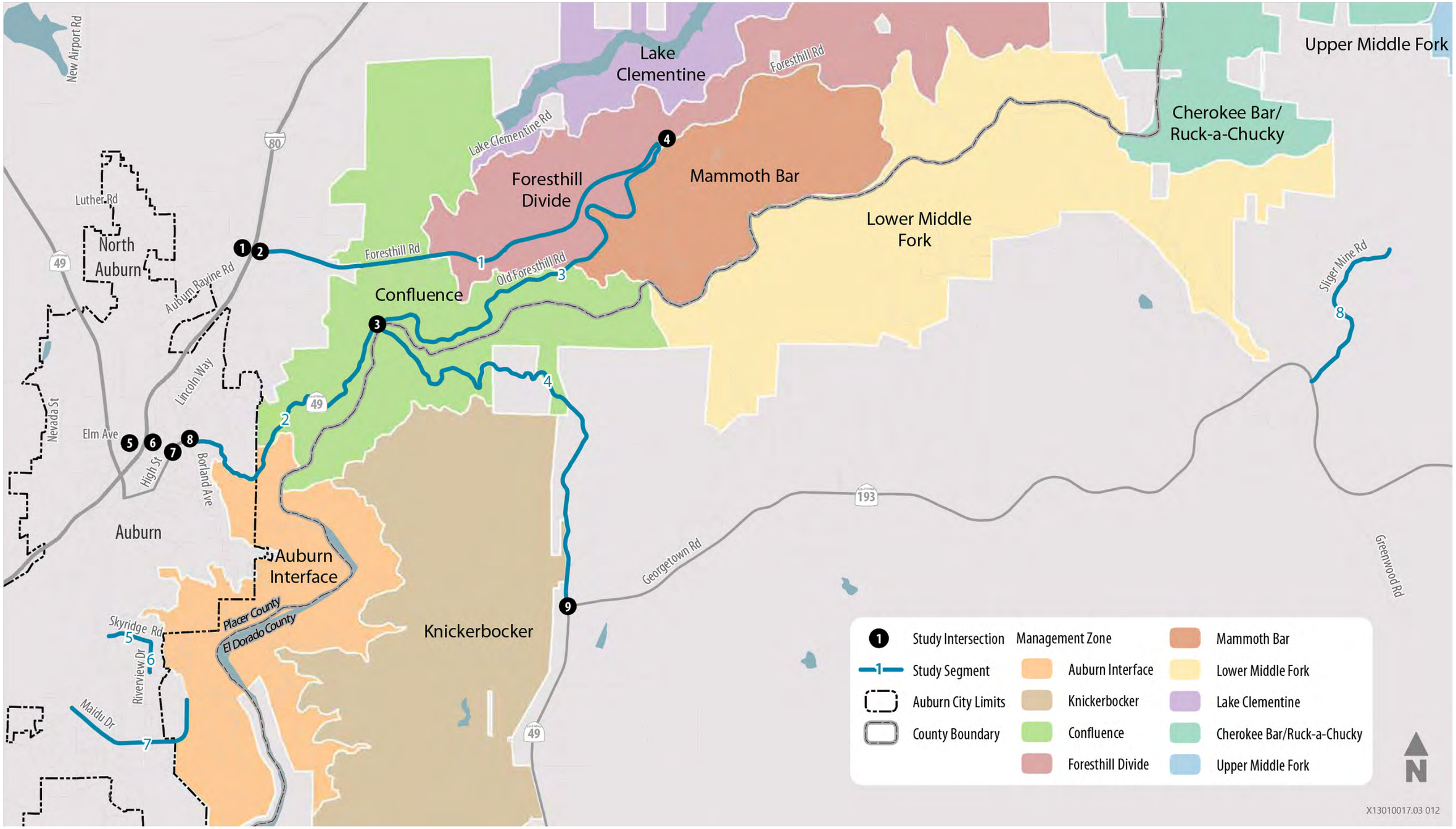
Signalized intersection LOS is based on the weighted average control delay measured in seconds per vehicle for the overall intersection. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Table 4.12-1 presents the delay range for each LOS classification for signalized intersections. Note that in addition to these delay ranges, if an intersection experiences a volume-to-capacity (v/c) ratio that exceeds 1.0, it represents failure (i.e., LOS F) from a capacity perspective regardless of the delay.

Table 4.12-1 Level of Service Definitions – Signalized Intersections

Level of Service	Description	Average Control Delay[1]
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short. Most vehicles arrive during the green phase and travel through the intersection without stopping.	≤ 10
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10 to ≤ 20
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to ≤ 35
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35 to ≤ 55
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to ≤ 80
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80

[1] Average control delay presented in seconds per vehicle.

Source: Transportation Research Board 2016



Source: Image provided by Fehr & Peers in 2018

Figure 4.12-1 Project Study Intersections and Roadway Segments

Unsignalized Intersections

Like signalized intersections, the HCM methodology for unsignalized intersections reports the LOS based on the control delay experienced by motorists traveling through the intersection. For intersections under California Department of Transportation (Caltrans) jurisdiction, this analysis reports the weighted average control delay for all motorists traveling through the intersections, as prescribed by the HCM 6th Edition. There are no side-street stop-controlled study intersections under El Dorado County jurisdiction. For side-street stop-controlled intersections under Placer County jurisdiction, this analysis reports the weighted average control delay for movements that yield the right-of-way, as described in the *Placer County Department of Public Works Impact Analysis Methodology of Assessment* memorandum (Fehr & Peers 2019; also see Appendix E). The delay ranges and LOS criteria for unsignalized intersections differ somewhat from the criteria for signalized intersections, primarily because user perceptions differ between these facility types. Users expect that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users as delays are less predictable than they are at signals. Table 4.12-2 presents the delay range for each LOS for unsignalized intersections.

Table 4.12-2 Level of Service Criteria – Unsignalized Intersections

Level of Service	Control Delay (Seconds per Vehicle)[1]
A	≤ 10
B	>10 to ≤ 15
C	>15 to ≤ 25
D	>25 to ≤ 35
E	>35 to ≤ 50
F	>50

[1] Control delay presented in seconds per vehicle. Delay values are rounded to the nearest second and evaluated for LOS based on the above thresholds (i.e., 10 seconds per vehicle = LOS A)

Source: Transportation Research Board 2016

Roadway Operations

Caltrans roadway segments were analyzed with HCM 6th Edition methodology using HCS7 software. Within El Dorado County, analysis was conducted in accordance with peak hour volume thresholds from the *El Dorado County Community Development Agency Transportation Impact Study Guidelines* (El Dorado County 2014). For a detailed description of the methodology used see Appendix E. Table 4.12-3 presents the peak hour roadway segment LOS thresholds for El Dorado County.

Table 4.12-3 Roadway Segment Level of Service Thresholds – El Dorado County

Roadway Type	Peak-Hour Two-Way Volume Thresholds				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-lane Arterial[1]	-	-	640	1,310	1,510

[1] LOS based on HCM 6th Edition, Exhibit16-16, Class II Rolling, K-factor of .09, D-factor of 0.6, and posted speed limit of 45 miles per hour.

Sources: El Dorado County 2018

Within Placer County, analysis was conducted in accordance with daily traffic volume thresholds established in the *Placer County Countywide General Plan EIR* (Placer County 1994). Table 4.12-4 presents these daily traffic volume LOS thresholds. All Placer County study roadway segments most closely match the definition of a "high access controlled" arterial (as opposed to a "low access controlled" or "moderate access controlled" arterial).

Table 4.12-4 Roadway Segment Level of Service Thresholds – Placer County

Roadway Type	Daily Two-Way Volume Thresholds				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-lane Arterial – High Access Control[1]	12,000	14,000	16,000	18,000	20,000

[1] High access controlled arterials are defined in the Countywide General Plan Final EIR as roadways with 1-2 stops per mile, limited driveway access, and speeds of 35 to 50 mph.

Source: Placer County 1994

Within the City of Auburn, analysis was conducted in accordance with daily traffic volume thresholds established in the *City of Auburn General Plan EIR* (1993*).* The Maidu Drive study segment is identified as a collector in the *General Plan EIR.* Table 4.12-5 presents these daily traffic volume LOS thresholds.

Table 4.12-5 Roadway Segment Level of Service Thresholds – City of Auburn

Roadway Type	Daily Two-Way Volume Thresholds				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-lane Collector	-	11,610	16,650	18,720	20,070

Source: City of Auburn 1993

The *City of Auburn General Plan EIR* also uses the Traffic Infusion on Residential Environments (TIRE) index to describe the relative effect of additional vehicular traffic on residential streets. Skyridge Drive and Riverview Drive are residential local street segments. TIRE is expressed by index values that range from zero, representing the least effect of traffic, to five, representing the most severe effect. According to TIRE, a given change in street traffic volume will cause a greater impact on a street with low pre-existing traffic volumes than it will on a street with higher preexisting traffic volumes. Streets with TIRE levels above the midrange of 3.0 are considered to be traffic dominated, while those with indexes below 3.0 are considered to be better suited for residential activities. Conversion of a residential street index value (<3) to a traffic dominated street index value (>3) is considered a significant impact.

Trip Generation

Overall peak trip generation for ASRA/APL occurs during the Saturday midday peak period. This section also includes evaluation of weekday a.m. and p.m. peak periods when peak demands on the transportation system occur.

The *Institute of Transportation Engineers Trip Generation Manual* 10th edition (ITE 2017) provides weekday a.m. and p.m. peak hour trip generation rates for camping facilities. However, no such rates are provided for the day-use facilities that could be developed. The mixed nature of the day-use

activities in ASRA/APL, and the widely dispersed access points for these activities makes trip generation rates by activity difficult to measure and calculate individually. Consequently, for day-use activities (activities other than camping), the analysis incorporates measured parking arrivals and departures to estimate trip generation.

Day-Use Activities

A detailed description of the methodology used to develop the trip generation estimates for day-use activities is located on pages 28 through 30 of the Transportation Study provided in Appendix E. The trip generation estimates resulting from this analysis are expected to be conservative in that they likely overestimate trip generation associated with the alternatives. These trip rates are also shown in Table 4.12-6.

Table 4.12-6 ASRA/APL Day-Use Activities Trip Generation Rates

Land Use	Quantity	Weekday Trip Rates							Saturday Trip Rates			
		Daily Trip Rate per Parking Space	a.m. Peak Hour			p.m. Peak Hour			Daily Trip Rate per Parking Space	Midday Peak Hour		
			In	Out	Total	In	Out	Total		In	Out	Total
Day-Use Activities	Parking spaces	6.92	52%	48%	0.30	48%	52%	0.68	10.89	58%	42%	0.76

Source: Fehr & Peers 2019

Campgrounds

The ITE *Trip Generation Manual* provides trip generation rates for the land use category "Campground / Recreational Vehicle Park" for weekday peak hours. However, the manual provides no rate for the Saturday peak hour. To estimate this rate, the ratio of the Saturday midday peak hour trip rate to the weekday p.m. trip rate for day-use activities was used to estimate the camping Saturday midday peak hour trip rate. The resulting trip rates are shown in Table 4.12-7. Note that trip rates in Table 4.12-7 are average trip rates and will vary depending on the number of campsites.

To estimate daily trip generation rates, the same methodology as for the day-use activities was applied. These trip rates are also shown in Table 4.12-7. Group campsites were evaluated as equivalent to five regular campsites.

Table 4.12-7 ASRA/APL Camping Trip Generation Rates

Land Use	Quantity	ITE Land Use Code	Weekday Trip Rates							Saturday Trip Rates			
			Daily	a.m. Peak Hour			p.m. Peak Hour			Daily	Midday Peak Hour		
				In	Out	Total	In	Out	Total		In	Out	Total
Campgrounds[1]	Occupied camp sites	416	3.95	36%	64%	0.25	65%	35%	0.27	6.10	51%	49%	0.83

[1] Weekday peak hour trip rates for campground obtained from *Trip Generation 10th Edition* (ITE 2017).

Source: Fehr & Peers 2019

Table 4.12-8 shows the total additional trips generated for each alternative, including both day-use activities and camping trips.

Table 4.12-8 Total Trips Generated by Alternative- Day-use Activities and Camping Trips

Management Zone	Weekday Trips							Saturday Trips			
	Daily	a.m. Peak Hour			p.m. Peak Hour			Daily	Midday Peak Hour		
		In	Out	Total	In	Out	Total		In	Out	Total
No-Action Alternative	0	0	0	0	0	0	0	0	0	0	0
Proposed Action	4,231	98	107	205	205	197	402	6,507	270	205	475
RME Alternative	544	12	15	28	25	22	48	850	43	36	80
RE Alternative	5,623	127	150	277	261	242	502	8,800	431	355	786

Source: Fehr & Peers 2019; Ascent Environmental 2018

Trip Distribution and Assignment

The distribution of project trips was estimated using the following sources and analytical techniques:

- Traffic assignment using the Sacramento Area Council of Governments (SACOG) Sacramento Regional Travel Demand Model (SACMET).
- Review of existing travel patterns within the study area using traffic counts collected in August 2018.
- Relative travel time/speed comparisons between the management zones and key travel corridors for various routes.

Table 4.12-9 displays the expected distribution of inbound and outbound project trips to and from management zones estimated using the above sources and techniques. See Figure 4.12-1 for a depiction of the Management Zones and study segment intersections. Project trips were assigned to the study intersections and roadway segments in accordance with the trip generation and distribution methodologies discussed above. Not all management zones are included in Table 4.12-9 because, due to their location, trips from some management zones are not expected to traverse the study intersections or roadway segments.

Table 4.12-9 Project Trip Distribution by Management Zone

Management Zone	I-80 north of Foresthill Road	I-80 south of Elm Avenue	SR 49 south of SR 193	SR 193 east of SR 49	Foresthill Road east of Old Foresthill Road	Bowman Road north of Auburn Ravine Road	Elm Avenue west of I-80
Knickerbocker	14%	25%	10%	15%	3%	0%	12%
Auburn Interface	14%	25%	10%	15%	3%	0%	12%
Foresthill Divide	22%	37%	0%	0%	15%	13%	0%
Mammoth Bar	12%	29%	10%	15%	10%	3%	6%
Lower Middle Fork	12%	26%	11%	15%	0%	0%	20%
Cherokee Bar / Ruck-a-Chucky	12%	24%	0%	16%	0%	2%	9%

Trip distribution percentages do not add up to 100% because some trips go to / come from minor roadways.

Source: Fehr & Peers 2019

Vehicle Miles Traveled

Senate Bill (SB) 743, passed in 2013, requires the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR has submitted updated CEQA Guidelines to the State Natural Resources Agency for formal rulemaking to implement SB 743. The guidelines indicate that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. However, local agencies will have an opt-in period until July 1, 2020 to implement the updated guidelines now that they have been formally adopted. While this EIR/EIS is not required to analyze changes in VMT, estimates of the net increases in average daily VMT are presented below to fully disclose the effects of the alternatives.

The current average trip length generated by ASRA/APL is estimated to be approximately 27.5 miles (see Appendix A for detailed methodology and calculations). Using the average trip length and estimated project generated Average Daily Traffic (ADT), the estimated net increase in average daily VMT generated by each alternative is as follows:

- No-Action Alternative: 22,569 VMT
- Proposed Action: 26,330 VMT
- Resource Management Emphasis (RME) Alternative: 22,569 VMT
- Recreation Emphasis (RE) Alternative: 33,853 VMT

Detailed calculations are shown in Appendix A.

Significance Criteria

CEQA Criteria

The significance criteria used to evaluate project impacts to transportation and circulation under CEQA are based on Appendix G of the State CEQA Guidelines, thresholds of significance from applicable general plans and previous environmental documents, and professional judgment. The following describes the significance criteria used to identify impacts to the transportation and circulation system for the project.

Intersection Operations

Impacts to intersection operations would be significant if the project would:

- Cause an intersection under Caltrans jurisdiction to worsen from an acceptable LOS D or better to an unacceptable LOS E or F during the a.m. or p.m. peak hours.

- Cause an intersection under Caltrans jurisdiction that is currently (or projected to be) operating at an unacceptable LOS E or F during the a.m. or p.m. peak hours to experience an increase in overall average intersection delay of 1 second or greater.

- Cause a signalized intersection or roadway in Placer County to worsen from an acceptable LOS to an unacceptable LOS during the a.m. or p.m. peak hours.

- Cause a signalized intersection in Placer County that is currently (or projected to be) operating at an unacceptable LOS during the a.m. or p.m. peak hours to experience an increase in the overall average intersection delay of 4 seconds or greater.
- Cause an unsignalized intersection in Placer County to worsen from an acceptable LOS to an unacceptable LOS during the a.m. or p.m. peak hours and cause the intersection to meet the Manual on Uniform Traffic Control Devices (MUTCD) peak hour traffic signal warrant.
- Cause an unsignalized intersection in Placer County that is currently (or projected to be) operating at an unacceptable LOS during the a.m. or p.m. peak hours and meets the MUTCD peak hour traffic signal warrant to experience a 2.5-second or greater increase in delay.
- Cause an intersection or roadway in the City of Auburn to worsen from an acceptable LOS to an unacceptable LOS during the a.m. or p.m. peak hours.

Roadway Segment Operations

Impacts to roadway segment operations would be significant if the project would:

- Cause a roadway under Caltrans jurisdiction to worsen from an acceptable LOS D or better to an unacceptable LOS E or F during the a.m. or p.m. peak hours.
- Cause a roadway under Caltrans jurisdiction that is currently (or projected to be) operating at an unacceptable LOS on a daily basis to experience an increase in v/c ratio of 0.01 or greater.
- Cause a county road or state highway in El Dorado County to worsen from an acceptable LOS or v/c ratio to an unacceptable LOS or volume/capacity ratio during the a.m. or p.m. peak hours.
- Cause a roadway in El Dorado County that is currently (or projected to be) operating at an unacceptable LOS on a daily basis to experience a two (2) percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily.
- Increase the ADT volume by 100 or more project generated trips on a roadway segment in El Dorado County that is currently (or projected to be) operating at an unacceptable LOS.
- Increase the a.m. or p.m. peak hour traffic volume by 10 or more project generated trips on a roadway segment in El Dorado County that is currently (or projected to be) operating at an unacceptable LOS.
- Cause a roadway in Placer County that is currently (or projected to be) operating at an unacceptable LOS on a daily basis to experience an increase in v/c ratio of 0.05 or greater.
- Increase the ADT volume by 100 or more project generated trips per lane on a roadway segment in Placer County that is currently (or projected to be) operating at an unacceptable LOS.
- Cause an increase in delay on a roadway in the City of Auburn that is currently (or projected to be) operating at an unacceptable LOS.
- Cause conversion of a residential street to a traffic-dominated TIRE index (greater than 3.0).

Bicycle and Pedestrian Facilities

Impacts to bicycle and pedestrian facilities would be significant if the project would:

- Not meet the policies related to bicycle or pedestrian travel outlined in the El Dorado County General Plan, Placer County General Plan, or City of Auburn General Plan.
- Interfere with the operation of an existing bicycle facility or preclude the construction of a planned bicycle facility in the El Dorado County General Plan, Placer County General Plan, City of Auburn General Plan. El Dorado County Bicycle Transportation Plan, Placer County Regional Bikeway Plan, or City of Auburn Bikeway Master Plan.
- Interfere with the operation of an existing pedestrian facility or preclude the construction of a planned pedestrian facility.

Transit System

Impacts to the transit system would be significant if the project would:

- Not meet the policies related to transit travel outlined in the El Dorado County General Plan, Placer County General Plan, or City of Auburn General Plan.
- Interfere with the operation of an existing transit facility or preclude the construction of a planned transit facility.
- Have a negative impact on transit operations, travel times, and/or circulation.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. Where necessary, mitigation measures are specified to minimize potentially adverse or adverse impacts from the proposed action.

Environmental Impacts

Impact 4.12-1: Impacts on intersection operations

Impact Summary

All study intersections would continue to operate at an acceptable LOS with the addition of traffic generated by the No-Action Alternative, Proposed Action, and RME Alternative. Therefore, the impacts to intersection operations under the No-Action Alternative, Proposed Action, and RME Alternative would be **less than significant** for the purposes of CEQA. The effects of the Proposed Action would be similar to, but greater than, the No-Action Alternative. The effects of the RME Alternative would be the same as the No-Action Alternative.

Traffic volumes would be higher under the RE Alternative compared to the Proposed Action, and thus, the addition of project trips to the study intersections could potentially result in the degradation of LOS to unacceptable levels. Therefore, this impact would be **potentially significant** for the purposes of CEQA. After implementation of Mitigation Measure 4.12-1, this impact would be reduced to a **less-than-significant** level, for the purposes of CEQA, but the effect would remain greater than under the No-Action Alternative.

No-Action Alternative

Under the No-Action Alternative the existing facilities and land uses would be retained and the types of improvements that could occur would include maintenance of existing facilities; modifying existing parking to enhance public safety; and realignment, reconstruction, or removal of existing trail routes. None of the improvements that could occur under the No-Action Alternative would result in the generation of new operational vehicle trips; however, the continuing population growth in the region would contribute to an increase in annual visitation under the No-Action Alternative.

The No-Action Alternative would result in no new trip-generating facilities; and thus, would result in a lower increase of new project-generated vehicle trips. Therefore, traffic volumes would be lower under the No-Action Alternative than the Proposed Action. As described below for the Proposed Action, all study intersections would continue to operate acceptably during the weekday a.m., weekday p.m., and weekend midday peak periods. Therefore, impacts related to study intersection operations under the No-Action Alternative would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The existing plus project scenario assumes full build-out of the Proposed Action and layers the additional trips generated under the Proposed Action on top of existing 2018 trip levels using the previously discussed trip distribution estimates. Table 4.12-10 summarizes the results of the intersection analysis. Existing Plus Project traffic volumes and detailed calculations are shown in Appendix E.

Table 4.12-10 Intersection Operations – Proposed Action Existing Plus Project Conditions

Intersection	Jurisdiction	Traffic Control	Peak Hour	LOS[1] / Delay[2] (s)	
				Existing Conditions	Existing Plus Project Conditions
1. Auburn Ravine Road/I-80 WB On-Ramp/Bowman Road	Caltrans	Signal[3]	Weekday a.m.	B / 15	B / 15
			Weekday p.m.	B / 19	B / 19
			Weekend MD	B / 18	B / 18
1a. Auburn Ravine Road/I-80 WB Off-Ramp	Caltrans	Signal[3]	Weekday a.m.	B / 20	B / 16
			Weekday p.m.	B / 15	B / 15
			Weekend MD	B / 16	B / 16
2. I-80 EB Ramps / Auburn Ravine Road	Caltrans	Signal	Weekday a.m.	B / 20	C / 20
			Weekday p.m.	C / 32	D / 40
			Weekend MD	B / 18	B / 19
3. SR 49/SR 193/Old Foresthill Road	Caltrans	SSSC	Weekday a.m.	B (B) / 10 (14) (WB LT / RT)	B (C) / 11 (16) (WB LT / RT)
			Weekday p.m.	A (C) / 5 (17) (WB LT / RT)	A (D) / 9 (25) (WB LT / RT)
			Weekend MD	A (C) / 9 (17) (WB LT / RT)	B (D) / 14 (29) (WB LT / RT)
4. Foresthill Road/Old Auburn Foresthill Road	Placer County	SSSC	Weekday a.m.	A / 9	A / 10
			Weekday p.m.	B / 12	B / 13
			Weekend MD	B / 11	B / 12

Table 4.12-10 Intersection Operations – Proposed Action Existing Plus Project Conditions

Intersection	Jurisdiction	Traffic Control	Peak Hour	LOS[1] / Delay[2] (s)	
				Existing Conditions	Existing Plus Project Conditions
5. Elm Avenue/I-80 WB Ramps	Caltrans	Signal	Weekday a.m.	C / 35	D / 35
			Weekday p.m.	D / 37	D / 38
			Weekend MD	D / 40	D / 40
6. Elm Avenue/I-80 EB Ramps	Caltrans	Signal	Weekday a.m.	A / 8	A / 8
			Weekday p.m.	A / 10	B / 10
			Weekend MD	A / 9	A / 10
7. Elm Avenue/High Street (SR 49)	Caltrans	Signal	Weekday a.m.	B / 16	C / 22
			Weekday p.m.	C / 29	C / 32
			Weekend MD	C / 26	C / 28
8. El Dorado Street (SR 49)/ Lincoln Way/Borland Avenue	Caltrans	Signal	Weekday a.m.	B / 13	B / 13
			Weekday p.m.	B / 16	B / 16
			Weekend MD	B / 13	B / 13
9. Coloma Road (SR 49)/ Georgetown Road (SR 193)	Caltrans	AWSC	Weekday a.m.	B / 11	B / 11
			Weekday p.m.	C / 20	C / 23
			Weekend MD	B / 12	B / 13

Notes: LOS = level of service; Signal = traffic signal-controlled intersection; SSSC = side-street stop-controlled intersection; AWSC = all-way stop control; MD = midday; WB = westbound; LT = left turn; RT = right turn

1 LOS calculated based on methodologies contained in the Highway Capacity Manual (HCM) 6th Edition.

2 Average control delay (rounded to nearest second) for signalized intersections is the weighted average for all movements. Average control delay at Placer County SSSC intersections is the "overall weighted average delay for movements yielding the right-of-way." For Caltrans SSSC intersections, the overall intersection delay and LOS is shown outside the parentheses, and the worst movement delay and LOS is shown inside the parentheses.

3 Intersection LOS is calculated based on methodologies contained in the Highway Capacity Manual 2000. The phasing for these signals is clustered and does not follow standard National Electrical Manufacturers Association (NEMA) structure, and therefore the LOS cannot be calculated with methodologies from HCM 6 or HCM 2010.

All intersections were analyzed in Synchro 10.

Source: Fehr & Peers 2019

As shown in Table 4.12-10, with the addition of the traffic associated with the Proposed Action, all study intersections would continue to operate at an acceptable LOS.

The effects from the Proposed Action related to study intersection operations would be greater than those of the No-Action Alternative. For the reasons detailed above, implementation of the Proposed Action would result in impacts to study intersection operations that would be **less than significant,** for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in fewer new trip-generating facilities than the Proposed Action; and thus, would result in a lower increase of new project-generated vehicle trips. Specifically, this alternative would result in up to 185 fewer campsites and up to 420 fewer parking spaces than the

Proposed Action. As shown in Table 4.12-8, the RME Alternative would result in 3,687 fewer daily weekday trips and 5,657 fewer daily weekend trips than the Proposed Action. Therefore, traffic volumes would be lower under the RME Alternative compared to the Proposed Action; and thus, similar to the Proposed Action all study intersections would continue to operate at an acceptable LOS.

The effects from the RME Alternative related to study intersection operations would be similar to those of the No-Action Alternative. For the reasons detailed above, RME Alternative impacts related to study intersection operations would be **less than significant,** for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

The RE Alternative would result in a greater number of new facilities as compared to the Proposed Action; and thus, would result in a greater number of new vehicle trips passing through study intersections. Specifically, this alternative would result in up 177 more campsites and up to 100 more parking spaces than the Proposed Action. As shown in Table 4.12-8, the RE Alternative would result in 1,392 more daily weekday trips and 2,293 more daily weekend trips than the Proposed Action. Thus, traffic volumes would be higher under the RE Alternative compared to the Proposed Action. The addition of project-generated trips to the study intersections could potentially result in the degradation of LOS to unacceptable levels.

The effects from the RE Alternative related to study intersection operations would be greater than those of the No-Action Alternative. For the reasons detailed above, this impact would be **potentially significant,** for the purposes of CEQA.

Mitigation Measures

Mitigation Measure 4.12-1: Limit visitor capacity to maintain acceptable operations

This mitigation measure would apply to the RE Alternative.

Before construction of any new trip-generating amenities (i.e., campsites, day-use facilities or parking spaces) in excess of that which is allowed under the Proposed Action within any activity node, CSP shall conduct a quantitative operations analysis of the study intersections and roadway study segments that could receive an increase in traffic volumes. The analysis shall determine whether the addition of project-generated trips to the surrounding roadway network would result in an increase in traffic volumes such that a degradation of operating conditions to unacceptable levels would occur, as determined by the intersection and roadway segment operations standards of the applicable jurisdiction (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn).

If through the project-specific analysis of study intersections and roadway study segments it is determined that any such facility would degrade to unacceptable operating conditions with the addition of project-generated trips, then CSP shall implement the following measures:

- Modify the proposed amenity to reduce the number of project-generated vehicle trips on the surrounding roadway network. For example, the size of a new campground or day-use area could be decreased to reduce the number of visitor-related trips.
- Conduct a revised project-level analysis that shall demonstrate through quantitative analysis that the modified amenity would not result in an exceedance of the study intersection or roadway study segment operations standards of the applicable jurisdiction.

CSP shall provide a copy of the project-level analysis to the appropriate agency based on the location of the impacted intersection and/or roadway segment (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). CSP shall not develop any amenities that would result in the degradation of operating conditions for any study intersection or roadway segment such that the operations standards of the applicable jurisdiction would occur under existing plus project or cumulative plus project conditions.

Significance after Mitigation

Implementation of Mitigation Measure 4.12-1 would ensure that the addition of vehicle trips in excess of that which is projected under the Proposed Action, would not result in the exceedance of any intersection LOS standard of the applicable jurisdiction (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). Therefore, Implementation of Mitigation Measure 4.12-1 would reduce the impacts to intersection operations to a **less-than-significant** level.

Impact 4.12-2: Impacts on roadway segment operations

Impact Summary

Traffic volumes would be higher under the RE Alternative than the Proposed Action, and thus, the addition of project trips to the study roadway segments could potentially result in the degradation of operating conditions to unacceptable levels. Therefore, this impact would be **potentially significant** for the purposes of CEQA. After implementation of Mitigation Measure 4.12-2, this impact would be reduced to a **less-than-significant** level, for the purposes of CEQA.

The No-Action Alternative, Proposed Action, and RME Alternative would not result in unacceptable roadway operations. They would be **less than significant,** for the purposes of CEQA.

No-Action Alternative

Under the No-Action Alternative the existing facilities and land uses would be retained and the types of improvements that could occur would include maintenance of existing facilities; modifying existing parking to enhance public safety; and realignment, reconstruction, or removal of existing trail routes. None of the improvements that could occur under the No-Action Alternative would result in the generation of new operational vehicle trips; however, the continuing population growth in the region would contribute to an increase in annual visitation under the No-Action Alternative.

The No-Action Alternative would result in fewer new facilities than the Proposed Action; and thus, would result in a lower increase of new vehicle trips on all roadway study segments and would continue to operate acceptably on both weekdays and weekends. Therefore, this impact would be **less than significant,** for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Roadway segments were analyzed under existing plus project conditions for the Proposed Action using the trip generation and distribution discussed above. Results are presented separately for each jurisdiction in Table 4.12-11 through Table 4.12-14.

Table 4.12-11 Peak Hour Two-Lane Highway Operations – Proposed Action Existing Plus Project Conditions

Segment	Peak Hour	Direction	Existing Conditions		Existing Plus Project Conditions	
			V/C	LOS	V/C	LOS
Caltrans						
SR 49: Lincoln Way to Old Foresthill Road	Weekday a.m.	NB	0.33	D	0.36	D
		SB	0.12	A	0.14	B
	Weekday p.m.	NB	0.22	C	0.28	C
		SB	0.34	D	0.39	D
	Weekend MD	NB	0.28	D	0.33	D
		SB	0.22	C	0.28	C
SR 49: Old Foresthill Road to 1.8 miles south of Old Foresthill Road[1]	Weekday a.m.	NB	0.31	D	0.32	D
		SB	0.14	B	0.13	B
	Weekday p.m.	NB	0.19	B	0.21	C
		SB	0.37	D	0.39	D
	Weekend MD	NB	0.23	C	0.24	C
		SB	0.26	C	0.28	D
SR 49: 1.8 miles south of Old Foresthill Road to SR 193[1]	Weekday a.m.	NB	0.31	D	0.32	D
		SB	0.13	B	0.14	B
	Weekday p.m.	NB	0.20	B	0.21	C
		SB	0.34	D	0.35	D
	Weekend MD	NB	0.23	C	0.24	D
		SB	0.24	C	0.26	C

Notes: V/C = volume to capacity ratio; NB = northbound; SB = southbound; MD = midday

[1] These segments were split into two segments because of differing terrain types. The segment to the north is analyzed with a specific grade of 8%, and the segment to the south is analyzed with "Rolling" terrain. These segments have the same peak hour volumes.

Source: Fehr & Peers 2019

Table 4.12-12 Peak Hour Roadway Operations – Proposed Action Existing Plus Project Conditions

Segment	Classification[1]	Peak Hour	Existing Conditions			Existing Plus Project Conditions		
			ADT	V/C	LOS[2]	ADT	V/C	LOS[2]
El Dorado County								
Sliger Mine Road: SR 193 to San Martin Mine Road	2-lane Arterial	Weekday a.m.	47	0.03	C	67	0.04	C
		Weekday p.m.	76	0.05	C	113	0.07	C
		Weekend MD	54	0.04	C	96	0.06	C

Note: ADT = average daily traffic; V/C = volume to capacity ratio

[1] Classification based on El Dorado County criteria

[2] LOS C represents conditions that are "LOS C or better"

Source: Fehr & Peers 2019

Table 4.12-13 Daily Roadway Operations – Proposed Action Existing Plus Project Conditions

Segment	Classification[1]	Day	Existing Conditions			Existing Plus Project Conditions		
			ADT	V/C	LOS	ADT	V/C	LOS
Placer County								
Foresthill Road: Lincoln Way to Old Auburn Foresthill Road	2-lane Arterial – HAC	Weekday	8,674	0.43	A	9,130	0.46	A
		Weekend	7,946	0.40	A	8,640	0.43	A
Old Foresthill Road: SR 49 to Foresthill Road	2-lane Arterial – HAC	Weekday	1,055	0.05	A	1,430	0.07	A
		Weekend	1,728	0.12	A	2,310	0.12	A
City of Auburn[2]								
Maidu Drive: Auburn Folsom Road to China Bar Access	2-lane Collector	Weekday	3,010	0.15	B	3,190	0.15	B
		Weekend	2,473	0.12	B	3,680	0.18	B

Notes: HAC = high access control; ADT = average daily traffic; V/C = volume to capacity ratio; LOS = level of service

[1] Classification based on Placer County and City of Auburn criteria.

[2] LOS B represents conditions that are "LOS B or better"

Source: Fehr & Peers 2019

Table 4.12-14 TIRE Index Roadway Operations – Proposed Action Existing Plus Project Conditions

Segment	Day	Existing Conditions			Existing Plus Project Conditions		
		ADT	TIRE Index[1]	Description / Purpose	ADT	TIRE Index[1]	Description / Purpose
City of Auburn							
Skyridge Drive: Sacramento Street to Riverview Drive	Weekday	975	3.0	High Residential	1,150	3.1	High Residential
	Weekend	1,046	3.0	High Residential	1,180	3.1	High Residential
Riverview Drive: Skyridge Drive to Maidu Drive	Weekday	465	2.7	Moderate Residential	640	2.8	Moderate Residential
	Weekend	631	2.8	Moderate Residential	760	2.9	Moderate Residential

Note: ADT = average daily traffic

[1] Goodrich Traffic Group 2011

Source: Fehr & Peers 2019

As shown in Table 4.12-11 to Table 4.12-14, the LOS for some roadway segments would change, but all roadway segments would operate acceptably with implementation of the Proposed Action.

The effects from the Proposed Action related to roadway segment operations would be greater than those of the No-Action Alternative. However, for the reasons detailed above, this impact would be **less than significant,** for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

The effects from the RME Alternative related to roadway segment operations would be similar to those of the No-Action Alternative. The RME Alternative would result in fewer new facilities than the Proposed Action; and thus, would result in a lower increase of new vehicle trips on all roadway study segments. Specifically, this alternative would result in up to 185 fewer campsites and up to 420 fewer parking spaces than the Proposed Action. As shown in Table 4.12-8, the RME Alternative would result in 3,687 fewer daily weekday trips and 5,657 fewer daily weekend trips than the Proposed Action. Therefore, this impact would be **less than significant,** for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

The RE Alternative would result in a greater number of new facilities than the Proposed Action; and, thus, would result in a greater number of new vehicle trips on roadway study segments. Specifically, this alternative would result in up to 177 more campsites and up to 100 more parking spaces than the Proposed Action. As shown in Table 4.12-8, the RE Alternative would result in 1,392 more daily weekday trips and 2,293 more daily weekend trips than the Proposed Action. Traffic volumes would be higher under the RE Alternative than the Proposed Action. Because the traffic-dominated index for Riverview Drive between Skyridge Drive and Maidu Drive under the Proposed Action nears the significance threshold of 3.0, it is possible that the greater number of trips generated by the RE Alternative could result in this roadway segment changing to a traffic-dominated index. Additionally, the increase in project-generated trips above that which would be generated under the Proposed Action, could potentially result in the degradation of operating conditions along roadway study segments to unacceptable levels.

The effects from the RE Alternative related to roadway segment operations would be greater than those of the other action alternatives. For the reasons detailed above, this impact would be **potentially significant,** for the purposes of CEQA.

Mitigation Measure 4.12-2: Limit visitor capacity and maintain acceptable operations
This mitigation measure would apply to the RE Alternative.

CSP and Reclamation shall implement Mitigation Measure 4.12-1 as described above.

Significance after Mitigation

The implementation of Mitigation Measure 4.12-2 for the RE Alternative would ensure that the addition of vehicle trips in excess of that which are projected to be generated under the Proposed Action, would not result in the exceedance of any roadway segment operations standard of any of the applicable jurisdictions (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). Therefore, Implementation of Mitigation Measure 4.12-2 would reduce the impacts to roadway segment operations to a **less-than-significant** level for the purposes of CEQA.

Impact 4.12-3: Impacts on bicycle and pedestrian facilities

Impact Summary

Under the No-Action Alternative existing facilities and land uses would be retained. Therefore, impacts on bicycle or pedestrian facilities under the No-Action Alternative would be **less than significant**, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would implement the goals and guidelines of the GP/RMP which includes guidelines designed to improve bicycle and pedestrian facilities and enhance the safety of such facilities. Additionally, these three alternatives would not eliminate or adversely affect existing bicycle or pedestrian facilities. Therefore, impacts on bicycle

or pedestrian facilities under the Proposed Action, RME Alternative, and RE Alternative would be **less than significant**, for the purposes of CEQA.

No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses would be retained. Therefore, the No-Action Alternative would not disrupt existing or planned bicycle/pedestrian facilities, nor would it create inconsistencies with any adopted plans, guidelines, policies or standards related to bicycle or pedestrian systems. Under the No-Action alternative, minor modifications to pedestrian and bicycle facilities could continue to occur, including minor rerouting or repairs to bicycle and pedestrian facilities, including those that address safety. Under the No-Action Alternative, bicycle facilities on lands managed by other agencies, within the APL but outside of ASRA, could continue to be constructed and operated consistent with planning, design, and environmental review processes. Therefore, impacts to bicycle or pedestrian facilities under the No-Action Alternative would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

The Proposed Action includes various improvements to bicycle and pedestrian facilities, including the construction of new multi-use trails and trail bridges that would support hiking and off-road bicycling. These new trail connections and their consistency with applicable plans are discussed in more detail in Section 4.14, Recreation. The Proposed Action would also implement the following guidelines that would benefit bicycle and pedestrian facilities and safety:

- **Guideline FAC 8.6:** Coordinate with Caltrans to address the current informal roadside parking, pedestrian safety along SR 49, and pedestrian connections to the Confluence area from SR 49 and confirm fees can be charged for in these areas.

- **Guideline MZ 10.1:** Coordinate with Caltrans, Placer County and El Dorado County, to improve and formalize parking along SR 49 in the Highway 49 Activity Node and install pedestrian safety improvements, such as crosswalks, on the SR 49 Bridge, Old Auburn-Foresthill Road, and at roadside parking areas.

Additionally, implementation of the Proposed Action would not eliminate or adversely affect existing bicycle or pedestrian facilities.

The effects from the Proposed Action related to bicycle and pedestrian facilities would be less than those of the No-Action Alternative due to the implementation of the guidelines and bicycle and pedestrian facility improvements detailed above. For the reasons detailed above, impacts to bicycle or pedestrian facilities (e.g., pedestrian crosswalks and trail connections) under the Proposed Action would be **less than significant**, for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

The RME Alternative includes various improvements to bicycle and pedestrian facilities, including the construction of new multi-use trails for hiking and off-road bicycling. Similar to the Proposed Action, the RME Alternative would implement Guideline FAC 8.6 and would seek to restrict roadside parking along SR 49 to improve pedestrian safety. These guidelines would emphasize coordination with the applicable jurisdiction (i.e., Caltrans, Placer County, El Dorado County) to address pedestrian safety along SR 49, provide pedestrian connections between the Confluence area and SR 49, and install pedestrian safety improvements on the SR 49 Bridge, Old Auburn-Foresthill Road, and at other

roadside parking areas. Additionally, implementation of the RME Alternative would not eliminate or adversely affect existing bicycle or pedestrian facilities.

The effects from the RME Alternative related to bicycle and pedestrian facilities would be less than those of the No-Action Alternative. Due to the implementation of the guidelines and bicycle and pedestrian facility improvements detailed above, impacts to bicycle or pedestrian facilities under the RME Alternative would be **less than significant**, for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

The RE Alternative includes various improvements to bicycle and pedestrian facilities, including the construction of new multi-use trails and trail bridges that would support hiking and off-road bicycling. Similar to the Proposed Action, the RE Alternative would implement Guideline FAC 8.6 and Guideline MZ 10.1 and would involve coordination with Caltrans to implement crosswalks and pedestrian safety improvements along SR 49. These guidelines would emphasize coordination with the applicable jurisdiction (i.e., Caltrans, Placer County, El Dorado County) to address pedestrian safety along SR 49, provide pedestrian connections between the Confluence area and SR 49, and install pedestrian safety improvements on the SR 49 Bridge, Old Auburn-Foresthill Road, and at roadside parking areas. Additionally, implementation of the RE Alternative would not eliminate or adversely affect existing bicycle or pedestrian facilities.

The effects from the RE Alternative related to bicycle and pedestrian facilities would be less than those of the No-Action Alternative. Due to the implementation of the guidelines and bicycle and pedestrian facility improvements detailed above, impacts to bicycle or pedestrian facilities under the RE Alternative would be **less than significant**, for the purposes of CEQA.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.12-4: Impacts on transit

Impact Summary

The No-Action Alternative would not generate new demand for transit trips; and thus, would not result in demands to transit facilities greater than available capacity. Additionally, the No-Action Alternative would not eliminate or adversely affect existing transit operations or facilities. Therefore, impacts to transit operations and facilities under the No-Action Alternative would be **less than significant**, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would implement goals and guidelines designed to enhance transit service to and from ASRA/APL. Additionally, these three alternatives would not eliminate or adversely affect existing transit facilities. Therefore, impacts to transit under the Proposed Action, RME Alternative, and RE Alternative would be **less than significant**, for the purposes of CEQA.

No-Action Alternative

Implementation of the No-Action Alternative would not generate new demand for transit trips. The continuing population growth in the region would contribute to an increase in annual visitation under the No-Action Alternative. However, ASRA/APL is not currently served by transit, and would not be served by transit under the No-Action Alternative. Thus, the increased visitation would not result in demands to transit facilities greater than available capacity because visitors would continue to access ASRA/APL via personal vehicles. Additionally, the No-Action Alternative would not eliminate or adversely affect existing

transit operations or facilities. Thus, the No-Action Alternative would not significantly affect operations of existing transit lines, nor would it degrade access to transit. Therefore, impacts to transit facilities under the No-Action Alternative would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Because transit service to ASRA/APL does not exist, implementation of the Proposed Action would not eliminate or adversely affect existing transit operations or facilities. Additionally, the Proposed Action would implement the following guidelines related to transit service:

- **Guideline FAC 8.3:** Coordinate with the City of Auburn, Placer County, El Dorado County and/or concessionaires to provide off-site parking with shuttle or transit service to popular areas in ASRA/APL with limited parking.
- **Guideline MZ 10.2:** Coordinate with the City of Auburn, Placer County, El Dorado County, and relevant transit and transportation agencies or concessionaires to identify or develop drop off areas and determine if it is feasible to provide shuttle or transit stops at trailheads.

The Proposed Action could result in increased demand for transit; however, the Proposed Action would seek to expand transit service to ASRA/APL.

The effects from the Proposed Action related to transit would be greater than those of the No-Action Alternative due to the potential for increased transit demand detailed above. However, for the reasons detailed above, impacts to transit would be **less than significant**, for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would not eliminate or adversely affect existing transit operations or facilities. Unlike the Proposed Action, the RME Alternative would not seek to expand transit service to ASRA/APL. However, because existing transit service does not access ASRA/APL, the RME Alternative would not increase ridership and exceed the capacity of existing transit systems.

The effects from the RME Alternative related to transit would be similar to those of the No-Action Alternative. Thus, the RME Alternative would not significantly affect operations of existing transit lines, nor would it degrade access to transit. Therefore, impacts to transit under the RME Alternative would be **less than significant**, for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would not eliminate or adversely affect existing transit operations or facilities, or exceed the capacity of existing transit systems. As discussed above for the Proposed Action, the RE Alternative would implement Guideline FAC 8.3, which would emphasize coordination with the City of Auburn, Placer County, and El Dorado County to provide off-site parking with shuttle or transit service to popular areas in ASRA/APL with limited parking.

The effects from the RE Alternative related to transit would be greater than those of the No-Action Alternative due to the potential for increased transit demand. However, for the reasons detailed above, the RE Alternative would not significantly affect operations of existing transit lines, nor would it degrade access to transit. Therefore, impacts to transit facilities under the RE Alternative would be **less than significant**, for the purposes of CEQA.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.12-5: Impacts on emergency access

Impact Summary

Under the No Alternative the existing facilities and land uses would be retained. Facility and programs to maintain emergency access would continue to be implemented consistent with the Interim RMP and applicable CSP and Reclamation policies. Therefore, impacts to emergency access under the No-Action Alternative would be **less than significant**, for the purposes of CEQA. The Proposed Action, RME Alternative, and RE Alternative would implement goals and guidelines designed to enhance emergency access within ASRA/APL. Therefore, implementation of the GP/RMP goals and guidelines under the Proposed Action, RME Alternative, and RE Alternative would result in adequate emergency access within ASRA/APL. Therefore, impacts to emergency access would be **less than significant**, for the purposes of CEQA, under the Proposed Action, RME Alternative, and RE Alternative.

No-Action Alternative

Under the No-Action Alternative the existing facilities and land uses would be retained. The types of improvements that could occur under the No-Action Alternative include retaining existing transportation and parking capacity and modifying existing parking to enhance public safety. Continuation of existing conditions would also allow for realignment, reconstruction, or removal of existing trail routes. While the No-Action Alternative would not increase visitor capacity, continued population growth in the surrounding region is estimated to result in an increase in visitation of approximately 30 percent by 2040. This increased visitation could increase the demand for emergency access under the No-Action Alternative.

Under the No-Action Alternative, the management of ASRA/APL would continue to be guided by the Interim RMP. A primary goal of the Interim RMP is "[t]o provide for the health and safety of the public during the interim period" (Reclamation 1992:92). The Interim RMP identifies facility improvements and programs necessary to maintain visitor health and safety as the highest priority activities. Therefore, under the No-Action Alternative, CSP and Reclamation would continue to implement facility improvements and maintenance necessary to maintain emergency access. Furthermore, CSP and Reclamation would manage ASRA/APL consistent with CSP Department Operations Manual Chapter 1500, Emergency Management, and the Reclamation Manual, which provide guidance on emergency response preparedness, planning, and training. Therefore, impacts to emergency access under the No-Action Alternative would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities including campsites, day-use facilities, river access, watercraft launch improvements, trail bridges, and other trail improvements. These improvements could increase visitor capacity by up to 35 percent, which could increase the need for emergency access and increase the number of individuals to be evacuated in an emergency. However, the Proposed Action would implement goals and guidelines that address emergency access, including Goal RES 10 which emphasizes safe and effective emergency access and evacuation. Guideline RES 10.1 requires the preparation and maintenance of an emergency access and evacuation plan for ASRA/APL. This plan would identify emergency assess and evacuation routes for all facilities, identify roadway or access improvements necessary to facilitate emergency ingress and egress, and include a map of roads, trails, and emergency helicopter landing sites. Additionally, Guideline RES 10.2 would require coordination with applicable fire agencies in the planning of new or expanded recreation facilities and the incorporation of feasible emergency access recommendations before constructing or expanding facilities. Additional detail on

emergency access and evacuation during a wildfire is presented in Section 4.17, Wildfire (See Impact 4.17-2, Wildfire emergency access and evacuation).

Because implementation of the goals and guidelines under the Proposed Action would involve the preparation and maintenance of an emergency access and evacuation plan, and implementation of recommendations from applicable fire agencies in the construction and design of facilities, adequate emergency access within ASRA/APL would be provided.

The effects from the Proposed Action related to emergency access would be less than those of the No-Action Alternative due to the implementation of the goals and guidelines under the Proposed Action. For the reasons detailed above, impacts to emergency access under the Proposed Action would be **less than significant**, for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

Similar to the Proposed Action, the RME Alternative would increase visitor capacity, but would implement the same GP/RMP Goals specified above under the Proposed Action (Goal RES 10 and Guidelines RES 10.1 and RES 10.2).

The effects from the RME Alternative related to emergency access would be less than those of the No-Action Alternative due to the implementation of the goals and guidelines detailed above. For the same reasons as the Proposed Action, the RME Alternative would ensure adequate emergency access, ingress and egress within ASRA/APL. Therefore, impacts to emergency access, ingress and egress under the RME Alternative would be **less than significant**, for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

Similar to the Proposed Action, the RE Alternative would increase visitor capacity (up to an estimated 45 percent) but would implement the same GP/RMP Goals specified above under the Proposed Action (Goal RES 10 and Guidelines RES 10.1 and RES 10.2).

The effects from the RE Alternative related to emergency access would be less than those of the No-Action Alternative due to the implementation of the goals and guidelines detailed above. For the same reasons as the Proposed Action, the RE Alternative would maintain adequate emergency access, ingress and egress within ASRA/APL. Therefore, impacts to emergency access under the RE Alternative would be **less than significant**, for the purposes of CEQA.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.12-6: Short-term traffic impacts

Impact Summary

Construction activities associated with the No-Action Alternative would be relatively minor, temporary, localized, intermittent, and construction projects would not occur simultaneously; thus, not resulting in substantial construction traffic. Additionally, the No-Action Alternative would not increase short-term special event traffic compared to existing conditions. Therefore, short-term traffic impacts associated with construction activities and large special events would be **less than significant**, for the purposes of CEQA, under the No-Action Alternative.

The Proposed Action, RME Alternative, and RE Alternative would implement guidelines designed to address traffic generated by construction activities and large special events within ASRA/APL. Implementation of the CSP SPRs (Appendix A) and the goals and guidelines would reduce the temporary traffic impact of construction activities and large special events to the degree feasible under the Proposed Action, RME and RE Alternatives. Therefore, short-term traffic impacts associated with construction activities and large special events would be **less than significant**, for the purposes of CEQA, under the Proposed Action, RME Alternative, and RE Alternative.

No-Action Alternative

With implementation of the No-Action Alternative, construction activity would be limited to the maintenance of existing roads and parking; the realignment, reconstruction, or removal of existing trail routes; and repair of existing administrative offices. Additionally, fuel reduction actions that could be implemented within ASRA/APL under the No-Action Alternative could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Fuel reduction actions are considered as construction activities for the purposes of this analysis.

All construction activities would be required to comply with state and federal regulations, and CSP SPRs, which require measures to manage construction traffic. Required measures include, preparation of a Traffic Impact Study (TIS) for construction projects that would exceed six months in duration and surpass CSP trip generation thresholds during peak hours, and coordination with local jurisdictions to develop and implement traffic control measures for project-related equipment and materials delivery that could impede or block access to driveways, cross streets, or street parking (Appendix A). Additionally, construction activities associated with the No-Action Alternative would be relatively minor, temporary, localized, intermittent, and construction projects would not occur simultaneously; thus, not resulting in substantial construction traffic.

Large special events are currently permitted in ASRA/APL by CSP and Reclamation pursuant to the terms of the MPA between CSP and Reclamation. Special events in portions of the APL outside of ASRA would continue to be permitted by Reclamation or the managing agency pursuant to the applicable MPA Under the No-Action Alternative the existing facilities and land uses would be retained. Special event traffic is short-term, temporary, and only occurs a few times throughout the year. Therefore, the No-Action Alternative would not increase short-term special event traffic compared to existing conditions.

Thus, short-term construction and special event impacts under the No Action Alternative would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

With implementation of the Proposed Action, construction activity would include the maintenance of existing facilities and the construction of new or modified facilities as described in Chapter 2, Project Description. The facilities and infrastructure improvements would be constructed incrementally over the next 20 to 30 years. The extent and intensity of construction activities could vary depending on project-specific planning, design, and environmental review; and the availability of funding and staff resources. Because funding and staffing for facility improvement construction projects is limited, it is assumed that a substantial number of construction projects in ASRA/APL would not occur simultaneously. Additionally, fuel reduction actions that could be implemented within ASRA/APL could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Fuel reduction actions are considered as construction activities for the purposes of this analysis.

All construction activities would be required to comply with state and federal regulations, and CSP SPRs, which require measures to manage construction traffic. Required measures include, preparation of a TIS for construction projects that would exceed six months in duration and surpass trip generation thresholds during peak hours, and coordination with local jurisdictions to develop and implement traffic control measures for project-related equipment and materials delivery that could impede or block access to driveways, cross streets, or street parking (Appendix A). Additionally, construction activities associated with the Proposed Action would be relatively minor, temporary, localized, intermittent, and construction projects would not occur simultaneously; thus, not resulting in substantial construction traffic.

Under the Proposed Action, large special events would be permitted in ASRA/APL and would be most likely to be based in the Knickerbocker Management Zone. Special event traffic is short-term, temporary, and only occurs a few times throughout the year. However, these events may result in temporary traffic congestion within ASRA/APL and on surrounding roadways, particularly those used to access ASRA/APL.

The Proposed Action would implement Guideline V 5.5, which requires that special events submit and implement a traffic management plan to CSP to provide appropriate parking and access for the event while maintaining acceptable traffic flow on roadways outside of ASRA/APL. The traffic management plan would include a description of expected traffic patterns and proposed traffic control measures (such as signs, traffic control officers, or temporary changes to intersection controls) appropriate to the size, location, and timing of the event. The traffic management plans for special events would be required as a condition of the event permit issued by CSP or Reclamation.

Short-term special event traffic impacts would be localized and temporary. Additionally, a traffic management plan would be implemented, in accordance with Guideline V 5.5 and conditions of event permits, which would reduce the temporary impact to the degree feasible.

The effects from the Proposed Action related to construction and special event traffic would be greater than those of the No-Action Alternative. However, for the reasons detailed above, the short-term construction and special event impacts under the Proposed Action would be **less than significant**, for the purposes of CEQA.

Resource Management Emphasis (RME) Alternative

Construction activities associated with the RME Alternative would result in less construction overall as compared to the Proposed Action. However, fuel reduction actions under the RME Alternative could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. The RME Alternative would implement CSP SPRs and the same goals and guidelines as the Proposed Action Alternative.

The construction traffic associated with new parking facilities and campsites would be less than described above for the Proposed Action. Similar to the Proposed Action, construction activities under the RME Alternative would be required to comply with CSP SPRs that require measures to reduce construction traffic impacts. Thus, construction activities associated with the RME Alternative Action would be relatively minor, temporary, localized, intermittent, and construction projects would not occur simultaneously; thus, not resulting in substantial construction traffic.

Similar to the Proposed Action, large special events would be permitted in ASRA/APL under the RME Alternative. These events may result in temporary traffic congestion within ASRA/APL and on surrounding roadways, particularly those used to access ASRA/APL. The RME Alternative would

implement the same goals and guidelines as described above for the Proposed Action. Thus, short-term special event traffic impacts would be localized and temporary. Additionally, a traffic management plan would be implemented, in accordance with the GP/RMP and conditions of event permits, which would reduce the temporary impact to the degree feasible.

The effects from the RME Alternative related to construction and special event traffic would be greater than those of the No-Action Alternative. However, for the reasons detailed above, the short-term construction and special event impacts under the RME Alternative would be **less than significant**, for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in a greater number of new facilities as compared to the Proposed Action. However, the types of construction activities associated with the RE Alternative would similar to those described for the Proposed Action and would be implemented over a similar timeframe.

As discussed above for the Proposed Action, the construction traffic generated during the construction of facilities and during fuel reduction activities under the RE Alternative would be required to comply with CSP SPRs, and construction projects would not occur simultaneously. Therefore, construction activities associated with the RE Alternative would be relatively minor, temporary, localized, intermittent, and construction projects would not occur simultaneously; thus, not resulting in substantial construction traffic.

Similar to the Proposed Action, large special events would be permitted in ASRA/APL under the RE Alternative. These events may result in temporary traffic congestion within ASRA/APL and on surrounding roadways, particularly those used to access ASRA/APL. The RE Alternative would implement the same goals and guidelines as described above for the Proposed Action. Short-term special event traffic impacts would be localized and temporary. Additionally, a traffic management plan would be implemented, in accordance with the GP/RMP and conditions of event permits, which would reduce the temporary impact to the degree feasible.

The effects from the RE Alternative related to construction and special event traffic would be greater than those of the No-Action Alternative. However, for the reasons detailed above, short-term construction and special event traffic impacts under the RE Alternative would be **less than significant**, for the purposes of CEQA.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

The cumulative conditions analysis considers future planned developments and transportation improvements within the vicinity of ASRA/APL. SACMET was used to forecast cumulative (year 2036) traffic volumes. The cumulative version of this model reflects planned land use growth within the surrounding region. The model also incorporates planned improvements to the surrounding transportation system. For detailed calculations and adjustments made to the SACMET model see Appendix E. Trip generation and trip distribution assumptions for project-generated trips are the same as those described above.

Intersection Operations

Table 4.12-15 summarizes the peak hour intersection operations at the study intersections under Cumulative and Cumulative Plus Project Conditions for the Proposed Action (refer to Appendix E for lane configurations, traffic volumes, and detailed calculations) for the Proposed Action.

Table 4.12-15 Proposed Action – Cumulative Intersection Operations Analysis

Intersection	Jurisdiction	Traffic Control[1]	Peak Hour	LOS[1] / Delay[2] (s)	
				Cumulative No Project Conditions	Cumulative Plus Project Conditions
1. Auburn Ravine Road/I-80 WB On-Ramp/Bowman Road	Caltrans	Signal[3]	Weekday a.m.	B / 16	B / 16
			Weekday p.m.	C / 20	C / 20
			Weekend MD	C / 20	C / 21
1a. Auburn Ravine Road/I-80 WB Off-Ramp	Caltrans	Signal[3]	Weekday a.m.	B / 17	B / 17
			Weekday p.m.	B / 16	B / 17
			Weekend MD	B / 18	B / 19
2. I-80 EB Ramps / Auburn Ravine Road	Caltrans	Signal	Weekday a.m.	C / 25	C / 26
			Weekday p.m.	B / 19	B / 19
			Weekend MD	C / 31	D / 36
3. SR 49/SR 193/Old Foresthill Road	Caltrans	SSSC	Weekday a.m.	B (C) / 11 (16) (WB LT / RT)	B (C) / 13 (20) (WB LT / RT)
			Weekday p.m.	A (C) / 6 (19) (WB LT / RT)	B (D) / 11 (31) (WB LT / RT)
			Weekend MD	A (C) / 10 (20) (WB LT / RT)	C (**E**) / 18 (**39**) (WB LT / RT)
4. Foresthill Road/Old Auburn Foresthill Road	Placer County	SSSC	Weekday a.m.	A / 10	B / 10
			Weekday p.m.	B / 12	B / 14
			Weekend MD	B / 11	B / 12
5. Elm Avenue/I-80 WB Ramps	Caltrans	Signal	Weekday a.m.	D / 38	D / 38
			Weekday p.m.	D / 42	D / 44
			Weekend MD	D / 42	D / 42
6. Elm Avenue/I-80 EB Ramps	Caltrans	Signal	Weekday a.m.	A / 8	A / 8
			Weekday p.m.	A / 10	B / 10
			Weekend MD	A / 9	A / 9
7. Elm Avenue/High Street (SR 49)	Caltrans	Signal	Weekday a.m.	C / 22	C / 22
			Weekday p.m.	C / 31	C / 35
			Weekend MD	C / 26	C / 29
8. El Dorado Street (SR 49)/ Lincoln Way/Borland Avenue	Caltrans	Signal	Weekday a.m.	B / 15	B / 15
			Weekday p.m.	B / 18	B / 19
			Weekend MD	B / 15	B / 16

Table 4.12-15 Proposed Action – Cumulative Intersection Operations Analysis

Intersection	Jurisdiction	Traffic Control[1]	Peak Hour	LOS[1] / Delay[2] (s)	
				Cumulative No Project Conditions	Cumulative Plus Project Conditions
9. Coloma Road (SR 49)/ Georgetown Road (SR 193)	Caltrans	AWSC	Weekday a.m.	B / 12	B / 13
			Weekday p.m.	D / 28	D / 33
			Weekend MD	B / 13	B / 14

Notes: Signal = traffic signal-controlled intersection; SSSC = side-street stop-controlled intersection; AWSC = all-way stop control; LOS = level of service; MD = midday

1 LOS calculated based on methodologies contained in the Highway Capacity Manual (HCM) 6th Edition.

2 Average control delay (rounded to nearest second) for signalized intersections is the weighted average for all movements. Average control delay at Placer County SSSC intersections is the "overall weighted average delay for movements yielding the right-of-way." For Caltrans SSSC intersections, the overall intersection delay and LOS is shown outside the parentheses, and the worst movement delay and LOS is shown inside the parentheses.

3 Intersection LOS is calculated based on methodologies contained in the Highway Capacity Manual 2000. The phasing for these signals is clustered and does not following standard NEMA structure, and therefore the LOS cannot be calculated with methodologies from HCM 6 or HCM 2010.

Bold text indicates unacceptable operations. All intersections were analyzed in Synchro 10.

Source: Fehr & Peers 2019

As shown in Table 4.12-15, the addition of traffic associated with the Proposed Action would not degrade the LOS from an acceptable level to an unacceptable level at any study location except for the SR 49/SR 193/Old Foresthill Road intersection. The westbound movement of the SR 49/SR 193/Old Foresthill Road intersection operates at LOS C during the weekend midday peak hour under Cumulative conditions. With the addition of project trips, this movement would change to LOS E.

The RME Alternative would result in fewer new trip-generating facilities than the Proposed Action; and thus, would result in a lower increase of new project-generated vehicle trips. However, similar to the Proposed Action, the intersection of SR 49/SR 193/Old Foresthill Road could potentially be degraded to unacceptable conditions with the addition of project trips. The RE Alternative would result in a greater number of new facilities as compared to the Proposed Action; and thus, would result in a greater number of new vehicle trips on the surrounding roadway network. Thus, traffic volumes would be higher under the RE Alternative compared to the Proposed Action, and similar to the Proposed Action the addition of project trips would result in unacceptable operating conditions at the intersection of SR 49/SR 193/Old Foresthill Road. Additionally, because the RE Alternative would result in higher traffic volumes as compared to the Proposed Action, it could potentially result in additional impacts to study intersection operations. Therefore, this impact would be **cumulatively significant** for the Proposed Action, RME Alternative, and RE Alternative.

Roadway Segment Operations

Roadway segments were analyzed under Cumulative and Cumulative Plus Project Conditions (refer to Appendix E for lane configurations, traffic volumes, and detailed calculations) for the Proposed Action. Results are presented separately for each jurisdiction in Table 4.12-16 to Table 4.12-19.

Table 4.12-16 Proposed Action – Cumulative Peak Hour Two-Lane Highway Operations

Segment	Peak Hour	Direction	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
			V/C	LOS	V/C[1]	LOS
Caltrans						
SR 49: Lincoln Way to Old Foresthill Road	Weekday a.m.	NB	0.35	D	0.38	D
		SB	0.13	A	0.15	B
	Weekday p.m.	NB	0.24	C	0.29	C
		SB	0.35	D	0.40	D
	Weekend MD	NB	0.30	D	0.34	D
		SB	0.23	C	0.29	C
SR 49: Old Foresthill Road to 1.8 miles south of Old Foresthill Road[1]	Weekday a.m.	NB	0.33	D	0.34	D
		SB	0.15	B	0.16	B
	Weekday p.m.	NB	0.21	C	0.22	C
		SB	0.38	D	0.40	D
	Weekend MD	NB	0.24	C	0.25	C
		SB	0.28	C	0.30	D
SR 49: 1.8 miles south of Old Foresthill Road to SR 193[1]	Weekday a.m.	NB	0.33	D	0.34	D
		SB	0.14	B	0.15	B
	Weekday p.m.	NB	0.21	C	0.22	C
		SB	0.35	D	0.36	D
	Weekend MD	NB	0.25	C	0.25	C
		SB	0.26	C	0.27	C

Notes: V/C = volume to capacity ratio; LOS = level of service; MD = midday; NB = northbound; SB = southbound

[1] These segments were split into two segments because of differing terrain types. The segment to the north is analyzed with a specific grade of 8%, and the segment to the south is analyzed with "Rolling" terrain. These segments have the same peak hour volumes.

Source: Fehr & Peers 2019

Table 4.12-17 Proposed Action - Cumulative Peak Hour Roadway Operations

Segment	Classification[1]	Peak Hour	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
			ADT	V/C	LOS[2]	ADT	V/C	LOS[2]
El Dorado County								
Sliger Mine Road: SR 193 to San Martin Mine Road	2-lane Arterial	Weekday a.m.	110	0.07	C	130	0.09	C
		Weekday p.m.	140	0.09	C	180	0.12	C
		Weekend MD	100	0.07	C	150	0.10	C

Notes: ADT = average daily traffic; V/C = volume to capacity ratio; LOS = level of service; MD = midday

[1] Classification based on El Dorado County criteria

[2] LOS C represents conditions that are "LOS C or better"

Source: Fehr & Peers 2019

Table 4.12-18 Proposed Action - Cumulative Daily Roadway Operations

Segment	Classification[1]	Day	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
			ADT	V/C	LOS	ADT	V/C	LOS
Placer County								
Foresthill Road: Lincoln Way to Old Auburn Foresthill Road	2-lane Arterial – HAC	Weekday	12,500	0.63	B	12,960	0.65	B
		Weekend	11,450	0.57	A	12,140	0.61	B
Old Foresthill Road: SR 49 to Foresthill Road	2-lane Arterial – HAC	Weekday	1,100	0.06	A	1,480	0.07	A
		Weekend	1,800	0.09	A	2,380	0.12	A
City of Auburn[2]								
Maidu Drive: Auburn Folsom Road to China Bar Access	2-lane Collector	Weekday	3,060	0.15	B	3,240	0.16	B
		Weekend	2,720	0.14	B	3,130	0.16	B

Notes: ADT = average daily traffic; V/C = volume to capacity ratio; LOS = level of service

[1] Classification based on Placer County and City of Auburn criteria. HAC = high access control

[2] LOS B represents conditions that are "LOS B or better" for City of Auburn roadway segments

Source: Fehr & Peers 2019

Table 4.12-19 Proposed Action - Cumulative TIRE Index Roadway Operations

Segment	Day	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
		ADT	TIRE Index[1]	Description / Purpose	ADT	TIRE Index[1]	Description / Purpose
City of Auburn							
Skyridge Drive: Sacramento Street to Riverview Drive	Weekday	1,110	3.0	High Residential	1,280	3.1	High Residential
	Weekend	1,210	3.1	High Residential	1,340	3.1	High Residential
Riverview Drive: Skyridge Drive to Maidu Drive	Weekday	520	2.7	Moderate Residential	690	2.8	Moderate Residential
	Weekend	700	2.8	Moderate Residential	830	2.9	Moderate Residential

Note: ADT = average daily traffic

[1] Goodrich Traffic Group, 2011

Source: Fehr & Peers 2019

As shown in 4.12-16 through Table 4.12-19, all roadway segments operate acceptably under Cumulative Plus Project conditions for the Proposed Action. The RME Alternative would result in fewer new facilities and less visitation than the Proposed Action; and thus, would result in a lower increase of new vehicle trips on all roadway study segments and lesser impacts to roadway segment operations. The RE Alternative would result in a greater number of new facilities and more visitation than the Proposed Action; and thus, would result in a greater number of new vehicle trips on roadway study segments. Therefore, traffic volumes would be higher under the RE Alternative than the Proposed Action, and the addition of project trips could result in the segment of Riverview Drive from Skyridge Drive to Maidu changing to a traffic-dominated index under the RE Alternative. Additionally, because the RE Alternative would result in higher traffic volumes than the Proposed Action, it could result in additional impacts to roadway study segment operations. Therefore, this impact would be **cumulatively significant** for the RE Alternative.

Mitigation Measures

Mitigation Measure 4.12-7a: Convert intersection of SR 49/SR 193/Old Foresthill Road to a signalized intersection

This mitigation measure would apply to the Proposed Action RME Alternative, and RE Alternative.

CSP and Reclamation will coordinate with Caltrans to facilitate the installation of a traffic signal at the intersection of SR 49/SR 193/Old Foresthill Road at the time when the applicable signal warrant is met, which may include paying their fair share of the cost in accordance with applicable state and federal law.

Mitigation Measure 4.12-7b: Implement Mitigation Measure 4.12-1 to limit visitor capacity and maintain acceptable operations

This mitigation measure would apply to the RE Alternative.

CSP and Reclamation shall implement Mitigation Measure 4.12-1, as described above.

Significance with Mitigation

Implementation of Mitigation Measure 4.12-7b would ensure that the addition of vehicle trips resulting from the RE Alternative in excess of that which are projected to be generated under the Proposed Action, would not result in the exceedance of any study intersection operations standard of any of the applicable jurisdictions (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn).

The effect of the implementation of Mitigation Measure 4.12-7a was analyzed for the intersection of SR 49/SR 193/Old Foresthill Road using the criteria described in Section 4C.04 of the California Manual on Uniform Traffic Control Devices (MUTCD). The intersection met Warrant 3B for weekend midday peak hour conditions. Table 4.12-20 shows the mitigated Cumulative Plus Project conditions under the Proposed Action at the intersection of SR 49/SR 193/Old Foresthill Road with the implementation of Mitigation Measure 4.12-7a.

Table 4.12-20 Intersection Operations Analysis – Cumulative Plus Project (Mitigated) Conditions

Intersection	Jurisdiction	Traffic Control[1]	Peak Hour	LOS[2] / Delay (s)		
				Cumulative No Project Conditions	Cumulative Plus Project Conditions	Cumulative Plus Project Conditions (Mitigated)
4. SR 49/SR 193/Old Foresthill Road	Caltrans	SSSC[3]/ Signal	Weekday a.m.	B (C) / 11 (16) (WB LT / RT)	B (C) / 13 (20) (WB LT / RT)	B / 16
			Weekday p.m.	A (C) / 6 (19) (WB LT / RT)	B (D) / 11 (31) (WB LT / RT)	B / 15
			Weekend MD	A (C) / 10 (20) (WB LT / RT)	C (**E**) / 18 (**39**) (WB LT / RT)	A / 8

[1] Signal = traffic signal-controlled intersection; SSSC = side-street stop-controlled intersection

[2] LOS = level of service; calculated based on methodologies contained in the Highway Capacity Manual (HCM) 6th Edition.

[3] For SSSC intersections, the overall intersection delay and LOS is shown outside the parentheses, and the worst movement delay and LOS is shown inside the parentheses.

Bold text indicates unacceptable operations. All intersections were analyzed in Synchro 10.

Source: Fehr & Peers 2019

As shown in Table 4.12-20, the implementation of Mitigation Measure 4.12-7a would improve the intersection LOS to acceptable operating conditions. Thus, with implementation of Mitigation Measure 4.12-7a and Mitigation Measure 4.12-7b, the Proposed Action, RME Alternative, or RE Alternative would **result in a less-than-significant cumulative effect.**

4.13 Public Services and Utilities

This section evaluates the effects of implementation of the ASRA/APL GP/RMP on public services and utilities, as defined by CEQA and NEPA regulations.

The existing conditions related to public services and utilities are summarized in Chapter 2, Existing Conditions, of the GP/RMP. A more detailed description of the existing setting, and a summary of pertinent regulations are included in the Existing Conditions Report (CSP and Reclamation 2016). Section 2.3.3, Utilities and Service Systems, of the GP/RMP and Section 14 on pages 14-1 through 14-6 of the Existing Conditions Report provide details on the environmental setting related to public services and utilities within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. Relevant goals and guidelines are summarized in Section 4.3.1, Resource Management and Protection, and Section 4.3.5, Operations, in Chapter 4, The Plan, of the GP/RMP. CSP Standard Project Requirements pertaining to public services and utilities are included in Appendix A, CSP Standard Project Requirements, of this EIR/EIS.

The GP/RMP alternatives would not create additional demand for schools or local parks because permanent population levels would not increase. Therefore, these issues are not discussed further.

4.13.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The following analysis assesses the environmental effects of each alternative with respect to the proposed uses and facilities in ASRA/APL. This analysis is based on review of existing documents, policies, ordinances, and other regulations pertinent to public services and utilities.

User assumptions are based on existing visitation data collected by CSP that includes an average of 219 visitors at each campsite each year. This factor was applied to the maximum number of new campsites that could be developed under each alternative to estimate future visitor use associated with campsites. Water demand estimates are based upon the average daily design flow assumptions included in the Forest Service Handbook, prepared by the U.S. Forest Service. These assumption estimate that a campsite without flush toilets would demand 10 gallons per user per day (USFS 2007).

Water supplies discussed in this chapter are associated with municipal sources. Water supplies associated with well production is discussed in Section 4.9, Hydrology and Water Quality.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact on public services and utilities if it would:

- require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation or which could cause significant environmental effects;

- have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals;
- not comply with federal, state, and local management and reduction statutes and regulations related to solid waste; or
- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - fire protection,
    - police protection, and
    - emergency services.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared.

Environmental Impacts

Impact 4.13-1: Increased demand for water supply

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would provide additional or expanded recreational facilities similar to existing recreational amenities, including campsites, trail improvements, and day-use facilities in most or all of the management zones in ASRA/APL. Under the existing conditions, water is not available within ASRA/APL except for the Auburn Sector Office. New municipal water supply would be associated with a new campground near the Cool Staging Area under the Proposed Action and the RE Alternative. Other new recreational facilities would require users to either haul in water or pump it from the American River or streams, except for the Rocky Point Campground proposed in the Proposed Action and RE Alternative, which could be served by a new onsite well. Adequate water supplies are available during normal, dry, and multiple dry year conditions. For these reasons, implementation of the Proposed Action and RE Alternative would result in a **less-than-significant** impact related to increased demand for water supply, for the purposes of CEQA.

There would be no new municipal water supplies associated with the RME Alternative or the No-Action Alternative. Thus, the No-Action Alternative and RME Alternative would have **no impact** related to increased demand for water supply, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged. While CSP would be authorized to develop water supplies under the terms of the MPA between CSP and Reclamation, no new facilities are proposed under the No-Action Alternative and no new water supplies are expected to be developed. Thus, there would be no increase in water demand. This alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic maintenance, and infrastructure and operational improvements. Any construction activities would be implemented to comply with applicable laws and regulations, and no new public water sources would be developed in ASRA/APL. This alternative would have **no impact** related to increased demand for water supply, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 220 individual, five group, and five alternative campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural and biological resource protection. In addition to overnight camping, day-use recreational activities within ASRA/APL would continue to include hiking, trail running, mountain bicycling, and horseback riding on trails throughout ASRA/APL as well as whitewater boating, swimming, sunbathing, wildlife and nature viewing, painting, and photography. The Proposed Action would also continue to support special events.

In general, treated water service is not available within ASRA/APL, except at the Auburn Sector Office and PCWA administrative facilities. Within the APL, but outside of ASRA, potable water is available at the Auburn Area Recreation and Parks District's (ARD's) Railhead and Overlook Parks, the ARD Community Center at 471 Maidu Drive, and CSP have no water rights upstream in the watershed from Folsom Lake. The Proposed Action would not result in a change in water use in areas of the APL outside of ASRA. Water use at the Auburn Sector office would not substantially change, because the Proposed Action would not expand these facilities or changes uses at the Auburn Sector office.

Implementation of the Proposed Action would include new camping facilities in the Knickerbocker Flat Management Zone, which could be served by new municipal water supplies associated with 50 individual campsites and three group sites. Other campsites would be served by wells or users would haul in their own water supply. Water for the new campground in the Knickerbocker Flat Management Zone would be provided via a connection in the community of Cool by the Georgetown Divide Public Utility District (GDPUD). According to the 2015 GDPUD Urban Water Management Plan (UWMP), water demands are projected to not exceed the supply during normal years through 2035; however, water demands would exceed water supplies in 2035 under single dry and multiple dry scenarios (see Table 4.13-1). Local water suppliers could be pursuing additional water sources, which could be made available to water users in this area in the future.

Table 4.13-1 Georgetown Divide Public Utility Districts – Water Supply and Demand through 2035 (Acre-Feet per Year)

		2020	2025	2030	2035
Normal	Supply Total	12,200	12,200	12,200	12,200
	Demand Totals	7,140	8,426	9,748	11,119
	Difference	5,060	3,774	2,452	1,081
Single Dry	Supply Total	11,060	11,060	11,060	11,060
	Demand Totals	7,140	8,426	9,748	11,119
	Difference	3,920	2,634	1,312	(59)
Multiple Dry – First Year	Supply Total	11,060	11,060	11,060	11,060
	Demand Totals	7,140	8,426	9,748	11,119
	Difference	3,920	2,634	1,312	(59)
Multiple Dry – Second Year	Supply Total	11,060	11,060	11,060	11,060
	Demand Totals	7,140	8,426	9,748	11,119
	Difference	3,920	2,634	1,312	(59)
Multiple Dry – Third Year	Supply Total	11,060	11,060	11,060	11,060
	Demand Totals	7,140	8,426	9,748	11,119
	Difference	3,920	2,634	1,312	(59)

Source: GDPUD 2016

Water supplies at the Knickerbocker Flat campground would be limited to spigots for campground use. Assuming 11,628 annual visitors (based on recorded visitation per year at existing ASRA/APL campsites), and a use factor of 10 gallons per day per visitor, water demand would total 116,280 gallons per year, or 0.36 acre-feet per year (AFY). As shown above in Table 4.13-1, adequate water supply exceeds demand under through 2030 under normal, dry, and multiple-dry year scenarios, however, in 2035 demand exceed supplies during dry and multiple-dry years scenarios. To address projected deficiencies, GDPUD adopted Ordinance 2005-01, which would restrict agricultural water supplies to ensure that municipal demands are met. Because approximately 70 percent of water demands from GDPUD are agricultural, it is reasonable to assume that up to 7,882 AFY (70 percent of 11,060 AFY demand total in 2035) would be available for municipal use during single and multiple dry years. This would provide an adequate water supply to service the Knickerbocker campground during normal, dry, and multiple-dry year conditions.

Thus, implementation of the Proposed Action would result in a **less-than-significant** impact from water demand, for the purposes of CEQA. The effects from the Proposed Action related to water demand would be greater than the No Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would not include any facilities requiring new municipal water supplies, nor would it expand existing uses or facilities such that they would result in an increase in water consumption. Thus, implementation of the Proposed Action would result in a **less-than-significant** impact related to water demand, for the purposes of CEQA. The effects from the RME Alternative related to water demand would be similar to the No Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities.

Water demands under the RE Alternative would be approximately 1.4 AFY (10 gallons for 44,976 visitors at the Knickerbocker campground). For the reasons discussed above for the Proposed Action, water supplies would be sufficient during normal, dry, and multiple dry years to meet demand associated with the Knickerbocker campground. No other municipal water supplies would be included in this alternative. Thus, implementation of the RE Alternative would result in a **less-than-significant** impact related to water demand, for the purposes of CEQA. The effects from the RE Alternative related to water demand would be greater than the No Action Alternative.

Mitigation Measures

No mitigation measures are required for any alternatives.

Impact 4.13-2: Increased demand on wastewater treatment

Impact Summary

In general, vault toilet systems would be used for restrooms throughout ASRA/APL. These toilets have a lined concrete vault, which can store 500 to 1,500 gallons of waste. When the vault is full, it is pumped out by a septic tank service truck, which hauls the waste offsite to certified location (e.g., wastewater treatment plant). Treatment of wastewater through these systems occurs through contracts between the treatment facility and the septic tank service business. Thus, wastewater would be accepted by wastewater treatment facilities only when capacity is available. For these reasons, implementation of the No-Action Alternative, Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact related to increased demand for wastewater treatment, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged and there would be no substantial increase in wastewater treatment demand associated with new facilities. This alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. Visitation is expected to continue to increase under the No-Action Alternative due to regional population growth. This could result in an incremental increase in demand for wastewater treatment at existing facilities. Treatment of wastewater from existing facilities (i.e., vault toilets) occurs through contracts between the treatment facility and the septic tank service business. Thus, wastewater would be accepted by wastewater treatment facilities only when capacity is available, and the No-Action Alternative would not substantially affect capacity at a municipal wastewater treatment plant. This alternative would have a **less-than-significant** effect related to increased wastewater treatment demand, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 220 individual, five group, and five alternative campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural and biological resource protection. In addition to overnight camping, day-use recreational activities within ASRA/APL would continue to include hiking, trail running, mountain bicycling, and horseback riding on trails throughout ASRA/APL as well as whitewater boating, swimming, sunbathing, wildlife and nature viewing, painting, and photography. The Proposed Action would also continue to support special events.

Vault toilet systems would be used for restrooms throughout ASRA/APL. These toilets have a lined concrete vault, which can store 500 to 1,500 gallons of waste. Septic tanks may also be installed at the Cool Staging Facility. Periodically, vault and septic systems must be pumped out by a septic tank service truck, which hauls the waste offsite to certified location (e.g., wastewater treatment plant). Treatment of wastewater through these systems occurs through contracts between the treatment facility and the septic tank service business. Thus, wastewater would be accepted by wastewater treatment facilities only when capacity is available and the GP/RMP would not substantially affect capacity at a municipal wastewater treatment plant.

Thus, implementation of the Proposed Action would result in a **less-than-significant** impact related to increased wastewater demand, for the purposes of CEQA. The effects from the Proposed Action related to solid waste generation would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, there would be additional vault toilet systems, but fewer vault toilets than under the Proposed Action. For the same reason described above for the Proposed Action, implementation of the RME Alternative would result in a **less-than-significant** impact related to increased wastewater demand, for the purposes of CEQA. The effects from RME Alternative related to solid waste generation would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to, but more expansive than, those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other facility improvements throughout ASRA/APL.

Wastewater demands under the RE Alternative would be similar to, but greater than, those described above for the Proposed Action. For the same reasons described above for the Proposed Action, implementation of the RE Alternative would result in a **less-than-significant** impact related to wastewater treatment demand, for the purposes of CEQA. The effects from the RE Alternative related to solid waste generation would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.13-3: Increased demand for solid waste collection and disposal

Impact Summary

An increase in visitation at ASRA/APL would be anticipated from implementation all alternatives and may result in a small increase in solid waste generation. The increase would be minimal because no commercial facilities exist within ASRA/APL and all potential waste products would be brought in by recreation users. Additional waste would be associated with new uses, including campgrounds, trailheads, and picnic areas, and may include items such as food wrappers and drink containers. The local landfill facilities have substantial capacity to accept a small increase in waste generation. For these reasons, implementation of the No-Action Alternative, Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact related to increased demand for solid waste collection and disposal, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged and there would be no increase in solid waste generation. This alternative retains current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. While visitor capacity would not be increased, visitation is expected to continue to increase due to regional population growth, which may result in a small increase in solid waste generation. The increase would be minimal because no commercial facilities exist within ASRA/APL, with the exception of ice sales at the Lake Clementine Marina, and potential waste products would be brought in by recreation users. This alternative would have a **less-than-significant** impact related to generation of solid waste, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Within ASRA/APL, solid waste is managed/collected through several means. Trash containers of various sizes are located throughout ASRA/APL, ranging from 33-gallon solid waste containers to several dumpsters, depending on capacity needs. Solid waste hauling service is managed through a third-party contract for the Auburn Sector Office, Lower Lake Clementine Boat Ramp, and Grizzly Bear Shooting Range. Concessionaires operating at Auburn Staging Area and Cave Valley Climbing Area provide collection service at those locations. In general, the remainder of solid waste generated at ASRA/APL is collected by CSP staff, although visitors are encouraged to pack out their refuse at several locations. More specifically, CSP staff is responsible for collection/hauling at the following locations: Confluence, China Bar entrance (off Maidu), China Hill parking lot, Cool Staging Area, Mammoth Bar, Upper Lake Clementine, Greenwood Access/Ruck-A-Chucky Campground, Ponderosa Bridge, Yankee Jims, and Mineral Bar.

An increase in visitation at ASRA/APL or up to 35 percent would be anticipated from implementation of the Proposed Action, which may result in a small increase in solid waste generation. The increase would be minimal because no commercial facilities exist within ASRA/APL, with the exception of ice sales at the Lake Clementine Marina, and potential waste products would be brought in by recreation users. Additional waste would be associated with new uses, including campgrounds, trailheads, and picnic areas, which may include items such as food wrappers and drink containers. Solid waste would be hauled from ASRA/APL and brought to the Western Placer Waste Management Authority (WPWMA) materials recovery facility (MRF) where recycling materials (including newspaper, cardboard, metals, glass, plastics, green waste, and wood waste) would be separated from the trash. Non-recyclable materials are disposed of at the Western Regional Sanitary Landfill (WRSL). Operation

of the MRF achieves the 50 percent waste diversion requirements of AB 939 through diversion of recyclable materials.

Construction and demolition (C&D) waste would be generated by construction of new facilities, including restrooms, trail bridges, administrative facilities, and campgrounds. In accordance with Section 5.408 of the CALGreen Code, the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse of a minimum of 65 percent of C&D debris generated during project construction.

The MRF is permitted to receive 1,750 tons of material daily. The municipal solid waste processing capacity of the MRF is rated at approximately 2,025 tons per day and the processing capacity of C&D, wood and green waste area is approximately 400 tons per day. The most recently available data, from 2007, indicates that the MRF typically receives approximately 1,275 tons per day (185 tons of which are C&D), and substantially less on the weekend because commercially hauled waste tends to occur Monday through Friday (CalRecycle 2017). There is sufficient capacity at the MRF to accept the anticipated slight increase in solid waste generated at ASRA/APL.

The WRSL is permitted to operate through 2058. The WRSL is located on approximately 320 acres of land owned by the WPWMA. The permitted area of the WRSL is approximately 291 acres, with approximately 231 acres permitted for disposal activities. The WPWMA also owns approximately 465 acres to the west of the active WRSL for use as future WRSL expansion, and 158 acres immediately east of the active WRSL. Thus, with consideration of existing remaining capacity and potential for expansion, there is sufficient capacity at the WRSL at accept the anticipated slight increase in solid waste generated at ASRA/APL. Thus, the project would not generate solid waste in excess of State of local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals or other federal, state, and local management and reduction status and regulations. Thus, implementation of the Proposed Action would result in a **less-than-significant** impact related to increased solid waste generation, for the purposes of CEQA. The effects from the Proposed Action related to solid waste generation would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, there would be very few new recreational facilities, and increases in solid waste generation would be minimal. As described above, sufficient capacity exists at the MRF and WRSL to accept this nominal increase in solid waste. Thus, implementation of the RME Alternative would result in a **less-than-significant** impact related to increased solid waste generation, for the purposes of CEQA. The effects from the RME Alternative related to solid waste generation would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to, put more numerous than, those described above for the Proposed Action. The RE Alternative could result in up to an estimated 45 percent increase in visitation upon full build out of the GP/RMP. This increased visitation could generate additional solid waste. Solid waste generation under the RE Alternative would be similar to that described above for the Proposed Action. As described above for the Proposed Action, sufficient capacity for solid waste exists at the MRF and WRSL. Implementation of the RE Alternative would result in a **less-than-significant** impact related to solid waste generation, for the purposes of CEQA. The effects from the RE Alternative related to solid waste generation would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.13-4: Increased demand for fire protection, law enforcement, and emergency medical services

Impact Summary

CSP law enforcement rangers patrol ASRA/APL, responding to emergencies, issuing citations, and, along with maintenance and seasonal staff, are the most highly visible representatives of CSP throughout ASRA/APL. With increased visitation and use at ASRA/APL, under all of the alternatives, there may be an increased need for law enforcement ranger patrols. Fire protection at ASRA/APL is provided by CAL FIRE for federal lands, under an agreement with Reclamation. Construction and operation of new facilities associated with the Proposed Action would implement GP/RMP goals and guidelines, CSP Standard Project Requirements, and the Uniform Fire Code and Uniform Building Code to meet maintain adequate fire protection, law enforcement, and emergency medical services within ASRA/APL. For these reasons, implementation of the No-Action, Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact related to increased demand for fire protection, law enforcement, and emergency medical services, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged. Due to regional population growth, visitation to ASRA/APL would be expected to continue to increase under the No-Action Alternative there could be minor increases in demand for fire protection, law enforcement, and emergency medical services. The increase in demand would be within the capacity of exiting service providers, as described in more detail under the Proposed Action, below. Therefore, this alternative would have a **less-than-significant** impact related to fire protection, law enforcement, and emergency medical services, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in new recreational facilities, including campsites (up to 220 individual, five group, and five alternative campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities, and cultural and biological resource protection. In addition to overnight camping, day-use recreational activities within ASRA/APL would continue to include hiking, trail running, mountain bicycling, and horseback riding on trails throughout ASRA/APL as well as whitewater boating, swimming, sunbathing, wildlife and nature viewing, painting, and photography. The Proposed Action would also continue to support special events. Upon full build out of the Proposed Action, visitation could increase by an estimated 35 percent (see the "Visitation" section under Section 2.5.2). The increase in visitation could increase demand for emergency public services. Potential impacts on fire protection and emergency services could occur if new facilities are not designed properly, and adequate emergency access and evacuation are not provided. Emergency access and evacuation are discussed in Section 4.17, Wildfire.

CSP law enforcement peace officers/rangers patrol ASRA/APL, responding to emergencies, issuing citations, and along with maintenance and seasonal staff are the most highly visible representatives of CSP throughout ASRA/APL. State and county roadways through ASRA/APL are also patrolled by California Highway Patrol and the Placer and El Dorado County Sheriff Departments. With increased

visitation and use at ASRA/APL, under the Proposed Action, there may be an increased need for patrols. The GP/RMP provides public safety and law enforcement goals and guidelines that encourage strengthening public safety and security measures through actions such as updated emergency response plans, increased trained and equipped law enforcement officers, and coordination with other agencies to improve electronic connectivity and communications (Goal OP 3, Guidelines OP 3.1 through OP 3.4). The GP/RMP also includes goals to decrease risks to visitors from short-term or exceptional safety hazards through effectively communicating risks and safety measures. This may include the use of social media, signage, public service announcements, and other approaches to convey risks and safety measures (Goal OP 4, Guideline OP 4.1).

Fire protection at ASRA/APL is provided by CAL FIRE. CAL FIRE and Reclamation have an existing agreement in place to address fire suppression on federal lands, including ASRA/APL. This agreement requires CAL FIRE to provide fire suppression for all wildfires within Reclamation's lands and for Reclamation to pay CAL FIRE for costs incurred during a fire. Although the Proposed Action is expected to increase visitation in the ASRA/APL, the Proposed Action would implement Goals RES 8, RES 9, and RES 10 and associated guidelines. These goals would result in the appropriate vegetation management to reduce the potential for and severity of wildfires, enforcement of fire restrictions and related regulations to reduce the potential for human-caused wildfire, and improvements to emergency access and evacuation infrastructure and operations. These goals and guidelines, and the associated effect on the demand for fire protection are addressed in more detail in Section 4.17, Wildfire.

New facilities at ASRA/APL would be constructed according to minimum necessary fire protection and safety requirements identified in the Uniform Fire Code and Uniform Building Code. Additionally, the construction of future facilities would implement CSP Standard Project Requirements to reduce impacts. With implementation of Standard Project Requirements for developing a Fire Safety Plan as well as other typical construction practices, such as using heavy equipment that include spark arrestors for reducing the chance of fire, the potential impacts on fire protection and emergency response services would not be substantial.

As discussed above, through compliance with Goals RES 8, RES 9, and RES 10 and associated guidelines, CSP Standard Project Requirements, and other regulations, the Proposed Action would ensure protective services (fire, law enforcement, and emergency) are provided at appropriate levels. Thus, implementation of the Proposed Action would result in a **less-than-significant** impact related to increased demand for fire protection, law enforcement, and emergency medical services, for the purposes of CEQA. The effects from the Proposed Action related to public services levels would be greater than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, there would be new recreational facilities although fewer than under the Proposed Action. Implementation of the RME Alternative could result in an estimates four percent increase in visitation (see the "Visitation" section under Section 2.5.2). This increase in visitation could result in a commensurate increase in the demand for fire protection, law enforcement, and emergency medical services. The RME Alternative would implement the same GP/RMP goals and guidelines, CSP Standard Project Requirements, and the Uniform Fire Code and Uniform Building Code requirements as the Proposed Action. For the reasons described above for the Proposed Action, implementation of the RME Alternative would result in a **less-than-significant** impact related to the need for increased fire protection, law enforcement, and emergency medical services, for the purposes of CEQA. The effects from the RME Alternative related to public services levels would be greater than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would result in a greater capacity for visitation than the Proposed Action and could result in an estimated 45 percent increase in visitation (see the "Visitation" section under Section 2.5.2). This could result in a commensurate increase in the demand for emergency services. ASRA/APL would continue to be provided with adequate fire suppression services from CAL FIRE regardless of this increase.

The RE Alternative would implement the same GP/RMP goals and guidelines, CSP Standard Project Requirements, and the Uniform Fire Code and Uniform Building Code requirements as the Proposed Action. For the reasons described above for the Proposed Action, implementation of the RE Alternative would result in a **less-than-significant** impact related to the need for increased fire protection, law enforcement, and emergency medical services, for the purposes of CEQA. The effects from the RE Alternative related to solid waste generation would be greater than the No-Action Alternative.

Mitigation Measures

No mitigation measures required for any of the alternatives.

Cumulative Impacts

The cumulative context for water supply is the GDPUD boundary. As discussed in Impact 4.13-1, the GP/RMP revision would result in a less-than-significant impact related to water supply. As identified in the GDPUD UWMP, there would be sufficient water supplies to meet future demand of projected population increases in the GDPUD service area because agricultural water supplies would be restricted to ensure that domestic water demands are met during dry and multiple dry year scenarios in 2035. For these reasons, the GP/RMP revision would not combine with cumulative projects to result in a significant cumulative impact on water supply. Cumulative impacts would be less than significant.

Wastewater would be collected in septic tanks and vault toilets and would not combine with public treatment and conveyance systems to create a cumulative condition. Thus, cumulative impacts would be less than significant.

The cumulative context for solid waste consists of areas served by WPWMA. Contributions of solid waste to the landfill associated with the project operations would be minimal. The project operations would continue to achieve the 50 percent waste diversion requirements of AB 939 through diversion of recyclable materials at the MRF. C&D activities associated with the GP/RMP would be required to recycle or salvage for reuse a minimum of 65 percent of C&D debris in accordance with Section 5.408 of the CALGreen Code. The MRF currently receives substantially less material than permitted (most recent estimate is 1,275 tons per day received of the 1,750 tons per day permitted). In addition, the Western Regional Sanitary Landfill has capacity remaining through 2058 and room for expansion. Thus, the project would not generate solid waste in excess of State of local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals or other federal, state, and local management and reduction status and regulations. Cumulative impacts would be less than significant.

The cumulative context for fire protection is the entire region for which under CAL FIRE provides suppression services and the cumulative context for law enforcement and emergency services is the boundaries of ASRA/APL. Because law enforcement and emergency services are limited to ASRA/APL boundaries, the GP/RMP would not combine with cumulative projects to create a cumulative condition. CAL FIRE would remain available to provide fire suppression services, as incidents occur. Increased demand on CAL FIRE services would not be associated with the plans and projects listed in Table 4.1-2. Thus, cumulative impacts related to fire protection, law enforcement, and emergency services would not occur. Taken together, public services and utilities cumulative impacts associated with the GP/RMP alternatives would be **less than significant.**

4.14 Recreation

This section evaluates the effects of the ASRA GP/APL RMP on recreation resources, as defined by CEQA and the NEPA regulations. The following sections of the GP/RMP provide details on the environmental and regulatory setting related to recreation in ASRA/APL: Section 2.1.2, Regional Recreation Context; Section 2.3.1, Existing Land Uses; Section 2.3.2, Recreation Facilities; Section 2.4.1, Visitor Profile; Section 2.4.2, Recreation Opportunities; and the "Americans with Disabilities Act of 1990," "Architectural Barriers Act of 1968," and "Access for Visitors with Disabilities" sections under Section 2.8.2, ASRA/APL Regulatory Influences. Additional detail on the environmental setting is provided in Chapter 3, Recreation Resources and Visitor Use, of the Existing Conditions Report. Those sections of the GP/RMP and Existing Conditions Report are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/. Relevant goals and guidelines are summarized in the following sections of Chapter 4, The Plan, of the GP/RMP: Section 4.3.1, Resource Management and Protection; Section 4.3.2, Visitor Experience and Opportunities; and Section 4.3.4, Interpretation and Education.

The GP/RMP alternatives would not create additional demand for recreation facilities such as a residential or tourist development might. Therefore, the project would not 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, and that issue is not addressed in detail.

4.14.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The following analysis assesses the environmental effects of each alternative with respect to the existing or currently proposed recreation uses and facilities in ASRA/APL. This analysis is based on review of existing documents, policies, ordinances, and other regulations pertinent to recreation.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines impacts on recreation resources would be significant if the project would:

- include recreational facilities or require the construction or expansion of recreational facilities that have an adverse physical effect on the environment; or
- substantially degrade the quality of recreation experience for recreation user groups such as hikers, mountain bicyclists, horseback riders, human-powered watercraft users, and mineral collectors.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from an alternative. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. The factors that are taken into account under NEPA to determine adverse effects of an action are in terms of the context and intensity of the effects and are encompassed by the CEQA criteria used for this analysis; including the effects to the recreation experience in the context of the study area as whole.

An adverse impact on recreation would indicate a marked decline in the quality or quantity of opportunities to participate in a recreation activity as a result of implementing an alternative. Therefore, to determine whether an impact is adverse, this discussion considers the effect of an alternative on recreational facilities, the setting and physical resources, and the character and diversity of recreation opportunities.

Environmental Impacts

Impact 4.14-1: Include new or expanded recreational facilities that have an adverse physical effect on the environment

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would provide additional or expanded recreational facilities similar to existing recreational amenities, including campsites, trails, and day-use facilities in most or all of the management zones in ASRA/APL. Each alternative would result in different levels of recreation facility construction, with the RME Alternative resulting in the least potential for construction of new facilities while also removing some recreation facilities. The RE Alternative would result in the greatest amount of construction associated with recreation facilities of the three action alternatives. The GP/RMP includes goals and guidelines that would avoid or reduce construction-related impacts. Additionally, potential adverse environmental effects associated with construction of recreation facilities would be reduced through compliance with applicable regulatory requirements and implementation of CSP Standard Project Requirements (see Appendix A of this EIR/EIS) and BMPs. For these reasons, implementation of the Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact from construction of recreational facilities, for the purposes of CEQA, and would have a greater effect than the No-Action Alternative.

The No-Action Alternative would result in no construction or expansion of recreation facilities, and would have a **less-than-significant** impact, for the purposes of CEQA from construction of recreational facilities.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged. The Interim RMP includes proposals for construction of various facilities and the development of guidelines and programs that would provide for public health and safety, resource protection, volunteerism, and recreation enhancement. This alternative would retain current facilities and land uses according to current practices and as specified in the Interim RMP. Development of facilities to support recreation would be limited. As under existing conditions, the No-Action Alternative could result in basic maintenance, and infrastructure and operational improvements. Any construction activities would be implemented to comply with applicable laws and regulations that minimize construction-related effects, including CSP SPR (Appendix A) and BMPs. This alternative would have a **less-than-significant** impact from construction related to the provision of new or expanded recreational facilities, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Construction activities associated with new recreation facilities described for the Proposed Action in Chapter 2, Project Description and Alternatives, and summarized in Table 2.4-2 may include clearing vegetation, widening roads or trails, grading, and the installation of vehicle barriers, signage, fencing, and drainage features. Such activities could require use of vehicles and heavy equipment, and building

materials and supplies, and would generate noise and air emissions. Where feasible, construction of new facilities would be located in existing disturbed and flat areas within ASRA/APL. These construction activities could result in adverse physical effects on the environment, which are assessed in the applicable resource sections of this EIR/EIS. In particular, these construction activities could result in potential adverse impacts related to air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, and noise.

Construction activities associated with new or expanded recreation facilities would be required to implement applicable construction best management practices included in the CSP Standard Project Requirements (e.g., utilizing construction equipment that uses best available noise control techniques, implementing dust suppression techniques, and preparation of a Spill Prevention and Response Plan (SPRP) as part of the Storm Water Pollution Prevention Plan (SWPPP) for projects greater than 1 acre (see Appendix A). Also, see Impact 4.2-1 in Section 4.2, Air Quality; Impacts 4.3-1 through 4.3-5 in Section 4.3, Biological Resources; Impacts 4.4-1 through 4.4-4 in Section 4.4, Cultural, Paleontological, and Tribal Cultural Resources; Impacts 4.7-1 through 4.7-5 in Section 4.7, Geology and Soils; Impact 4.9-1 in Section 4.9, Hydrology and Water Quality; and Impact 4.11-1 in Section 4.16, Noise, for more detailed discussions of how GP/RMP goals and guidelines, implementation of CSP Standard Project Requirements, and other regulatory requirements would reduce construction-related impacts.

By implementing applicable CSP Standard Project Requirements and BMPs during construction and complying with guidelines that apply throughout ASRA/APL and management zone guidelines for the protection of environmental resources during construction activities, implementation of the Proposed Action would result in a **less-than-significant** impact from construction of recreational facilities, for the purposes of CEQA. The effects from the Proposed Action related to construction of recreational facilities would be greater than those of the No-Action Alternative because it would include the construction of a greater number of recreational facilities.

Resource Management Emphasis (RME) Alternative

Under the RME Alternative, construction activities would be associated with removal of some recreation-related facilities and the provision of some new facilities as described in Chapter 2, Project Description and Alternatives, and summarized in Table 2.4-2. Their potential effects on the environment would be similar to those described above for the Proposed Action. Additionally, as described above for the Proposed Action, construction activities associated with new recreation facilities would be required, as applicable, to implement construction best management practices included in the CSP Standard Project Requirements, BMPs and implement other relevant GP/RMP goals and guidelines and other regulatory requirements that would reduce construction-related impacts.

By implementing applicable CSP Standard Project Requirements during construction and complying with guidelines that apply throughout ASRA/APL and management zone guidelines for the protection of environmental resources during construction activities, implementation of the RME Alternative would result in a **less-than-significant** impact from construction of recreational facilities, for the purposes of CEQA. The effects from the RME Alternative related to construction of recreational facilities would be similar to those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Many of the recreation and day-use facilities constructed under the RE Alternative would be similar to those that would be constructed for the Proposed Action (see Chapter 2, Project Description and Alternatives and Table 2.4-2). Construction activities and their potential effects on the environment would be similar to, but more expansive than, those described above for the Proposed Action. As

described above for the Proposed Action, construction activities associated with new recreation facilities would be required to implement applicable construction best management practices included in the CSP Standard Project Requirements and implement other relevant GP/RMP goals and guidelines, BMPs and other regulatory requirements that would reduce construction-related impacts.

By implementing applicable CSP Standard Project Requirements during construction and complying with guidelines that apply throughout ASRA/APL and management zone guidelines for the protection of environmental resources during construction activities, implementation of the RE Alternative would result in a **less-than-significant** impact from construction of recreational facilities, for the purposes of CEQA. The effects from the RE Alternative related to construction of recreational facilities would be greater than those of the No-Action Alternative because it would result in the construction of a greater number of recreation facilities.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.14-2: Changes to the availability of recreation opportunities and quality of recreation user experience

Impact Summary

A range of factors resulting from implementation of the action alternative would result in changes to the availability of recreation opportunities and influence the quality of visitor experience. The Proposed Action and RE Alternative would: 1) increase the availability of recreation opportunities; 2) not result in a substantial adverse change in quality of recreation user experience due to temporary construction activities; 3) reduce the potential for user conflicts; 4) not result in worsening conditions related to crowding and congestion; 5) address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities; and 6) be consistent with plans that are intended to meet local, regional, and statewide recreation demand.

For these reasons, implementation of the Proposed Action and RE Alternative would result in a **less-than-significant** impact related to changes to the availability of recreation opportunities and quality of recreation user experience, for the purposes of CEQA, and would increase the availability of recreation opportunities and improve the quality of recreation user experience compared to the No-Action Alternative.

The RME alternative would have similar effects as the Proposed Action and RE Alternative. However, the RME alternative would result in fewer new recreation opportunities and would remove some existing opportunities. Consequently, the RME Alternative would result in a **less-than-significant** impact, for the purposes of CEQA, and would have a similar effect as the No-Action Alternative.

The No-Action Alternative would result in no substantial change to the availability of recreation opportunities. In light of the anticipated increase in visitation resulting from regional population growth and because there would be no change in visitor capacity, the No-Action Alternative could result in adverse effects on quality of recreation user experience associated with crowding, congestion, and recreation user conflicts. However, selection of the No-Action Alternative would not exacerbate this existing trend. Therefore, this impact would be **less than significant**, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the Interim RMP would remain unchanged. The Interim RMP includes proposals for various facilities and it calls for programs that would provide for public health and safety, resource protection, volunteerism, and recreation enhancement. While implementation of this alternative would allow some improvements to occur within ASRA/APL, the range of recreation facilities and programs proposed by the action alternatives, such as development and implementation of a Road and Trail Management Plan, would not occur. Although the No-Action Alternative includes no planned improvements that would increase visitor capacity in ASRA/APL, visitation is still anticipated to increase by an estimated 30 percent (from 1 million visitors to 1.3 million visitors) based on continuing population growth in the region. Without capacity-enhancing improvements at ASRA/APL, this increase in visitation would result in additional crowding and congestion during peak periods that could expand to areas that are currently less heavily used. Additionally, as described below for the Proposed Action, there is unmet, latent demand for specific recreation opportunities (e.g., walking/hiking, camping, picnicking). Under the No-Action Alternative, this latent demand for recreation opportunities would continue to be unmet in ASRA/APL. The No-Action Alternative does not include proactive plans, such as a Road and Trail Management Plan, to propose new trails that would provide a more equitable distribution of trail resources to the different user groups (e.g., hikers, equestrians, and mountain bikers). Without these additional facilities, 300,000 more visitors in ASRA/APL could result in increased recreation user conflicts between these groups. In spite of the substantial remote low-density, dispersed recreation opportunities that would remain throughout ASRA/APL, increases in crowding, congestion, and recreation user conflicts in ASRA/APL could contribute to a decrease in the quality of recreation user experience.

Although there would be no substantial change to the availability of recreation opportunities, ASRA/APL would continue to experience increases in visitation, which would lead to more crowding and congestion and recreation user conflicts. Additionally, this alternative would not meet latent demand for certain recreation opportunities. While, the No-Action Alternative would not proactively increase visitor capacity to address increasing visitation and latent demand, the increased visitation would occur incrementally, and visitors could choose to instead visit other recreation destinations in the region. In addition, the No-Action Alternative would not address latent demand for recreation, but it would not exacerbate this latent demand. For these reasons, this impact would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Availability of Recreation Opportunities

The Proposed Action includes Goal V I and Guidelines V 1.1 through V 1.12 and Goal FAC 3 and Guidelines FAC 3.1 and FAC 3.2, which demonstrate continued support for providing a wide range of outdoor recreation opportunities in ASRA/APL related to camping, trail use, OHV use, and whitewater and river recreation. The Proposed Action also supports continuation of existing allowed recreation uses related to recreational mineral resource extraction and hunting (Guidelines V 1.8 and V 1.10). New facilities, improvements to existing facilities, and other actions proposed by the Proposed Action that help implement these goals and guidelines are described below.

The Proposed Action proposes to change the distribution of land uses in ASRA/APL to anticipate and accommodate increases in regional recreation demand by enhancing existing facilities and providing additional recreational facilities and access while also increasing resource protection and management. This alternative would result in increases in land use designations that allow more intensive recreational use in a developed and structured setting, such as Recreation – High and Recreation –

Medium land uses. The overall area available for OHV use would not change (see Table 2.4-3 and Figures 2.6-1a through 2.6-1d in Chapter 2, Project Description and Alternatives). The following discussions describe the types of facilities and improvements that would be facilitated by these land use changes. The Proposed Action would maintain the Resources – Low Recreation designation in 56 percent of ASRA/APL (over 17,000 acres). This means that the majority of ASRA/APL would be available for dispersed recreation uses and the opportunity for visitors to have a primitive, backcountry experience. Resources – Low Recreation areas offer opportunities for more challenge- and adventure-based recreational activities in a more remote and natural setting.

Camping

The Proposed Action would increase overnight camping by up to 230 campsites within ASRA/APL (from 38 existing to up to 268 total developed campsites). New campgrounds could be located in the Knickerbocker Management Zone (50 individual sites and three group campsites), Mammoth Bar Management Zone (50 individual sites if the OHV tracks are relocated), Auburn Interface Management Zone (50 individual sites and one group campsite), Cherokee Bar/Ruck-a-Chucky Management Zone (20 individual sites and one group campsite), and Foresthill Divide Management Zone (20 individual sites). The existing campgrounds in the Cherokee Bar/Ruck-a-Chucky and Mineral Bar Management Zones could also be expanded to include additional campsites. Implementation of Guidelines FAC 2.7 and OP 5.1 require that existing and new facilities, such as campgrounds, in ASRA/APL be accessible in accordance with the CSP Transition Plan for ASRA and in compliance with Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) requirements.

Trails

The Proposed Action would require development and implementation of a Road and Trail Management Plan (RTMP). The RTMP would determine which routes to retain, expand, re-align, improve, add, or remove/restore. The RTMP would also consider changes in trail design or use designations, including changes in trails that are open for hiking/trail running, horseback riding, and mountain biking to manage conflicts between trail users. The RTMP would establish a comprehensive trail maintenance program including partnerships with volunteer organizations to increase trail maintenance. Guideline FAC 2.1 also requires coordination with the CSP Accessibility Section to proactively identify priority trail segments that can provide ADA trail access.

The Proposed Action identifies several major trail connections to be constructed, improved, or extended including:

- an Auburn-to-Cool trail bridge and improved trail connections between Auburn and Cool,
- a trail from the Confluence to Ponderosa Road crossing,
- a trail bridge on the Western States Trail at the Greenwood Bridge site,
- a trail connecting Windy Point Trail to Indian Creek Trail in the Upper North Fork Management Zone,
- a trail connecting the Olmstead Loop in the Knickerbocker Management Zone to Peninsula Campground in Folsom Lake State Recreation Area, and
- technical or downhill mountain biking trails in the Auburn Interface and Mammoth Bar Management Zones.

OHV Use

The Mammoth Bar OHV area may increase OHV use from every other day to up to six days per week. The total area available to OHV use would not change and CSP and Reclamation would consider relocating the OHV tracks to an upland location in the Castle Rock Activity Node. Relocation of the OHV tracks would allow for a new campground, picnic sites, parking stalls, and restrooms to be added to the current staging area.

River Access and Use

Implementation of the Proposed Action would promote river access and recreation by constructing new or modifying existing river launching and landing facilities, increasing paddlecraft concession opportunities below the Confluence, promoting shuttle services for paddlers, and improving portage trails at Murderers Bar Rapid and Ruck-a-Chucky Falls. On the Upper North Fork and Middle Fork, the Proposed Action would maintain the existing system of whitewater management and would consider increasing the number of permitted commercial whitewater launches in response to demonstrated demand (Guidelines V 3.1 and 3.2). It would also provide paddlecraft concession opportunities that include classes, trips, rentals and boat storage facilities at either Lower Lake Clementine or Upper Lake Clementine. Continued beach use at Upper Lake Clementine would be enhanced by improving the entrance road to improve drainage and potentially extend the time that the Upper Lake Beach is open for public use.

The Proposed Action would also expand vehicle access to the river to provide additional river access opportunities and reduce congestion at existing river access points. It would improve and open Knickerbocker Road from Cool down to the Lower North Fork of the American River in the Knickerbocker and Auburn Interface Management Zones. It would improve access to the Middle Fork by opening the McKeon-Ponderosa Road for public use, and by improving Drivers Flat Road and Sliger Mine Road in the Cherokee Bar/Ruck-a-Chucky Management Zone. Access to ASRA/APL would also be enhanced through shuttle bus opportunities from the City of Auburn to the Auburn Interface and Confluence Management Zones.

Other Day-Use Recreation

Day-use recreation opportunities would increase through the addition of up to 470 parking spaces (increasing from an estimated 1,579 existing spaces to a total of up to 2,049 total parking spaces), up to 140 new picnic sites, restrooms, and other day use facilities throughout ASRA/APL. New day-use facilities or improvements to existing day-use facilities would comply with the CSP Transition Plan for ASRA, which includes increasing accessibility in ASRA/APL. As described above, implementation of the GP/RMP would include implementing goals and guidelines that support increasing accessibility in ASRA/APL in compliance with ADA and ABA. Rock climbing at the Cave Valley Climbing Area would continue to be supported and opportunities for rock climbing would be made available in other areas of the Confluence Management Zone. The Proposed Action would also facilitate guided mine tours of the Mountain Quarries Mine.

Implementation of the Proposed Action would expand interpretive and educational programs that would inform the public about the natural and cultural resources at ASRA/APL and encourage visitors to become engaged as stewards of ASRA/APL. Interpretive information would be provided at major areas of visitor concentration and staffed interpretive opportunities would be offered in these areas during peak periods.

As described above, the Proposed Action would increase the recreation opportunities for visitors at ASRA/APL.

Quality of Visitor Experience

Implementation of the Proposed Action could affect the quality of visitor experience in ASRA/APL could be influenced by a number of factors, including availability of recreation opportunities, temporary effects of construction activity on the recreation experience, conflicts between different user groups, the degree of crowding and congestion experienced by visitors, and the extent to which the plan would address latent demand (i.e., the unmet demand for particular recreation opportunities). As described above, the Proposed Action would increase the availability of recreation opportunities, which would benefit one aspect of the visitor experience. Other aspects of the recreation experience that affect the quality of visitor experience are discussed below.

Temporary Construction Effects

Maintenance, expansion, or addition of campsites, picnic sites, restrooms, boat launches, trails, and other recreation facilities could have temporary, minor construction-related impacts such as fugitive dust and noise, disruption to visitor circulation, and restriction to visitor areas. These activities could affect the quality of the recreation experience for visitors near those construction areas. All management zones, with the exception of the Upper Middle Fork Management Zone, would include some level of construction activity. Construction activities would be generally focused at access points in ASRA/APL that experience the most concentrated activity by visitors, such as parking areas and trailheads. The effects of construction would interfere with recreation user experience, in particular for recreationists seeking a quieter or more remote, backcountry-like experience. As hikers, equestrians, and mountain bikers travel away from those construction areas, adverse effects such as construction noise would dissipate with distance and increase in vegetation and trees that block noise. Construction activities would occur incrementally over 20 or more years as funding becomes available, and project level design and environmental review can be completed. Therefore, construction activities would be phased over many years such that major construction activities would not occur simultaneously. Additionally, construction-related effects at any recreation site would be temporary and short-term. For these reasons, construction activities would not result in a substantial adverse change in quality of recreation user experience.

Recreation User Conflicts

Trails are one of the most heavily-used recreation resources within ASRA/APL with trail users consisting of hikers, trail runners, horseback riders, and mountain bikers. As discussed in Chapter 3, Issues and Analysis, of the GP/RMP, trail management, equity of mountain bike, equestrian, and pedestrian access to the existing trails, and conflicts between these user groups (in particular, between equestrians and mountain bikers) were some of the primary public concerns identified during the planning process for the GP/RMP. Recreation user conflicts that are perceived among trail user groups are in part due to concerns related to speed and trail etiquette, confusion with trail signage, and enforcement challenges.

Implementation of the Proposed Action would provide an additional opportunity to address recreation user conflicts. The Proposed Action includes a goal and guidelines that support providing a variety of user experiences in ASRA/APL. It would develop a RTMP as a subsequent plan to reduce potential hazards and user conflicts, establish a consistent wayfinding and sign program, and improve design of trails to follow CSP Trails Handbook guidelines and provide ADA trail access at feasible locations, among other requirements (Goal V 2 and Guideline V 2.1). The RTMP would designate trail uses for new and existing trails. Any designation that changes the existing uses would be made to accommodate different user groups, reduce potential safety issues, alleviate perceptions of conflicts, and provide a variety of experiences for visitors (Guideline V 2.3).

The Proposed Action would also include several major trail connections described above, including an Auburn to Cool trail bridge. These additional trail connections would increase the connectivity and length of trails available to trail users, which would contribute to a decrease in user conflicts by providing alternate trail routes and dispersing trail users over more miles of trail. The Proposed Action would also develop additional technical or downhill mountain bike trails in the Auburn Interface and Mammoth Bar Management Zones. These trails would help to meet the demand for challenging mountain bike trails. They would also redirect some of the high-speed mountain biking trail use, which can result in user conflicts, to designated technical mountain bike trails and away from trails that receive more equestrian and pedestrian use.

The Proposed Action also includes a guideline to monitor recreation user conflicts and use that information to modify management actions to reduce congestion as well as other impacts from visitors, such as resource damage and safety risks (Guideline V 1.12). CSP would also implement periodic surveys to assess the level of trail use, pattern of trail use, and user satisfaction to assist in trail system planning and management, including for reducing recreation user conflicts (Guideline V 2.2).

Implementation of the Proposed Action also provides an opportunity to address recreation user conflicts between paddlecraft and swimmers and sunbathers near the Confluence (Guideline MZ 13.1). A new river access route for paddlecraft could be developed to reduce this conflict.

While the existing conflicts between some recreation users would not be eliminated entirely, the elements of the Proposed Action described above would reduce the potential for user conflicts.

Crowding and Congestion

The Proposed Action would implement a number of road and access improvements to ASRA/APL, including by improving Knickerbocker Road and McKeon-Ponderosa Road and opening them to public vehicle use in the Knickerbocker, Auburn Interface, and Cherokee Bar/Ruck-a-Chucky Management Zones. CSP would also coordinate with other agencies to improve Sliger Mine Road, Yankee Jims Road, and Drivers Flat Road to better accommodate recreation use and access. These improvements would help increase access for visitors, including providing new river access opportunities, and increasing access during peak periods and during the spring rainy season when some roads become rutted and washed out. By increasing and improving access and adding parking and other facilities to the less-visited portions of ASRA/APL, implementation of the Proposed Action provides an opportunity to redirect use and reduce crowding in heavily used areas (e.g., the Confluence).

The increase in access to less-used areas of ASRA/APL would introduce more people into areas that have been used by visitors that are seeking a more solitary, backcountry type of recreation experience. Thus, the quality of recreation experience for these types of visitors might be somewhat reduced by the relative increase in crowding at these locations. However, as described above, a substantial (over 50 percent) portion of ASRA/APL would provide a remote backcountry experience with low density dispersed recreation because of the effort it takes to reach these areas. Although there would be some decrease in recreation user experience of visitors seeking a primitive, backcountry experience at some locations, the majority of ASRA/APL would still provide this opportunity.

Overall, the Proposed Action would reduce crowding by providing access opportunities that would redirect some visitation away from congested areas of ASRA/APL. This redirection of use, would result in a net reduction in congestion at heavily-used sites and a relative increase in crowding at some sites that are currently used by fewer visitors. Substantial remote low-density, dispersed recreation

opportunities would remain throughout ASRA/APL. For these reasons, the Proposed Action would not result in worsening conditions related to crowding and congestion.

Addressing Latent Demand

The Proposed Action includes additional recreational opportunities, described above, which are intended to accommodate expected continued increases in recreation demand and address unmet, latent demand for specific recreation opportunities. The CSP 2015 Statewide California Outdoor Recreation Plan (2015 SCORP) is the comprehensive statewide outdoor recreation planning document that reflects the current and projected changes in California's population, trends, and economy. The SCORP outlines outdoor recreation needs statewide and identifies strategies for meeting those needs. In a statewide survey conducted by CSP for the 2015 SCORP, respondents stated a desire for more opportunities for picnicking (55 percent of respondents), walking (37 percent of respondents), and camping (35 percent of respondents) (CSP 2014). Implementation of the Proposed Action would achieve an increase in each of these activities with development of the RTMP, an increase of up to 140 picnic sites, and up to 230 additional campsites, including new campgrounds.

In a visitor survey conducted by CSP for ASRA/APL, visitors indicated the greatest desire for improved learning opportunities, efforts to preserve resources, improved condition of facilities, and safety and security (CSP 2010). The Proposed Action includes planning for interpretive and educational programs by developing an interpretive mission, vision, and themes and identifies the American River as ASRA/APL's primary resource for interpretive significance that would be carried out through implementation of the goals and guidelines of the plan. Exceptional interpretation of ASRA/APL enhances visitors' awareness, understanding, and appreciation of the cultural, historic, natural, aesthetic, and recreation resources of ASRA/APL and the history and ongoing story of Auburn Dam, which leads to increased protection of those resources because of improved environmental literacy and cultural sensitivity. Interpretation sparks interest in learning more about the indigenous people, Euro-American history, Auburn Dam Project, and natural history of ASRA/APL. It would directly increase the quality of the visitor experiences by providing quality knowledge about ASRA/APL and inspirational opportunities (Goal I&E 5 and Guidelines I&E 5.1 through I&E 5.4). It would also indirectly contribute to the quality of the visitor experience through better stewardship of the resources of ASRA/APL (Goals I&E 3 and I&E 4 and Guidelines I&E 3.1 through I&E 3.6 and I&E 4.1 through I&E 4.6).

The interpretation and education program included in the Proposed Action also has a goal to engage all public audiences and provide equal access in ASRA/APL by providing an interpretive opportunities in a range of modalities (e.g., tactile, auditory, and visual-related media) and media that make interpretation interesting and accessible to all visitors (Goal I&E 6 and Guidelines I&E 6.1 and I&E 6.2). CSP would also explore the possibilities of new technologies to further enhance and expand ASRA/APL's interpretive program (Guideline I&E 6.4).

Preparation of the RTMP would also develop a wayfinding system for ASRA/APL trails (Guideline V 2.1). These guidelines would help achieve the desire of visitors for safety improvements by helping them understand safety issues as well as navigation in ASRA/APL. It directly increases the quality of the visitor experiences by enhancing visitor safety, decreasing issues with wayfinding, and providing quality knowledge and inspirational opportunities.

The Proposed Action proposes to implement a number of road and access improvements and would increase recreation opportunities to include more picnicking, camping, and trail use opportunities, which would meet expressed demand for more of these types of recreation opportunities in ASRA/APL.

For these reasons, the Proposed Action would address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities. It would also address visitor desires related to improving the condition of facilities, preserving natural and cultural resources, and improving safety.

Consistency with Recreation Plans

Implementation of the Proposed Action would include developing trail connections between existing trails that would improve trail connectivity along the North Fork American River between the Confluence Management Zone and the Mineral Bar Management Zone. The Proposed Action would also include the Auburn-to-Cool trail bridge that would connect trails in the Auburn Interface Management Zone on the Auburn side of the North Fork of the American River to the trails on the Cool side of the river. Another trail would connect the Olmstead Loop Trail in the Knickerbocker Management Zone to trails in Folsom Lake State Recreation Area. Implementation of these trail connections that are generally consistent with proposed trails identified in the Existing and Proposed Trails Maps (Placer County 2018) prepared to support the preparation of the Placer County Parks and Trails Master Plan. As the RTMP is developed, CSP would continue to coordinate with Placer County to develop a plan that would be consistent with the Placer County Parks and Trails Master Plan.

As described above, implementation of the Proposed Action would result in development of new facilities (e.g., campsites and picnic sites) that meet recreation demands identified by a survey conducted for the 2015 SCORP. Development of these types of facilities demonstrate that the Proposed Action would be consistent with and would implement the goals of the 2015 SCORP, which is a comprehensive statewide outdoor recreation planning document that reflects the current and projected demand for recreation opportunities based on California's population, trends, and economy. The Proposed Action would be consistent with these plans that are intended to meet local, regional, and statewide recreation demand.

Conclusion

A range of factors resulting from implementation of the Proposed Action would result in changes to the availability of recreation opportunities and influence the quality of visitor experience. As described above, the Proposed Action would: 1) increase the availability of recreation opportunities; 2) not result in a substantial adverse change in quality of recreation user experience due to temporary construction activities; 3) reduce the potential for user conflicts; 4) not result in worsening conditions related to crowding and congestion; 5) address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities; and 6) be consistent with plans that are intended to meet local, regional, and statewide recreation demand.

For these reasons, implementation of the Proposed Action would result in a **less-than-significant** impact related to changes in the availability of recreation opportunities and quality of recreation user experience, for the purposes of CEQA. The effects from the Proposed Action would provide more recreation opportunities and increases in the quality of recreation user experience compared to the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Availability of Recreation Opportunities

The RME Alternative would implement many of the goals and guidelines described above for the Proposed Actions to support providing a wide range of outdoor recreation opportunities in ASRA/APL related to camping, trail use, and whitewater and river recreation. However, this alternative proposes

more resource conservation and preservation measures than the Proposed Action and also proposes to remove some recreation facilities and restore those areas. This alternative would continue to allow existing recreation uses related to recreational mineral resource extraction and hunting. This alternative would expand interpretive and educational programs that would inform the public about the natural and cultural resources at ASRA/APL. Differences in the recreation facilities from the Proposed Action are described below.

Implementation of the RME Alternative would change the distribution of land uses in ASRA/APL to reflect the theme of this alternative to provide increased resource protection and conservation. This alternative would accommodate the current level of recreation use. Compared to the Proposed Action, this alternative would maintain existing amount of Resources – Low Recreation lands in ASRA/APL, would designate more Recreation – Medium lands, and would designate less OHV and Recreation – High land uses (see Table 2.4-3 and Figures 2.7-1a through 2.7-1d in Chapter 2, Project Description and Alternatives).

The RME Alternative would retain camping at Mineral Bar but would phase out camping in the Cherokee Bar/Ruck-a-Chucky Management Zone. This alternative would remove the OHV tracks and trails and allow construction of 50 individual campsites and associated infrastructure at the location of the current tracks.

Development and implementation of an RTMP under the RME Alternative would be the same as described above for the Proposed Action. However, fewer additional trails could be constructed including no Auburn to Cool trail bridge. In the Lake Clementine Management Zone, this alternative would result in the eventual removal of the marina. Additional parking spaces and picnic sites would be added with implementation of the RME Alternative, although fewer than under the CSP Proposed Alternative. As described herein, the RME Alternative would result in some reduction of recreation opportunities for visitors at ASRA/APL. With the reduction of recreation opportunities under this alternative, the range of recreation opportunities would decrease and fewer visitors would be able to enjoy ASRA/APL. However, visitation is anticipated to increase by 30 percent due to regional population growth, and without additional recreation opportunities or capacity improvements more visitors would be required to share recreation resources. Some recreation users' experience may be enhanced by the removal of facilities, which would result in an increased sense of a primitive, backcountry experience with fewer human-made facilities, but other users experience would be diminished due to increased crowding as more visitors seek to fewer facilities.

Quality of Recreation User Experience

Implementation of the RME Alternative could affect the quality of recreation user experience in ASRA/APL through a number of factors, including availability of recreation opportunities, temporary effects of construction activity, the potential for recreation user conflicts, the degree of crowding and congestion, and the extent to which the alternative addresses latent demand for recreation opportunities.

Temporary Construction Effects

The potential for temporary construction-related activity from the RME Alternative to affect the quality of recreation user experience would be similar to, but less than, that described above for the Proposed Action. Construction-related effects would be temporary and short-term, and fewer than the Proposed Action, such that there would not be a substantial adverse change in quality of recreation user experience.

Recreation User Conflicts

Because the RME Alternative would implement many of the goals and guidelines of the CSP Proposed Alternative and would develop an RTMP as described above for the Proposed Action, this alternative would reduce the potential for recreation user conflicts. The RME Alternative would include fewer new trail connections and would not provide new technical mountain biking trails, thus it would not disperse trail use to the same extent as the CSP Proposed Alternative. Thus, the RME Alternative would reduce the potential for user conflicts to a lesser extent than the CSP Proposed Alternative. While there could be occasional conflicts between some recreation users in ASRA/APL, implementation of the RME Alternative provides an opportunity through preparation of the RTMP to reduce some user conflicts.

Crowding and Congestion

The RME Alternative would not implement the road and access improvements proposed in the CSP Proposed Alternative. Thus, the RME Alternative would not provide an opportunity to redirect use and reduce crowding in heavily used areas (e.g., the Confluence). The RME Alternative would reduce access and facilities in less-used areas of ASRA/APL, which would provide more opportunities for visitors that are seeking a more solitary, backcountry type of recreation experience. In spite of the limited improvements that would be made at ASRA/APL under the RME Alternative, future visitation at ASRA/APL is estimated to increase by 30 percent over existing conditions (from 1 million visitors to 1.3 million visitors) based on regional population growth. This increase in visitation could lead to increased crowding and congestion during peak periods in areas of ASRA/APL that do not currently reach capacity. Thus, the quality of recreation experience for the types of visitors seeking solitary, backcountry experiences might be somewhat increased, while crowding and congestion at heavily-used areas could increase.

Addressing Latent Demand

As described above, a statewide survey conducted by CSP for the 2015 SCORP, respondents stated a desire for more opportunities for picnicking (55 percent of respondents), walking (37 percent of respondents), and camping (35 percent of respondents) (CSP 2014). Implementation of the RME Alternative would achieve an increase in each of these activities, although to a lesser extent than the Proposed Action. It would include the development of a RTMP, an increase of up to 10 picnic sites, and the removal of 5 campsites and the addition of 50 sites for a net increase of 45 campsites.

In a visitor survey conducted by CSP for ASRA/APL, visitors indicated the greatest desire for improved learning opportunities, efforts to preserve resources, improved condition of facilities, and safety and the RME Alternative would increase educational opportunities in ASRA/APL with the construction of a mid-sized visitor center, and as described above for the Proposed Action. The RME Alternative also proposes to conduct active restoration to enhance ecological conditions and scenic beauty. It would construct facilities to support habitat restoration projects, with facilities that could include greenhouses, native plant nurseries, and rain water collection systems in the Knickerbocker, Auburn Interface, and Confluence Management Zones.

These improvements and programs would contribute to an overall enhanced visitor experience for all recreation users by providing an enhanced education a more natural setting in previously disturbed areas. However, because the Proposed Action would provide a substantially greater number of recreational facilities and improvements to accommodate more visitors, the RME Alternative would have a comparatively smaller benefit in terms of the number of visitors whose recreation experience would be enhanced.

Consistency with Recreation Plans

Because the RME Alternative would provide some additional campsites and picnic sites, the RME Alternative would be consistent with the 2015 SCORP. CSP would coordinate with Placer County during development of the RTMP to ensure consistency with the Placer County Parks and Trails Master Plan. For the same reasons described above for the CSP Proposed Alternative, this alternative would be consistent with plans that are intended to meet local, regional, and statewide recreation demand.

Conclusion

A range of factors resulting from implementation of the RME Alternative would result in changes to the availability of recreation opportunities and influence the quality of visitor experience. As described above, the alternative would: 1) reduce the overall availability of recreation opportunities but expand opportunities for remote dispersed recreation; 2) not result in a substantial adverse change in quality of recreation user experience due to temporary construction activities; 3) not increase the potential for user conflicts; 4) result in worsening conditions related to crowding and congestion; 5) address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities to a limited degree; and 6) be consistent with plans that are intended to meet local, regional, and statewide recreation demand.

For these reasons, implementation of the RME Alternative would result in a **less-than-significant** impact related to changes to the availability of recreation opportunities and quality of recreation user experience, for the purposes of CEQA. The effects from the RME Alternative would provide slightly more recreation opportunities and increases in the quality of recreation user experience compared to the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Availability of Recreation Opportunities

The RE Alternative would implement the goals and guidelines described above for the Proposed Actions to support providing a wide range of outdoor recreation opportunities in ASRA/APL related to camping, trail use, OHV use, and whitewater and river recreation. This alternative would also continue to allow existing recreation uses related to recreational mineral resource extraction and hunting. New facilities, improvements to existing facilities, and other actions proposed by the RE Alternative would be similar to, but more extensive than, those described above for the Proposed Action. This alternative would expand interpretive and educational programs that would inform the public about the natural and cultural resources at ASRA/APL. Differences in the recreation facilities from the Proposed Action are described below.

Implementation of the RE Alternative would change the distribution of land uses in ASRA/APL to reflect the theme of this alternative, which accommodates demographically relevant and diverse increases in recreation demand while increasing resource protection and management to address this correspondingly higher level of use. Compared to the Proposed Action, this alternative would result in a greater increase in land use designations that allow more intensive recreational use in a developed and structured setting with a greater amount of land designated as Recreation – High (see Table 2.4-3 and Figures 2.8-1a through 2.8-1d in Chapter 2, Project Description and Alternatives). The following discussions demonstrate the types of facilities and improvements that would be facilitated by the land use changes proposed by this alternative. The RE Alternative would maintain the Resources – Low Recreation designation in 56 percent of ASRA/APL (over 17,000 acres). This means that most of ASRA/APL would still be available for dispersed low-density recreation uses and the opportunity for visitors to have a primitive, backcountry experience.

The RE Alternative would increase overnight camping by up to 390 campsites with new campgrounds at the Knickerbocker Management Zone near the Cool Staging Area (200 individual sites and five group campsites), Mammoth Bar Management Zone (50 individual sites if the OHV tracks are moved), Auburn Interface Management Zone (70 individual sites), Cherokee Bar/Ruck-a-Chucky Management Zone (20 individual sites and one group campsite), and Foresthill Divide Management Zone (20 individual sites). The existing campgrounds in the Cherokee Bar/Ruck-a-Chucky and Mineral Bar Management Zones could be expanded to include additional campsites.

Development and implementation of the RTMP under the RE Alternative would be the same as described above for the Proposed Action. The Mammoth Bar OHV area would increase OHV use from every other day to up to seven days per week and expand the OHV area boundary and trail system by up to 20 percent. Other improvements in the Mammoth Bar area would be similar to those for the Proposed Action. In the Lake Clementine Management Zone, this alternative would result in renovation and increase in watercraft capacity at the marina.

Day-use recreation at ASRA/APL would be enhanced through the addition of parking, picnic sites, and restroom facilities throughout ASRA/APL. Like the Proposed Action, the RE Alternative would improve and open for public use McKeon-Ponderosa Road in the Cherokee Bar/Ruck-a-Chucky Management Zone and Knickerbocker Road to the river in the Knickerbocker and Auburn Interface Management Zones. It would also improve Drivers Flat Road and Sliger Mine Road in the Cherokee Bar/Ruck-a-Chucky Management Zone. Access to ASRA/APL would also be enhanced through shuttle bus opportunities from the City of Auburn to the Auburn Interface and Confluence Management Zones. In addition to the access improvements described above for the Proposed Action, this alternative would also improve the Quarry Trail road in the Confluence Management Zone and open it up to public access.

As described above, the RE Alternative would increase the recreation opportunities for visitors to a greater extent than described above for the Proposed Action or RME Alternative.

Quality of Recreation User Experience

Implementation of the RE Alternative could affect the quality of recreation user experience in ASRA/APL could be influenced by a number of factors, including the availability of recreation opportunities, temporary effects of construction activity, the potential for recreation user conflicts, the degree of crowding and congestion, and the extent to which the alternative addresses latent demand for recreation opportunities. The increase in recreation opportunities described above would result in a positive effect on this element of the quality of recreation user experience at ASRA/APL.

Temporary Construction Effects

The potential for temporary construction-related activity from the RE Alternative to affect the quality of recreation user experience would be similar to, but greater than, that described above for the Proposed Action. Construction-related effects would be temporary and short-term such that there would not be a substantial adverse change in quality of recreation user experience.

Recreation User Conflicts

The RE Alternative would implement the goals and guidelines, new trail connections, and RTMP described above for the Proposed Action. Thus, this alternative would result in a similar potential for recreation user conflicts as the CSP Proposed Alternative for the reasons described above. While there could be occasional conflicts between some recreation users in ASRA/APL, implementation of the RE Alternative provides an opportunity to reduce the potential for conflicts.

Crowding and Congestion

The RE Alternative would implement the same roadway improvements and new river access points as the Proposed Action. It would also provide an additional vehicle access point to the Cave Valley Climbing Area in the Confluence Management Zone and a greater number of day-use facilities and campsites. By increasing and improving access and adding parking and other facilities to the less-visited portions of ASRA/APL, implementation of the RE Alternative would provide an opportunity to redirect use and reduce crowding in heavily used areas (e.g., the Confluence). As with the Proposed Action, this could degrade the recreation user experience for visitors seeking a primitive, backcountry experience at some locations. However, as with the Proposed Action the majority of ASRA/APL would still provide this opportunity. For the reasons described above for the Proposed Action, the RE Alternative would not result in worsening conditions related to crowding and congestion.

Addressing Latent Demand

As described above, a statewide survey conducted by CSP for the 2015 SCORP, respondents stated a desire for more opportunities for picnicking (55 percent of respondents), walking (37 percent of respondents), and camping (35 percent of respondents) (CSP 2014). Implementation of the RE Alternative would achieve the greatest increase these activities of all the alternatives. It would include the development of a RTMP, an increase of up to 160 picnic sites, and the addition of up to 407 campsites. In a visitor survey, ASRA/APL visitors indicated the greatest desire for improved learning opportunities, efforts to preserve resources, improved condition of facilities, and safety and the RE Alternative would increase educational opportunities in ASRA/APL, including the construction of a small visitor center, and as described above for the Proposed Action. For these reasons, the RE Alternative would address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities.

Consistency with Recreation Plans

Like with implementation the Proposed Action, the RE Alternative would be consistent with the 2015 SCORP and Placer County Parks and Trails Master Plan that are intended to meet local, regional, and statewide recreation demand.

Conclusion

A range of factors resulting from implementation of the RE Alternative would result in changes to the availability of recreation opportunities and influence the quality of visitor experience. As described above, the RE Alternative would: 1) increase the availability of recreation opportunities; 2) not result in a substantial adverse change in quality of recreation user experience due to temporary construction activities; 3) reduce the potential for user conflicts; 4) not result in worsening conditions related to crowding and congestion; 5) address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities; and 6) be consistent with plans that are intended to meet local, regional, and statewide recreation demand.

For these reasons, implementation of the RE Alternative would result in a **less-than-significant** impact related to changes to the availability of recreation opportunities and quality of recreation user experience, for the purposes of CEQA. The RE Alternative would provide more recreation opportunities and increases in the quality of recreation user experience than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

The city and county general plans, Folsom Lake SRA GP/RMP, Eldorado National Forest Land and Resource Management Plan (Forest Plan), and Tahoe National Forest Plan identified in Table 4.1-2 could include additional recreational facilities the construction or expansion of which could have an adverse physical effect on the environment. Construction of the Yankee Jims Bridge Replacement, Ponderosa Bridge Replacement, Foresthill Racing Company Campground, and Hidden Falls Regional Park Trails Network Expansion could also result in adverse physical effects on the environment. These potential impacts from construction of recreation-related projects would likely be similar to those summarized above under Impact 4.14-1 (e.g., air quality; biological resources; cultural, paleontological, and tribal cultural resources; geology and soils, hydrology and water quality; and noise) and could combine with the effects of construction activities from implementation of the GP/RMP. These potential cumulative impacts are assessed in Section 4.2, Air Quality; Section 4.3, Biological Resources; Section 4.4, Cultural, Paleontological, and Tribal Cultural Resources; Section 4.7, Geology and Soils; Section 4.9, Hydrology and Water Quality; and Section 4.16, Noise, of this EIR/EIS. As described therein, cumulative projects would be required to undergo project-level environmental review and reduce potentially significant impacts to a less-than-significant level under CEQA and to minimize adverse effects under NEPA. Additionally, the GP/RMP includes goals and guidelines that would help minimize potential adverse impacts on the environment and its future individual projects would be required to comply with CSP Standard Project Requirements (Appendix A), CSP Department Operations Manual and Departmental Notices, BMPs, and any applicable state and federal regulations such that the GP/RMP's contribution to potential cumulative impacts from adverse physical effects caused by construction or expansion of recreational facilities would be **less-than-significant cumulatively**.

The city and county general plans, Folsom Lake SRA GP/RMP, Eldorado National Forest Land and Resource Management Plan (Forest Plan), and Tahoe National Forest Plan identified in Table 4.1-2 could include additional recreational facilities and recreation-related programs and would allow for additional housing to be built that could increase demand for recreation facilities such that the quality of recreation user experience could be adversely affected. As described in Impact 4.14-2, implementation of the GP/RMP under each of the action alternatives would implement goals and guidelines that would improve management of natural, cultural, and recreation resources within ASRA/APL and would enhance the quality of recreation user experience. Additionally, these alternatives would increase the availability of a range of additional recreational facilities and improvements that would be intended to meet existing and future recreation demand, including that of the local communities. With implementation of the goals and guidelines and providing an adaptive management approach to managing ASRA/APL, the potential for cumulative impacts on quality of recreation user experience at ASRA/APL would be reduced. Therefore, the GP/RMP's contribution to potential cumulative impacts related to changes in the availability of recreation opportunities and quality of recreation user experience would be a **less-than-significant cumulative effect**.

This page intentionally left blank.

4.15 Scenic Resources

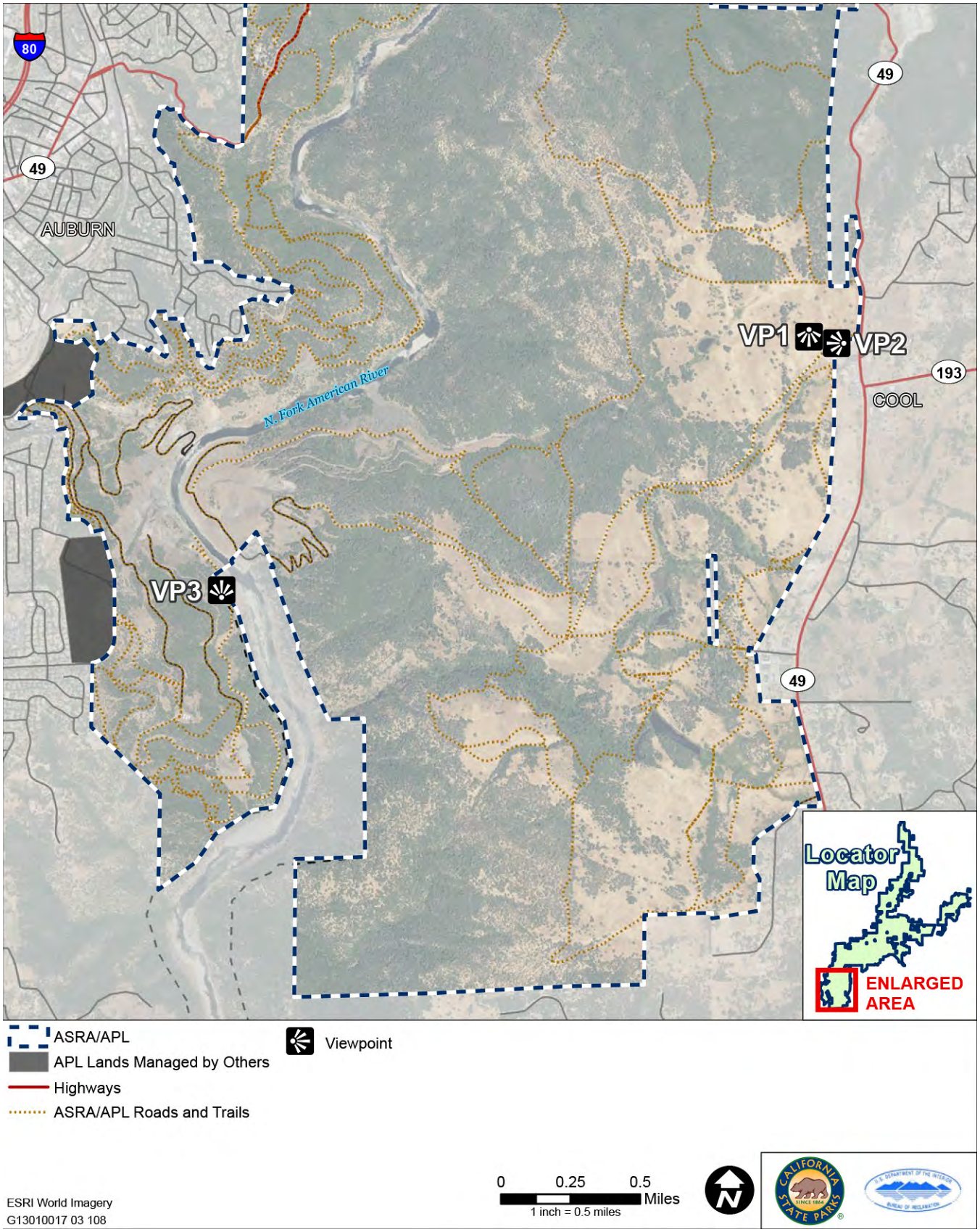
This section evaluates the potential effects of implementing the ASRA GP/APL RMP on scenic resources, as defined by CEQA and NEPA regulations.

Existing resources related to scenic resources are described in Section 2.2.4, Scenic Resources, in Chapter 2, Existing Conditions, of the GP/RMP. A more detailed description of the existing recreation setting and a summary of pertinent regulations are included in the Existing Conditions Report (CSP and Reclamation 2016). Appendix B of the GP/RMP contains additional photographs referenced below in the discussion of impacts on scenic resources. Relevant goals and guidelines are summarized in the Section 4.3.1, Resource Management and Protection, in Chapter 4, The Plan, of the GP/RMP. Those sections of the GP/RMP and the Existing Conditions Report are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

4.15.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

This analysis uses a qualitative descriptive method to characterize and evaluate the visual resources of the areas that could be affected by the project using the criteria listed below. Each of the GP/RMP alternatives is examined in light of the potential for facility development or redevelopment, the nature and character of that development, and where it would be likely to occur. The GP/RMP establishes the maximum number and scale of facilities that could be developed; and identifies management zones and/or activity nodes in which those facilities could be placed. The GP/RMP also includes goals and guidelines governing the design of facilities and other activities that could affect scenic quality. However, it does not approve specific projects, nor does it identify the specific locations and design of possible future facilities. Therefore, the analysis evaluates the effects of implementing the goals and guidelines that would apply under each alternative, and qualitatively assesses the scenic effects of facilities allowed under each alternative commensurate with the available level of detail. Separate project-level review, including an assessment of scenic effects, would occur before the construction of new facilities. Features of the alternatives are considered to have a substantial effect on visual resources if they would be visually prominent in a scenic vista or be incompatible with or intrude on the natural landscape, which is commonly viewed by the public. Photographs are included to depict representative views of the locations that have the greatest potential for visual changes. The locations of photographs referenced in this section are shown on Figure 4.15-1.



Source: Data provided by CSP in 2017

Figure 4.15-1 Viewpoint Locations

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant effect related to scenic resources if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including but not limited to scenic waterways, trees, rock outcroppings, and historic buildings in a state scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. Mitigation measures are specified to minimize potentially adverse or adverse impacts.

Environmental Impacts

Impact 4.15-1: Potential to adversely affect a scenic vista or substantially degrade the existing visual character

Impact Summary

With implementation of each of the action alternatives, the GP/RMP would provide additional or expanded recreational facilities similar to existing recreational amenities, including campsites, trail improvements, and day use facilities in most or all of the management zones. Each alternative would result in different amounts of recreation facility construction, with the RME Alternative resulting in the least potential for new facilities while also removing some recreation facilities or decreasing intensity of use. The RE Alternative would result in the greatest number of recreation facilities of the three action alternatives. All three action alternatives would implement guidelines to protect and restore scenic vistas within and surrounding ASRA/APL, design new structures consistent with guidelines that protect the visual quality of ASRA/APL, and allow new facilities that are consistent with the scale and character of existing facilities. For these reasons, implementation of the Proposed Action, RME Alternative, and RE Alternative would result in a **less-than-significant** impact related to effects on scenic vistas and the visual character of ASRA/APL, for the purposes of CEQA. The action alternatives would result in a greater effect than the No-Action Alternative.

Because some minor improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes to scenic resources in ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact related to effects on scenic vistas and the visual character of ASRA/APL, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan (Interim RMP) would remain unchanged and no new substantial facilities would be constructed. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. As under existing conditions, the No-Action Alternative could result in basic maintenance, and infrastructure and operational improvements. Some improvements allowed by the IRMP under the No-Action Alternative could result in minor changes to scenic resources within ASRA/APL. Any construction activities would comply with applicable laws and regulations including Reclamation's Recreation Facility Design Guidelines (2013) that identify design standards for facilities. This alternative would result in a **less-than-significant impact** related to effects on scenic vistas and the visual character of ASRA/APL, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Additional recreational facilities proposed under this alternative would include up to 230 individual campsites, up to five group sites, and up to five alternative campsites (e.g., yurts or cabins), restrooms, parking areas, trailheads, picnic sites, shade ramadas, and two trail bridges. Those recreation facilities with the most potential to affect scenic resources are parking lots, picnic tables and shade structures, restrooms, OHV area facilities (trails, entrance kiosks, restrooms), and campground facilities that would be placed within the viewshed of roadways, trails, adjacent parks, and other publicly accessible viewing areas. Construction of these types of facilities involve vegetation removal, grading, and creation of paved and unpaved roads and parking lots. The intrusion of man-made elements into scenic vistas and undisturbed natural areas, would potentially detract from scenic qualities and character of the Recreation Area. Existing facilities throughout ASRA/APL are generally small-scale and consist of earth-toned colors that do not substantially detract from their surroundings. In addition, the proposed new facilities at ASRA/APL would be consistent with the type of facilities that viewers would expect to see at a state recreation area, and do not conflict with the visual character of ASRA/APL.

The GP/RMP would include goals and guidelines to protect scenic views. Specifically, Goal RES 21 identifies the plan's goal to, "Protect and, where appropriate, restore scenic vistas and views of the natural landscape." This goal would be implemented through the following guidelines:

- **Guideline RES 21.1:** Prepare a landscape viewshed assessment with maps of priority views and scenic resources that should be protected from visual intrusions.
- **Guideline RES 21.2:** Coordinate with Placer and El Dorado counties and the City of Auburn to encourage zoning and design standards that protect scenic views from ASRA/APL.
- **Guideline RES 21.3:** Participate in adjacent local jurisdictions' reviews of development proposals, variances and other discretionary approvals to advocate for the protection of scenic resources.
- **Guideline RES 21.4:** Restore important scenic views that have been degraded by non-historic human activity such as grading or vegetation clearing, where appropriate.
- **Guideline RES 21.5:** CSP will explore opportunities for strategic acquisition of private in-holdings or adjacent private lands to protect scenic resources and/or provide expanded recreational opportunities or access. Work collaboratively with other agencies, non-profit organizations and/or other parties to secure conservation easements or fee-title acquisition of priority private lands.

Implementation of Guidelines RES 21.1 through 21.5 would protect scenic vistas and the visual quality of the site from scenic degradation resulting from changes on adjacent lands. It would also result in the scenic improvement of areas that have previously been degraded. These guidelines would result in improved scenic conditions.

The Proposed Action also includes Goal RES 22, which addresses the design of new and remodeled facilities. This goal requires CSP and Reclamation to "[m]aintain a high-quality, aesthetically pleasing built environment that is compatible with the visual character of the surrounding natural environment. Branding and recognition of Reclamation will be a component of all identifying signs as described in the MPA." The following guideline would implement this goal:

- **Guideline RES 22.1:** Incorporate the following design guidelines in new or redeveloped facilities in ASRA/APL:
    - Buildings shall be constructed of wood, stone, or similar natural or natural-looking materials. Reflective materials, smooth surfaces, or brightly colored materials shall not be used, except where necessary for public safety.
    - Facilities shall be medium or dark earth-tone colors that blend with the natural environment and minimize the visibility of facilities. Lighter earth-tone colors can be used on portions of facilities to provide architectural detail and visual interest.
    - The architectural design of facilities should reflect the natural canyon environment. Roofs should be sloped, and buildings should include articulation and architectural details and not exceed the height of surrounding trees.

Any new facilities or improvements in ASRA/APL would also be required to comply with Reclamation's *Recreation Facility Design Guidelines* (2013) that also identify design standards for facilities. Implementation of Guidelines RES 22.1 and compliance with the Reclamation Recreation Facility Design Guidelines would limit the potential for new or expanded facilities to degrade scenic vistas or the visual quality of ASRA/APL because it would ensure that the materials, colors, and architectural design of facilities is compatible with the visual character of ASRA/APL. It would also prohibit structures that extend above the height of surrounding trees, which would reduce the potential for facilities to intrude into scenic vistas.

Additionally, construction activities associated with new recreation facilities would be required, as applicable, to implement construction best management practices included in the CSP Standard Project Requirements (see Appendix A of this EIR/EIS) that would reduce temporary construction-related impacts on scenic resources within ASRA/APL.

Taken together, the goals and guidelines in the Proposed Action would reduce the potential for degradation of scenic quality from new or expanded facilities. However, the visual effects of new or expanded facilities are inherently site-specific, and the risk of scenic degradation is greatest in areas with more facilities and locations with a higher number of viewers, who could be affected by the changes. Under the Proposed Action, the Knickerbocker, Auburn Interface, and Confluence Management Zones have the greatest potential for scenic degradation because these areas are experienced by many visitors and would include new facilities. The scenic effects of the Proposed Action on each of those management zones is discussed below.

Knickerbocker Management Zone

Under the Proposed Action the recreational land use intensity would be increased in in the Cool Staging Area Activity Node (Node 1B) adjacent to State Route (SR) 49 in the Town of Cool. Within this activity node and the adjacent Knickerbocker Road Corridor Activity Node (Node 1C), up to 15 shade ramadas, 30 additional picnic sites, and up to an additional 50 parking spaces would be constructed.

The Proposed Action would also add a campground with up to 50 individual camping sites and 3 group camps in the Knickerbocker Road Corridor Activity Node. The campground may also include a small (up to 1 acre) maintenance yard and equipment storage area. Because of the close proximity of this area to utility services, such as water and electricity, this would be the only campground that could include restrooms with running water and lights. This campground would be anticipated to be open year-round.

The existing parking and staging facilities in the Cool Staging Area Activity Node are located along St. Florian Court to the west of SR 49, and views from SR 49 of the facilities are partially screened by the El Dorado County Fire Station, immediately adjacent to the parking lot and staging area. Other structures in the immediate area include commercial structures within the community of Cool, including a shopping center on the east side of SR 49. While the existing staging facilities are visible from SR 49, they are consistent with the visual character of the adjacent structures within the community of Cool, including the El Dorado County fire station. Refer to Figure 4.15-2 below.

Lands within the Cool Staging Area Activity Node also include the area to the north and west of the Cool Staging (Figure 5.15-3). This area is open undisturbed oak woodlands and grasslands that provide scenic views from SR 49 and the Cool Staging Area.

The new facilities in this area would be designed consistent with Guideline RES 22.1, described above, which would result in facilities that are compatible with the existing scenic character of the area. In addition, facilities in this area would comply with the Knickerbocker Management Zone-specific Guideline MZ 1.6, which states, "Design facilities to maintain appropriate setbacks from SR 49, and incorporate vegetative plantings or other visual screening to protect scenic views from SR 49. Protect views of the undeveloped land north of the Cool Staging area." Because all facilities would be designed and constructed in accordance with guidelines that protect the visual quality and character of the area, more-intensive camping facilities would be located in the Knickerbocker Road Corridor Activity Node, which is set back from SR 49, and parking and day-use facilities in the Cool Staging Area Activity Node would also comply with Guideline MZ 1.6, the facilities would not have a substantial adverse effect on the public views and the scenic qualities and character of the area.

Auburn Interface Management Zone

The Proposed Action would allow for up to an additional 150 parking spaces within the Auburn Interface Management Zone. These spaces would be provided in Node 2A (Birdsall, China Bar and Oregon Bar) and Node 2B (Rocky Point/Salt Creek). Node 2B would also accommodate up to 50 campsites and one group campsite. Up to 40 shade ramadas and 50 picnic sites, additional visitor contact/interpretive facilities (e.g., signs and kiosks), mountain biking trails, and active recreational facilities would be added throughout the management zone. An Auburn-to-Cool trail bridge would also be constructed to connect trails on both sides of the river in the Auburn Interface Management Zone.

Source: Photograph by Ascent Environmental in 2018

Source: Photograph by Ascent Environmental in 2018

View from St. Florian Court to the south of the existing staging area. Commercial structures within the community of Cool are visible in the background.

Figure 4.15-2 Viewpoint 1

Source: Photograph by Ascent Environmental in 2018

Source: Photograph by Ascent Environmental in 2018

View to the west and northwest from the SR 49/St. Florian Court intersection north of existing Cool Staging Area in Node 1B in the Knickerbocker Management Zone.

Figure 4.15-3 Viewpoint 2

Public views into the Auburn Interface Management Zone portion of ASRA/APL from viewpoints in Auburn are partially screened by vegetation and terrain; however, some views of the vegetation covered slopes and ridges above the canyon can be seen. Public views of the canyon bottom from external viewpoints and river are limited.

ASRA/APL visitors would have views of the Nodes 2A, B, and C from roads, trails, parking and picnic areas. Views of the canyon bottom in the China Bar area show substantial disturbance that resulted from the initial dam construction activities. Therefore, the area does not contain high quality scenic vistas (Figure 4.15-4).

A visitor's level of concern regarding scenic quality would vary according to activity and focus (hiking, jogging, rafting, nature enjoyment). Intensification of recreational facilities could potentially detract from the scenic quality and character. As previously described, facilities throughout ASRA/APL are generally built using materials that mimic the surrounding natural colors or are neutrally toned and do not substantially detract from their surroundings. GP/RMP guidelines, described above, require that structures be constructed of wood, stone or similar natural materials that blend with the surrounding natural environment, and that the architecture of the buildings be consistent with surrounding terrain and vegetation. Because the new facilities would be designed to blend with the natural environment and would be recreation facilities that are consistent with the character of a state recreation area, the additional parking, camping, and day-use facilities would not substantially detract from the visual qualities of the area.

Confluence Management Zone

The Confluence Management Zone is already the most intensively used portion of ASRA/APL. The intensity of land uses in this area would remain the same apart from additional recreation uses at Mountain Quarries Mine and Cave Valley Climbing Area, which would include additional interpretive programs (guided mine tours). Additional rock-climbing areas would be opened in other portions of the management zone. Improvements for public safety would be provided by formalizing parking along SR 49 and installation of pedestrian safety improvements, such as crosswalks, on the SR 49 Bridge, Old Auburn-Foresthill Road, and at roadside parking areas. A small interpretive overlook would also be added in this management zone. Only minor changes to existing scenic resources would result from improvements to existing parking and construction of an interpretive facility. Because facilities and uses in this area would be consistent with the existing facilities and uses, and would not change the scale or type of existing facilities, no adverse changes to scenic resources would occur as a result of the proposed actions in this management zone.

As described above, the Proposed Action would implement guidelines to protect and restore scenic vistas within and surrounding ASRA/APL, design new structures consistent with guidelines that protect the visual quality of ASRA/APL, and allow new facilities that are consistent with the scale and character of existing facilities. For these reasons, the Proposed Action would result in a **less-than-significant** impact on scenic vistas and the visual quality of ASRA/APL, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Source: Photograph by Ascent Environmental in 2018

Source: Photograph by Ascent Environmental in 2018

View of China Bar showing disturbance in the Auburn Dam construction area.

Figure 4.15-4 Viewpoint 3

Resource Management Emphasis (RME) Alternative

The RME Alternative would have the potential to improve scenic quality within ASRA/APL because of increased resource protection and conservation of resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA/CEQA review. Implementation of this alternative could result in the removal of some recreation-related facilities, such as roadside parking in the Confluence Management Zone and could result in the realignment, reconstruction, or use of OHV tracks and trails in the Mammoth Bar Management Zone for non-motorized uses. It would remove the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable. Campsites would also be removed in the Cherokee Bar/Ruck-a-Chucky Management Zones and the existing campground would be restored to native habitat. Fewer new facilities would be added than under the Proposed Action. Changes to existing facilities could occur in each management zone, and would include improvements or expansion of trailheads, parking areas, restrooms, interpretive elements. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones.

This alternative would include the same goals and guidelines described above for the Proposed Action, which would protect and restore scenic vistas, and require that facilities are designed to blend into the natural environment and be consistent with the visual character of ASRA/APL. Construction of new facilities and their potential effects on scenic resources would be similar to those described above for the Proposed Action, however, because there would be fewer facilities, the potential for adverse effects on scenic resources is less. Additionally, as described above for the Proposed Action, construction activities associated with new recreation facilities would be required, as applicable, to implement construction best management practices included in the CSP Standard Project Requirements and implement other relevant GP/RMP goals and guidelines and other regulatory requirements that would reduce temporary construction-related impacts on scenic resources.

By complying with goals and guidelines related to the protection of scenic views and the design of facilities, and implementing applicable CSP Standard Project Requirements during construction, including BMPs, implementation of the RME Alternative would result in a **less-than-significant** impact on scenic vistas and the visual quality of ASRA/APL, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action. However, the number and scale of facilities would be greater, including the construction of additional parking, campsites, and other facilities. Like the Proposed Action, active recreation facilities, day use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements would be provided in multiple locations in ASRA/APL. The RE Alternative would also support additional interpretive and educational uses, along with ASRA/APL operations and maintenance facilities.

Up to 390 individual, seven group, five alternative, and five primitive campsites would be constructed within ASRA/APL. Recreational uses would be intensified in the Knickerbocker Management Zone with the addition of up to 200 of the individual campsites in this management zone. The RE Alternative would also add new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle Fork, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would add up to 100 parking spaces to the Confluence Management Zone. The Mammoth Bar Management Zone would have an expanded OHV trail system.

The increase in intensity and density of recreational facilities within ASRA/APL under this alternative would result in an increased potential for scenic resources to be adversely affected. Scenic views from roads and trails would be more likely to be affected under this alternative than under the Proposed Action.

This alternative would include the same goals and guidelines described above for the Proposed Action, which would protect and restore scenic vistas, and require that facilities are designed to blend into the natural environment and be consistent with the visual character of ASRA/APL. Adherence to the GP/RMP goals and guidelines relevant to the preservation of scenic resources would ensure that new facilities would be constructed to be visually compatible with natural areas and scenic qualities. Additionally, as described above for the Proposed Action, construction activities associated with new recreation facilities would be required, as applicable, to implement construction best management practices included in the CSP Standard Project Requirements and implement other relevant GP/RMP goals and guidelines and other regulatory requirements that would reduce construction-related impacts on scenic resources.

The RE Alternative would implement guidelines to protect and restore scenic vistas within and surrounding ASRA/APL, design new structures consistent with guidelines that protect the visual quality of ASRA/APL, and allow new facilities that are consistent with the scale and character of existing facilities. Therefore, the RE Alternative would result in a less-than-significant impact on scenic vistas and the visual quality of ASRA/APL, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.15-2: Potential to damage scenic resources in a state scenic highway

Impact Summary

Additional recreational facilities within ASRA/APL, could potentially have an adverse effect on scenic resources within the viewshed of SR 49, which is an eligible highway under the State Scenic Highway Mapping System but has not been officially designated a scenic highway. Views from SR 49 could be affected in the Confluence Management Zone and the Knickerbocker Management Zone. As described in Impact 4.15-1, with implementation of each of the action alternatives, the GP/RMP would provide some additional or expanded recreational facilities similar to existing recreational amenities in most or all of the management zones in ASRA/APL. Each alternative would result in different amounts of recreation facility construction, with the RME Alternative resulting in the least potential for construction of new facilities while also removing some recreation facilities or decreasing intensity of use. The RE Alternative would result in the greatest amount of construction associated with recreation facilities of the three action alternatives.

The Proposed Action, RME Alternative, and RE Alternative would include facilities visible from the SR 49 corridor in the Knickerbocker and Confluence Management Zones. Because these facilities would occur in already developed areas or would comply with guidelines that protect scenic views from SR 49, the GP/RMP would result in **a less-than-significant** impact related to scenic resources in a state scenic highway, for the purposes of CEQA. The action alternatives would result in a greater effect than the No-Action Alternative.

Because some minor improvements under the 1992 Interim Resource Management Plan could occur resulting in minor changes to scenic resources as viewed from SR 49 within ASRA/APL, the No-Action Alternative would result in a **less-than-significant** impact related to scenic resources in a state scenic highway, for the purposes of CEQA.

No-Action Alternative

As described under Impact 4.15-1, with implementation of the No-Action Alternative, the IRMP would remain unchanged and no new facilities would be constructed. Any construction activities would be implemented to comply with applicable laws and regulations. The No-Action Alternative would not result in substantial changes to scenic resources as viewed from SR 49 within ASRA/APL. With respect to scenic resources within a state scenic highway, this alternative would have **no impact** related to scenic resources in a state scenic highway, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

SR 49 is designated as Eligible under the California Scenic Highway Mapping System, but has not been officially designated as a scenic highway. Views from SR 49 could be affected by implementation of the Proposed Action if the development of facilities allowed by the GP/RMP damaged scenic resources such as trees, and geologic formations within the SR 49 corridor. The SR 49 corridor could be affected by facilities proposed in the Knickerbocker and Confluence Management Zones.

Knickerbocker Management Zone

As noted above undisturbed grasslands located north and west of the existing Cool Staging Area are visible from SR 49 (Figure 4.15-3, above). Facilities that block or intrude into this view could degrade views from SR 49. However, facilities in this area would comply with Knickerbocker Management Zone Guideline MZ 1.6, as described above. Because adherence to this guideline would require the protection of the undisturbed grasslands located north and west of the existing Cool Staging Area, and would minimize the visibility of facilities from SR 49, the Proposed Action would not degrade or damage scenic resources visible from the SR 49 corridor in the Knickerbocker Management Zone.

Confluence Management Zone

The Confluence Management Zone includes the SR 49 crossing of at the confluence of the Middle Fork and North Fork of the American River. Improvements to public safety would be provided by formalizing parking along SR 49 and installation of pedestrian safety improvements, such as crosswalks, on the SR 49 Bridge, Old Auburn-Foresthill Road, and at roadside parking areas. Only minor changes to existing views would result from improvements to existing parking because these changes would occur in areas that are already developed. Therefore, the Proposed Action would not degrade or damage scenic resources visible from the SR 49 corridor in the Confluence Management Zone.

As described above, the Proposed Action would include facilities visible from the SR 49 corridor in the Knickerbocker and Confluence Management Zones. Because these facilities would occur in already developed areas or would comply with guidelines that protect scenic views from SR 49, the GP/RMP would result in a **less-than-significant** impact related to scenic resources in a state scenic highway, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

The RME Alternative would have the potential to improve scenic views within the SR 49 corridor because of increased resource protection and conservation of resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA/CEQA review. Implementation of this alternative could result in the removal of some recreation-related facilities, such as roadside

parking in the Confluence Management Zone. Removal of roadside parking would improve the scenic quality of views along SR 49 in this area. This alternative would not add any campsites within the Knickerbocker Management Zone, but could include visitor contact and day-use facilities. It would include a visitor contact/interpretive facility in the Confluence Management Zone; however, this would be located in an already developed area, which would not damage scenic resources. This alternative would also include the same guidelines as the Proposed Action, which protect scenic views from SR 49. Therefore, the RME Alternative would result in a **less-than-significant** impact related to scenic resources in a state scenic highway, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities that could be visible from the SR 49 corridor similar to those described above for the Proposed Action, including campsites in the Knickerbocker Management Zone (up to 200 individual and five group campsites, including RV hookups and camp cabins), an administrative and maintenance facility of up to 1 acre, a visitor center, additional parking, and additional day use facilities. In the Confluence Management Zone, the RE Alternative could result in the same facilities as the Proposed Action, plus a small visitor center in an upland location near the Foresthill Bridge. This alternative would also improve the Quarry Trail and open it to public vehicle access. Additional parking and day-use facilities would be provided in the flat below the Mountain Quarries Mine.

Under the RE Alternative, new or redeveloped facilities would comply with the same guidelines that are applicable throughout ASRA/APL and management zone-specific goals and guidelines related to the protection of scenic views, described above. In the Confluence Management Zone, the facilities allowed under the RE Alternative would result in a greater potential to degrade scenic resources in the SR 49 corridor than under the Proposed Action. Adherence to Knickerbocker Management Zone Guideline MZ 1.6 would preserve views of the undeveloped grassland north and east of the existing Cool Staging Area and would reduce the visibility of other facilities in the Cool Staging Area Activity Node. To provide sufficient space for the most intensive facilities (i.e., campground, visitor center, and administrative/maintenance facility) while complying with Guideline MZ 1.6, these facilities would be placed in the Knickerbocker Road Corridor Activity Node. Because this activity node is located further from SR 49, and intervening vegetation and topography would screen views of these facilities, they would not degrade scenic resources within the SR 49 corridor. Within the Confluence Management Zone, the visual effects from the SR 49 corridor would be very similar to the Proposed Action because the additional facilities authorized in the RE Alternative (i.e., small visitor center at Foresthill Bridge and day use improvements at Mountain Quarries Mine) would not be readily visible from the SR 49 corridor. For these reasons, the RE Alternative would result in a **less-than-significant** impact related to scenic resources in a state scenic highway, for the purposes of CEQA, and would result in a greater effect than the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.15-3: Potential for a new source of substantial light or glare that would adversely affect day or nighttime views in the area

Impact Summary

Implementation of each of the action alternatives could result in sources of nighttime lighting associated with a campground or other facilities. All outdoor lighting would comply with GP/RMP guidelines that require all outdoor lighting to use low wattage yellow spectrum luminaries, and be shielded and directed downward to avoid light pollution. The action alternatives would also prohibit the use of reflective materials that could contribute to daytime glare, except where necessary for public safety. Because outdoor lighting would be limited in scale and intensity and would comply with design standards that minimize the potential for light pollution, implementation of the Proposed Action, RME Alterative, and RE Alternative would result in a **less-than-significant** impact related to light and glare, for the purposes of CEQA. The action alternatives would result in a similar effect as the No-Action Alternative because they would result in more potential sources of light or glare but would implement more stringent design standards.

Because some improvements under the 1992 Interim Resource Management Plan could occur, the No-Action Alternative could result in minor changes to lighting or glare conditions. This alternative would result in a **less-than-significant impact** related to light and glare, for the purposes of CEQA.

No-Action Alternative

With implementation of the No-Action Alternative, the IRMP would continue to guide management and operations at ASRA/APL. This alternative retains current facilities and land uses according to current practices and as specified in the IRMP. Under the IRMP, some additional lighting or sources of light or glare could be established to provide for public health and safety. Currently, only the CSP offices located in the Confluence Management Zone and the Marina in the Lake Clementine Management Zone have electricity and night lighting. The No-Action Alternative could result in some changes to lighting or glare conditions. Because new sources of light or glare would be limited and any change in lighting or sources of glare would be required to comply with the Reclamation *Recreation Facility Design Guidelines*, which includes standards for lighting, this alternative would result in a **less-than-significant impact** related to light and glare, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Currently, only CSP offices located in the Confluence Management Zone and the marina located in the Lake Clementine Management Zone have electricity and night lighting. Under the Proposed Action there could be some added night lighting in the Knickerbocker Management Zone, near the Cool staging area activity node associated with a campground (53 total campsites). In addition, the Proposed Action would result in a small maintenance yard/facility in the Foresthill Divide Management Zone. This would likely have power from a rooftop solar panel, but outdoor lighting would only be used very infrequently when active work is occurring at the site.

The Proposed Action includes Guideline RES 22.2, which states, "Develop outdoor lighting only where necessary to maintain the operational efficiency of the site and provide public safety." This guideline also requires that outdoor lighting, at a minimum, must comply with the following design standards:

- Limit new or existing sources of exterior lighting and reflective materials to the minimum amount necessary for public safety and operations.

- All overhead lighting fixtures shall be fully shielded and directed downward to prevent light pollution.
- Exterior lighting should use the lowest wattage necessary for the application.
- Lighting should use yellow spectrum luminaires, such as low-pressure sodium or narrow band amber Light-Emitting Diode (LED) and avoid bright white light sources.

Additionally, Guideline RES 22.2 prohibits the use of reflective materials that could contribute to daytime glare, except where necessary for public safety. Reclamation's *Recreation Facility Design Guidelines* that also identify design standards for facilities, which include lighting standards.

With implementation of improvements or new facilities under the Proposed Action, as required by Guideline RES 22.2, reflective materials would not be prevalent. All new outdoor lighting would comply with the guideline on outdoor lighting, which requires that outdoor lighting use low wattage yellow spectrum luminaires, and be shielded and directed downward to avoid light pollution. Because outdoor lighting would be limited to one campground, which would comply with design standards that minimize the potential for light pollution, the Proposed Action would result in a **less-than-significant** impact related to light and glare, for the purposes of CEQA. Implementation of the Proposed Action would result in a similar effect as the No-Action Alternative because it would include the potential for more sources of light, but would establish more stringent lighting standards.

Resource Management Emphasis (RME) Alternative

The RME Alternative would have the potential to improve scenic qualities within ASRA/APL because of increased resource protection and conservation of resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA/CEQA review. This alternative would provide some night lighting associated with the visitor contact and interpretive facility in the Confluence Management Zone. Removal of facilities as proposed under this alternative would have no effect on existing lighting conditions. All outdoor lighting would comply with the same guideline on outdoor lighting as the Proposed Action. This guideline requires that outdoor lighting use low wattage yellow spectrum luminaires, which are shielded and directed downward to avoid light pollution.

With the implementation of the applicable guidelines, implementation of this alternative would result in a **less-than-significant** impact related to light and glare, for the purposes of CEQA. The RME Alternative would result in a similar effect as the No-Action Alternative because it would include the potential for more sources of light, but would establish more stringent lighting standards.

Recreation Emphasis (RE) Alternative

With this alternative there could be some night lighting in the Knickerbocker Management Zone, near the Cool staging area activity node. This lighting would be associated with a campground (205 campsites), administrative/maintenance facility, and a visitor center. In addition, the RE Alternative would result in a small maintenance yard/facility in the Foresthill Divide Management Zone. This would likely have power from a rooftop solar panel, but outdoor lighting would only be used very infrequently when active work is occurring at the site. As with the Proposed Action, all outdoor lighting would comply with the outdoor lighting guideline, which requires that outdoor lighting use low wattage yellow spectrum luminaires, which are shielded and directed downward to avoid light pollution.

With the implementation of the applicable guidelines, implementation of this alternative would result in a **less-than-significant** impact related to light and glare, for the purposes of CEQA. The RE Alternative would result in a similar effect as the No-Action Alternative because it would include the potential for more sources of light, but would establish more stringent lighting standards.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Proposed new development projects described in Section 4.1.2, Cumulative Impacts, of this EIR/EIS, which are under consideration in the vicinity of ASRA/APL, have the potential to contribute to a cumulative effect on scenic resources in the region. Increased development could intrude on and detract from views of areas that are currently undeveloped and that provide public views of natural areas and landscapes.

Under the action alternatives, new facilities would be constructed within ASRA/APL, which would have the potential to contribute to adverse cumulative effects on scenic resources in the region. However, this would occur only if the proposed ASRA/APL facilities were located within the same viewshed as other proposed development projects. As shown in Figure 4.1-1, the anticipated cumulative projects are generally not in the vicinity of the areas within ASRA/APL where new facilities are proposed. Thus, the new proposed facilities within ASRA/APL would not be visible within the same viewshed as the cumulative projects, and would not combine to result in cumulative changes within the same viewshed.

Furthermore, adherence to the proposed goals and guidelines relevant to the preservation of scenic resources would ensure that new facilities under all action alternatives would be constructed to be visually compatible with natural areas and scenic qualities. In addition, Guideline RES 21.5, described above, would direct CSP to explore opportunities for strategic acquisition of in-holdings or adjacent private lands to protect scenic resources (among other purposes) from impacts that could result from development on private lands adjacent to ASRA/APL, which would reduce the potential scenic impacts of cumulative projects. For these reasons, the action alternatives would result in a **less-than-significant cumulative impact** on scenic resources in the region.

This page intentionally left blank.

4.16 Noise

This section evaluates the noise-related effects of the ASRA GP/APL RMP, consistent with CEQA and NEPA regulations. Acoustic fundamentals and analysis of potential construction- and operation-related noise impacts that could result from implementation of the GP/RMP are discussed in this section. The existing noise- and vibration-sensitive land uses, existing noise sources, and ambient noise levels are presented in Appendix D, Existing Noise Conditions, Noise Measurement Data, and Noise Modeling Calculations, along with detailed calculations and modeling results.

"Auditory Resources" under Section 2.2 of the GP/RMP and Section 12.4 on page 12-15 of the Existing Conditions Report provide details on the environmental setting related to noise within ASRA/APL. Those sections are incorporated into this document by reference. The GP/RMP and the Existing Conditions Report are available for review on the general plan website: www.parks.ca.gov/PlanASRA/.

The nearest airports to ASRA/APL are the Auburn Municipal Airport and the Georgetown Airport located approximately 2 miles northwest and southeast of ASRA/APL, respectively. ASRA/APL is not located within the airport land use compatibility plan for either airport. Thus, the project would not result in the exposure of people using or working in ASRA/APL to excessive levels of aircraft-related noise. This issue is not discussed further.

Construction of the types of new facilities that could be developed under the GP/RMP alternatives (i.e., campsites, picnic areas, parking improvements and new facilities, a visitor center) would not involve pile driving. Only construction of the Auburn-to-Cool trail bridge may involve blasting; however, the bridge would be located within the Auburn Interface Management Zone and would be more than 3,100 feet from the nearest off-site noise-sensitive receptors. Additionally, construction activities would be reviewed in detail and mitigated, if necessary, at the time of project-level environmental analysis for the Auburn-to-Cool trail bridge. Therefore, implementation of the ASRA GP/APL RMP would not result in the exposure of people or structures to excessive levels of ground vibration and vibration-related impacts are not discussed further.

Other than new parking lots, implementation of the GP/RMP would not involve the introduction of new stationary noise sources. Noise generated from parking areas is associated with horns honking, engines starting, engines idling, the slamming of vehicle doors, car alarms, and human voices. These noise sources are typically short in duration and intermittent throughout the day. The exact location of the new, formalized, and expanded parking areas under the GP/RMP is not known at this time; however, they would be located along roadways where the ambient noise environment is predominantly influenced by vehicular traffic. Also, parking lots for day-use areas would be used during less noise-sensitive daytime hours, given that day uses would be restricted from 7 a.m. to sunset. For these reasons, the potential for off-site noise-sensitive receptors to be exposed to excessive noise levels associated with the use of day-use parking areas is not discussed further.

4.16.1 Acoustic Fundamentals

Before discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is necessary to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise can be characterized as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency

bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 4.16-1 describes typical A-weighted noise levels for various noise sources.

Table 4.16-1 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013a:Table 2-5

All sound levels expressed as dB in this chapter are A-weighted sound levels, unless otherwise noted.

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013a:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013a:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (Federal Transit Administration [FTA] 2006:7-5, Caltrans 2013a:6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006:7-4; Caltrans 2013b:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006:7-8; Caltrans 2013b:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 4.16-2 summarizes the general human response to different ground vibration-velocity levels.

Table 4.16-2 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude

Source: FTA 2006:7-8

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013a:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013a:2-47; FTA 2006:2-19).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013a:2-48; FTA 2006:2-16).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013a:2-48; FTA 2006:2-22).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013a:2-48). Many agencies and local jurisdictions in California often have established noise standards using the CNEL metric. The CNEL metric is not used by federal agencies and not commonly used in standards established by local communities outside of California.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus

propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013a:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

4.16.2 Environmental Impacts and Mitigation Measures

Analysis Methodology

To assess potential short-term, construction-related noise impacts, project-generated construction noise was determined based on methodologies, reference emission levels, and usage factors from the FTA *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2006) and the Federal Highway Administration (FHWA) *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels are noise emissions for specific equipment or activity types that are well documented in the field of acoustics.

To assess potential long-term (operation-related) noise impacts resulting from project-generated increases in traffic, noise levels were estimated using calculations consistent with the FHWA Traffic Noise Model Version 2.5 (FHWA 2004) and project-specific traffic data (Appendix E). The analysis is based on the reference noise emission levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. The modeling conducted does not account for any natural or human-made shielding (e.g., the presence of walls or buildings) or reflection off building surfaces.

Existing noise-sensitive land uses exist throughout the project vicinity surrounding the ASRA in El Dorado County, Placer County, and the City of Auburn. As detailed in Appendix D, these three jurisdictions have very similar noise standards with some subtle differences. Most notably, the El Dorado County construction noise exemption hours are more stringent than those set forth by Placer County. Additionally, the El Dorado County General Plan includes more detailed non-transportation noise standards and has standards for incremental transportation noise increases that Placer County and the City of Auburn do not currently have. Therefore, to provide a conservative approach, the El Dorado County noise standards are adopted by CSP as the CEQA significance criteria against which project-related impacts are analyzed in this EIR/EIS.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, noise and vibration impacts would be significant if the project would result in:

- generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the following standards, including:
    - project-related construction noise levels that would occur outside of the construction-noise exempt hours (between 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays), and would exceed the Maximum Allowable Noise Exposure for Non-transportation Noise Sources in Rural Regions – Construction Noise (see Table 6 in Appendix D); and
    - project-related transportation noise levels that exceed the standards for Maximum Allowable Noise Exposure for Transportation Noise Sources (see Table 4 in Appendix D) and the Incremental Increase Threshold for Noise Exposure for Transportation Noise Sources (see Table 5 in Appendix D).

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the Proposed Action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. The factors that are taken into account under NEPA to determine the significance of an action in terms of the context and the intensity of its effects are encompassed by the CEQA criteria used for this analysis.

Environmental Impacts

Impact 4.16-1: Short-term construction noise

Impact Summary

Construction and maintenance activities would occur under all alternatives, including the No Action No-Action Alternative. Construction activities under each of the alternatives would generate varying levels of noise. However, all activities would be carried out consistent with CSP Standard Project Requirements (SPRs; see Appendix A of this EIR) such that exposure of nearby receptors to construction-related noise is minimized and construction is limited to daytime hours.

With implementation of the No-Action Alternative, the types of construction activities would be associated with the maintenance of existing facilities and would be relatively minor, localized, temporary, and intermittent, and would not result in a substantial increase in temporary noise levels. Given the relatively low intensity of construction activities associated with the No-Action Alternative and compliance with CSP SPRs, construction noise impacts associated with the No-Action Alternative would be **less than significant**, for the purposes of CEQA.

The Proposed Action, RME Alternative, and RE Alternative would implement CSP SPRs, BMPs, and the goals and guidelines of the GP/RMP such that exposure of nearby receptors to construction-related noise would be minimized and construction would be limited to less sensitive daytime hours consistent with exemptions adopted by CSP as significance criteria for the purpose of this analysis. Given that construction would only occur during the less-sensitive daytime hours for the Proposed Action, RME Alternative, and RE Alternative, this impact would be **less than significant**, for the purposes of CEQA.

Short-term construction-related noise levels would fluctuate and occur intermittently depending on the particular type, number, and duration of construction activities and equipment in use. The effects of construction noise depend on the type of construction activities occurring on any given day; noise levels generated by those activities; distances to noise-sensitive receptors; potential noise-attenuating features such as topography, vegetation, and existing structures; and the existing ambient noise environment in the receptor's vicinity. Fuel reduction actions that could be implemented under all alternatives are considered as construction activities for the purposes of this analysis. All construction activities would implement CSP SPRs (Appendix A) and BMPs, which include standard measures to reduce construction-related noise.

No-Action Alternative

With implementation of the No-Action Alternative, construction activity would be limited to the maintenance of existing roads and parking; the realignment, reconstruction, or removal of existing trail routes; and repair of existing administrative offices. Additionally, fuel reduction actions that could be implemented within ASRA/APL under the No-Action Alternative could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping.

All construction activities would be required to comply with CSP SPRs, which require measures to minimize the exposure of nearby receptors to construction-related noise. Required measures include, limiting noise-generating construction activity to the daylight hours, utilizing the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts) for construction equipment, and utilizing temporary or permanent noise barriers such as berms or walls, as appropriate, to reduce noise levels (Appendix A). Additionally, construction

activities associated with the No-Action Alternative would be relatively minor, temporary, localized, and intermittent; thus, not resulting in a substantial increase in noise. Given the nature of construction under the No-Action Alternative, and that construction would only occur during the less-sensitive daytime hours, this impact would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

With implementation of the Proposed Action, construction activity would include the realignment of trails, clearing of vegetation, widening of roads and/or trails, grading, paving, road or parking space striping, and the installation of vehicle barriers, trail tread, signage, drainage features, gravel, and trash receptacles. Additionally, fuel reduction actions that could be implemented within ASRA/APL under the Proposed Action could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping.

Implementation of the Proposed Action would also include the construction of the two trail bridges, and the addition of campsites that could include family camp cabins or yurts. Construction of the Auburn-to-Cool trail bridge may require rock excavation, blasting, and drilling. Additional detail regarding construction activities would be reviewed at the time of project-level environmental analysis of the Auburn-to-Cool trail bridge when project-specific details are known. Future actions under the Proposed Action would implement CSP SPRs and the goals and guidelines of the GP/RMP.

The types and number of construction equipment would vary by project and phase. The more intensive construction activity (i.e., parking facility, campsite, and trail bridge construction) would generally involve the use of heavy-duty diesel equipment. Typical noise levels generated by common types of construction equipment likely to be used in project construction are identified in Table 4.16-3.

Table 4.16-3 Typical Noise Levels from Construction Equipment

Type of Equipment	Noise Level (dB L_{max}) at 50 feet
Blasting (for trail bridge construction)	95
Dozer	85
Grader	85
Paver	85

Source: FHWA 2006:12-6

Construction noise can vary depending on equipment type, number of pieces of equipment operating simultaneously, and duration of activities. Different equipment and construction methods would be used for the improvements to facilities or development of new facilities proposed under the Proposed Action; however, the most noise-intensive construction activities would occur during construction of parking facilities, campsites, and the Auburn-to-Cool trail bridge.

Based on the noise levels of typical construction equipment listed in Table 4.16-3 and accounting for typical usage factors of these equipment along with standard attenuation rates, combined equipment noise levels were calculated for each of the most noise-intensive Proposed Action construction activities described above. The noise modeling conservatively assumes that all pieces of equipment would be operating simultaneously in the same area (see Appendix D for detailed calculations). Table 4.16-4 presents these combined equipment noise levels.

Table 4.16-4 Proposed Action Construction Activities and Associated Noise Levels

Construction Activity	Combined Equipment Noise Level at 50 feet	
	L_{eq} (dB)	L_{max} (dB)
Auburn-to-Cool Trail Bridge	87	95
Parking Facilities	86	90
Campsites	84	88

Source: Data modeled by Ascent Environmental in 2018

As shown in Table 4.16-4, construction activities associated with building of the trail bridges, parking facilities, and new campsites could generate varying levels of noise. However, construction activities would be required to comply with CSP SPRs that require measures to minimize the exposure of nearby receptors to construction-related noise. Such SPRs include limiting noise-generating construction activity to daytime hours, utilizing the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields, or shrouds, intake silencers, ducts) for construction equipment, and the utilization of temporary or permanent noise barriers such as berms or walls, as appropriate, to reduce noise levels (DPR 2015).

Additionally, Guideline RES 23.4 would limit construction to the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and federally recognized holidays. The time-of-day limitation of Guideline RES 23.4 is consistent with Placer County Code Section 9.36.030, which exempts construction-related noise from Placer County's noise standards if the construction occurs between 6 a.m. and 8 p.m., Monday through Friday, or between 8 a.m. and 8 p.m. on Saturday and Sunday. The time-of-day limitation in Guideline RES 23.4 is also consistent with Policy 6.5.1.11 of the El Dorado County General Plan, which exempts construction-related noise from El Dorado County's noise standards if the construction takes place between 7 a.m. and 7 p.m., Monday through Friday, or between 8 a.m. and 5 p.m. on weekends and federally recognized holidays.

Given the nature of potential construction under the Proposed Action, and that construction would only occur during the less-sensitive daytime hours, this impact would be **less than significant**, for the purposes of CEQA. The effects from the Proposed Action related to construction noise would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Construction activities associated with the RME Alternative would result in less construction overall as compared to the Proposed Action and would not include the construction of new trail bridges. However, fuel reduction actions that could be implemented within ASRA/APL under the RME Alternative which could include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. The RME Alternative would implement CSP SPRs, BMPs, and the goals and guidelines of the GP/RMP.

Equipment and construction methods would vary based on the specific construction activity proposed under the RME Alternative; however, the most noise-intensive construction activities would occur during construction of parking facilities and campsites.

The primary construction noise associated with new parking facilities and campsites would be the same as described above for the Proposed Action. Similar to the Proposed Action, construction activities under the RME Alternative would be required to comply with CSP SPRs and BMPs that require measures to minimize the exposure of nearby receptors to construction-related noise. Additionally, all construction activities under the RME Alternative would be subject to Guideline RES 23.4 of the GP/RMP as described above for the Proposed Action.

Given the nature of such construction, and that construction would only occur during the less-sensitive and construction-noise exempt daytime hours, this impact would be **less than significant**, for the purposes of CEQA. The effects from the RME Alternative related to construction noise would be greater than those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in a greater number of new facilities as compared to the Proposed Action and would implement the CSP SPRs and the goals and guidelines of the GP/RMP. However, the types of construction activities associated with the RE Alternative would similar to those described for the Proposed Action (i.e., realignment of trails, clearing vegetation, widening roads or trails, grading, paving, road or parking space striping, and the installation of vehicle barriers, trail tread, signage, drainage features, gravel, and trash receptacles, and fuel reduction actions) and would be implemented over a similar timeframe. Similar to the Proposed Action, the RE Alternative would include the construction of two trail bridges and could require special construction techniques for construction of the Auburn-to-Cool trail bridge, such as rock excavation, blasting, and drilling.

As discussed above for the Proposed Action, the noise generated by the construction of trail bridges, parking facilities, new campsites, and fuel reduction actions under the RE Alternative would be required to comply with CSP SPRs, BMPs, and Guideline RES 23.4 of the GP/RMP as described above for the Proposed Action. Therefore, construction activities would only occur during the less-sensitive and construction-noise exempt daytime hours. Therefore, this impact would be **less than significant**, for the purposes of CEQA. The effects from the RE Alternative related to construction noise would be greater than those of the No-Action Alternative.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.16-2: Operational traffic noise

Impact Summary

Implementation of the Proposed Action, RME Alternative, and RE Alternative would result in additional facilities within ASRA/APL that would lead to an overall increase in roadway traffic compared to existing conditions. Additionally, continuing population growth in the region would contribute to an increase in annual visitation under the all of the alternative including the No-Action Alternative. Additional vehicle traffic and the assumed distribution of the trips generated by implementation of the No-Action Alternative, Proposed Action, and the RME Alternative would not result in an exceedance of the CNEL standards or the incremental noise increase standards from transportation noise sources (i.e., 5 dB). The No-Action Alternative, Proposed Action, and RME Alternative would result in a **less-than-significant** impact related to operational traffic noise, for the purposes of CEQA.

Implementation of the RE Alternative would result in traffic noise increases that could expose residential receptors along SR 49 (Lincoln Way to Old Foresthill Road) to transportation noise level increases that exceed applicable CNEL standards adopted by CSP as significance criteria in this EIR/EIS, which would be a **potentially significant** impact, for the purposes of CEQA. With implementation of Mitigation Measure 4.16-2 to monitor and reduce traffic noise, operational traffic noise impacts from the RE Alternative would be reduced to a **less-than-significant** level, for the purposes of CEQA.

No-Action Alternative

Under the No-Action Alternative, the existing facilities and land uses would be retained and the types of improvements that could occur under the No-Action Alternative would include modifying existing parking to enhance public safety; and realignment, reconstruction, or removal of existing trail routes. None of the improvements that could occur under the No-Action Alternative would result in the generation of new vehicle trips; however, the continuing population growth for the region would contribute to an increase in annual visitation under the No-Action Alternative. However, implementation of the No-Action Alternative would result in fewer new facilities and less visitation than the Proposed Action, and thus, would result in a lower increase of new daily vehicle trips on the roadway study segments. Therefore, traffic and associated noise would be lower with this alternative compared to the Proposed Action. For the same reasons described below for Proposed Action, traffic noise increases from implementation of the No-Action Alternative would be less than 5 dB on all roadway segments and applicable exterior CNEL standards for land uses exposed to transportation noise sources would not be exceeded. In summary, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards. This impact would be **less than significant**, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Implementation of the Proposed Action would result in an increase in traffic volumes on affected roadway segments and associated increases in traffic noise levels. Generally, a doubling of a noise source (such as twice the volume of traffic) results in an increase of 3 dB, which is perceived as barely noticeable by people (Egan 2007:21). The incremental noise increase thresholds for transportation noise sources (see Table 5 in Appendix D), which states that where traffic noise levels are less than 60 CNEL at the outdoor activity areas of residential uses, a 5 dB increase in a noise source is considered a substantial noise increase. In addition, noise exposure standards for transportation noise for different land use types (see Table 4 in Appendix D) are applied for the purpose of this analysis.

Vehicle trips generated by the Proposed Action would result in an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments in and around the project site. To analyze the impact of project-generated operational transportation noise sources, traffic noise levels under existing and existing-plus-project conditions on weekdays and weekends were modeled for affected roadway segments. For further details on traffic volumes and conditions, see Section 4.16, Transportation and Circulation. Refer to Appendix D for detailed noise modeling input parameters.

Table 4.16-5 displays the modeled traffic noise levels at the nearest applicable off-site receptors from the roadway segments for weekdays and weekends under existing conditions with and without implementation of the Proposed Action.

Table 4.16-5 Summary of Modeled Traffic Noise Levels under Existing and Existing Plus Project Conditions

Study Road Segments	Applicable Exterior CNEL/L_{dn} Noise Standard for Land Uses Exposed to Transportation Noise Sources (dB)	Allowable Exterior Noise Increment Standard (dB)	CNEL (dB) at Nearest Sensitive Receptor				Weekday Net Change (dB)	Weekend Net Change (dB)
			Weekday		Weekend			
			Existing Conditions	Existing Plus Project Conditions	Existing Conditions	Existing Plus Project Conditions		
Foresthill Road (Lincoln Way to Old Auburn Foresthill Road)	60	5.0	56.1	56.3	55.7	56.1	+0.2	+0.4
SR 49 (Lincoln Way to Old Foresthill Road)	60	5.0	58.9	59.6	58.8	59.7	+0.7	+0.9
Old Foresthill Road (SR 49 to Foresthill Road)	60	5.0	45.8	47.2	48.0	49.2	+1.4	+1.2
SR 49 (Old Foresthill Road to Georgetown Road [SR 193])	60	5.0	56.5	56.7	56.0	56.3	+0.2	+0.3
Skyridge Drive (Sacramento Street to Riverview Drive)	60	5.0	50.0	50.7	50.3	50.8	+0.7	+0.5
Riverview Drive (Skyridge Drive to Maidu Drive)	60	5.0	51.3	52.7	52.6	53.4	+1.4	+0.8
Maidu Drive (Auburn Folsom Road to China Bar Access)	60	5.0	58.2	58.5	57.4	59.1	+0.3	+1.7
Slinger Mine Road (SR 193 to San Martin Mine Road)	60	5.0	48.1	49.9	47.4	50.1	+1.8	+2.7

Notes: CNEL = Community Noise Equivalent Level; dB = decibels; SR = State Route

Detailed noise modeling is included in Appendix D. Refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2019

As shown in Table 4.16-5, the addition of traffic generated by the Proposed Action to the surrounding roadway network would not result in noise increases exceeding the applicable incremental increase standards. Additionally, the applicable exterior CNEL standards would not be exceeded with the addition of project-generated traffic to the surrounding roadway network.

The Proposed Action would allow continued OHV use within the Mammoth Bar Management Zone and would allow this use to occur up to six days a week instead of every other day, as under existing conditions. It would not increase the area available for OHV use or substantially expand the number of OHV's that could operate concurrently. Thus, this alternative would not substantially increase the noise levels associated with OHV use, but it would allow OHV-generated noise to occur more frequently. The nearest sensitive receptors are residences along Westville Trail (east of Cool), which are over one mile from the OHV use area. Furthermore, intervening topography between the OHV use and receptors attenuates noise generated at the OHV use area. CSP would continue to enforce compliance with applicable regulations, which require that any OHV be equipped with a properly functioning muffler (43 CFR 420.11 and California Vehicle Code [CVC] 38365). At this location and distance from receptors, the more frequent OHV use would not exceed applicable exterior CNEL standards.

The Proposed Action also calls for evaluating the feasibility of relocating the OHV tracks and staging area to the Castle Rock Activity Node. If the tracks were relocated to this activity node, which is on the top of the canyon rim rather than the bottom, it would alter the spread and attenuation of OHV-generated noise. However, the possible relocation of the OHV track and staging area would be

consistent with Guideline MZ 22.5, which calls for analysis of potential environmental impacts, including noise impacts, and implementation of necessary mitigation measures that would address any significant noise impacts associated with a possible future track relocation.

As detailed above, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards. This impact would be **less than significant**, for the purposes of CEQA. The effects from the Proposed Action related to transportation noise would be greater than those of the No-Action Alternative.

Resource Management Emphasis (RME) Alternative

Implementation of the RME Alternative would result in fewer new facilities and less visitation than the Proposed Action, and thus, would result in a lower increase of new daily vehicle trips on the roadway study segments. Therefore, traffic and associated noise would be lower with this alternative compared to the Proposed Action. For the same reasons described above for Proposed Action, traffic noise increases from implementation of the RME Alternative would be less than 5 dB on all roadway segments and applicable exterior CNEL standards for land uses exposed to transportation noise sources would not be exceeded.

In summary, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards. This impact would be **less than significant**, for the purposes of CEQA. The effects from the RME Alternative related to transportation noise would be similar to those of the No-Action Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in a greater number of new facilities and more visitation than the Proposed Action, and thus, would result in a greater number of new daily vehicle trips on roadway study segments. Although traffic and the associated noise would be higher with this alternative compared to the Proposed Action, for the same reasons described above for Proposed Action, traffic noise increases would still be below 5 dB on all roadway segments. Additionally, the RE Alternative would implement Mitigation Measure 4.12-1 (see Section 4.12, Transportation and Circulation) requiring that additional vehicle trips in excess of that which is projected under the Proposed Action, not result in an exceedance of any intersection or roadway segment operations standard of the applicable jurisdiction (i.e., Caltrans, El Dorado County, Placer County, or the City of Auburn). Implementation of this measure could result in reduction in vehicle trips that could result in a subsequent reduction in vehicle noise. However, the CNEL at the nearest residential receptor along SR 49 (Lincoln Way to Old Foresthill Road) is very close to the 60 CNEL exterior standard under the Proposed Action. An incremental increase in vehicle traffic at this location could result in an exceedance of this CNEL standard.

The RE Alternative would allow continued OHV use within the Mammoth Bar Management Zone and would allow this use to occur seven days a week instead of every other day, as under existing conditions. It would increase the capacity for OHV use by up to 20 percent, which could expand the number of OHV's that could operate concurrently by up to approximately 20 percent. Generally, a doubling of a noise source (such as twice the number of OHVs operating concurrently) results in an increase of 3 dB, which is perceived as barely noticeable by people (Egan 2007:21). Thus, this alternative would not noticeably increase the noise levels associated with OHV use, but it would allow OHV-generated noise to occur more frequently. The nearest sensitive receptors are residences along Westville Trail (east of Cool), which are over one mile from the OHV use area. Furthermore, intervening topography between the OHV use and receptors attenuates noise generated at the OHV

use area. CSP would continue to enforce compliance with applicable regulations, which require that any OHV be equipped with a properly functioning muffler (43 CFR 420.11 and California Vehicle Code [CVC] 38365). At this location and distance from receptors, the more frequent OHV use would not exceed applicable exterior CNEL standards.

The RE Alternative also calls for evaluating the feasibility of relocating the OHV tracks and staging area to the Castle Rock Activity Node. If the tracks were relocated to this activity node, which is on the top of the canyon rim rather than the bottom, it would alter the spread and attenuation of OHV-generated noise. However, the possible relocation of the OHV track and staging area would be consistent with Guideline MZ 22.5, which calls for analysis of potential environmental impacts, including noise impacts, and implementation of necessary mitigation measures that would address any significant noise impacts associated with a possible future track relocation.

As detailed above, existing residential receptors along SR 49 from Lincoln Way to Old Foresthill Road could be exposed to transportation noise level increases that exceed applicable CNEL standards under the RE Alternative. This impact would be **potentially significant**, for the purposes of CEQA. The effects from the RE Alternative related to transportation noise would be greater than those of the No-Action Alternative.

Mitigation Measures

Mitigation Measure 4.16-2: Monitor and reduce traffic noise

This mitigation measure applies to the RE Alternative.

As new trip-generating amenities are proposed in ASRA/APL and as part of the associated project-level environmental review, CSP shall evaluate whether they would result in an increase in traffic volumes along the segment of SR 49 between Lincoln Way and Old Foresthill Road and whether this increase would result in the exposure of off-site land uses to noise levels that exceed the applicable CNEL standards. This project-specific assessment shall consider the number of new trips generated by the amenity, the expected distribution of those trips along the surrounding roadway network, and whether the new amenity would contribute to a combined traffic volume greater than 12,900 vehicles per day along the segment of SR 49 between Lincoln Way and Old Foresthill Road (the number of daily vehicle trips that is projected to exceed the CNEL standard). If the initial project-specific assessment determines that the traffic volume along this roadway segment without the project would be less than 12,900 vehicles per day, and the project could result in a combined traffic volume greater than 12,900 vehicles per day, then CSP shall implement one of the following measures:

1. Modify or relocate the amenity to reduce its level of trip generation. For example, the size of a new campground or day-use area could be decreased to adjust the number of visitor-related trips.

2. Conduct site-specific traffic noise measurements to determine a more precise traffic volume level that would result in an exceedance of the applicable CNEL standards along this roadway segment. This study shall be conducted by a qualified noise specialist. This study shall take into account the time of day those trips would likely occur, travel speed, acoustical features along this roadway segment, and the expected cumulative traffic volume on this roadway segment with and without the added amenity. This study shall include traffic noise measurements along the roadway segment to calibrate the results of traffic noise level modeling.

CSP shall provide a written copy of project-level assessments to the appropriate agency based on the location of the impacted receptor(s) (i.e., Placer County or the City of Auburn). CSP shall not develop any amenities that would contribute to an exceedance of 12,900 vehicles per day on this roadway segment unless the site-specific traffic noise study determines that additional vehicle trips would not exceed the applicable CNEL standards.

Significance with Mitigation

Limiting the combined traffic volume along the segment of SR 49 between Lincoln Way and Old Foresthill Road to 12,900 vehicles per day along the segment of SR 49 between Lincoln Way and Old Foresthill Road, or to a revised limit substantiated by a site-specific noise study, would ensure that off-site land uses located along this roadway segment would not be exposed to noise levels that exceed applicable CNEL standards. Implementation of Mitigation Measure 4.16-2 would reduce the level of traffic noise exposure to a **less-than-significant** level.

Cumulative Impacts

Noise and vibration levels associated with construction activities under the four alternatives would be temporary and intermittent. Further, construction-related noise and vibration is typically considered a localized affect, affecting the land uses closest to construction activities. Regulations are in place that would limit construction noise and vibration to the less sensitive times of the day and construction activities would implement construction noise-reducing measures required by CSP SPRs, further reducing human disturbance.

The areas surrounding ASRA/APL where potential noise-sensitive receptors would be located are within Placer County or El Dorado County. The time-of-day limitation in Guideline RES 23.4 is consistent with Placer County Code Section 9.36.030, which exempts construction-related noise from Placer County's noise standards if the construction occurs between 6 a.m. and 8 p.m., Monday through Friday, or between 8 a.m. and 8 p.m. on Saturday and Sunday. The time-of-day limitation in Guideline RES 23.4 is also consistent with Policy 6.5.1.11 of the El Dorado County General Plan, which exempts construction-related noise from El Dorado County's noise standards if the construction takes place between 7 a.m. and 7 p.m., Monday through Friday, or between 8 a.m. and 5 p.m. on weekends and federally recognized holidays.

Therefore, even if construction activities associated with the No-Action Alternative, Proposed Action, RME Alternative, or RE Alternative were to combine with noise from other construction activities or from construction of other cumulative projects, such construction activities would only occur during the less-sensitive and construction-noise exempt daytime hours. Therefore, this impact would result in a **less-than-significant cumulative effect**. The effects resulting from the Proposed Action, RME Alternative, and the RE Alternative related to construction noise would be greater than those of the No-Action Alternative.

Long-term increases in traffic-noise on area roadways would be associated with cumulative background growth (future development and population growth within and outside the region) and increases in ASRA/APL visitors. Table 4.16-6 displays the modeled traffic noise levels at the nearest applicable off-site receptors from the roadway segments for weekdays and weekends under cumulative conditions with and without implementation of the Proposed Action.

Table 4.16-6 Summary of Modeled Traffic Noise Levels under Cumulative and Cumulative Plus Project Conditions under Proposed Action

Study Road Segments	Applicable Exterior CNEL/L_{dn} Noise Standard for Land Uses Exposed to Transportation Noise Sources (dB)	Allowable Exterior Noise Increment Standard (dB)	CNEL (dB) at Nearest Sensitive Receptor				Weekday Net Change (dB)	Weekend Net Change (dB)
			Weekday		Weekend			
			Cumulative Conditions	Cumulative Plus Project Conditions	Cumulative Conditions	Cumulative Plus Project Conditions		
Foresthill Road (Lincoln Way to Old Auburn Foresthill Road)	60	5.0	57.7	57.8	57.3	57.6	+0.1	+0.3
SR 49 (Lincoln Way to Old Foresthill Road)	60	5.0	59.2	59.8	59.1	60.0	+0.6	+0.9
Old Foresthill Road (SR 49 to Foresthill Road)	60	5.0	46.0	47.3	48.2	49.4	+1.3	+1.2
SR 49 (Old Foresthill Road to Georgetown Road [SR 193])	60	5.0	56.8	57.0	56.4	56.6	+0.2	+0.2
Skyridge Drive (Sacramento Street to Riverview Drive)	60	5.0	50.6	51.2	51.0	51.4	+0.6	+0.4
Riverview Drive (Skyridge Drive to Maidu Drive)	60	5.0	51.8	53.0	53.1	53.8	+1.2	+0.7
Maidu Drive (Auburn Folsom Road to China Bar Access)	60	5.0	58.3	58.5	57.8	58.4	+0.2	+0.6
Slinger Mine Road (SR 193 to San Martin Mine Road)	60	5.0	51.0	52.0	50.3	51.9	+1.0	+1.6

Notes: CNEL = Community Noise Equivalent Level; dB = decibels; SR = State Route

Detailed noise modeling is included in Appendix D. Refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2018

As shown in Table 4.16-6, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards.

The No-Action Alternative would not generate new vehicle trips associated with new facilities; however, the continuing population growth in the region would contribute to an increase in annual visitation under the No-Action Alternative. Nevertheless, the No-Action Alternative and the RME Alternative would result in fewer vehicle trips than the Proposed Action; and thus, both alternatives would result in a lower increase in vehicle noise on the roadway study segments. Therefore, under cumulative and cumulative plus project conditions for the No-Action Alternative, Proposed Action, and RME Alternative, existing receptors would not be exposed to transportation noise level increases that exceed applicable CNEL standards or the incremental increase standards under cumulative conditions.

Implementation of the RE Alternative would result in a greater number of new facilities as compared to the Proposed Action, and thus, would result in a greater number of new daily vehicle trips on roadway study segments. As described under Impact 4.16-2, the RE Alternative would be required to implement traffic-related mitigation measures (Mitigation Measures 4.16-1 see Section 4.16, Transportation and Circulation and 4.16-2) that would reduce vehicle traffic, which could result in a subsequent reduction in vehicle noise. However, the CNEL at the nearest receptor along SR 49 (Lincoln Way to Old Foresthill Road) is very close to the 60 CNEL exterior standard.

Proposed Action as detailed above, with the addition of traffic generated by the RE Alternative, the existing receptors along this segment could be exposed to transportation noise level increases that exceed applicable CNEL standards. This impact would be **cumulatively significant** with implementation of the RE Alternative. The effects from the RME Alternative related to transportation noise would be similar to those of the No-Action Alternative.

Mitigation Measures

Mitigation Measure 4.16-3: Monitor and reduce traffic noise

This mitigation measure applies to the RE Alternative.

CSP and Reclamation shall implement Mitigation Measure 4.16-2 as described above. This mitigation measure requires CSP to evaluate and minimize vehicle trips generated by new amenities, if trip numbers are greater than 12,900 vehicles per day along the segment of SR 49 between Lincoln Way and Old Foresthill Road.

Significance with Mitigation

Limiting the combined traffic volume along the segment of SR 49 between Lincoln Way and Old Foresthill Road to 12,900 vehicles per day, or to a revised limit substantiated by a site-specific noise study, would ensure that off-site land uses located along this roadway segment would not be exposed to noise levels that exceed applicable CNEL standards. Implementation of Mitigation Measure 4.16-3 would reduce the level of traffic noise exposure such that the RE Alternative would result in a **less-than-significant cumulative effect** related to transportation noise.

4.17 Wildfire

This section evaluates the effects of the ASRA GP/APL RMP alternatives on wildfire risk and exposure. The following analysis considers drivers of wildfire risk, and the features of the alternatives that could add to such risks or expose people or structures to it. This section also provides background and context on wildfire concepts in addition to the information provided in Chapter 2, Existing Conditions, of the GP/RMP. These concepts include wildfire regime and wildfire behavior, and wildfire management practices. A detailed description of the factors and features associated with the plan that could affect wildfire conditions are included in the GP/RMP in Section 4.5.1, Visitor Capacity. Relevant goals and guidelines are included in the GP/RMP in Section 4.3.1, Resource Management and Protection. Detailed descriptions of the alternatives, including the number, type and location of proposed facilities are included in this EIR/EIS in Chapter 2, Project Description and Alternatives.

The primary issues raised during scoping that pertain to wildfire were general concerns about increased risk of wildfire resulting from increased visitation and recreational use, and evacuation during a wildfire emergency.

The effects of the installation or maintenance of wildfire-related infrastructure on other environmental resources are addressed in the applicable resource sections throughout this EIR/EIS. Wildfire-related infrastructure, in this case, refers to fuel breaks and other vegetation management, water storage facilities, and making emergency fire suppression equipment or resources available where appropriate. Such effects are varied and may affect numerous resources including biology (addressed in Section 4.3, Biological Resources), hydrology (addressed in Section 4.9, Hydrology and Water Quality), hazards (addressed in Section 4.10, Hazards and Hazardous Materials), and scenic resources (addressed in Section 4.15, Scenic Resources). This section does not address the risk of wildfire that could stem from installation of power transmission or generation facilities such as power lines, because addition or expansion of these facilities are not proposed under any of the alternatives.

4.17.1 Environmental Impacts and Mitigation Measures

Analysis Methodology

The impact analysis considers the potential for increased wildfire risk in terms of frequency, intensity, and size of fires, as well as the risk of exposure of people and structures to fires. It also evaluates the effects of the alternatives on emergency planning and evacuation in the event of a wildfire, and congruency with existing emergency plans and policies. As noted above, the groundwork for wildfire principles and concepts is laid at the outset of the discussion. A literature review has been conducted to identify the current state of knowledge and science related to wildfires both nationally and within California. To determine the potential increased risks associated with each of the alternatives, a baseline condition representing the likely natural progression of existing wildfire conditions in the absence of any plan was established. Natural conditions and plan features contributing to increased wildfire risk and plan features that would reduce risks are presented and discussed. These plan elements are qualitatively compared against each other and the net balance in increased or decreased fire risk is described. A similar approach has been taken for the evaluation of the effects on emergency planning and evacuation.

Significance Criteria

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact related to the risks of wildfire if it would:

- expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires;
- impair an adopted emergency response plan or emergency evacuation plan;
- due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; or
- expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the proposed action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. NEPA requires documentation and discussion of any beneficial effects of a project in addition to its negative impacts. Where appropriate, these beneficial effects are discussed and called out specifically for the purposes of NEPA in the following impact analysis.

Environmental Impacts

Impact 4.17-1: Risk of increased frequency, intensity, or size of wildfires or increased risk of exposure of people or structures to wildfire

Impact Summary

ASRA/APL and surrounding lands are highly susceptible to wildfires. Prevailing trends indicate an increase in the severity of wildfires over time as a result of climate change, modified vegetation regimes, and increasing human influence, all of which are expected to continue to produce a worsening fire regime over time. Under the No-Action Alternative population growth in the region would result in an estimated 30 percent increase in visitation over the next approximately 20 years, which would create an increased potential for new human-induced wildfire ignitions. Under the No -Action Alternative, management of ASRA/APL and adjacent lands would continue to prioritize management actions that protect public safety, including wildfire prevention and fuel reduction; and the amount of fuel reduction treatments would increase in response to federal and state priorities. These management actions would offset the increased risk of wildfire from climate change and population growth, resulting in a **less than significant** impact for the purpose of CEQA

The Proposed Action, RME Alternative, and RE Alternative would result in additional facilities and visitation within ASRA/APL that could contribute to an increase in the frequency of wildfire and increase the number of people and structures that could be exposed to wildfire. These risks would be offset by wildfire prevention programs that could contribute to a decrease in the frequency of wildfire;

and by substantially increased vegetation management and suppression programs that could contribute to a reduction in the size and intensity of wildfire. When these factors are considered together, implementation of the Proposed Action or RE Alternative would not substantially change the risk of increased frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire. For these reasons, the Proposed Action and RE Alternative would result in a **less-than-significant** impact, for the purposes of CEQA.

Wildfire Regime and Controlling Factors

Wildfire behavior is a product of several variables, primarily climate, vegetation, topography, and human influences, which intermix to produce local and regional fire regimes that affect how, when, and where fires burn. The fire regime in any area is defined by several factors, including fire frequency, intensity, severity, and area burned. Each of these are important for an understanding of how the variables that affect fire behavior produce fire risks. Fire frequency refers to the number of fires that occur in a given area over a given period of time, fire intensity refers to the speed at which fire travels and the heat that it produces, fire severity involves the extent to which ecosystems and existing conditions are affected or changed by a fire, and area burned is the size of the area burned by wildfire.

Three of the four variables controlling wildfire behavior (climate, vegetation, and human influence) are rapidly changing in California and elsewhere—changes which are producing a fire regime that, in areas like Sierra Nevada foothills where ASRA/APL is located, is increasingly susceptible to fire danger and gradually becoming more hazardous. The Sierra Nevada foothills are generally defined by high to extreme fire hazard, with relatively frequent, intense, severe, and large fires. Warming, frequent droughts, and the legacy of past management policies, combined with the increase in development and expansion of the wildland-urban interface (WUI) has increased the possibility of catastrophic damage during wildfires, which poses a substantial threat and cost to society. Wildfires in California have, consequently, become an increasing topic of concern for Californians, particularly for those who live in or near the WUI, where houses intermingle with natural areas, as they do in many areas adjacent to ASRA/APL.

Human Influence

Human influence on wildfire is broad and can be substantial. It includes direct influences such as the ignition and suppression of fires, and indirect influence through climate change and alterations in land use patterns that support modified vegetative regimes. Anthropogenic influence more directly controls fire frequency than area burned because anthropogenic ignitions are responsible for a large number of ignitions, but once started, fire spread and behavior become a function of fuel characteristics, terrain, and weather conditions (Syphard et al. 2008). Areas where human influence is concentrated, but not so much so that the environment reflects an urban setting, greatly exacerbate the risk of wildfire due to the potential capacity for human-caused ignitions and fire spread (Syphard et al. 2007; Balch et al. 2017).

Wildfire ignitions can be generated by either natural or human causes, the proportion of which depend on a variety of factors, including the presence of human activity and local climate and weather patterns. However, the greater share of ignitions across the U.S. are human-caused. Human-induced wildfire ignitions have the ability change fire characteristics in two ways: (1) changing the distribution and density of ignitions, and (2) changing the seasonality of burning activity (Balch et al. 2017). A study of wildfires across the U.S. for the 20-year period between 1992 and 2012 showed that 82 percent of wildfires during that period were started by human causes (Balch et al. 2017), while in California specifically, humans account for starting approximately 95 percent of wildfires in the state (Syphard et al. 2007). Circumstances in California have made the environment particularly vulnerable to human-caused fires with expansion of the WUI and introduction of more people in areas susceptible to wildfire at all times of the year.

Human ignitions include a multitude of sources, including escapes from debris and brush-clearing fires, electrical equipment malfunctions, campfire escapes, smoking, fire play (e.g., fireworks), vehicles, and arson (Keeley and Syphard 2018). Areas near human development, especially areas near campgrounds and roads, consequently, generate fires at a more frequent rate than very remote or urban areas (Mann et al. 2016). Such sources have led to fires within ASRA/APL, as described below, under the heading Local Wildfire Regime.

Climate Change

Wildfire activity is closely related to temperature and drought conditions (Westerling et al 2006; Schoennagel et al. 2017). In recent decades, increasing drought frequency and warming temperatures have led to an increase in wildfire activity (Westering et al. 2006). In particular, the western U.S. has seen increases in wildfire activity in terms of area burned, number of large fires, and fire season length (Westerling et al. 2006; Abatzoglou and Williams 2016). It is estimated that since 1985, more than 50 percent of the increase in the area burned by wildfire in the western United States is attributable to anthropogenic climate change (Abatzoglou and Williams 2016). As climate change persists, it will produce ever-increasing temperatures and drier conditions that will generate abundant dry fuels. All wildfires (those initiated by both natural and manmade sources) tend to be larger under drier atmospheric conditions and when fed by drier fuel sources (Balch et al. 2017). Additionally, climate change has led to more favorable wildfire conditions during a longer period of the year as the spring season has warmed—driving an earlier spring snowmelt, and as winter precipitation has overall decreased (Westerling et al. 2006). Climate change will continue to produce conditions for a longer fire season, which, when coupled with human-caused changes in the seasonality of ignition sources, will produce more, longer, and bigger fires during more times of the year.

Wildfire Management

Historically, humans have intervened deliberately and dramatically in the fire regime through Native American use of fire, followed by fire suppression and, more recently, actions that affect fuel connectivity. The legacy land management practice of fire suppression has led to a buildup of forest fuels and an increase in the occurrence and threat of large, severe fires (Westerling et al. 2006). With the expansion of the WUI and the threat that large, severe, intense wildfires pose, fire suppression remains the management technique for more than 95 percent of wildfires in the U.S. (Schoennagel et al. 2017). Contemporary fire management practices include fuel management activities that are intended to reduce the intensity and severity of wildfires. Modern wildfire management practices may also encompass actions targeted at reducing human wildfire ignition through education programs.

Fuels Management

Vegetation treatment is a primary approach to wildfire management, because it can reduce the intensity and severity of wildfire, slowing fire movement and creating favorable conditions for firefighting to protect targeted, high-value resources (Carey and Schuman 2003, Agee and Skinner 2005, Prichard et al. 2010). Fuel reduction has proven successful where it is targeted at protecting specific resources in limited geographic areas, such as in areas of extreme fire danger or in the WUI. Areas that are treated often exhibit different fire progression and severity characteristics from areas that are not treated (Carey and Schuman 2003, Agee and Skinner 2005, Prichard et al. 2010).

Fuel treatments are most effective when wildfires are driven by prevailing seasonal conditions of heat intensity and air, soil, and fuel moisture content. In circumstances where extreme weather conditions exist, such as in cases of extremely low humidity and very high winds, fuel treatments are less effective (Brown et al. 2008). While there is no evidence that definitively shows that forest fuel treatments can lead to a reduction in the overall size of a fire (USFS 2009; Schoennagel et al. 2017), such treatments can

aid in protecting public safety, and homes and other structures by reducing wildfire intensity and severity in treated areas under normal fire conditions. Where treatments have occurred, the pattern of wildfire progression may be limited in some areas to low-intensity underbrush and surface burning, which can create safe conditions for firefighters to successfully suppress fires in areas near homes or other structures, or around areas of high resource value. Fuel treatments also promote faster forest recovery post-fire by causing less damage to soils and leaving some live vegetation within burn areas (USFS 2009), protecting resources such as soils, wildlife, riparian function, and wetlands (Kim et al. 2013).

Wildfire Prevention Programs

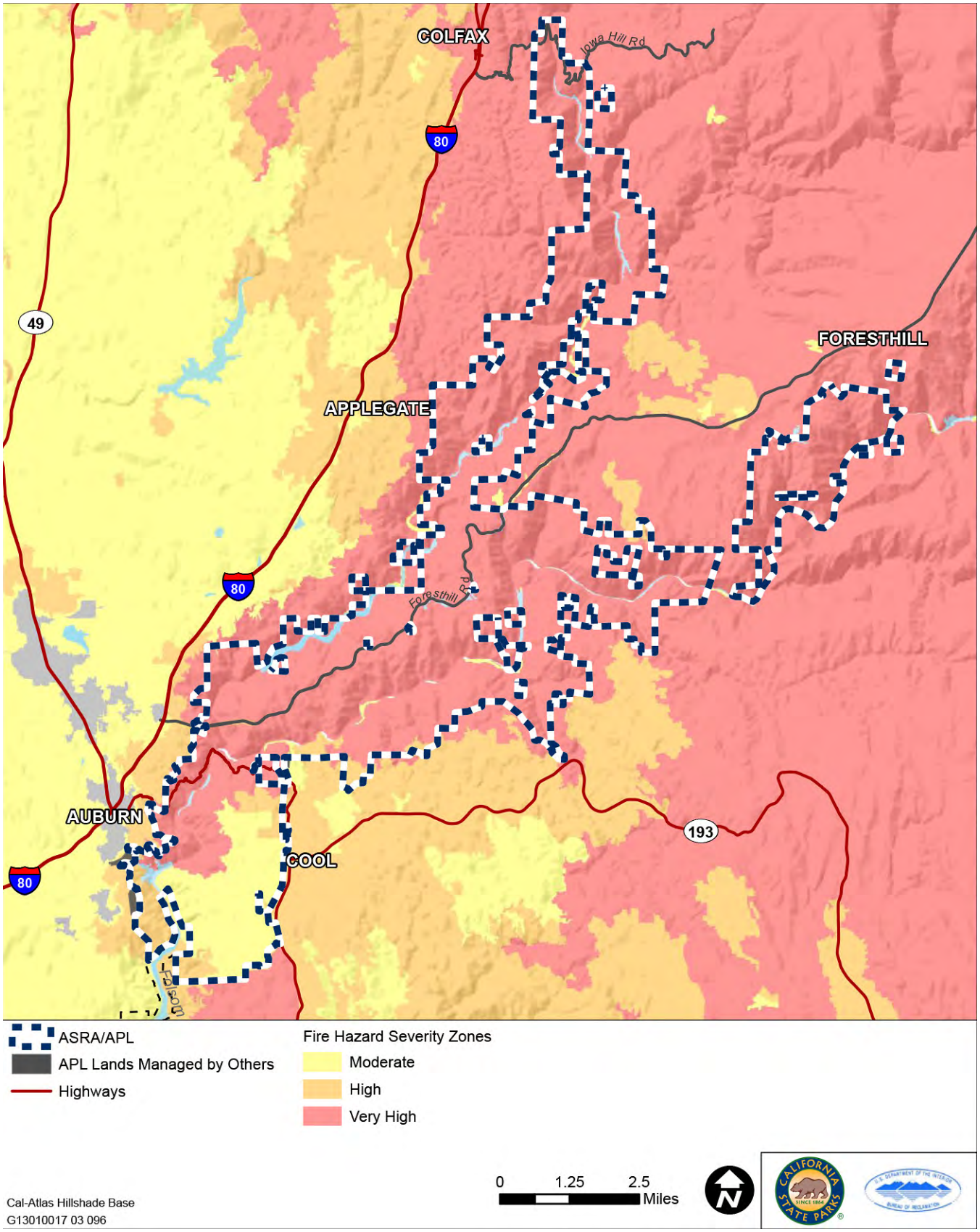
Wildfire prevention education has been shown to be an effective form of wildfire management by successfully reducing the incidence of wildfire (Prestemon 2010). Wildfire prevention education includes methods targeted at reducing accidental, preventable wildfire starts. Such prevention education might include public service announcements on radio or TV, visiting homeowners in at-risk areas, signs, news releases, presentations at public forums, or distributing handouts such as brochures and fliers. Other effective wildfire prevention programs can include enforcement of regulations prohibiting high-risk activities (e.g., fireworks). Wildfire prevention programs can be a cost-effective approach to reducing the incidence of wildfire because it reduces future firefighting costs, which can offset the initial costs associated with implementing these programs (Butry et al. 2010).

Local Wildfire Regime

ASRA/APL consists of approximately 30,600 acres of public land within the Sierra Nevada foothills, immediately east of the City of Auburn. The recreation area follows along reaches of the North and Middle Forks American River, which flow through steep canyons resulting in challenging firefighting terrain. The western portions of ASRA/APL are dominated by oak woodland and grassland, with chaparral in the lower portions of the canyons. The cooler north-facing slopes of the American River canyon support conifer stands of Douglas fir, while oak-conifer stands dominate in the area of Auburn and along the SR-49 corridor. Oak woodland dominates the eastern portions of ASRA/APL, with oak-conifer and conifer stands becoming more common on the ridgetops as elevation increases. These vegetation types provide ample fuel for wildfires. Invasive plant species are also widespread throughout the park, many of which exhibit higher flammability characteristics than native plant communities and contribute more substantially to wildfire risk. Thus, ASRA/APL exists within the context of a high-risk fire regime, susceptible to wildfire events.

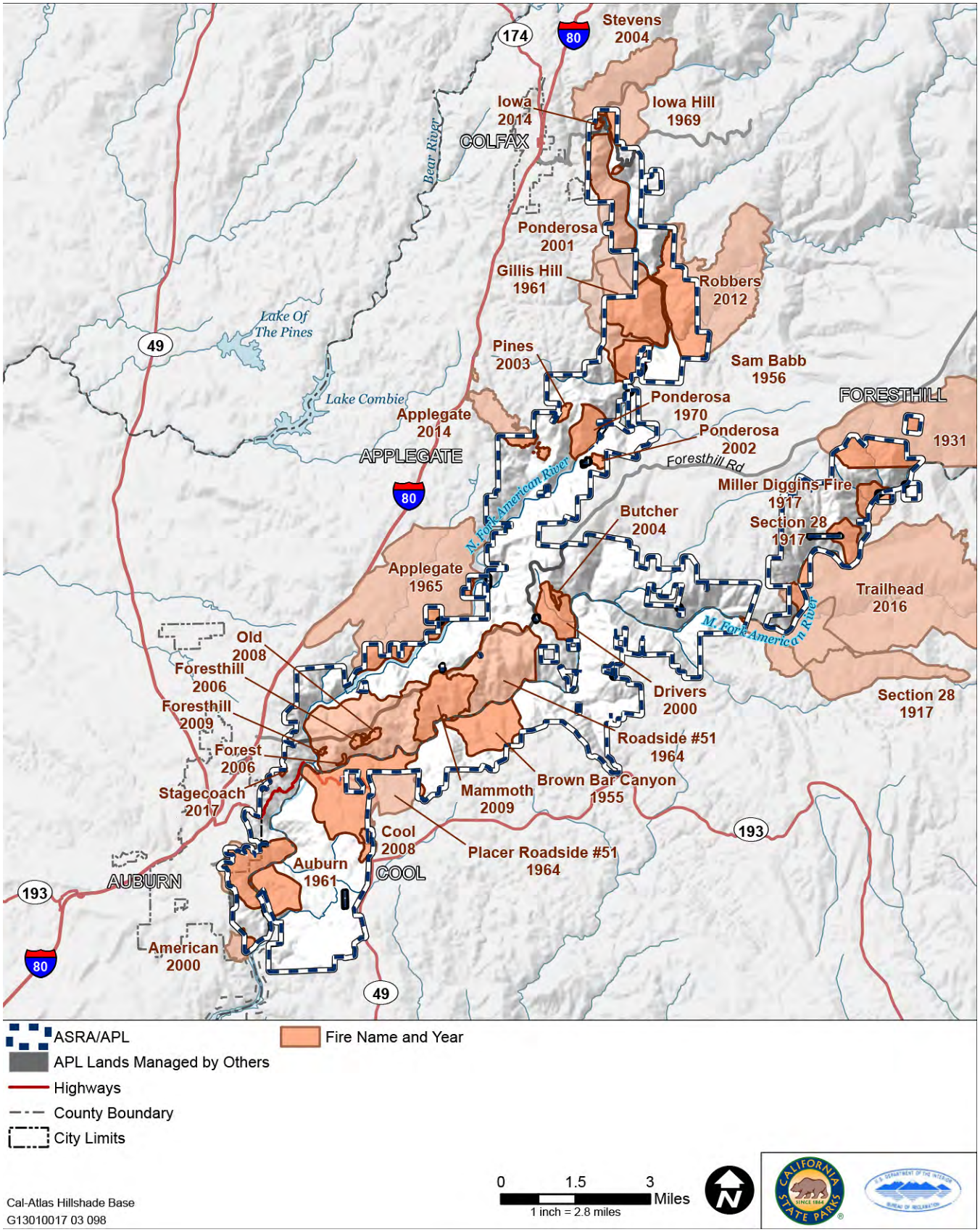
The California Department of Forestry and Fire Protection (CAL FIRE) identifies Fire Hazard Severity Zones at a local, state, and federal level, which cover all fire-prone areas in the state, regardless of land ownership or responsibility. These zones are modeled based on vegetation, topography, weather, crown fire potential, and ember production and movement. CAL FIRE has designated most parts of ASRA/APL as Very High Fire Hazard Severity, the most extreme fire danger rating (Figure 4.17-1).

Since the turn of the 20th century, there have been numerous wildfires on lands within ASRA/APL (Figure 4.17-2). Over the last century, thousands of acres of the ASRA/APL have been burned, much of it repeatedly. Historical fire occurrence data show that almost all wildfires started within ASRA/APL were caused by human actions. Ignitions largely involve arson, fire play (e.g., the use of fireworks), vehicles sparks, or undetermined or unknown ignition source. Overall, visitation to the park is expected to increase under normal baseline conditions based on expectations of projected regional population growth and recent visitation trends in the area (for more information on visitation, see Chapter 2, Existing Conditions, of the GP/RMP). As more people visit the park, this would introduce the possibility of more fire ignition sources, which could increase the risk of ignitions.



Source: Data provided CSP in 2016 and downloaded from CAL FIRE in 2013

Figure 4.17-1 Fire Severity Ratings within and Surrounding ASRA/APL



Source: Data provided by CSP in 2016; downloaded from CAL FIRE in 2018

Figure 4.17-2 Historic Wildfires within ASRA/APL

Local Wildfire Management

Local wildfire management policies at ASRA/APL are driven by Reclamation policy, directives, and standards found in LND P14 (Reclamation 2017a) and LND 14-01 (Reclamation 2017b). Reclamation's wildland fire management policy is to manage for a reduction in the occurrence and severity of wildland fire though fire suppression, fire prevention and education, fire management planning, fuels reduction, rehabilitation and training. Directive and standards provide the framework for wildland fire management and creation of fire management plans on Reclamation lands whether managed by a federal or non-federal partner. To this end, Reclamation is updating the *Auburn State Recreation Area Fire Management Plan* for ASRA/APL, which provides wildfire management direction and strategies. On state lands, wildfire management is guided by the Department of Parks and Recreation Operations Manual, which requires a wildfire management plan (WMP) for each park unit. The WMP identifies park infrastructure, resources, sensitive areas, and potential hazards; and provides maps of these resources.

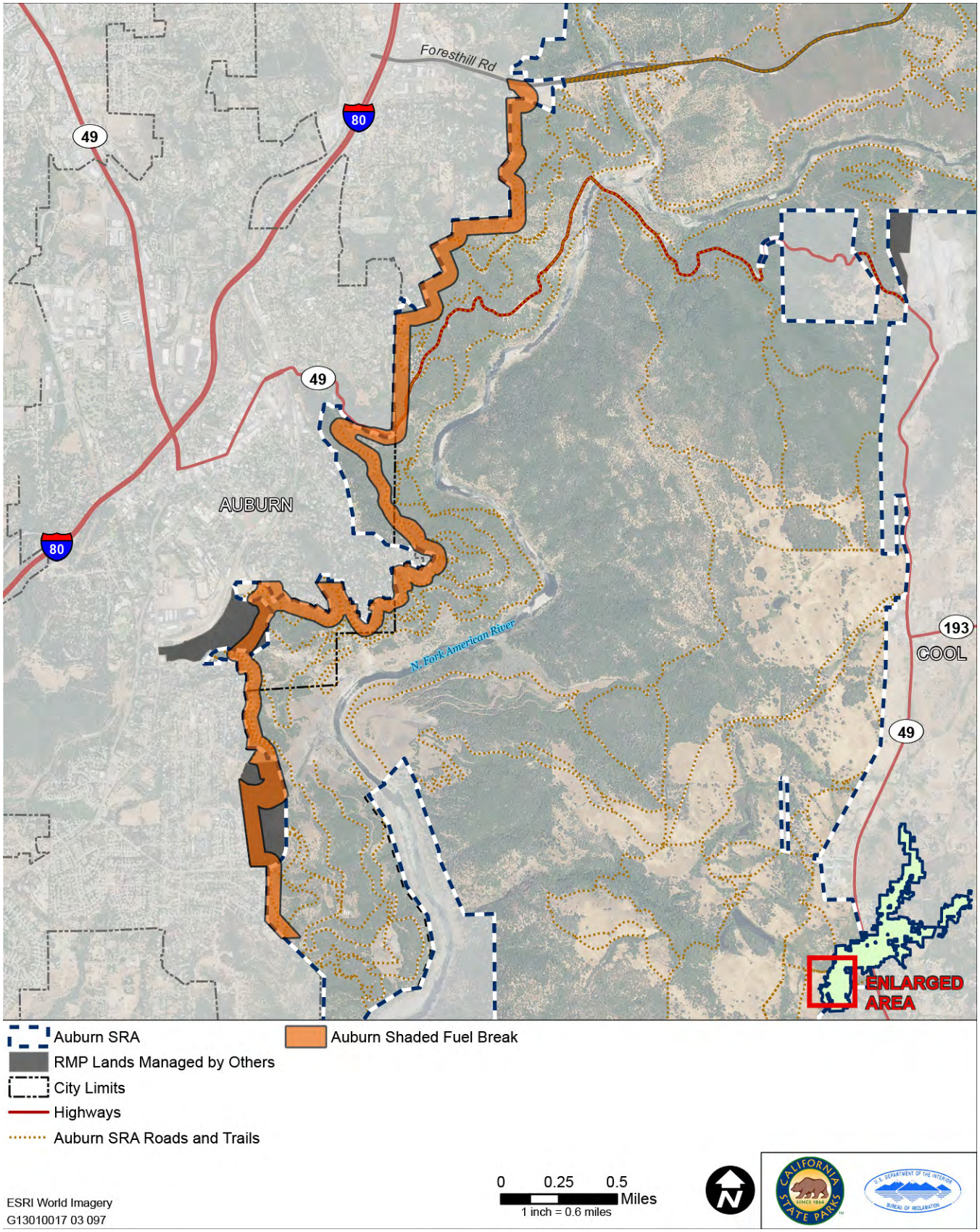
Fuel Management

Fire management activities within ASRA/APL currently focus on hazardous fuels reduction within the Auburn Shaded Fuelbreak. This fuelbreak is a collaborative effort among Reclamation, CSP, and CalFire, and consists of an area approximately 18 miles long and 300 feet wide, snaking along the ridgeline border between ASRA/APL and the City of Auburn. From 2014 to 2018, an estimated average of 57 acres per year of ASRA/ASL forested lands have received forest thinning and pile burning fuel reduction treatments (Howard, pers. comm., 2018). The total area of defensible space provided by this project is slightly over 232 acres (Figure 4.17-3). Work within the area consists of hand thinning vegetation and prescribed burning. The fuel break has been designed to reduce the intensity of potential fires and produce the benefits described above, namely, slowed fire progression and favorable firefighting conditions around the city of Auburn.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim Resource Management Plan would remain unchanged, and the existing wildfire regime and management activities would continue. Generally, current fire management activities are targeted within the WUI along the Auburn Shaded Fuelbreak, as described above. This alternative would retain current land uses and management practices according to those specified in the Interim Resource Management Plan and attendant management plans and protocols, including the *Auburn State Recreation Area Prefire Management Plan* prepared jointly by CSP, Reclamation, and CAL FIRE.

As with existing conditions, under the No-Action Alternative, conditions conducive to wildfire would continue to worsen; that is, the risks and dangers associated with wildfire would become worse over time due to climate change and direct human influence associated with population growth in the region. The No-Action Alternative could also result in basic infrastructure and operational improvements which would not materially change the capacity for visitation. However, due to continued population growth in the surrounding region, it is estimated that visitation could increase by approximately 30 percent by the year 2040 under the No-Action Alternative. It is reasonable to expect that an increase in visitation in ASRA/APL would result in a corresponding increase in the risk of human-caused wildfire ignitions under the conditions and wildfire regime present within ASRA/APL.



Source: Data provided by Reclamation in 2018

Figure 4.17-3 Auburn Shaded Fuelbreak

Under the No-Action Alternative, the management of ASRA/APL would continue to be guided by the Interim RMP. A primary goal of the Interim RMP is "[t]o provide for the health and safety of the public during the interim period" (Reclamation 1992:92). The Interim RMP identifies facility improvements and programs necessary to maintain visitor health and safety as the highest priority activities. Therefore, under the No-Action Alternative, CSP and Reclamation would continue to implement wildfire risk reduction activities necessary to maintain public safety. Furthermore, CSP and Reclamation would manage ASRA/APL consistent with CSP Department Operations Manual Chapter 1500, Emergency Management, and the Reclamation Manual, which provide guidance on emergency response preparedness, planning, and training.

On lands adjacent to ASRA/APL, existing fuel reduction practices would continue including implementation of PRC Section 4291, which requires the creation and maintenance of 100 feet of defensible space around all buildings and structures on forest, brush, and grass-covered lands or any land that is covered with flammable material. The law also allows insurance companies and local ordinances, rules, or regulations to require homeowners to maintain defensible space greater than 100 feet. Other fuel management and wildfire prevention efforts by the USFS, City of Auburn, community groups, residents, and local jurisdictions would also continue.

Under the No-Action Alternative, there is no specific proposal for additional vegetation management activities or funding beyond what currently occurs under existing conditions. However, it is anticipated that the pace and scale fuel treatments under the No-Action Alternative would increase above existing levels in response to federal and state priorities. For example, California Executive Order B-52-18 (2018) calls for the doubling the amount of forested areas treated for fuel reduction state-wide within five years. Similarly, a federal executive order signed on December 21, 2018, calls for increased fuel reduction and active management of forests, including on lands administered by the Department of Interior. Numerous funding sources, and regulatory guidance support this increased pace and scale of forest management treatments.

As described above, the risks and dangers associated with wildfire would become worse over time due to climate change and direct human influence associated with population growth in the region, under the No-Action Alternative. However, management of ASRA/APL and adjacent lands would prioritize management actions that protect public safety, including wildfire prevention and fuel reduction; and the amount of fuel reduction treatments would increase. These management actions would offset the increased risk of wildfire from climate change and population growth, resulting in a **less than significant impact** for the purpose of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

New facilities would be constructed with implementation of the Proposed Action, including up to 230 campsites, with one fire ring located within each campsite; active recreation facilities (; day-use facilities; river access points; watercraft launch improvements; two trail bridges; and other trail improvements throughout ASRA/APL. The Proposed Action would support additional interpretive and educational uses, along with park operations and maintenance facilities, and cultural and biological resource protection. Improvements under the Proposed Action would accommodate additional visitors seeking recreational opportunities on trails throughout the park as well as day use and camping activities. The Proposed Action would also open some restricted-use roadways to the public to provide additional river access and reduce congestion at heavily-used access points (e.g., the Confluence).

These facilities would increase visitor capacity, which would accommodate up to an estimated 35 percent increase in visitation after full build out of the GP/RMP, which could occur in 20 – 30 years. New facilities and increased visitation would also change the distribution of visitors in the park. New facilities and use areas would tend to be located in areas with existing facilities and use, however some less-used areas would receive increased visitation, which would increase the risk for wildfire ignitions.

The Proposed Action would also involve additional fire restrictions and enforcement; additional staffing and patrols in concert with increases in visitation; and additional public education and outreach, to reduce the potential for wildfire ignitions. In addition, it would include substantially increased vegetation management activities to reduce the potential intensity and severity of wildfires, and facilitate more effective wildfire suppression. Thus, various features of this alternative increase fire risk, while others would act to reduce it. The combined effect on wildfire frequency, intensity, and size, and on the potential exposure of high-value resources such as people and structures to wildfire are discussed in detail below.

Wildfire Frequency

While there is no well-established numerical relationship between the type of human development, the specific ecological environment, and wildfire risk; it is well-documented in the literature that increases in human activity produce increases in the risk of human-caused wildfire ignitions under the types of conditions and wildfire regime present within ASRA/APL. Therefore, the increase in visitation associated with the GP/RMP would be expected to increase the risk of human-caused wildfire ignitions.

The Proposed Action would incorporate a specific goal to reduce human-caused wildfire ignitions through effective education, enforcement, and management strategies (Goal RES 9). Guideline RES 9.4 would implement a new wildfire education prevention program. The wildfire education prevention program would educate visitors about current fire restrictions, the prohibition on fireworks, and general fire safety. It would also include distribution of fire safety information at campgrounds, parking lots, and other areas with heavy visitation. In addition, the Proposed Action would implement Guideline RES 9.5 to coordinate with other land management or fire agencies to develop expanded, wide-reaching wildfire education prevention initiatives. Such programs could include public service announcements, social media campaigns, and public education opportunities at special events within the park, or in conjunction with fuel reduction projects. All of these efforts would focus on a consistent messaging campaign and would utilize the most effective communication methods. These types of actions have been shown to be effective at reducing the incidence of wildfires elsewhere in the U.S. (Prestemon 2010), and it is reasonable to conclude that they would be similarly effective at ASRA/APL.

In addition, Guidelines RES 9.1 and RES 9.2 would impose restrictions on high-risk activities that could result in wildfire ignitions. These will include tiered seasonal or conditions-dependent restrictions on activities that can cause wildfires. CSP would post and enforce increasingly stringent restrictions, depending on season, wind, precipitation, temperature and other factors that affect fire hazard. Fire restrictions established in the CCR would be enforced at all times. These restrictions prohibit fires except in designated fire rings, limit the use of charcoal to areas with designated receptacles, prohibit the use of fireworks, and would restrict the use of camp stoves to areas devoid of flammable material for 15 feet in each direction or otherwise designated by CSP. Additional fire restrictions would be established through an order posted by the CSP Sector Superintendent during periods with high fire hazard conditions. These additional restrictions would be enforced by law enforcement staff and they could vary depending on the severity of wildfire hazard conditions. Additional restrictions could include a complete prohibition on campfires and open flames within ASRA/APL, a prohibition on smoking within ASRA/APL, a prohibition on the use of portable camp stoves outside of designated campsites,

and/or targeted closures within portions of ASRA/APL to prevent public access, reduce the potential for ignitions, and reduce potential evacuation needs. In addition to the above activity restrictions, implementation of Guidelines RES 9.3, RES 9.4, and RES 9.5, would involve elevating education and enforcement of existing fire restrictions (such as the prohibition on the possession and use of fireworks within the park, and the requirement for spark arresters on OHVs) to a top public safety priority. Implementation of Guideline OP 3.2 would increase the number of properly trained and equipped law enforcement officers commensurate with increases in visitation, which would provide additional staff to enforce fire safety restrictions.

Taken together, these measures are robust and would reduce the number of accidental and deliberate human-caused ignition sources associated with the Proposed Action, as well as reduce the number of ignitions that would otherwise occur under existing conditions. On balance, these measures could offset the risk associated with ignitions from additional visitation associated with the Proposed Action.

Wildfire Intensity and Size

As discussed above, wildfire behavior is largely a product of climate, vegetation, and topography. In particular, the intensity with which any specific fire burns and the size that it grows to is controlled more by these three factors than by direct human interference. The overall climate and vegetation regime trends exhibit a tendency toward increasingly hot and dry conditions that are more conducive to larger and more intense fires (see discussion on climate change, above), and this trend would continue even in the absence of the Proposed Action. However, fire size and spread are also indirectly controlled by human activities that affect climate, land use, fire suppression, and fuel connectivity. Some of these factors exacerbate the risk of more intense, larger fires, while others reduce that risk.

Fire suppression and fuels management are two strategies that mitigate fire size and intensity, which are currently employed within ASRA/APL. Because of the high resource values located within, the current and ongoing management strategy is fire suppression of all wildfires. This would continue under the Proposed Action. Similarly, CSP and Reclamation recognize the need for fuels reduction and expansion of defensible space, and this would be expanded under the Proposed Action.

Under the Proposed Action, resources would be allocated to more quickly and more efficiently suppress and control wildfires. Guideline RES 9.7 would require that emergency wildfire suppression equipment and resources be available at appropriate high-use areas (e.g., campgrounds and special event locations), and that appropriate CSP staff be trained in basic wildland fire response and safety. While CSP is not a fire suppression agency, this would allow appropriate CSP staff to be prepared to immediately assist with suppressing ignitions that occur at high-use areas where CSP staff are present, which could substantially reduce the size and severity of wildfires.

With implementation of the Proposed Action, the ASRA/APL both Reclamation's Fire Management Plan, and CSP's WMP would be drafted to conform to Bureau of Reclamation, CSP, and CAL FIRE policies and requirements. Guideline RES 8.1 would specifically require that the plans address the following:

- wildfire suppression;
- reduction of hazardous fuels;
- implementing prescribed fire;
- protecting and assisting communities;
- educating the public;
- maintaining and restoring native vegetation communities;

- controlling invasive species;
- protecting natural and cultural resources;
- surveying, assessing and documenting post fire conditions; and
- rehabilitating resources after a fire.

The Fire Management Plan and WMP would provide additional detail on the fire safety measures identified in the goals and guidelines, thereby increasing the likelihood of their effectiveness.

Goal RES 8 would address vegetation management to reduce the risk of wildfire in adjacent populated areas and protect significant resource values, visitor experiences, and public safety. Numerous specific guidelines would implement this goal. Consistent with Guideline RES 8.4, the Auburn Shaded Fuelbreak would continue to be maintained and additional vegetation management would occur between ASRA/APL and adjacent residential areas. Guidelines RES 8.5 and 8.6 would call for appropriate vegetation management and maintenance of defensible space surrounding around all existing and proposed facilities and along all roadways and OHV trails within ASRA/APL. Moreover, Guideline RES 8.6 would make the expansion or construction of any new facilities contingent upon completion of applicable vegetation management and defensible space treatments in those areas before construction or expansion of the facility.

The amount of additional treated area that would result from implementation of Guideline RES 8.6 is substantial. For context, the area of the park with existing facilities, roads, and other resources that is currently untreated but that would receive treatment at some point with implementation of the Proposed Action is estimated at approximately 2,000 to 2,500 acres. Meanwhile, the currently treated area within ASRA/APL consists of the Auburn shaded fuel break and comprises a total of 232 acres (Table 4.17-1). This represents an approximate 1,000 percent increase in the amount of treated area, which would be specifically targeted at potential ignition and evacuation areas. As an example, to achieve fuel treatments on all of the target areas by the end of the 20-year planning horizon for the GP/RMP, an average of an additional 123 acres would have to be treated each year. Currently an average of approximately 57 acres are treated per year, primarily involving retreatments within the Auburn Shaded Fuelbreak. In total, the Proposed Action would be expected to produce approximately 160 to 185 treated acres per year—an approximately 200 percent increase over existing conditions. This provides a reasonable estimate of the order of magnitude of increases in vegetation treatments. In practice, the extent of vegetation management activities in an individual year would vary because it would depend on factors such funding and staff availability.

Fuel reduction actions that could be implemented within ASRA/APL under Goal RES 8 to achieve treatment include hand and mechanical fuel thinning, pile burning, prescribed grazing, controlled burns, and onsite chipping. Such activities would be strategically prioritized in areas that could reduce the spread of fire between ASRA/APL and surrounding developed areas, around high-se areas where ignitions are more likely, and along access/evacuation routes. Herbicide is currently used in targeted applications to control invasive weeds, which would continue under the Proposed Action and could be expanded as part of additional roadside vegetation treatments. Treatments would be limited to treated areas, and widespread herbicide use would not be associated with the Proposed Action.

Table 4.17-1 Current and Estimated Treated Fuel Break Areas for Action Alternatives

	Proposed Action	RME	RE
Currently Treated Area			
Auburn Shaded Fuel Break (acres)	**232**	**232**	**232**
Future Treated Area			
Roads (acres)[1]	~1,800	~1,500	~1,800
Existing Facilities (acres)[2]	~500	~500	~500
Proposed Facilities (acres)[3]	~125	~20	~200
Estimated Total New Treated Area (acres)	**2,000 – 2,500**	**1,800 – 2,200**	**2,100 – 2,600**
Percent Increase in Area Treated	+1,000%	+900%	+1,100%
Total Treated Area			
Estimated Total Treated Area (acres)	**2,200 – 2,700**	**2,000 – 2,400**	**2,300 – 2,900**

N/A = not applicable

[1] Road treatments are based on an estimated 150-foot treatment on either side of the road centerline open to the public under each alternative, excluding roads in grassland (i.e., Knickerbocker)

[2] Existing facilities assumes a 300-foot buffer around existing facilities including parking areas, trailheads, campgrounds, etc.)

[3] Proposed facilities estimates are based on 300-foot buffer (6.5-acre polygon) around proposed facility locations, adjusted for facility size. Excludes proposed facilities that fall within existing treatment footprints.

Source: Compiled by Ascent Environmental in 2018

Taken together, the wildfire suppression and fuel management elements of the Proposed Action would promote a reduction in the size and intensity of wildfires in ASRA/APL.

Exposure of People and Structures

The Proposed Action would result in new facilities and an increased capacity for visitation. With the construction of new visitor facilities, including new and expanded campgrounds, improved day use areas, and two additional trail bridges, there would be a greater number of structures, and therefore increased exposure of structures to wildfire danger. Similarly, the increased capacity for visitation associated with this alternative could expose more people to wildfire dangers. As described above, it would also substantially expand fuels management. Fuels reduction would take place around both new and existing facilities, which means that it would take place in many areas with existing facilities that may not currently have adequate defensible space. This additional vegetation treatment around structures and high use areas would provide additional protection of park structures in the event of fires driven by prevailing seasonal conditions. This increase in fuel treatments and the protection that they would provide under more predictable, regularly occurring fire conditions would offset the risk of exposure during extreme events. In addition to the protection offered by vegetation management, some remote or difficult-to-access portions of ARA/APL would be closed during the most extreme fire danger conditions, reducing the number of people in dispersed areas that could be exposed to wildfire. These factors would offset the increased number of people and structures that could be exposed to wildfires.

Conclusion

As described above, the Proposed Action would result in additional facilities and visitation within ASRA/APL that could contribute to an increase in the frequency of wildfire and increase the number of people and structures that could be exposed to wildfire. These risks would be offset by wildfire

prevention programs that could contribute to a decrease in the frequency of wildfire; and by substantially increased vegetation management and suppression programs that would be expected to contribute to a reduction in the size and intensity of wildfire. When these factors are considered together, implementation of the Proposed Action would not substantially change the risk of increased frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire. For these reasons, the Proposed Action would result in a **less-than-significant** impact pursuant to CEQA.

Relative to the No-Action Alternative, the effects on the frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire from the Proposed Action would be less. This is attributable to the similar increase in visitation under both scenarios, but the increased management and wildfire prevention activities that would be implemented under the Proposed Action.

Resource Management Emphasis (RME) Alternative

The RME Alternative would increase resource protection and conservation of resources identified through comprehensive inventories, surveys, or other mechanisms, such as NEPA/CEQA review. Implementation of this alternative would, overall, maintain the existing level of development throughout the park, but would reduce the number of facilities or the opportunity for certain types of activities in some areas and increase opportunities in other areas. Some of the facilities and activities that would be reduced include removal of the OHV tracks and trails in the Mammoth Bar Management Zone, removal and restoration of campsites in the Cherokee Bar/Ruck-a-Chucky Management Zone, and removal of some roadside parking in the Confluence Management Zone. Each management zone would include some new day use facilities or improvements to existing facilities, such as trailhead improvements, additional parking, restrooms, and interpretive elements. Overall, this alternative would accommodate a modest increase visitor capacity – estimated at approximately a four percent increase. However, visitation is estimated to increase to the same extent as the under the No-Project Alternative as a result of continued population growth in the surrounding region (see Table 2.3-1 in Chapter 2). It would include the same park-wide goals and guidelines discussed above for the Proposed Action. The combined effect that these new park characteristics and features would have on wildfire frequency, intensity, and size, and on the potential exposure of high-value resources such as people and structures to wildfire are discussed in detail below.

Wildfire Frequency

While there is no well-established numerical relationship between the amount of human activity, specific ecological environment, and wildfire risk; it is well-documented in the literature that increases in human activity produce increases in the risk of human-caused wildfire ignitions under the types of conditions and wildfire regime present within ASRA/APL. Continued increased in visitation (due to surrounding population growth) would result in an increase the risk of ignitions within ASRA/APL. Visitation to the park is expected to increase under the RME Alternative in line with regional population growth, and therefore human-caused ignition risks under this alternative would be similarly expected to increase.

The RME Alternative would incorporate the same goals and guidelines to reduce human-caused wildfire ignitions as those described for the Proposed Action. Taken together, these measures are robust and would reduce the number of accidental and deliberate human-caused ignition sources associated with the RME Alternative, as well as reduce the number of ignitions that would otherwise occur under existing conditions. On balance, these measures are expected to offset the risk associated with ignitions from additional visitation associated with the RME Alternative.

Wildfire Intensity and Size

The RME Alternative would incorporate the same goals and guidelines to reduce the intensity and size of wildfires as those described for the Proposed Action. This would include expansion of the total area treated for fuel reduction within ASRA/APL by an estimated 1,800 to 2,200 acres from 232 acres to an estimated total of 2,000 to 2,400 acres (Table 4.17-1). In total, the RME Alternative could be expected to result in approximately 160 to 185 treated acres treated per year—, or an approximately 200 percent increase over existing conditions. This provides a reasonable estimate of the order of magnitude of increases in vegetation treatments. In practice, the extent of vegetation management activities in an individual year would vary because it would depend on factors such funding and staff availability.

As with the Proposed Action, there would be increased education and enforcement programs, and increased fire suppression training and equipment. These goals and guidelines would contribute to a reduction in wildfire intensity and size compared to existing conditions.

Exposure of People and Structures

As stated above, the RME Alternative would reduce the number of facilities in some areas of ASRA/APL and provide improvements or expansions in other parts. Visitor capacity would increase by a modest amount, but visitation would be expected to continue to increase due to regional population growth. The overall change in people or structures at risk of exposure to wildfire would be similar to the No-Action Alternative.

The expected increase in visitation would contribute to a risk of increased frequency of wildfire and an increased number of people that could be exposed to wildfire. These risks would be offset by wildfire prevention programs that could contribute to a decrease in the frequency of wildfire; and by substantially increased vegetation management programs that could contribute to a reduction in the size and intensity of wildfire. When these factors are considered together, implementation of the RME Alternative would reduce the risk of increased frequency, intensity, or size of wildfires; and risk of exposure of people or structures to wildfire. For these reasons, the RME Alternative would result in a **less-than-significant** impact for the purposes of CEQA.

Relative to the No-Action Alternative, the effects on the frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire from the RME Alternative would be less. This is attributable to the similar increase in the rate of visitation to ASRA under both scenarios, but the increased management and wildfire prevention activities that would be implemented under the RME Alternative.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day-use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with park operations and maintenance facilities.

Many of the recreation and day use facilities constructed under the RE Alternative would be similar to those described above for the Proposed Action. In addition to the management zones mentioned for the Proposed Action, the RE Alternative would also construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would also add up to100 parking spots the Confluence

Management Zone. The Mammoth Bar Management Zone would have an expanded OHV trail system with no restriction on the number of days OHV use may occur.

The proposed facilities associated with this alternative would increase the capacity for park visitation to a greater extent than the other alternatives. The increase in capacity associated with the RE Alternative would accommodate up to an estimated 45 percent increase in visitation. The RME Alternative would also include the same goals and guidelines described above for the Proposed Action.

Wildfire Frequency

While there is no well-established numerical relationship between the amount of human activity, the specific ecological environment, and wildfire risk; it is well-documented in the literature that increases in human activity produce increases in the risk of human-caused wildfire ignitions under the types of conditions and wildfire regime present within ASRA/APL. Therefore, the increase in visitation associated with the GP/RMP under the RE Alternative would be expected to increase the risk of human-caused wildfire ignitions.

The RE Alternative would incorporate the same goals and guidelines to reduce human-caused wildfire ignitions as described for the Proposed Action. These measures are robust and would be expected to reduce the number of accidental and deliberate human-caused ignition sources associated with this alternative, as well as reduce the number of ignitions that would otherwise occur under existing conditions. These measures would be expected to largely offset the risk of additional ignitions associated with new visitation.

Wildfire Intensity and Size

The RE Alternative would incorporate the same goals and guidelines to reduce the intensity and size of wildfires as those described for the Proposed Action. This would include expansion of the total area treated for fuel reduction within ASRA/APL by an estimated 2,100 to 2,600 acres from an existing 232 acres to an estimated total of 2,300 to 2,900 acres (Table 4.17-1). In total, the RE Alternative could be expected to result in approximately 160 to 185 treated acres treated per year, or an approximately 200 percent increase over existing conditions. This provides a reasonable estimate of the order of magnitude of increases in vegetation treatments. In practice, the extent of vegetation management activities in an individual year would vary because it would depend on factors such funding and staff availability.

As with the Proposed Action, there would be increased education and enforcement programs, and increased fire suppression training and equipment. These goals and guidelines would contribute to a reduction in wildfire intensity and size compared to existing conditions.

Exposure of People and Structures

The RE Alternative would result in new facilities and an increased capacity for visitation. With the construction of new visitor facilities, including new and expanded campgrounds, improved day use areas, and two additional trail bridges, there would be a greater number of structures, and therefore increased exposure of structures to wildfire danger. Similarly, the increased capacity for visitation associated with this alternative could expose more people to wildfire dangers. As described above, the alternative would also substantially expand fuels management. Fuels reduction would take place around both new and existing facilities, which means that it would take place in many areas with existing facilities that may not currently have adequate defensible space. This additional vegetation treatment around structures and high use areas would provide additional protection of park structures in the event of fires driven by prevailing seasonal conditions. This increase in fuel treatments and the

protection that they would provide under more predictable, regularly occurring fire conditions would offset the risk of exposure during extreme events. In addition to the protection offered by vegetation management, some remote or difficult-to-access portions of the park would be closed during level 3 conditions, reducing the number of people in dispersed areas of the park that could be exposed to wildfire. These factors would offset the increased number of people and structures that could be exposed to wildfires.

Conclusion

As described above, the RE Alternative would result in additional facilities and visitation within ASRA/APL that could contribute to an increase in the frequency of wildfire and increase the number of people and structures that could be exposed to wildfire. These risks would be offset by wildfire prevention programs that could contribute to a decrease in the frequency of wildfire; and by substantially increased vegetation management and suppression programs that could contribute to a reduction in the size and intensity of wildfire. When these factors are considered together, implementation of the RE Alternative would not substantially change the risk of increased frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire. For these reasons, the RE Alternative would result in a **less-than-significant** impact pursuant to CEQA.

The effects on the frequency, intensity, or size of wildfires; or risk of exposure of people or structures to wildfire from the RE Alternative would be similar to the No-Action Alternative. This is attributable to increased visitation under the RE Alternative with a commensurate increase in management and wildfire prevention activities.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Impact 4.17-2: Wildfire Emergency Access and Evacuation

Impact Summary

CSP and Reclamation do not currently maintain an emergency access plan specific to ASRA/APL, or coordinate emergency planning for ASRA/APL. Emergency access and evacuation in the event of a wildfire at ASRA/APL is coordinated through Placer and El Dorado Counties' Offices of Emergency Services. Implementation of the No-Action Alternative would not implement any specific evacuation or emergency planning improvements and would likely retain existing response coordination for the park. This would result in **no impact** under CEQA.

The RME Alternative would accommodate a small increase in visitation associated with upgraded facilities and would include adoption of an emergency plan detailing emergency response infrastructure improvements. Implementation of such a plan and upgrades would improve emergency response within ASRA/APL even with a slight increase in visitation, thereby resulting in in a **less-than-significant** impact under CEQA.

The Proposed Action and the RE Alternative would both accommodate larger increases in visitation but would also include many planned upgrades to roadways that would expand evacuation options and reduce evacuation times in the event of a wildfire. These alternatives would also include adoption of an emergency plan detailing emergency response infrastructure improvements. Therefore, impacts to wildfire emergency access and evacuation under these alternatives would be **less than significant** under CEQA.

ASRA/APL straddles Placer and El Dorado Counties, with each having an Office of Emergency Preparedness (OES) that coordinates emergency preparedness, response, and recovery to disasters within each county. Placer and El Dorado County OES are responsible for administering the emergency management program on a day-to-day basis and during disasters. These offices are charged with providing the necessary planning, coordination, response support, and communications with all agencies affected by large-scale emergencies or disasters. The OES departments work in cooperation with other disciplines such as law enforcement, fire protection, emergency medical services, state and federal agencies, utilities, private industry, and volunteer groups to provide a coordinated response to disasters. Placer County and El Dorado County OESs coordinate evacuation response in the event of a wildfire emergency and may designate routes for purpose of evacuation.

No-Action Alternative

With implementation of the No-Action Alternative, the 1992 Interim RMP would remain unchanged and no new facilities would be constructed. This alternative would retain current facilities and land uses according to current practices and as specified in the Interim RMP. As under existing conditions, the No-Action Alternative could result in basic infrastructure and operational improvements. CSP and Reclamation do not currently have an ASRA/APL-specific emergency access and evacuation plan, and while it is possible that such planning could occur in the future, the main coordinating agencies would remain Placer and El Dorado Counties. County OESs would continue to coordinate emergency response and evacuation planning in the event of a disaster such as a wildfire. Therefore, this alternative would have **no impact** related to wildfire emergency access and evacuation, for the purposes of CEQA.

Increased Recreation and Resource Management Alternative – Proposed Action

Upon build-out of this alternative, up to an additional 470 day-use parking spaces would be created. In addition, this alternative would allow for construction of up to 230 additional developed campsites. Taken together, the additional parking and camping capacity would accommodate up to an estimated 35 percent increase in annual visitation upon full build-out of the plan. New campsites could be constructed in the Knickerbocker, Auburn Interface, Foresthill Divide, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones; therefore, increases in overnight park visitation would be concentrated in these zones of the park. The Proposed Action would also include expanded or new facilities to support day-use activities, such as picnic sites, restrooms, and parking. Such facilities would be constructed in all the management zones except the Upper Middle Fork and Lower Middle Fork Management Zones. Therefore, it is expected that the up to 35 percent increase in visitation associated with day users of facilities would be more dispersed throughout the various management zones of ASRA/APL and would not be concentrated in any single area. One of the objectives of increased visitor capacity is to reduce congestion in areas that currently exceed capacity by providing alternate access points to facilities. All additional visitor capacity would be provided in areas adjacent to or near existing facilities and infrastructure, where emergency ingress and egress is already established and can be improved. Consistent with Guideline RES 10.2, CSP and/or Reclamation, as applicable, would coordinate with responsible fire agencies in the planning of new or expanded recreation facilities and incorporate feasible emergency access recommendations before constructing or expanding facilities.

The Proposed Action would also involve improvements to existing road conditions, which would support more rapid evacuation and reduce potential congestion that could result from increased visitation. Some of the existing administrative roads would also be opened to the public. The McKeon-Ponderosa Road and Sliger Mine Road would be improved for public vehicle access in the Cherokee Bar/Ruck-a-Chucky Management Zone, and the Knickerbocker Road would be open to public vehicle

access in the Knickerbocker and Auburn Interface Management Zones. Other roadways, including Drivers Flat Road and the Upper Lake Clementine Road, would be improved to facilitate easier ingress and egress. This would allow better circulation of vehicles and flow of traffic throughout these areas, where many of the proposed improvements and associated increased visitation would occur. These roadway improvements would expand evacuation options and reduce evacuation times in the event of a wildfire.

Consistent with Guideline RES 10.1, CSP would also prepare and maintain an emergency access and evacuation plan. This plan would be prepared in coordination with El Dorado and Placer counties' OESs to ensure that the measures implemented would be congruent with existing county-level policies, and that response to emergencies occurs in a coordinated manner. In this respect, this alternative would not conflict with any existing emergency response plan. The new emergency management plan would elaborate on and clarify existing policies and procedures, and include detailed, specific provisions for emergency response related to ASRA/APL. The emergency access and evacuation plan would identify emergency access and evacuation routes for all facilities, identify roadway or access improvements necessary to facilitate emergency ingress and egress, and include a map of roads, trails, and emergency helicopter landing sites. Lastly, the Proposed Action would enact additional fire restrictions during periods of extreme fire danger. Because this would involve selectively closing portions of ASRA/APL that are remote and difficult to evacuate, there would be fewer people in remote areas of the park that would require evacuation, and overall visitation to the park would be reduced during periods when a severe wildfire is most likely.

Potential delays in emergency response or evacuation caused by increases in visitation to the park would be offset by the improved road and access conditions implemented with the Proposed Action, as well as by improved planning and coordination measures taken by CSP and Reclamation in concert with Placer and El Dorado Counties. This would constitute a **less-than-significant** impact under CEQA.

Resource Management Emphasis (RME) Alternative

The RME Alternative would result in increased resource protection and conservation of resources, which could result in the removal of some recreation-related facilities, such as parking, trails, or ancillary recreational facilities. This alternative would result in the removal of OHV tracks and trails in the Mammoth Bar Management Zone, and removal of the marina in the Lake Clementine Management Zone when the existing marina facilities are no longer serviceable. Campsites would also be removed in the Cherokee Bar/Ruck-a-Chucky Management Zone and the existing campground would be restored to native habitat. Each management zone would include some new day use facilities or improvements to existing facilities, such as trailhead improvements, parking, restrooms, or interpretive elements. These facilities would accommodate a modest increase in visitation—approximately four percent. Implementation of this alternative would also result in improvements to trail and emergency vehicle access to the river in the Knickerbocker and Auburn Interface Management Zones. Improvements and upgrades would be chiefly related to emergency and administrative access and would not be intended to provide enhanced recreational access.

Goals and guidelines associated with the RME Alternative would be the same as those described for the Proposed Action, including development and implementation of an emergency access and evacuation plan, and enactment and enforcement of additional fire restrictions throughout the park during extreme fire danger conditions. The emergency access and evacuation plan would identify roadway and other infrastructure within ASRA/APL that would receive designation as emergency access or evacuation routes. Identified facilities would be improved to accommodate necessary access

identified in the plan. Because the RME Alternative would not be associated with a substantial increase in the amount of visitation at ASRA/APL, would develop and implement an emergency evacuation plan, and would impose additional fire restrictions during times of extreme fire hazard, improvements and safety considerations would be improved relative to existing conditions. This would be a **less-than-significant** impact related to wildfire emergency access and evacuation, for the purposes of CEQA.

Recreation Emphasis (RE) Alternative

Implementation of the RE Alternative would result in new recreational facilities similar to those described above for the Proposed Action, including campsites (up to 390 individual, seven group, five alternative, and five primitive campsites), active recreation facilities, day use facilities, river access, watercraft launch improvements, two trail bridges, and other trail improvements throughout ASRA/APL. The RE Alternative would support additional interpretive and educational uses, along with park operations and maintenance facilities.

Many of the recreation and day use facilities constructed under the RE Alternative would be similar to those described above for the Proposed Action. In addition to the management zones mentioned for the Proposed Action, the RE Alternative would also construct new campsites in the Lake Clementine Management Zone and picnic sites in the Confluence, Upper Middle, Knickerbocker, Auburn Interface, Foresthill Divide, Lake Clementine, Mammoth Bar, Cherokee Bar/Ruck-a-Chucky, and Mineral Bar Management Zones. This alternative would add 100 parking spots the Confluence Management Zone. These improvements would accommodate an estimated 45 percent increase in park visitation. Overall, this represents approximately ten percent more visitation than what would be expected under the Proposed Action.

Expansion of recreational facilities and the addition of new ones would also include the same roadway improvements as those identified above under the Proposed Action. In addition, the RE Alternative would result in the opening of the Quarry Trail Road in the Confluence Management Zone, and the Canyon Creek Road in the Cherokee Bar/Ruck-a-Chucky Management Zone. Trail bridges would also be constructed to accommodate vehicular access in the event of an emergency. These road improvements would expand evacuation options and reduce evacuation times in the event of a wildfire.

As with both the Proposed Action and the RE Alternative, the RE Alternative would include development of an emergency access and evacuation plan, as well as the imposition of additional fire restrictions including closure of difficult-to-access portions of the park in times of extreme fire danger. Because the RE Alternative is substantially similar to the Proposed Action in terms of emergency planning upgrades and response, for the same reasons identified under the Proposed Action, this impact would be **less than significant** under CEQA.

Mitigation Measures

No mitigation measures are required for any of the alternatives.

Cumulative Impacts

Cumulative effects related to wildfire hazards at ASRA/APL exist within the context described above – that is – a worsening wildfire regime driven by the factors of climate, vegetation, human influences, and changes in land use that influence the three first factors. As climate change and human activity produce conditions that are more conducive to wildfire ignition and spread, and create fires that burn with greater intensity, it is likely that future ignitions will result in more wildfires of greater size and intensity. The regional ASRA/APL environment is an area of existing high wildfire danger (Figure 4.17-

1), and activities and conditions on adjacent lands pose a substantial threat in terms of wildfire risk. Given this regional context, there is an existing significant adverse cumulative condition related to the risk of wildfire.

Local and regional city and county general plans provide for additional local and regional development. Such development includes the introduction of new populations and expanded geographic areas of human influence in areas near ASRA/APL. Development of the Foresthill Racing Company Campground and Hidden Falls Regional Park Trails Network Expansion at a more local level would also produce more human activity with a high potential for increased fire starts near ASRA/APL. The potential for increased fire ignition, size, intensity, and exposure risks associated with all types of development would be similar to that described under Impact 4.17-1, which could combine with the effects of such risks associated with the GP/RMP alternatives. However, the GP/RMP would implement goals and guidelines aimed at reducing wildfire risk and potential adverse effects associated with the project. These protections are numerous and include education, enforcement, and management strategies, as described in Impact 4.17-1. Implementation of the goals and guidelines would minimize the GP/RMP's contribution to the existing considerable cumulative condition related to wildfire risk, and therefore the GP/RMP **would not result in a significant cumulative impact**.

The nature of wildfires is such that they do not conform to administrative boundaries; therefore, wildfires started within ASRA/APL could extend beyond the ASRA/APL boundary and affect lands regionally. Consequently, conformance among emergency evacuation and response plans related to wildfire among different responsible agencies is critical. As discussed in Impact 4.17-2, CSP and Reclamation would coordinate preparation of an emergency access and evacuation plan in cooperation with El Dorado and Placer Counties' OESs to ensure efficient, seamless response to wildfire events. CSP and Reclamation would also coordinate with responsible fire agencies in the planning of new or expanded facilities and incorporate jointly designed emergency access before development. This would ensure that emergency response plans could accommodate the increases in visitation associated with the GP/RMP, in addition to planned growth elsewhere within the same agency jurisdiction that could combine with GP/RMP growth to affect evacuation. Therefore, the GP/RMP's contribution to potential cumulative impacts from adverse effects associated with emergency planning and evacuation related to wildfire **would not result in a significant cumulative impact**.

5 Other CEQA and NEPA Requirements

5.1 Growth-Inducing Impacts

5.1.1 California Environmental Quality Act

CEQA Section 21000(b)(5) specifies that growth-inducing impacts of a project must be addressed in an EIR. Section 15126(d) of the State CEQA Guidelines states that a project is growth-inducing if it could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Included in the definition are projects that would remove obstacles to population growth. Examples of growth-inducing actions include developing water, wastewater, fire, or other types of services in previously unserved areas; extending transportation routes into previously undeveloped areas; and establishing major new employment opportunities.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

5.1.2 NEPA

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

5.1.3 Growth-Inducing Effects

Growth inducement itself is not an environmental effect but may lead to environmental effects. Such environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or wildlife habitats, or conversion of agricultural and natural land to urban uses. The analysis of indirect growth-inducing impacts for the GP/RMP focuses on two main factors: 1) promotion of development and population growth, and 2) elimination of obstacles to growth.

Implementation of the action alternatives for the GP/RMP would not result in new housing or the elimination of barriers to growth (e.g., extending utilities to new areas, expanding roadways), but could result in an increase in visitation to ASRA/APL, which could foster a small increase in employment opportunities. The action alternatives would include facilities, such as new parking areas and campsites that could increase the capacity for visitors at ASRA/APL. Each of the alternatives would vary in the number of additional parking spaces, campsites, and new access points that could expand visitor capacity. The Proposed Action would increase visitor capacity by up to 35 percent. The RME Alternative would increase visitor capacity by up to four percent and anticipates visitation to reflect

regional population growth resulting in a 30 percent increase in visitation at ASRA/APL. The RE Alternative would increase visitor capacity and visitation by up to 45 percent.

In 2015, there were 12 full-time CSP staff involved in management and operations at ASRA/APL. Additionally, the number of seasonal staff ranged between 23 and 46 staff, with the greatest number of seasonal staff during the peak visitation months (May through September; CSP 2015). The increased capacity and additional facilities associated with implementation of the GP/RMP may result in an incremental increase in the need for additional permanent and seasonal staff at ASRA/APL over existing conditions, which would be spread out over the life of the GP/RMP. The GP/RMP includes a goal and guidelines that would evaluate and adjust staffing needs based on ongoing management needs and use patterns and to explore the use of volunteers to complement staff needs where feasible (Goal OP 6 and Guidelines OP 6.1 and OP 6.2). The GP/RMP does not propose to construct any housing. Thus, the GP/RMP would result in minimal, direct population growth impact on the area. This amount of growth would be assumed to be within the growth anticipated in the General Plans of the local jurisdictions. Additionally, some of the demand for additional employees could be met by existing residents in nearby communities. Improvements to the utilities as a result of implementation of the GP/RMP could include a new water supply connection for the camping facilities near the Cool Staging Area and a well for the new campground at the Knickerbocker Management Zone. New sanitary systems in ASRA/APL would mostly be limited to vault toilets with an option to include a new septic system at the new campground in the Knickerbocker Management Zone. These utility systems would be self-contained for ASRA/APL use only and would not encourage population growth in the surrounding area.

Increased visitation to ASRA/APL may create additional tourism and the need for tourist services in the adjacent communities and surrounding region. Implementation of the GP/RMP would also address state-wide and regional latent demand for picnicking, walking/hiking, camping, and learning opportunities (see Impact 4.14-2 in Section 4.14, Recreation). The GP/RMP could potentially foster economic growth in the region by encouraging an increase in supporting recreation and tourist services, such as recreation equipment, supplies, food, and related facilities, including concessionaires in ARA/APL. Any additional development associated with economic growth that would occur near ASRA/APL that may be influenced by implementation of the GP/RMP would be required to comply with applicable local development regulations and any other state or federal regulations, including CEQA, that are intended to minimize or avoid adverse physical effects on the environment. For these reasons, any indirect growth influenced by implementation of the plan would be minor. Although population growth in the state and region will continue to create an increased use and demand for recreational opportunities in ASRA/APL, increased use and demand will not have permanent, irreversible impacts in the region.

5.2 Irreversible and Irretrievable Commitments of Resources and Significant Irreversible Environmental Changes

A commitment of resources is irreversible and irretrievable when the use or consumption of such resources is neither renewable nor recoverable for use in the future. Section 15126.2 of the State CEQA Guidelines require a discussion of such resources. The commitment of resources refers to the use of nonrenewable resources such as fossil fuels, water, and electricity, and also to changes to land use that would commit future generations to similar uses.

The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms. This program-level environmental review indicates that no significant irreversible changes to the physical environment would occur from the implementation of the GP/RMP. Implementation of goals and guidelines included in this GP/RMP would prevent irreversible and irretrievable commitments of resources.

Facility development, including structures, roads, parking lots, and/or trails may be considered a long-term commitment of resources; however, the impacts can be reversed through removal of the facilities and discontinued access and use. Additionally, relative to other types of development (e.g., residential, commercial, or industrial), this project would result in long-term commitment of a small amount of resources. CSP does remove, replace, or realign facilities, such as trails and campsites, where impacts have become unacceptable either from excessive use or from a change in environmental conditions. With implementation of the GP/RMP, future facilities or improvements in ASRA/APL that would be located in the inundation area for the Auburn Dam would be designed to be easily removed or demolished, if necessary (Goal FAC 1 and Guidelines FAC 1.1 and FAC 1.2). CSP would be responsible for removing recreation facilities developed by CSP, if determined necessary, from the reservoir pool should the dam construction be renewed (Guidelines FAC 1.1).

The construction and operation of new and existing facilities may require the use of nonrenewable resources. Energy resources would be consumed in the form of gasoline, diesel fuel, oil for equipment and transportation vehicles, and human labor. Construction activities would generate non-recyclable materials, such as solid waste and construction debris. Electricity would be expended for the construction and operation of features of the GP/RMP. Currently, operational energy use for ASRA/APL is at the Auburn Sector office complex. With implementation of the GP/RMP, the proposed campground and maintenance yard and equipment storage area at Knickerbocker Flat near Cool could be served by electricity for lighting. No increase in energy use is anticipated at the Auburn Sector office. This impact would be minor due to the limited extent of facilities planned and use of sustainable practices in site design, construction, maintenance, and operations, as proposed in the GP/RMP through various goals and guidelines (Goal RES 18 and Guidelines FAC 2.4, FAC 2.6, and RES 18.1 through RES 18.4). The guidelines also include actions to use renewable energy generation systems, such as solar or wind systems, and alternative fuel or other very low or zero-emission vehicles, where feasible (Guidelines RES 18.3 and 18.4). These measures would reduce the use of non-renewable energy resources as part of ASRA/APL operations and with implementation of the GP/RMP. Required building materials would include a variety of materials such as rocks, wood, concrete, glass, steel, and other materials. Using these nonrenewable resources is expected to account for a small portion of the resources in ASRA/APL and their area of origin and would not affect the availability of these resources for other needs within the area. Plan implementation could result in the irreversible and irretrievable commitment of energy and material resources during construction and operation.

5.3 Significant Effects on the Environment that Cannot be Avoided

CEQA Section 21100(b)(2)(A) states that an EIR shall include a detailed statement setting forth "[i]n a separate section…[a]ny significant effect on the environment that cannot be avoided if the project is implemented." State CEQA Guidelines Section 15126.2(b) requires that an EIR describe any significant impacts, including those that can be mitigated but not reduced to a less-than-significant level.

Sections 4.2 through 4.17, of this EIR/EIS address the potential environmental effects of the project alternatives and recommend mitigation measures, as necessary, to mitigate project effects to the extent feasible. The analysis concludes that the No-Action Alternative and none of the action alternatives would result in significant and unavoidable impacts.

5.4 Environmentally Superior/Environmentally Preferable Alternative

CEQA calls for the identification of an environmentally superior alternative in an EIR but gives no definition for the term (State CEQA Guidelines Section 15126.6(e)). However, CEQA does specify that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

NEPA requires that "the alternative or alternatives which were considered to be environmentally preferable" be identified at the time an agency issues its Record of Decision (40 CFR 1505.2). The environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources (43 CFR 46.30). NEPA regulations do not require that this alternative be adopted.

From the standpoint of minimizing environmental effects related to physical disturbances, the No-Action Alternative would be the environmentally superior/environmentally preferable alternative. With the No-Action Alternative, only minimal construction could occur at ASRA/APL that is allowed under the 1992 Interim Resource Management Plan (Interim RMP), which could result in basic maintenance, and infrastructure and operational improvements. Because the No-Action Alternative would not update the Interim RMP such that recreation opportunities could be expanded, accessibility throughout ASRA/APL would not be increased; as such visitor congestion in heavily used areas would likely remain localized and would require additional measures be employed to provide for safety and security of visitors and protections to resources (limits on parking, fee for parking, etc.). These measures depending on their effectiveness, may discourage visitors from choosing the ASRA/APL as a recreational destination. For these reasons, the No-Action Alternative would not meet any of the basic project objectives described in Section 2.3, Project Objectives, and would not realize the recreation benefits of the Proposed Action, RME Alternative, and RE Alternative.

Many of the potential environmental impacts from each of the action alternatives would be similar in type and would be minimized through implementation of ASRA GP/APL RMP goals and guidelines, CSP Standard Project Requirements, policies of the CSP Department Operations Manual and Departmental Notice, and compliance with federal and state regulations. For example, each of the action alternatives would develop and implement a Road and Trail Management Plan, develop and implement a Fire Management Plan, and increase interpretive and education opportunities. However, the RME Alternative would remove some recreation facilities and restore those areas while implementation of the Proposed Action or RE Alternative would result in development of additional recreation facilities and access improvements. The RE Alternative would result in the development of a greater number of recreation facilities and access improvements than the Proposed Action. The development of new facilities would result in temporary construction effects; however, as described above, any potential adverse environmental effects of the action alternatives would be reduced in a number of ways. Thus, the Proposed Action and RE Alternative would result in a greater number of facilities and improvements that would require a greater amount of construction-related activity and visitor use than the RME Alternative. For these reasons, the RME Alternative would be the environmentally

superior/environmentally preferable alternative. The RME Alternative would not result in the beneficial recreation effects that would occur under the Proposed Action or RME Alternative. Nor would it achieve the project objectives as well as the Proposed Action or the RME Alternative because it would not increase recreation opportunities with additional day use capacity, trails, and campsites in ASRA/APL that would accommodate regional and statewide demand for these recreation opportunities, and help alleviate congestion in currently heavily used areas.

This page intentionally left blank.

6 References

Executive Summary

California State Parks. 1979. *Auburn Reservoir Project, Folsom Lake State Recreation Area, Preliminary General Plan*.

U.S. Bureau of Reclamation. 1992. *Auburn State Recreation Area, Interim Resource Management Plan*.

Chapter 1, Introduction and Approach

U.S. Bureau of Reclamation. 2012. Reclamation's NEPA Handbook. February 2012.

Chapter 2, Project Description and Alternatives

California Department of Finance. 2018. P-1 (Race/Ethnicity): State and County Population Projections by Race/Ethnicity: 2010-2060. Available: http://www.dof.ca.gov/Forecasting/Demographics/projections/. Accessed May 20, 2019.

California State Parks. 1979. *Auburn Reservoir Project, Folsom Lake State Recreation Area, Preliminary General Plan*.

Howard, Mike. Auburn Sector Superintendent, California State Parks. October 11, 2018–email to Adam Lewandowski of Ascent Environmental regarding GP/RMP EIS/EIR assumptions.

U.S. Bureau of Reclamation. 1992. *Auburn State Recreation Area, Interim Resource Management Plan*.

Chapter 3, Environmental Effects Eliminated from Further Analysis

California Department of Conservation. 2016a. El Dorado County Williamson Act FY 2015/2016. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/. Accessed November 14, 2018.

____. 2016b. Placer County Williamson Act FY 2015/2016. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/. Accessed November 14, 2018.

____. 2017 (November). Placer County Important Farmland 2016. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Placer.aspx. Accessed November 14, 2018.

____. 2018 (August). El Dorado County Important Farmland 2018. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/ElDorado.aspx. Accessed November 14, 2018.

Chapter 4, Environmental Consequences and Mitigation

Section 4.1, Assumptions and Methods for Assessing Impacts

BLM Sierra Resource Management Plan, 2007. https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=108452

California State Parks. 2017 (November). Notice of Preparation and Announcement of a Public Open House and Scoping Meeting of an Environmental Impact Report/Environmental Impact Statement for the Auburn State Recreation Area General Plan/Auburn Project Lands Resource Management Plan.

CEQ. See Council on Environmental Quality.

CEQ and OPR. See Council on Environmental Quality and California Governor's Office of Planning and Research.

Council on Environmental Quality. 1981. Memorandum to Agencies: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations.

Council on Environmental Quality and California Governor's Office of Planning and Research. 2014 (February). NEPA and CEQA: Integrating Federal and State Environmental Reviews.

U.S. Bureau of Reclamation. 2006 (June). Notice of intent to prepare an Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and notice of public scoping meeting.

____. 2012. Reclamation's NEPA Handbook. February 2012.

Section 4.2, Air Quality

California Air Pollution Control Officers' Association. 2017. California Emissions Estimator Model Version 2016.3.2. Available: http://www.caleemod.com/. Accessed October 2018.

California Air Resources Board. 2007. Report of the Findings from the 2006 Auburn State Recreation Area Visitor Survey. https://www.parks.ca.gov/pages/21299/files/FINAL%20Auburn%2008.24.10%20-%20Visitor%20Survey.pdf. Accessed November 19, 2018.

____. 2009. Final Analysis of the 2008 California Survey of Registered Off-Highway Vehicle Owners: Usage and Storage. Available: https://www.arb.ca.gov/msprog/offroad/orrec/1085/final%20analysis%20of%20the%202008%20california%20survey%20of%20registered%20ohv%20owners.pdf Accessed November 19, 2018.

California State Parks. 2018. Auburn State Recreation Area Monthly Attendance Database 2001-2017. Accessed November 19, 2018.

OEHHA. See Office of Environmental Health Hazard Assessment.

Office of Environmental Health Hazard Assessment. 2015 (February). The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

Placer County Air Pollution Control District. 2017. CEQA Guidebook. Available: https://www.placer.ca.gov/1801/CEQA-Handbook. Accessed November 19, 2018.

Sacramento Metropolitan Air Quality Management District. 2018a. Road Construction Emissions Model Version 8.1.0. Available: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed November 10, 2018.

____. 2018b. CEQA Guide Chapter 4. Available: http://www.airquality.org/LandUseTransportation/Documents/Ch4OperationalFINAL8-2016.pdf. Accessed November 19, 2018.

University of California Division of Agriculture and Natural Resources. 2006. Fuel Reduction Guide for Sierra Nevada Forest Landowners. Available: http://cecentralsierra.ucanr.edu/files/88262.pdf Accessed November 10, 2018.

U.S. Environmental Protection Agency. 1996. AP 42, Fifth Edition, Volume I Chapter 13: Miscellaneous Source. Available: https://www3.epa.gov/ttnchie1/ap42/ch13/final/c13s01.pdf. Accessed November 10, 2018.

Section 4.3, Biological Resources

California Department of Fish and Wildlife. 1995. Fish Species of Special Concern in California, Hardhead.

____. 2018. California Natural Diversity Database. Rarefind 5. Commercial Version. An Online Subscription Database Application for the Use of the California Department of Fish and Wildlife's Natural Diversity Database. California Natural Heritage Division, California Department of Fish and Wildlife, Sacramento, CA. Accessed July 2018.

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available: http://www.rareplants.cnps.org. Accessed, July 2018.

California State Parks. 2002. Mammoth Bar Off-Highway Vehicle Wildlife Habitat Protection Plan. Prepared by California State Parks Staff and Brian D. C. Williams. Revised June, 2002.

California State Parks and United States Bureau of Reclamation. 2016. Auburn State Recreation Area, Resource Inventory and Existing Conditions Report. Prepared by Ascent Environmental. Sacramento, CA.

Moyle, P.B., R.M. Quinones, J.V. Katz, and J. Weaver. 2015. Fish Species of Special Concern in California, third addition. Prepared for the California Department of Fish and Wildlife. Sacramento, CA.

United States Fish and Wildlife Service. 2015. IPaC Trust Report for Auburn State Recreation Area. Sacramento, CA.

____. 2018a. Species Profile for Valley Elderberry Longhorn beetle (*Desmocerus californicus dimorphus*). Available: https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=I01L. Accessed November 2018.

____. 2018b. California Red-Legged Frog - Amphibians and Reptiles, Endangered Species Accounts. Sacramento Fish and Wildlife Office. Available: https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_red_legged_frog/. Accessed November 2018.

Section 4.4, Cultural Resources and Tribal Cultural Resources

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

Section 4.5, Mineral Resources

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

Section 4.6, Environmental Justice

CEQ. *See* Council on Environmental Quality.

Council on Environmental Quality. 1997 (December). *Environmental Justice Guidance under the National Environmental Policy Act.*

EPA. *See* U.S. Environmental Protection Agency.

U.S. Census Bureau. 2017a. 2012-2016 American Community Survey 5-Year Estimates, File B03002, Hispanic or Latino Origin by Race.

____. 2017b. 2012-2016 American Community Survey 5-Year Estimates, File S1701, Poverty Status in The Past 12 Months.

U.S. Environmental Protection Agency. 1998 (April). *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses.*

Section 4.7, Geology and Soils

California Code of Regulations. 2007. Onsite Wastewater Treatment System Policy Implementation Reference Appendix K Part 5, Title 24.

California Department of Conservation, California Geological Survey, Alquist-Priolo Earthquake Fault Zones, Table 4. Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of May 1, 1999, <www.conservation.ca.gov>, February 14, 2008.

California Department of Parks and Recreation. 2004 (September). DPR Operation Manual.

____. 2007 (June). *Auburn to Cool Trail Crossing Feasibility Study*. Prepared by Jones & Stokes (Sacramento).

California State Parks. 2007. Report of the Findings from the 2006 Auburn State Recreation Area Visitor Survey. Prepared by Aukerman, Haas and Associates LLC and URS Corporation.

CCR. See California Code of Regulations.

CDC. See California Department of Conservation.

CSP. See California State Parks.

NRCS. See Natural Resources Conservation Service.

NRCS. 2015. USDA Natural Resources Conservation Service Web Soil Survey – Custom Soil Resource Report for El Dorado Area, California; and Placer County California, Western Part; and Tahoe National Forest Area, California. Available: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed July 15, 2015.

____. 2018. USDA Natural Resources Conservation Service Web Soil Survey - Linear Extensibility of Soils– El Dorado Area, California and Placer County California, Western Part. Available: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed October 25, 2018.

Sierra College. 2018. Hawver Cave Display Available: https://www.sierracollege.edu/about-us/beyond-the-classroom/nat-hist-museum/exhibits-in/hawver.php. Accessed November 7, 2018.

State Water Resources Control Board. 2012 (June). Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems.

SWRCB. See State Water Resources Control Board.

U.S. Bureau of Reclamation. 1992. *Auburn SRA Interim Resource Management Plan*.

____. 2013 (April). *Recreation Facility Design Guidelines*.

Section 4.8, Greenhouse Gas Emissions, Climate Change, and Energy

California Air Pollution Control Officers Association. 2016. California Emissions Estimator Model Version 2016.3.1. Available: http://www.caleemod.com/. Accessed June 26, 2017.

California Air Resources Board. 2008. Final Analysis of the 2008 California Survey of Registered Off-Highway Vehicle Owners: Usage and Storage. Available: https://ww3.arb.ca.gov/msprog/offroad/orrec/1085/final%20analysis%20of%20the%202008%20california%20survey%20of%20registered%20ohv%20owners.pdf. Accessed November 19, 2018.

California Department of Forestry and Fire Protection. 2007a. Fire and Resource Assessment Program - Fire Hazard Severity Map- Placer County. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_placer. Accessed November 19, 2018.

____. 2007b. Fire and Resource Assessment Program - Fire Hazard Severity Map- El Dorado County. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_eldorado. Accessed November 19, 2018.

California Energy Commission. 2018. Annual Averages Tool. Available: http://cal-adapt.org/tools/annual-averages/#climatevar=tasmax&scenario=rcp45&lat=39.00791&lng=-120.86938&boundary=hydrounits&units=fahrenheit. Accessed November 19, 2018.

California State Parks. 2007. Report of the Findings from the 2006 Auburn State Recreation Area Visitor Survey. https://www.parks.ca.gov/pages/21299/files/FINAL%20Auburn%2008.24.10%20-%20Visitor%20Survey.pdf. Accessed November 19, 2018.

Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. 2018. California's Fourth Climate Change Assessment Sierra Nevada Region Report. Available: http://www.climateassessment.ca.gov/regions/docs/20180827-SierraNevada.pdf Accessed November 19th, 2018.

Sacramento Metropolitan Air Quality Management District. 2018. Road Construction Emissions Model Version 8.1.0. Available: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed November 10, 2018.

South Coast Air Quality Management District. 1993. CEQA Air Quality Handbook. Available: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook. Accessed November 10, 2018.

University of California Division of Agriculture and Natural Resources. 2006. Fuel Reduction Guide for Sierra Nevada Forest Landowners. Available: http://cecentralsierra.ucanr.edu/files/88262.pdf Accessed November 10, 2018.

U.S. Environmental Protection Agency. 1996. AP 42, Fifth Edition, Volume I Chapter 13: Miscellaneous Source. Available: https://www3.epa.gov/ttnchie1/ap42/ch13/final/c13s01.pdf. Accessed November 10, 2018.

Section 4.9, Hydrology and Water Quality

California State Parks. 1994. Trail Handbook.

____. 2007 (November). OHV BMP Manual for Erosion and Sediment Control. Prepared by Salix Applied Earthcare and Geosyntec Consultants.

____. 2008. 2008 Grants and Cooperative Agreements Program Regulations, 2008 Soil Conservation Standard and Guidelines.

Reclamation. *See* Bureau of Reclamation.

U.S. Bureau of Reclamation. 2013 (April). Recreation Facility Design Guidelines.

____. 2017. Plan of Study for the American River Basin Study. U.S. Department of the Interior, Mid-Pacific Region.

Section 4.10, Hazards, Hazardous Materials, and Risk of Upset

California Department of Toxic Substances Control. 2018. *EnviroStor*. Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed October 24, 2018.

DTSC. *See* California Department of Toxic Substances Control.

El Dorado County Airport Land Use Commission. 2012. *El Dorado County Airport Land Use Compatibility Plans.* Available: https://www.edcgov.us/Government/planning/Pages/local_land_use_plans.aspx. Accessed October 24, 2018.

Placer County Airport Land Use Commission. 2014. *Placer County Airport Land Use Compatibility Plans.* Available: http://pctpa.net/aluc/aluc/. Accessed October 24, 2018.

State Water Resources Control Board. 2018. *GeoTracker.* Available: https://geotracker.waterboards.ca.gov/. Accessed October 24, 2018.

SWRCB. *See* State Water Resources Control Board.

USACE. *See* U.S. Army Corps of Engineers.

U.S. Army Corps of Engineers. 2011. *No DoD Action Indicated (NDAI) Former Ruck-A-Chucky Dam, El Dorado and Placer County, CA.* Available: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=80000604. Accessed October 24, 2018.

Section 4.11, Land Use and Planning

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

California State Parks. 2015. *Meeting the Park Needs of All Californians: 2015 Statewide Comprehensive Outdoor Recreation Plan.* Available: http://www.parksforcalifornia.org/scorp. Accessed October 17, 2018.

City of Auburn. n.d. *City of Auburn Zoning Map.* Available: https://www.auburn.ca.gov/399/Planning. Accessed March 7, 2019.

CSP. *See* California State Parks.

El Dorado County. 2018. *2004 El Dorado County General Plan. A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief.* Adopted July 2004.

Placer County. 2013. *Placer County General Plan Update; Countywide General Plan Policy Document.* Adopted August 1994.

Section 4.12, Transportation

City of Auburn. 1993. General Plan Environmental Impact Report.

El Dorado County. 2014 (November). Transportation Impact Study Guidelines. El Dorado County Community Development Agency. Available: https://www.edcgov.us/Government/planning/Pages/transportation_impact_study_guidelines.aspx. Accessed November 2018.

____. 2018 (April). Technical TIM Fee Program Update.

Fehr & Peers. 2018 (November). *Transportation Study for the Auburn State Recreation Area General Plan.* Sacramento, CA. Prepared for California State Parks, U.S. Bureau of Reclamation, and Ascent Environmental.

____. 2019 (February). *Transportation Study for the Auburn State Recreation Area General Plan and Auburn Project Lands Resource Management Plan*. Prepared for California State Parks, U.S. Bureau of Reclamation, and Ascent Environmental.

Institute of Transportation Engineers. 2017. Trip Generation, tenth edition.

ITE. *See* Institute of Transportation Engineers.

Placer County. 1994 (July). Countywide General Plan Final EIR. Prepared for Placer County. Available: https://www.placer.ca.gov/departments/communitydevelopment/planning/documentlibrary/commplans/placer-county-gp/eir. Accessed November 2018.

Transportation Research Board. 2016. Highway Capacity Manual, Sixth Edition.

U.S. Bureau of Reclamation. 1992 (September). Auburn State Recreation Area Interim Resource Management Plan.

Section 4.13, Public Services and Utilities

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

Calrecycle. 2017. Joint Technical Document. Western Regional Sanitary Landfill. Placer County, CA. Volume 1. Available: https://www2.calrecycle.ca.gov/swfacilities/Directory/31-AA-0001/Document/336650. Accessed November 2018.

Georgetown Divide Public Utility District. 2016. 2015 Urban Water Management Plan. Available: https://www.gd-pud.org/files/fc233fed3/2015+UWMP+Final.pdf. Accessed October 2018.

U.S. Forest Service. 2007. Engineering Tech Tips. Water Use in Forest Service Recreation Areas: Guidelines for Water System Designers. Available: https://www.fs.fed.us/t-d/pubs/pdfpubs/pdf07732326/pdf07732326dpi72.pdf. Accessed November 2018.

Section 4.14, Recreation

California State Parks. 2010 (August). State Parks Visitor Survey, 2007-2009 Results for Auburn State Recreation Area.

____. 2014 (January). Survey on Public Opinions and Attitudes on Outdoor Recreation in California, 2012, Complete Findings.

____. 2015. Meeting the Park Needs of All Californians, 2015 Statewide Comprehensive Outdoor Recreation Plan.

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

Placer County. 2018 (February). Trails and Parks Maps. Available: http://placerparksplan.com/wp-content/uploads/2018/04/TrailsMap_180207_draft_lowres.pdf. Accessed October 3, 2018.

Section 4.15, Scenic Resources

California State Parks and U.S. Bureau of Reclamation. 2016 (August). Auburn State Recreation Area Resources Inventory and Existing Conditions Report. Prepared by Ascent Environmental.

U.S. Bureau of Reclamation. 2013 (April). *Recreation Facility Design Guidelines*.

Section 4.16, Noise

California Department of Transportation. 2013a (September). *Technical Noise Supplement.* California Department of Transportation Division of Environmental Analysis. Sacramento, CA. Prepared by ICF Jones & Stokes.

____. 2013b (September). *Transportation and Construction Vibration Guidance Manual*. Sacramento, CA: Noise, Division of Environmental Analysis. Sacramento, CA.

Caltrans. *See* California Department of Transportation.

DPR. *See* State of California Department of Parks and Recreation.

Egan, M.D. 2007. *Architectural Acoustics*. J. Ross Publishing. Fort Lauderdale, FL.

Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. Washington, D.C. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/fta-noise-and-vibration-impact-assessment. Accessed July 3, 2017.

Federal Highway Administration. 2004. Traffic Noise Model, Version 2.5. Available for download at https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/purchasing_tnm/. Accessed April 4, 2017.

____. 2006 (January). Roadway Construction Noise Model. Washington, D.C. Available: http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf.

FHWA. *See* Federal Highway Administration.

FTA. *See* Federal Transit Administration.

State of California Department of Parks and Recreation. 2015 (July). Standard Project Requirements.

Section 4.17, Wildfire

Abatzoglou, J.T. and A.P. Williams. 2016 (October 16). Impact of anthropogenic climate change on wildfire across western U.S. forests. *Proceedings of the National Academy of Sciences* 113(42):11770-11775.

Agee, J. K. and C. N. Skinner. Basic principles of forest fuel reduction treatments. 2005. Forest Ecology and Management. 211(1-2): 83-96.

Balch, J. K., B. A. Bradley, J. T. Abatzoglou, R. C. Nagy, E. J. Fusco, and A. L. Mahood. 2017 (March 14). Human-started wildfires expand the fire nice across the United States. Proceedings of the National Academy of Sciences 114(11):2946-2951.

Brown, T. J., C. A. Golden, J.T. Abatzoglou. 2008. *Assessing Fuels Treatments in Southern California National Forests in the Context of Climate Change*.

Butry, D.T., J. P. Prestemon, and K.L. Abt. 2010. Optimal timing of wildfire prevention education. *WIT Transactions on Ecology and the Environment* 137:197-206.

Carey, H. and M. Schumann. 2003 (April). Modifying wildfire behavior – the effectiveness of fuel treatments. National Community Forestry Center. Southwest Region Working Paper.

Howard, Mike. Auburn Sector Superintendent, California State Parks. October 11, 2018–email to Adam Lewandowski of Ascent Environmental regarding GP/RMP EIS/EIR assumptions.

Keeley, J.E., and A. Syphard. 2018 (November 7). Historical patterns of wildfire ignition sources in California ecosystems. *International Journal of Wildland Fire.* 27(12):781-799. Available: https://doi.org/10.1071/WF18026.

Kim, Y., W. Covington, P. Ervin, R. Fitch, E. L. Kalies, D. Rideout, K. Rollins, A. Sanchez-Meador, M. Taylor, D. Vosick, T. Wu, J. Yoder. 2013 (May). *The Efficacy of Hazardous Fuel Treatments: A Rapid Assessment of the Economic and Ecologic Consequences of Alternative Hazardous Fuel Treatments. Northern Arizona University*.

Mann, M.L. E. Batllori, M. A. Moritz, E. K. Waller, P. Berck, A. L. Flint, L. E. Flint, E. Dolfi. 2016 (April 28). Incorporating anthropogenic influences into fire probability models: effects of human activity and climate change on fire activity in California. *PLoS One* 11(4): e0153589.

Prestemon, J.P., D.T. Butry, K.L. Abt, and R. Sutphen. 2010. Net benefits of wildfire prevention education efforts. *Forest Science* 56(2):181-192.

Prichard, S.J., D.L. Peterson, and K. Jacobson. 2010 (July 24). Fuel treatments reduce the severity of wildfire effects in dry mixed conifer forest, Washington, USA. *Canadian Journal of Forest Research* 40(8):1615-1626.

Schoennagel, T., J.K. Balch, H. Brenkert-Smith, P. E. Dennison, B.J. Harvey, M.A. Krawchuck, N. Mietkiewicz, P. Morgan, M. A. Moritz, R. Rasker, M.G. Turner, and C. Whitlock. 2017 (May 2). Adapt to more wildfire in western North American forests as climate changes. *Proceedings of the National Academy of Sciences* 114(18):4582-4590.

Syphard, A. D., V. C. Radeloff, J. E. Keeley, T. J. Hawbaker, M. K. Clayton, S. I. Stewart, and R. B. Hammer. 2007. Human influence on California fire regimes. *Ecological Applications* 17(5):1388-1402.

Syphard, A. D., V. C. Radeloff, N. S. Keuler, R. S. Taylor, T. J. Hawbaker, S. I. Stewart, and M. K. Clayton. 2008. Predicting spatial patterns of fire on a southern California landscape. International Journal of Wildland Fire 17:602-613.

U.S. Bureau of Reclamation. 1992 (September). Auburn State Recreation Area Interim Resource Management Plan.

____. 2017a. Reclamation Manual, Policies, LND P14.

____. 2017b. Reclamation Manual, Directives and Standards, LND 14-01.

U.S. Forest Service. 2009 (July). *Fuel Treatments, Fire Suppression, and their Interactions with Wildfire and its Effects: The Warm Lake Experience During the Cascade Complex of Wildfires in Central Idaho, 2007*. General Technical Report RMRS-GTR-229. Fort Collins, CO.

Westerling, A.L., H.G. Hidalgo, D.R. Cayan, and T.W. Swetnam. 2006 (August 18). Warming and earlier spring increase western U.S. forest wildfire activity. *Science* 313(5789):940-943.

Chapter 5, Other CEQA and NEPA Requirements

California State Parks. 2015. Auburn State Recreation Area Fiscal Year Attendance.

7 Report Preparers

California State Parks (CEQA Lead Agency)

Steve Musillami, RLA ..... Supervisor, Planning and Landscape Architecture
Alex Stehl, RLA ..... Senior Park and Recreation Specialist
Cheryl Essex, RLA ..... Project Planner
Jason De Wall ..... Division Chief
Mike Howard ..... Auburn Sector Superintendent
Jim Micheaels ..... Gold Fields District Project Lead/Senior Park and Recreation Specialist
Scott Green ..... Associate State Archaeologist
Jenifer Padgett ..... Associate State Archaeologist
Katie Rian ..... Environmental Scientist
Denali Beard ..... Environmental Scientist

U.S. Bureau of Reclamation (NEPA Lead Agency)

Lee Mao ..... Deputy Area Manager
Brad Hubbard ..... Resource Management Division Chief
Johnathan Friedman ..... Recreation Resources Division Chief
Cindy Meyer ..... NEPA/Compliance Branch Supervisor
Bonnie Van Pelt ..... Natural Resource Specialist
Warren Kasper ..... Outdoor Recreation Planner
Emmett Cartier ..... Outdoor Recreation Planner
Andrew Burrows ..... Recreation Planner
John Hutchings ..... Fire Management Specialist
Joanne Goodsell ..... Archaeologist
Mark Carper ..... Archaeologist
Scott Moore ..... Realty Specialist

Ascent Environmental, Inc.

Curtis E. Alling, AICP ..... Project Director/Principal
Adam Lewandowski, AICP ..... Project Manager
Jessica Mitchell ..... Assistant Project Manager; Environmental Justice; Recreation
Kai Lorde-Farmer ..... Air Quality; Greenhouse Gas Emissions, Climate Change, and Energy
Ted Thayer ..... Biological Resources
Steve Henderson ..... Biological Resources
Alta Cunningham ..... Cultural Resources and Tribal Cultural Resources
Marianne Lowenthal ..... Mineral Resources; Public Services and Utilities
Kelley Kelso, QSD/QSD ..... Geology and Soils
Rachel Kozloski, CPSS ..... Hydrology and Water Quality; Geology and Soils
Angela Xiong ..... Hazards, Hazardous Materials, and Risk of Upset; Land Use and Planning
Zachary Miller, AICP ..... Noise; Transportation

Melinda Rivasplata ..... Scenic Resources
Tiffany Lunday ..... Wildfire
Nanette Hansel ..... Senior Reviewer
Lisa Merry ..... GIS Specialist/Graphics
Phi Ngo ..... GIS Specialist/Graphics
Corey Alling ..... Graphics
Brian Perry ..... Graphics
Gayiety Lane ..... Document Production
Michelle Mattei ..... Document Production

Fehr and Peers

David Carter, AICP ..... Senior Associate
Rodney Brown, PTP ..... Senior Transportation Planner
Rebecca Shafer ..... Transportation Engineer/Planner

Natural Investigations Company

Cindy Arrington, RPA ..... Cultural Resources
Nancy Sikes, RPA ..... Cultural Resources

8 Distribution List

The following federal, state, regional, and local agencies were provided with a notice of availability for this EIR/EIS. The notice of availability was also distributed to all individuals and organizations that provided contact information during the planning process.

Federal Agencies

U.S. Bureau of Land Management

U.S. Forest Service, Eldorao National Forest

U.S. Forest Service, Tahoe National Forest

National Marine Fisheries Service

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

State Agencies

California Conservation Corps

California Department of Forestry and Fire Protection

California Attorney General's Office

California Department of Corrections

California Department of Fish and Wildlife

California Department of Transportation

California Highway Patrol

Native American Heritage Commission

Sierra Nevada Conservancy

Local/Regional Agencies

Auburn Area Recreation and Parks District

Auburn Union School District

Blackoak Mine Union School District

County of El Dorado

City of Auburn

City of Colfax

Colfax-Todds Valley Consolidated Tribe

Don Pedro Recreation Agency

El Dorado County Fire Protection District

El Dorado County Sheriff's Department

El Dorado County Water Agency

El Dorado Resource Conservation District

Foresthill Fire Protection District

Foresthill/Iowa Hill Fire Safe Council

Georgetown Divide Public Utility District

Georgetown Divide Recreation District

Georgetown Fire Protection District

Greater Auburn Area Fire Safe Council

Nevada Irrigation District

Placer County

Placer County Water Agency

Pacific Gas and Electric

Placer County Fire Alliance

Placer Consolidated Fire District

Placer County Resource Conservation District

Placer County School District

Placer County Sheriff

Sacramento County Fire

Shingle Springs Band of Miwok Indians

T'si-Akim Maidu

United Auburn Indian Community of the
Auburn Rancheria