Equestrians in ASRA/APL

CHAPTER 2

Existing Conditions

2 Existing Conditions

2.1 Regional Land Uses and Facilities

2.1.1 Surrounding Land Uses

Auburn State Recreation Area (ASRA) and Auburn Project Lands (APL), collectively referred to as ASRA/APL, are located in Placer and El Dorado Counties, California. The intensity of land uses adjacent to ASRA/APL is generally determined by topography and relative proximity to, or remoteness from, existing communities, access, and services. The City of Auburn is adjacent to the southwestern edge of ASRA/APL. Land uses within the City of Auburn represent the most intense level of development in immediate proximity to ASRA/APL, whereas most surrounding areas are largely undeveloped open space or scattered, rural residential uses. Several small unincorporated communities are in the areas surrounding ASRA/APL, including Cool, Meadow Vista, Applegate, Colfax, Foresthill, Georgetown, Greenwood, and Pilot Hill (Figure 2.1-1). These communities are intermixed with rural forested land. The Tahoe National Forest encompasses areas northeast of ASRA/APL. Eldorado National Forest is located southeast of ASRA/APL.

Source: Ascent Environmental

ASRA/APL is located within El Dorado and Placer counties. Adjacent land uses are generally open space and rural residential, with some denser residential development (in the City of Auburn).

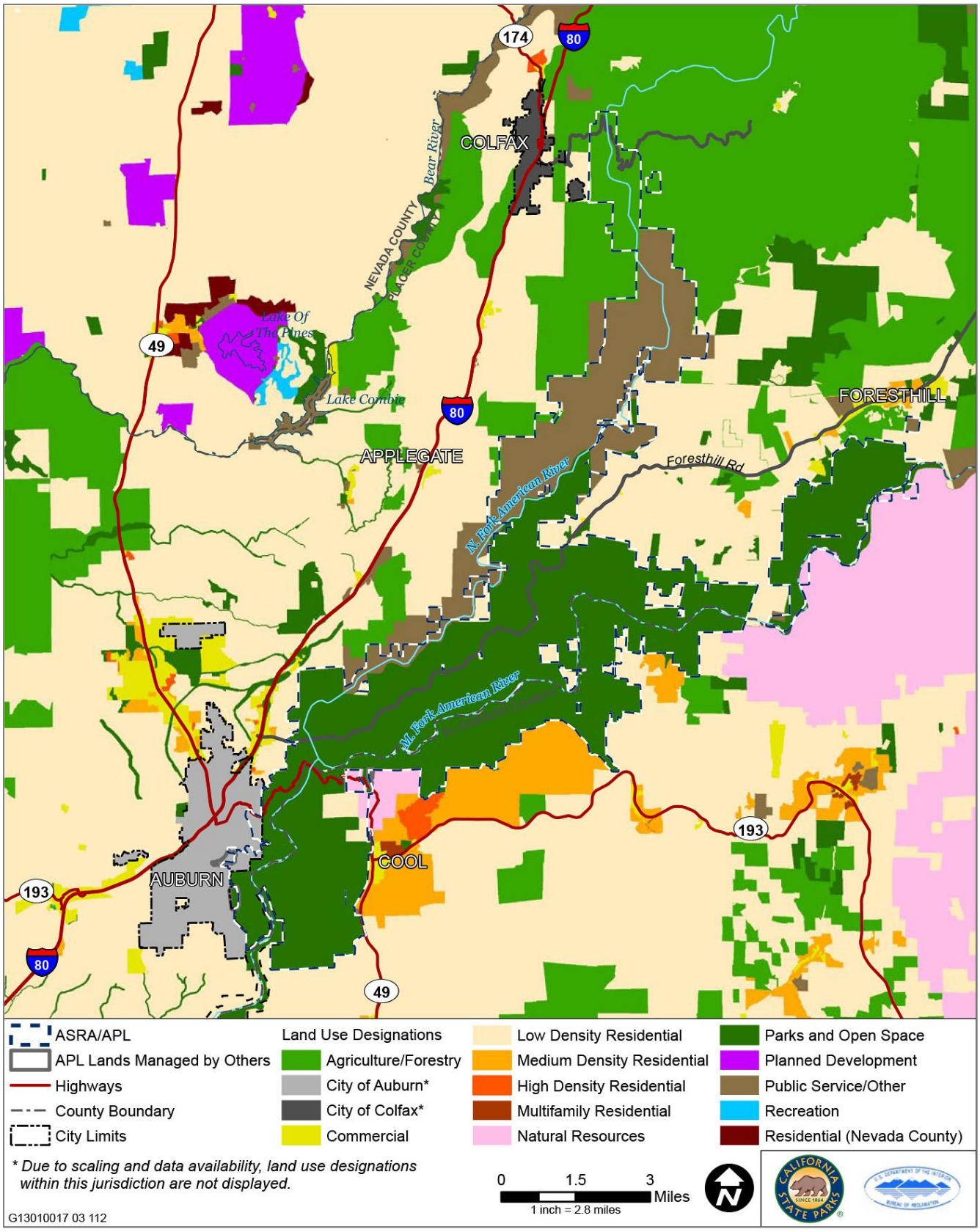
In general, adjacent development within Placer County (including the City of Auburn) is more concentrated and residential (urban/suburban) in nature, whereas development within El Dorado County adjacent to ASRA/APL, while also generally residential, is more dispersed.

2.1.2 Regional Recreation Context

The region offers an abundance of recreational opportunities that are highly valued by visitors and residents. The prevalence of public lands, scenic beauty, variety of terrain, and proximity to major population centers have led to a high concentration of outdoor recreational opportunities in the vicinity of ASRA/APL.

Federal Lands

Almost all of the lands that make up ASRA/APL are federally owned. Other federal lands that provide recreation opportunities in the vicinity of ASRA/APL include portions of the Tahoe National Forest (TNF) and Eldorado National Forest (ENF)—under U.S. Forest Service management, lands managed by the U.S. Bureau of Land Management (BLM), and other lands managed by the U.S. Bureau of Reclamation (Reclamation).



Source: Compiled by Ascent Environmental in 2016; downloaded from El Dorado County in 2015; Placer County in 2018; Nevada County 2018

Figure 2.1-1 General Plan Land Use Designations

U.S. Forest Service

TNF covers over 850,000 acres of public land interspersed with another 350,000 acres of private land in a checker-board ownership pattern. TNF straddles the crest of the Sierra Nevada and encompasses a vast territory, from the western foothills to the high peaks of the Sierra Nevada crest. Nearby recreation opportunities within the American River Ranger District of TNF include a variety of activities, including day use areas, camping, trails, off-highway vehicle (OHV) use, and boating.

ENF encompasses over 785,000 acres, which is interspersed with approximately 190,000 acres of private or other agency ownership. ENF ranges in elevation from 1,000 feet in the foothills to more than 10,000 feet above sea level along the Sierra Nevada crest. Nearby recreation opportunities within the Placerville Ranger District and Georgetown Ranger District include camping, trails, OHV use, and boating.

Source: Ascent Environmental

OHV use is allowed within the Mammoth Bar area in ASRA/APL, as well as in the nearby Tahoe National Forest and Eldorado National Forest.

Bureau of Land Management

BLM owns several properties surrounding and within ASRA/APL. Most BLM land within ASRA/APL was withdrawn for Reclamation use and is managed by Reclamation and CSP as part of ASRA/APL. BLM also manages several nearby properties, including the popular Cronan Ranch. These lands are generally open to dispersed recreation, including trail use, day use, primitive camping, and hunting.

Auburn Project Lands Managed by Others

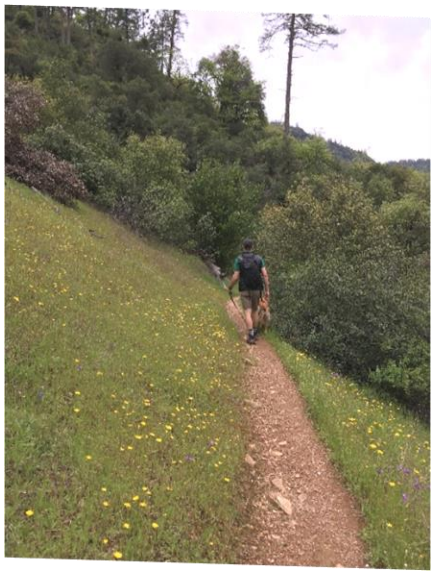
APL outside of ASRA/APL include lands managed by Auburn Area Recreation and Parks and District (ARD), Placer County Water Agency (PCWA), and Teichert Materials. Except for lands managed by Teichert Materials and PCWA, APL are maintained as open space, and recreational use generally consists of hiking, equestrian use, and biking. PCWA facilities and lands managed by Teichert Materials do not contain recreation facilities and are not open to the public.

ARD is a special district whose mission is, "to provide an excellent system of parks, recreation facilities, programs, and services that enrich the lives, health and happiness of citizens in the Auburn area." At its Railhead Park on Pacific Avenue in Auburn, ARD provides ballfields, play structures, a dog park, and a pond. East of Pacific Avenue, ARD manages the Overlook Park with a skate park, picnic sites, and a health treatment center. Nearby to the south are structures associated with the historic Camp Flint. ARD provides a community center with meeting space, classes, and community activities. Land managed by ARD

north of Maidu Drive, downhill and east of the community center, is planned for use as a bicycle park.

Folsom Lake State Recreation Area

Folsom Project Lands are the federal lands that surround Folsom Lake and Lake Natoma. The majority of these federal lands, along with state-owned lands are managed by CSP as Folsom Lake State Recreation Area (FLSRA) through the MPA with Reclamation. FLSRA is approximately 19,500 acres of land and water immediately west of ASRA/APL and offers a variety of land- and water-based recreational opportunities including hiking, biking, running, camping, picnicking, horseback riding, swimming, water-skiing and boating.



Source: Ascent Environmental

ASRA/APL is in the Sierra Nevada foothills, a region that provides many recreation opportunities.

State Lands

Marshall Gold Discovery State Historic Park

The Marshall Gold Discovery State Historic Park is located approximately 16 miles southeast of ASRA/APL and is the site of gold discovery in California, includes most of the historic structures in the town of Coloma and provides a variety of historic education and interpretation opportunities.

Local and Regional Recreation Amenities

Nearby regional park and recreation providers include ARD, the Nevada Irrigation District (NID), Georgetown Divide Recreation District, El Dorado County, and Placer County.

In addition to managing some APL areas as described above, ARD provides recreation and educational activities at a variety of facilities within the City of Auburn and on adjacent lands outside of the city limits. ARD facilities include local and regional parks, pools and dog parks, and other recreation facilities.

NID provides recreation at six reservoirs in the Sierra foothills. It also provides facilities and opportunities for camping, fishing, swimming, sunning, boating, water skiing, sailing, kayaking and other activities.

Hidden Falls Regional Park is a Placer County facility located between the communities of Auburn and Lincoln, north of the Ophir/Newcastle area. The regional park offers approximately 30 miles of multiple-use trails for hiking, running, biking and equestrian riding; two observation decks for viewing the waterfalls; riparian habitat along several creeks; unimproved picnic areas; swimming areas; and fishing access. Placer County operates a number of other parks throughout the county and near ASRA/APL. These parks provide a range of recreation

opportunities and facilities, including picnic areas, playgrounds, baseball fields, basketball courts, tennis courts, and walking trails.

In El Dorado County, the Georgetown Divide Recreation District provides park and recreation facilities near ASRA/APL. Parks are located in Greenwood and Georgetown that include picnic areas, playgrounds, and a baseball field.

2.1.3 Regional Transportation System

The region is served by a network of interstate and state highways and Placer County, El Dorado County, USFS, and private roadways. The region's transportation infrastructure also includes a transit network, and bicycle and pedestrian facilities.

Road Network

Interstate 80 (I-80) and State Route (SR) 49 are the two major highways located in the vicinity of ASRA/APL. In the vicinity of ASRA/APL, I-80 bisects the City of Auburn in a northeasterly-southwesterly direction, while SR 49 bisects the city in a northwesterly-southeasterly direction. SR 49 is a two-lane highway through Auburn, except for a four-lane section from Lincoln Way to Dry Creek Road in north Auburn. SR 49 cuts through the southwest portion of ASRA/APL. Additionally, SR 193 connects to SR 49 at Cool and provides access to portions of ASRA/APL along the south side of the Middle Fork (see Figure 2.1-1).

Traffic Conditions

Level of Service (LOS) is a metric used to describe the traffic flow conditions of a road segment in relation to the capacity of the roadway. LOS characterizes traffic conditions in terms of speed and travel time, volume and capacity, traffic interruptions, and safety. LOS for a road may range from LOS A to F with LOS A being free-flow and LOS F being heavily congested.

All roadway segments and intersections within and adjacent to ASRA/APL operate at acceptable LOS levels based on the applicable standards for Caltrans, Placer County, and El Dorado County roadways (Fehr and Peers 2019). The most congested LOS conditions occur during the weekday morning and evening commute periods, particularly along SR 49.

Except for SR 49, roadways within ASRA/APL tend to have low traffic volumes. Many ASRA/APL roads (e.g., Ponderosa Way, Drivers Flat Road) are narrow and steep with irregular surfaces.

Source: CSP

SR 49 provides access to popular recreation resources within ASRA/APL, including the Quarry Trail and the North Fork and Middle Fork American River confluence. The iconic Foresthill Bridge provides access to the Mammoth Bar OHV Area.

While traffic is typically light on these roadways, the narrow, winding, steep road conditions can require reduced vehicle speeds.

Transit Network

No transit serves ASRA/APL, but nearby bus service is provided by several agencies. Transit agencies include Auburn Transit, El Dorado Transit, and Placer County Transit (City of Auburn 2018, El Dorado Transit 2018, Placer County Transit n.d.). Auburn Transit operates within the City of Auburn and portions of unincorporated Placer County. Auburn Transit connects with Placer County Transit, Capital Corridor Train, Gold Country Stage at the Auburn - Conheim Multimodal Station. The El Dorado Transit system operates within the communities along the US 50 highway corridor, including connections to Folsom and Sacramento. Placer County Transit operates throughout western Placer County, including routes through Auburn and up to Colfax and Alta.

Source: Ascent Environmental

ASRA/APL is primarily within the North Fork American River Watershed, which includes both the North and Middle Forks and extends from the Sierra Nevada to Sacramento.

Pedestrian and Bicycle Network

Road bicycling is a popular activity in the region, including on the roads that pass through ASRA/APL; however, there are no dedicated bicycle lanes and bicyclists must share the road or ride in the shoulder. The City of Auburn and rural communities near ASRA/APL provide some pedestrian facilities (e.g., sidewalks), but many of the roads near ASRA/APL are narrow, rural roads that lack these facilities. The Placer County Regional Bikeway Plan identifies Foresthill Road, Yankee Jims Road, and Iowa Hill Road through ASRA/APL as proposed bikeways (County of Placer 2018). Yankee Jims Road and Iowa Hill Road are proposed as bike routes, which would include right-of-way designated by signs and/or pavement markings. Foresthill Road is proposed as a bike route with a climbing lane, which would include a wider shoulder in the uphill direction of travel.

2.2 Significant Resource Values

2.2.1 Physical Resources

This section provides an overview of significant resource values at ASRA/APL related to physical resources, which include:

- hydrology and water quality;
- Soils and geology;
- mineral resources;
- air quality; and
- climate.

Hydrology and Water Quality

Hydrology

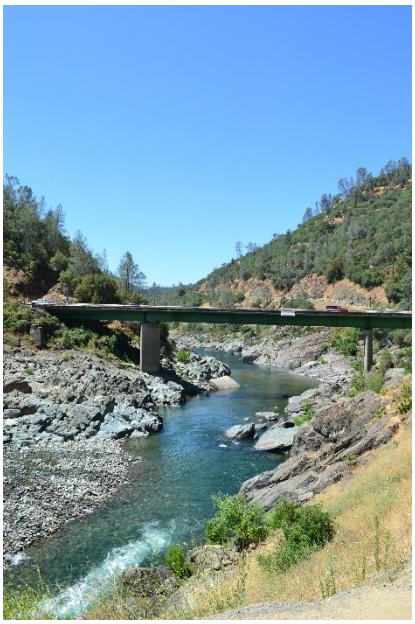
Watersheds

ASRA/APL is primarily within the North Fork American River Watershed, which includes several sub-watersheds of the North Fork and Middle Fork (see Figure 2.2-1). The confluence of the North Fork and Middle Forks of the American River is within ASRA/APL. ASRA/APL extends east on the North Fork American River to Iowa Hill Road, near the town of Colfax. ASRA/APL also extends upstream from the confluence to south of the town of Foresthill.

The North Fork American River Watershed, which covers both the North Fork and Middle Fork, includes approximately 1,000 square miles of land upstream of the Auburn Dam site. The dam site is on the North Fork American River downstream of the confluence. The North Fork American River above the North Fork Dam, at the downstream end of Lake Clementine, has a watershed area of approximately 342 square miles. Snowpack from the Sierra Nevada feeds flows of the North Fork that peak in the winter and spring, and during average snowpack years typically continue into mid-July, leading to seasonal variability in flows. The North Fork American River flows into Folsom Reservoir downstream of ASRA/APL.

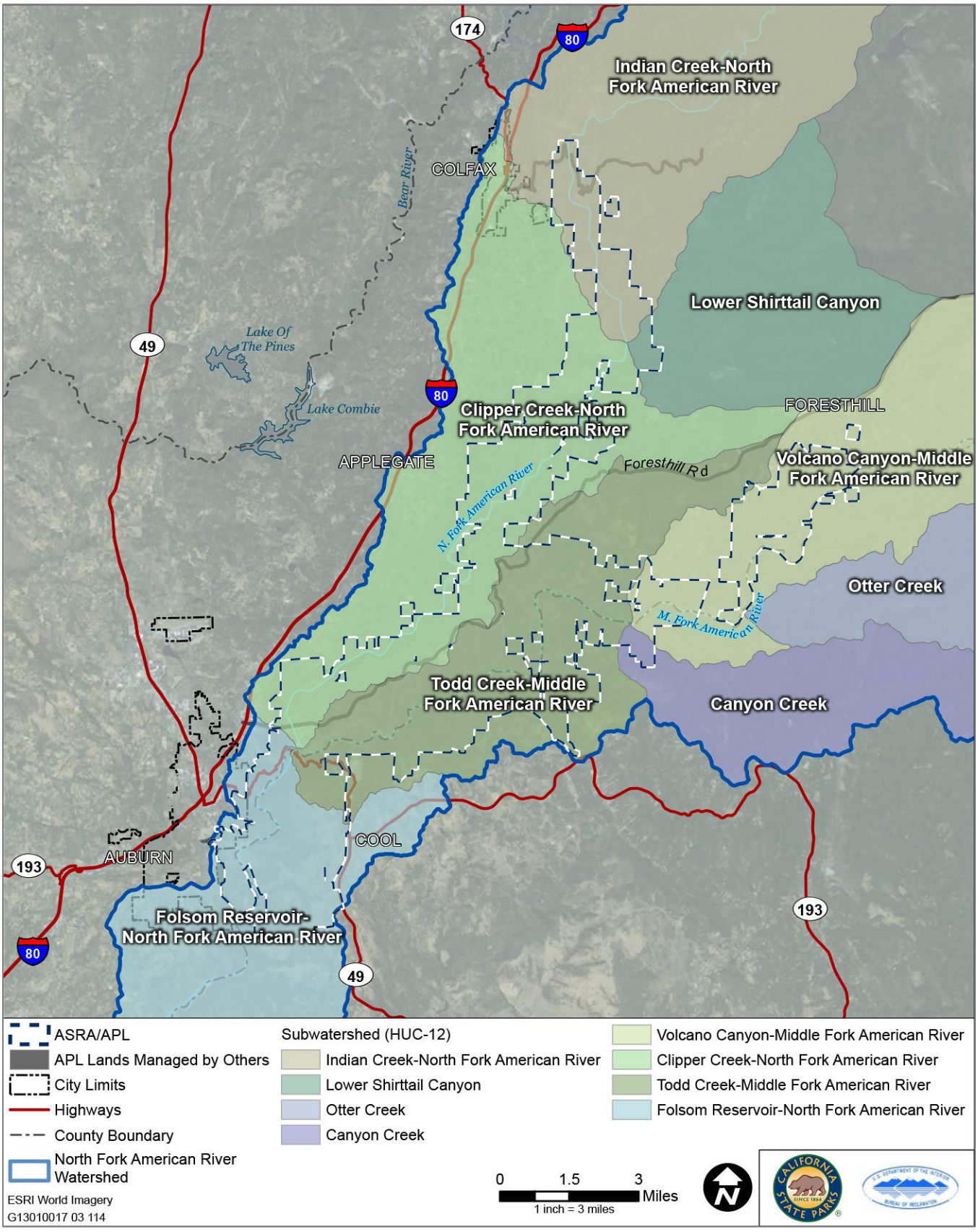
The Middle Fork American River has an approximate watershed area of 650 square miles. The headwaters of the Middle Fork originate at the crest of the Sierra Nevada on the southern slopes of Granite Chief Wilderness Area. Hydrology in the ASRA/APL watershed, results from snowmelt runoff, which results in peak run-off in the winter due to rain or snow events and normal spring snowmelt, and low flows in the summer months. Upstream hydropower facilities also provide regular releases through dry periods of the year to support whitewater recreation, regulate the snowmelt runoff from June to October.

Within ASRA/APL, precipitation is primarily in the form of rainfall. Precipitation ranged from 36 to 48 inches per year within ASRA/APL between 1961 and 1990 (California Department of Water Resources 2005), while the average annual precipitation from 1981 to 2010 for the mountain county region was 44.0 inches (California Department of Water Resources 2013).



Source: Ascent Environmental

River flows in the Middle Fork of the American River are regulated by upstream hydropower facilities; whereas, flows in the North Fork of the American River are unregulated.



Source: Compiled by Ascent Environmental in 2016; downloaded from NRCS in 2015

Figure 2.2-1 Sub-watersheds within and Adjacent to ASRA/APL

Dams and Hydropower Facilities

The site of the proposed Auburn Dam is within ASRA/APL. The dam was authorized by Congress in 1965 but has not been fully funded for construction since 1976. Pursuant to the initial authorization of the Auburn Dam Project, Reclamation acquired and withdrew lands within the Auburn Dam Project boundary and began construction of a concrete dam in 1967. BLM also withdrew lands from public access in support of the eminent dam project.

The initial construction of Auburn Dam modified the canyon and included construction of a 33-foot diameter, half-mile long diversion tunnel to divert the river around the dam site, a 265-foot high earthen cofferdam, excavation, and initial filling of the Dam keyway on either side of the canyon, construction of numerous Dam construction roads, the Foresthill Bridge, and various administrative facilities associated with the Dam construction. A series of complications, including concerns about seismic safety, has put construction of the dam on hold for an indefinite period until Congress determines whether a dam will be constructed. In 2008, the California Water Quality Control Board revoked the water rights permits for the dam project.

Source: Ascent Environmental

The North Fork Dam is located upstream of the confluence with the Middle Fork American River, creating Lake Clementine.

Reclamation and the California Natural Resources Agency entered into a Memorandum of Agreement (MOA) for closure of the diversion tunnel and restoration of the river channel as part of the project (to allow for all pre-dam construction beneficial uses, including public access). Closure of the diversion tunnel, restoration of the river, and construction of the American River Pump Station were initiated in 2003 and completed in 2008. Reclamation and PCWA were the lead agencies for this project.

The North Fork American River within ASRA/APL is mostly unregulated by diversions and hydropower generation facilities, but has numerous small reservoirs in the upper watershed. The U.S. Army Corp of Engineer's (USACE's) North Fork Dam at Lake Clementine is located upstream of the confluence with the Middle Fork American River, creating Lake Clementine. USACE built the North Fork Dam in 1939 as a debris dam to trap sediment upstream of Folsom Reservoir. USACE owns the North Fork Dam and has granted a permit to Reclamation for the use and management of lands associated with the lake for recreation purposes. Lake Clementine has a design capacity of 14,700 acre-feet and a surface area of 280 acres. From a point 1,000 feet upstream from the Iowa Hill Road bridge, the North Fork is a designated "wild" river in the federal Wild and Scenic River system. The North Fork is designated as a "scenic" river in the State of California Wild and Scenic River System for one-quarter

mile upstream from the Iowa Hill Road bridge (within ASRA/APL at Mineral Bar), then "wild" further upstream.

The Middle Fork American River is used for both water supply and hydroelectric power generation upstream of ASRA/APL. PCWA operates the Middle Fork Project, which includes a series of dams, reservoirs, diversion tunnels and powerhouses in the Middle Fork watershed. French Meadows Reservoir and Hellhole Reservoir provide the majority of storage capacity for the Middle Fork Project (332,943 acre/feet combined total) (USGS 2018) with water released to the lower Middle Fork at Ralston Afterbay and Oxbow Powerhouse. Natural flows in the Middle Fork are largely reliant on precipitation and runoff. Upstream hydropower facilities also generate flows for PCWA's water supply, power needs, and in accordance with FERC licensing requirements.

Source: Ascent Environmental

American River flow rates vary throughout the year. Flows tend to decrease in July and August as a result of water availability.

In addition to the larger dams and hydroelectric facilities listed above there are smaller facilities within ASRA/APL, the Dardenelles Creek Hydroelectric Project and the Canyon Creek facility. The Dardenelles facility includes small diversion structures on Dardenelles Creek and Pond Creek that power a single turbine. This facility has not been operational since 2016 (FERC 2016). The Canyon Creek facility consists of a small diversion structure and is still operational.

Discharge and Water Supply

Discharge from the Middle Fork American River fluctuates seasonally and diurnally based on flow releases from Ralston Afterbay. Summer flow releases typically reach 1,000 cubic feet per second (cfs) at peak hydroelectric power generation, and 100 cfs throughout the rest of the day. Flows tend to decrease in July and August in response to water availability. PCWA is responsible for maintaining minimum instream flows to protect fish and wildlife habitat, which currently range from 4 to 23 cfs in bypassed reaches and 75 cfs in the peaking reach (FERC 2012).

The discharges along the largely unregulated North Fork American River show a pattern of high flows in the winter and spring with precipitation and snowmelt and low flows in the summer dropping to below 100 cfs (DWR 2016).

Water Quality

Historical water quality data for the North and Middle Forks is limited. Recent water quality samples in the North and Middle Fork American were taken for the American River Watershed Sanitary Survey 2018 Update (ARWSS) (Starr and Palencia 2018).

The monitoring locations within ASRA/APL are at the North Fork at Ponderosa Way, North Fork at the confluence, Middle Fork at Mammoth Bar, and at the raw water intake of the PCWA Foothill Water Treatment Plant. Sampling from these locations reflects conditions present in the upstream North and Middle Forks of the American River as they pass downstream towards the PCWA American River Pump Station. A summary of key water quality data from the ARWSS is provided below.

Turbidity

The results of ARWSS monitoring at the Foothill Water Treatment Plant indicate a monthly average of peak daily turbidity with a range of 1.2 – 19.8 Nephelometric Turbidity Units (NTUs), an average of 5.4 NTUs and a median value of 4.2 NTUs (Starr and Palencia 2018).

Organics

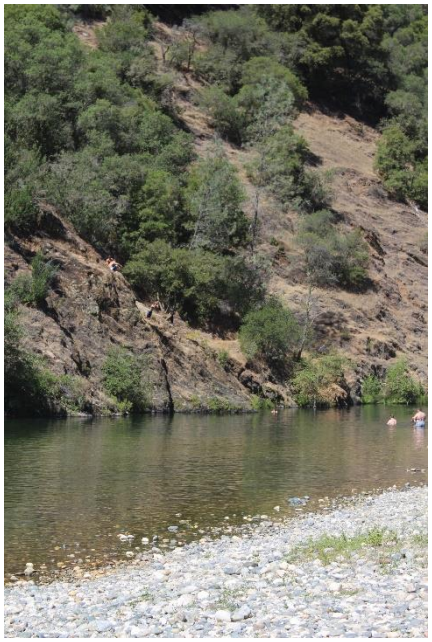
Total organic carbon monitored at the Foothill Water Treatment Plant averaged 1.5 mg/L with a median value of 1.1 mg/L. Volatile organic compounds and synthetic organic chemicals were not detected (Starr and Palencia 2018).

Microbiological

Escherichia coli (*E. Coli*.) densities were collected in 2010 as part of the Safe to Swim Study at North Fork at Ponderosa Way (3.1 Most Probable Number per 100 milliliters [MPN/100ml]), North Fork at the confluence (2.0 MPN/100ml) and Middle Fork at Mammoth Bar (13.2 MPN/100ml). *E. Coli*. densities are also collected monthly at the Foothill Water Treatment Plant (average 27.1 MPN/100ml, Median 1.0 MPN/100ml, N=60). The results from these sampling efforts represent very low densities of *E. Coli*. (Starr and Palencia 2018).

Mercury

Mercury concentrations are expected in the sediment of Lake Clementine. Both major placer and major hardrock gold mines that potentially used mercury operated historically in the North Fork American River watershed (Alpers et al. 2005). Fish tissue samples to test for methylmercury were taken from French Meadows reservoir, Hell Hole reservoir, Middle Fork interbay, Ralston afterbay, and the Middle Fork American River at Otter Creek between 2007 and 2009. The results of this sampling showed that at least one tissue sample from each location and a total of 55 percent of all samples exceeded the California Office of Environmental Health Hazard Assessment (OEHHA) screening guidelines of 0.08 milligrams per Kilogram (FERC 2012). In the past, OEHHA has issued health advisories on fish consumption for Lake Natoma and the lower American River downstream from ASRA/APL due to high levels of mercury (Klasing and Brodburg 2004, OEHHA 2008).



Source: Ascent Environmental

Water quality in the Middle and North Forks of the American River has been degraded by various sources including: wildfire, mining, OHV use, recreation, and discharges from wastewater treatment plants.

Potential Sources of Water Degradation

The 2018 ARWSS reviewed several potential point sources and non-point sources of contaminants. These sources and others have been identified as potential contributors to water quality degradation in portions of the North Fork American River and Middle Fork American River within ASRA/APL include:

- river corridor activities (e.g., pet and human waste, illegal camping),
- forest activities,
- stormwater runoff,
- recreation, and
- Colfax Wastewater Treatment Plant.

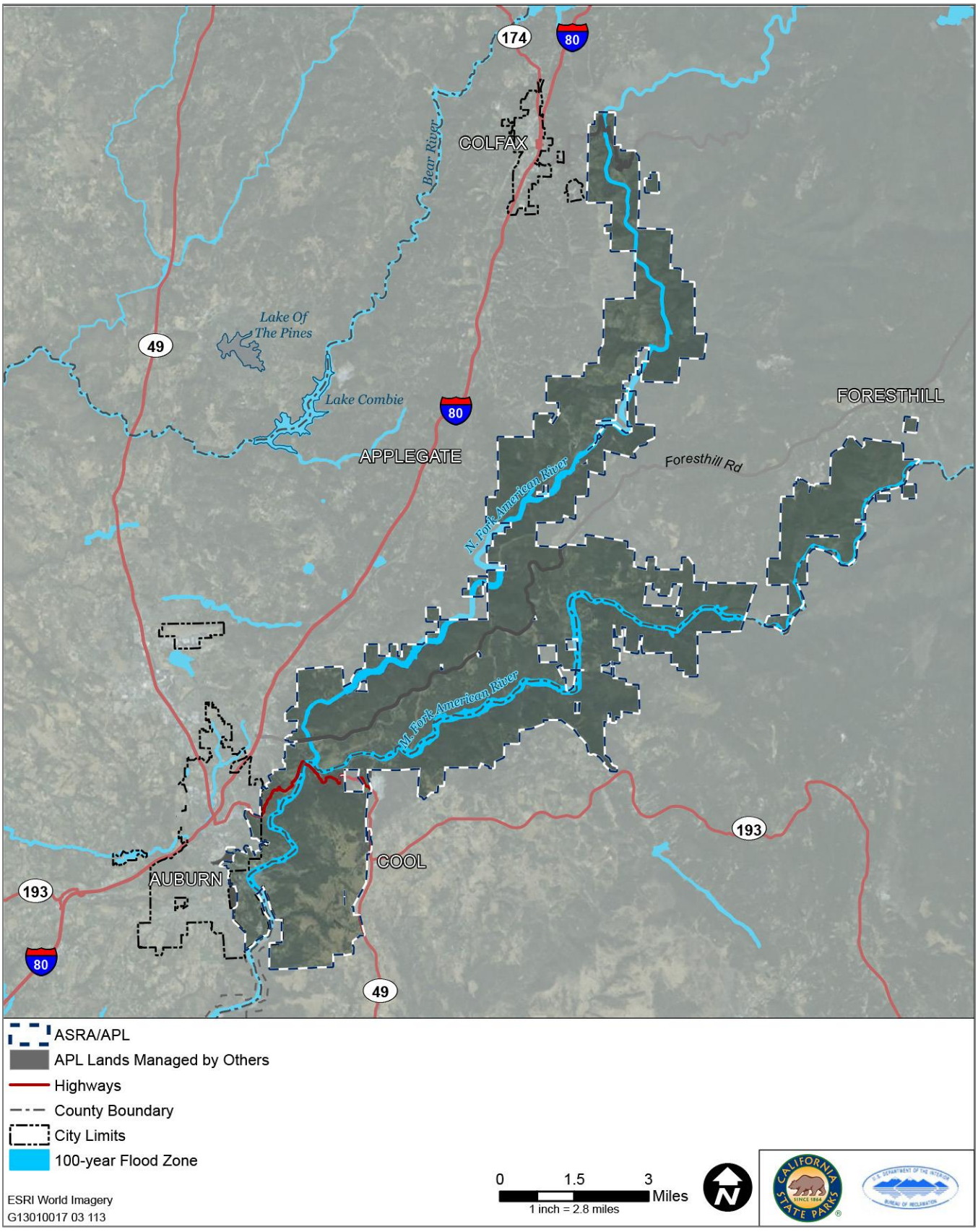
Source: Ascent Environmental

The topography within ASRA/APL generally consists of steep slopes of the American River canyon. The elevation within ASRA/APL ranges between a maximum elevation of approximately 3,100 feet msl on the eastern side in the Foresthill area, and a minimum elevation of approximately 700 feet msl on its western end.

Floodplains

The terrain within ASRA/APL is largely comprised of rock outcrops and steep slopes, with two-thirds of ASRA/APL exceeding a slope of 40 percent (U.S. Bureau of Reclamation 1992). In the western portion of ASRA/APL near Knickerbocker Flat, the topography is gentler and lower slopes are present. Slopes in this area range from 2 percent to 30 percent (U.S. Department of Agriculture [USDA] 2015). This topography contributes to relatively narrow floodplains within ASRA/APL (Figure 2.2-2).

Riverine flooding is a natural phenomenon that occurs when heavy rains or snowmelt cause streams to overflow their banks. Flood control structures have been built in many areas to control natural flood surges and reduce floodplain impacts. However, the effects of natural flood events can be amplified by the failure of flood control structures. The Auburn area experienced major flood events in December 1955, April 1958, October 1962, December 1964, March 1983, and February 1986 (Placer County 2005). The 1986 flood caused the most severe damage to the area, including the collapse of the coffer dam created to allow for the construction of the Auburn dam. The 1964 flood was induced by a record 22 inches of rain over five days, resulting in the collapse of the partially constructed Hell Hole dam in the American River canyon (Auburn Journal 2014). The surge of water from the Hell Hole dam collapse washed out five bridges (including the Hwy 49 bridge) and carried rock from the failed dam for miles downstream (Auburn Journal 2014).



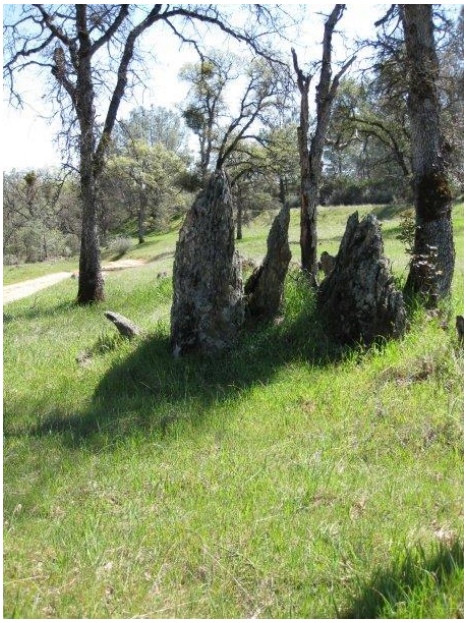
Source: Compiled by Ascent Environmental in 2016; downloaded from El Dorado County in 2014; FEMA in 2016

Figure 2.2-2 100-Year Flood Zone within ASRA/APL

Soils, Geology, and Topography

Topography

The elevation within ASRA/APL ranges between a maximum elevation of approximately 3,100 feet mean sea level (msl) on the eastern side in the Foresthill area, and a minimum elevation of approximately 480 feet msl on its western end. The terrain is generally rugged with rock outcrops and steep slopes. The north to northwest trend of the major geologic structures partly controls the topography and drainage pattern. As the Sierra Nevada has been tilted in a general southwesterly direction, the main rivers and streams flow in that general direction, while the small tributaries tend to flow to the northwest or southeast. The North Fork American River and Middle Fork American River canyons are the dominant topographic features in ASRA/APL. Other minor drainages create steep side canyons along the North and Middle Fork Canyons.



Source: Ascent Environmental

Rock outcroppings can be found along the Pointed Rocks Trail, near the confluence of the Middle and North Forks of the American River.

Geology

Geologic Conditions

ASRA/APL is within the western portion of the Sierra Nevada Foothill Belt. The range includes ultramafic and metamorphosed sedimentary rock.

The underlying geology of ASRA/APL is in large part Epiclastic and Volcanic rock formations. Portions of the North Fork American River and Middle Fork American River consist of the Cosumnes type and ultramafic rock formations (Wagner et al. 1981; Saucedo and Wagner 1992). Large volumes of gravel-sized sediment are results of erosion of the glacial deposit tills and moraines throughout the North Fork American River and the Middle Fork American River.

The Mehrten and Calaveras geologic formations occur within ASRA/APL. The Calaveras Formation occurs in ASRA/APL along portions of the North and Middle Forks of the American River (Saucedo and Wagner 1992; Wagner e t al. 1981). Two belts of this rock unit trend generally north-south through ASRA/APL. Most Sierra Nevada limestone deposits are lenticular masses of recrystallized limestone and dolomite that are interbedded with the metasedimentary and metavolcanic rocks of the Calaveras Formation, which formed between the Carboniferous and Early Jurassic (359-175 million years) (Schweickert et al. 1977). Caves formed in the Calaveras Formation limestone deposits are unique geologic features.

Hawver Cave is a unique geologic feature of the Calaveras Formation, located south of the Middle Fork American River in El Dorado County near Cool. As a result of the Mountain Quarries Mine operations, the limestone deposits of this cave have been mined, resulting in significant modifications to the original geologic formation, which is nearly unrecognizable compared with the historic Mountain Quarries Mine. There are a few remaining stalactites and stalagmites, as well as flowstone formations. Robbers Roost, also known as Lime Rock, is another unique limestone outcrop of the Calaveras Formation located on private land adjacent to Lake Clementine.

Seismicity

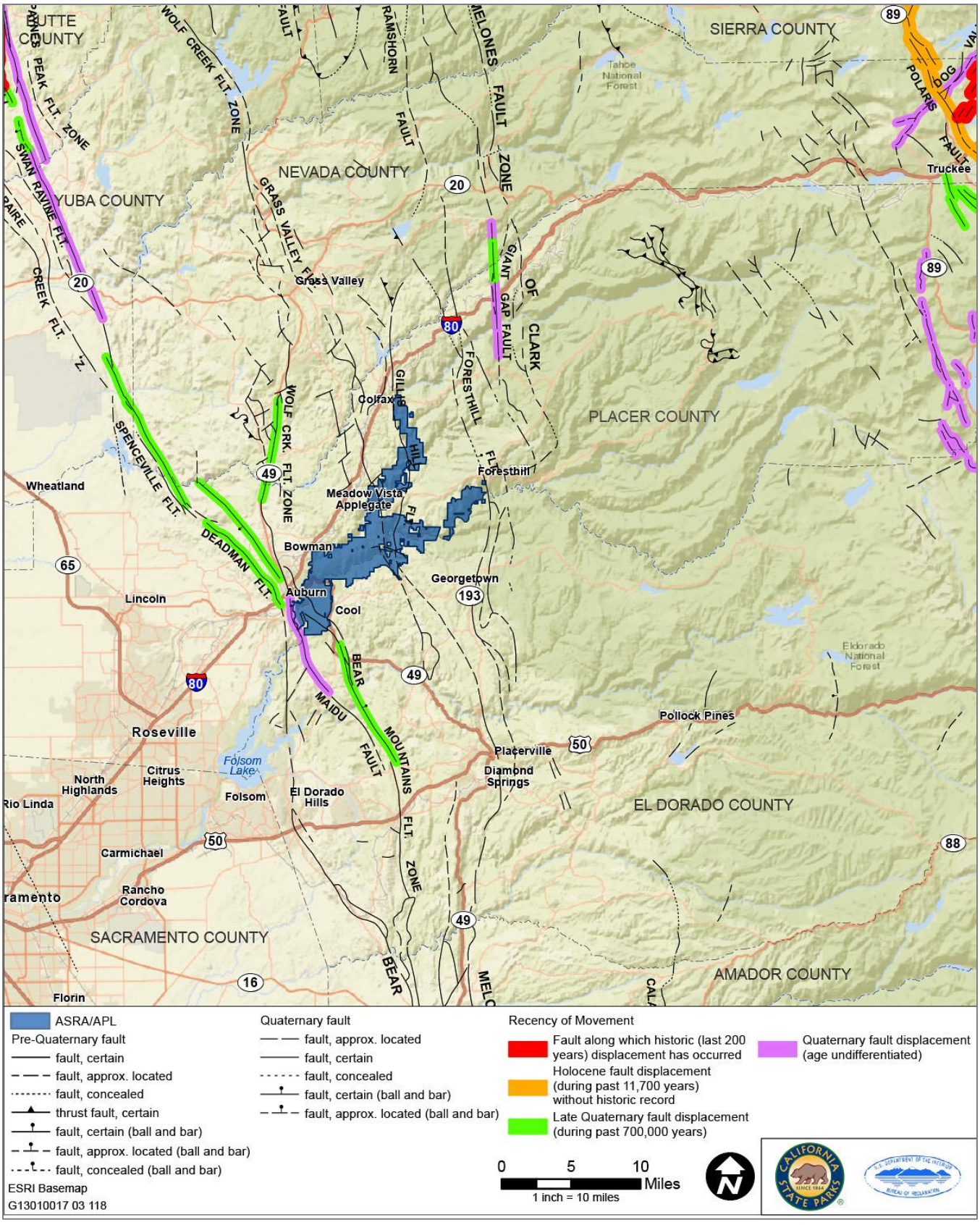
The Melones fault bisects portions of the North Fork American River within ASRA/APL (Figure 2.2-3) (Wagner et al. 1981; Saucedo and Wagner 1992). The most recent displacement occurred parallel to the North Fork during the Quaternary period (within the last 10,000 years). Serpentine rocks characterize much of the Melones fault. Serpentine is highly erodible in comparison to its granitic counterpart. Asbestos mineral complexes are also frequently found in serpentine.

Source: Ascent Environmental

Construction of the Auburn Dam was put on hold indefinitely due, in part, to the presence of seismic hazards.

The Bear Mountain fault zone lies within the western portion of the project, parallel to the Melones fault. Seismic hazard studies were conducted for the proposed Auburn Dam project (U.S. Geologic Survey 1996), as the project would lie within the fault zone. Other faults present include those within the Colfax fault zone, which trends northeast between Weimar and Gillis Hill. Rock formations include the Clipper Gap unit and the metavolcanics of the Lake Combie complex. This fault zone is a structural boundary between the Lake Combie complex and the Colfax sequence. Serpentine is known to be present within this fault zone.

The Foresthill fault zone extends from Dutch Flat southward to Foresthill and continues through El Dorado County. Ultramafic rock and serpentine are present along the fault zone in the Iowa Hill area, south of Dutch Flat. This fault zone creates a major structural boundary between the Calaveras complex, which consists of mafic metavolcanics, and the Shoo Fly Complex, which consists of mixed mafic metavolcanics and metasedimentary rock.



Source: Compiled by Ascent Environmental in 2017; downloaded from California Geological Survey in 2010

Figure 2.2-3 Faults within and Adjacent to ASRA/APL

Soils and Erosion Potential

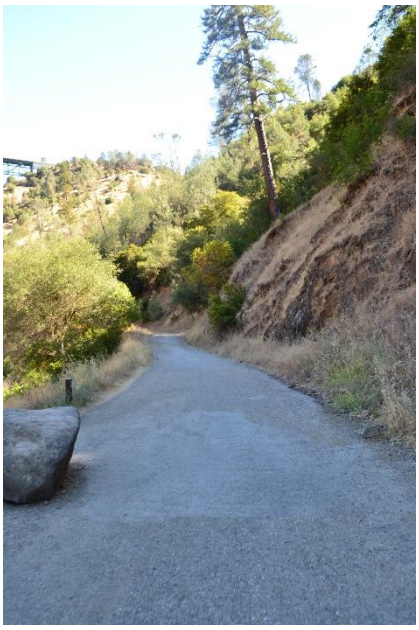
Soil Types

The following soil formations are found in ASRA/APL:

- **Maymen-Mariposa soil formations:** These soils are located adjacent to the North and Middle Fork of the American River are Maymen-Mariposa soil formations. These soils occur in hilly to very steep areas, on slopes up to 75 percent. They are well drained to somewhat excessively drained. Maymen soils are gravelly loams underlain at 8 to 20 inches by hard slate. The color is typically brown to yellowish brown. Mariposa soils are also a brown gravelly loam at surface with a reddish yellow gravelly clay loam subsurface. These soils exist over fractured slate (USDA 2015).

- **Mariposa, Josephine, Auburn-Sobrante, and Sites soil formations:** These soils are well drained, shallow to deep, and exist over metamorphic rock. Highly variable, these soils consist of mixed mineralogy, varying by degrees of transformation by metamorphism and uplift of the parent rock. The Josephine series occur deep and are brown to dark reddish brown in color. Weathered slate exists between 40 to 60 inches below the surface. Sites soils are also deep and a dark reddish-brown loam. Subsoil for Sites soils is red clay underlain by soft schistose at 40 to 60 inches below the surface (USDA 2015).

- **Cohasset-Aiken McCarthy soil formation:** The ridges and crests of the canyons contain Cohasset-Aiken McCarthy soils with pockets of Dubakella-Rock outcrops. The Cohasset-Aiken McCarthy soils are well-drained soils that are moderately deep over volcanic rock. This series is evident along broad ridges in the Iowa Hill and Foresthill areas. Andesitic conglomerates have weathered to form tabular ridges with steep side slopes. The Cohasset and Aiken soils are deep with color ranging from brown at the surface to yellowish red at depth (USDA 2015).

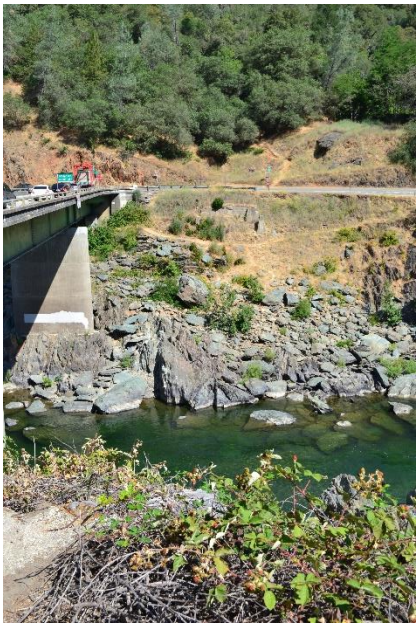


Source: Ascent Environmental

In many areas outside of trails and roads in ASRA/APL and adjacent to the river, soil erosion hazard ratings are very severe, indicating that substantial erosion is likely.

Erosion and Slope Stability

Erosion potential within ASRA/APL largely depends on soil type and slope gradient. Types of erosion range from rill and sheet erosion to more dramatic mass wasting and landslide events. Natural erosion potential is largely the result of the steep slopes of the canyons, mostly in the accretions of sedimentary rock.



Source: Ascent Environmental

User-made trails that access the river can contribute to increased erosion in ASRA/APL.

The Natural Resources Conservation Service (NRCS) soil classifications provide erosion hazard ratings for ground-disturbing activities on both off-road and off-trail hazards, and road and trail erosion hazards.

Off-road and Off-trail Erosion Hazard

The potential for off-road and off-trail erosion hazards represent the opportunities for erosion for ground-disturbing activities that occur on native soils outside of developed roadways or trails. The ratings for off-road, off-trail erosion hazard are described as either "slight," "moderate," "severe," or "very severe."

- "slight" indicates that erosion is unlikely under ordinary climatic conditions;
- "moderate" indicates that some erosion is likely and that erosion control measures may be needed;
- "severe" indicates that erosion is very likely and that erosion control measures, including revegetation of bare areas, are advised; and
- "very severe" indicates that substantial erosion is expected, loss of soil productivity and off-site damage are likely, and erosion control measures are costly and generally impractical.

Within ASRA/APL, the erosion hazard classifications for off-road/off-trail are as follows: 1.0 percent slight; 20.1 percent moderate; 15.9 percent severe; 28.2 percent very severe; and 34.8 percent null or not rated (Figures 2.2-4a through 2.2-4d) (USDA 2015).

Source: Ascent Environmental

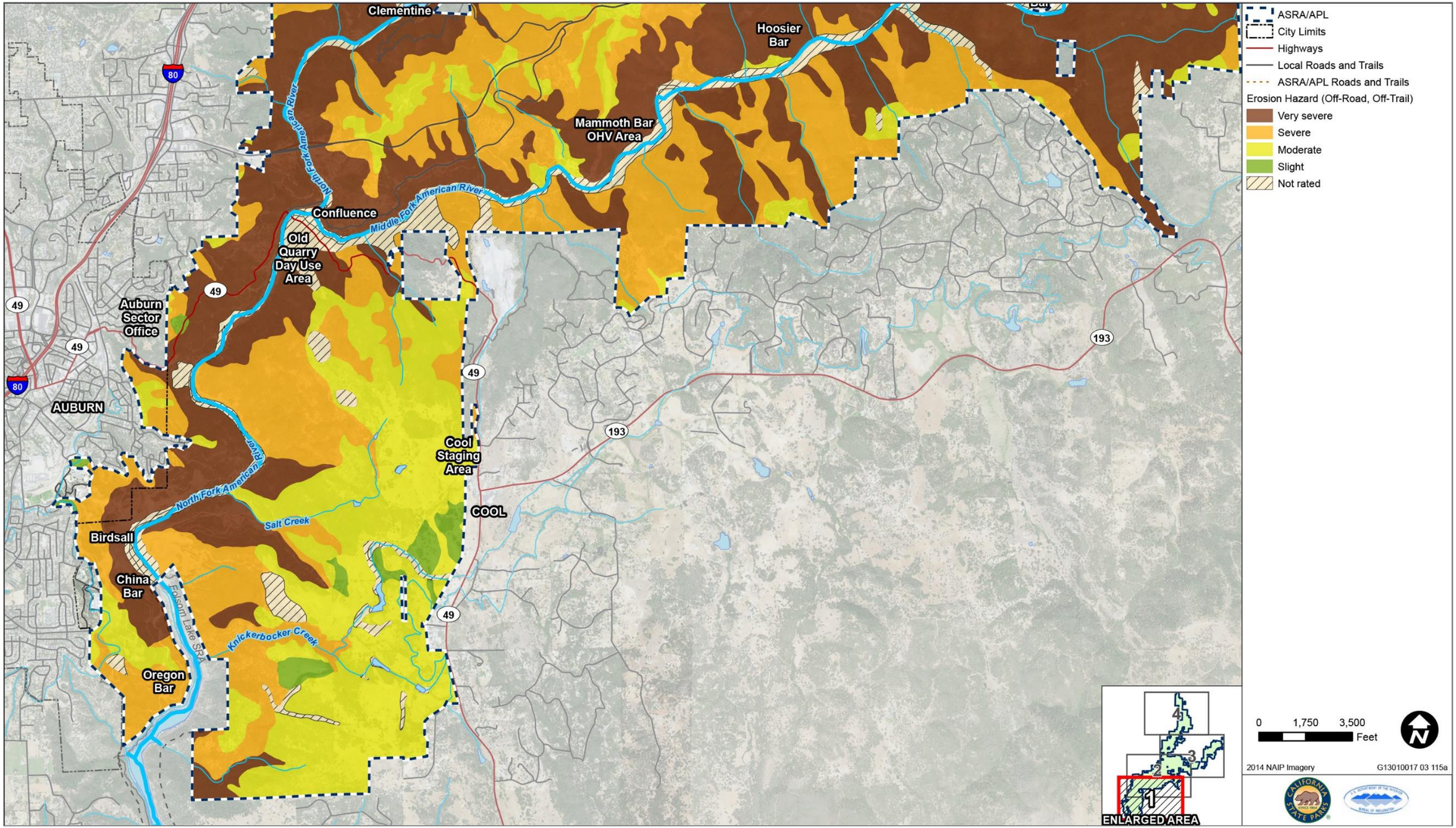
Guidelines included in the GP/ RMP and implementation of CSP Standard Project Requirements would minimize potential for erosion from unpaved roads and trails.

Road and Trail Erosion Hazard

The road and trail erosion hazard rating represents the erosion potential from use of unpaved roads and trails. The road and trail erosion hazard is categorized as "slight," "moderate," or "severe:"

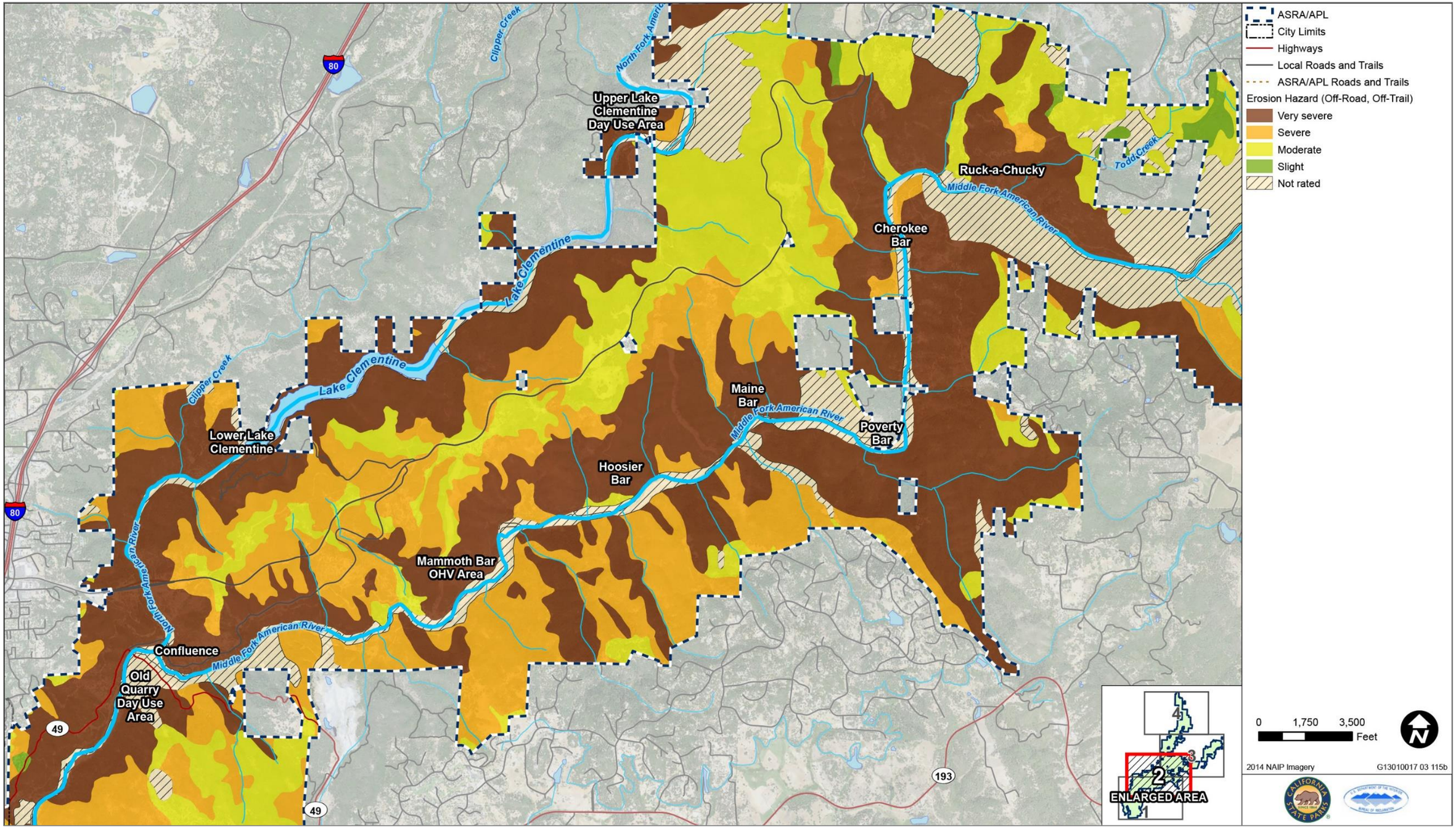
- "slight" indicates that little or no erosion is likely;
- "moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and
- "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Erosion hazard classifications for unpaved roads and trails in ASRA/APL are as follows: 0 percent slight; 0.5 percent moderate; 64.7 percent severe; 0 percent very severe; and 34.8 percent null or not rated (Figures 2.2-5a through 2.2-5d) (USDA 2015).



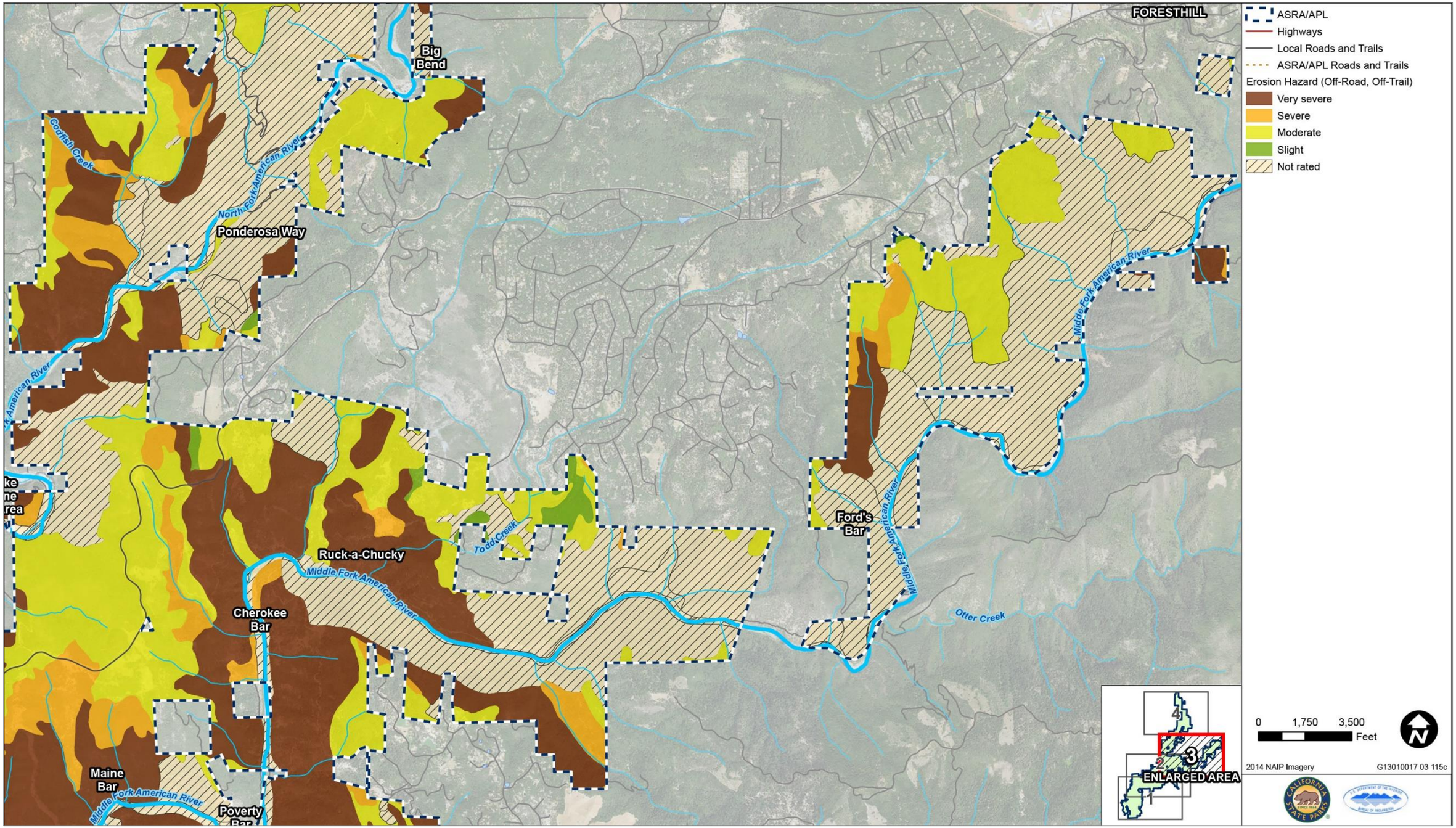
Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-4a Erosion Hazard for Ground-Disturbing Activities Occurring Off Roads and Off Trails (1 of 4)



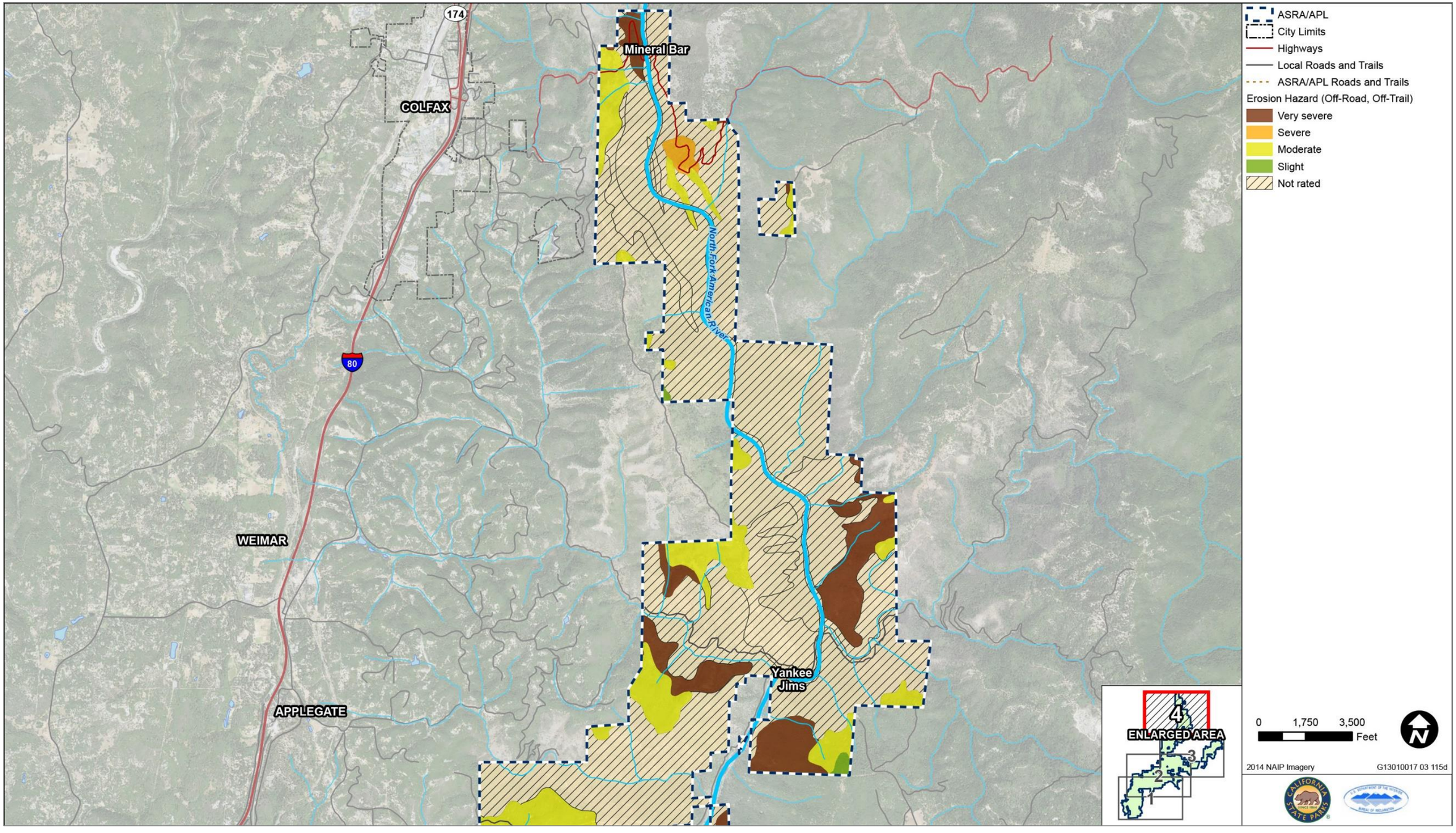
Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-4b Erosion Hazard for Ground-Disturbing Activities Occurring Off Roads and Off Trails (2 of 4)



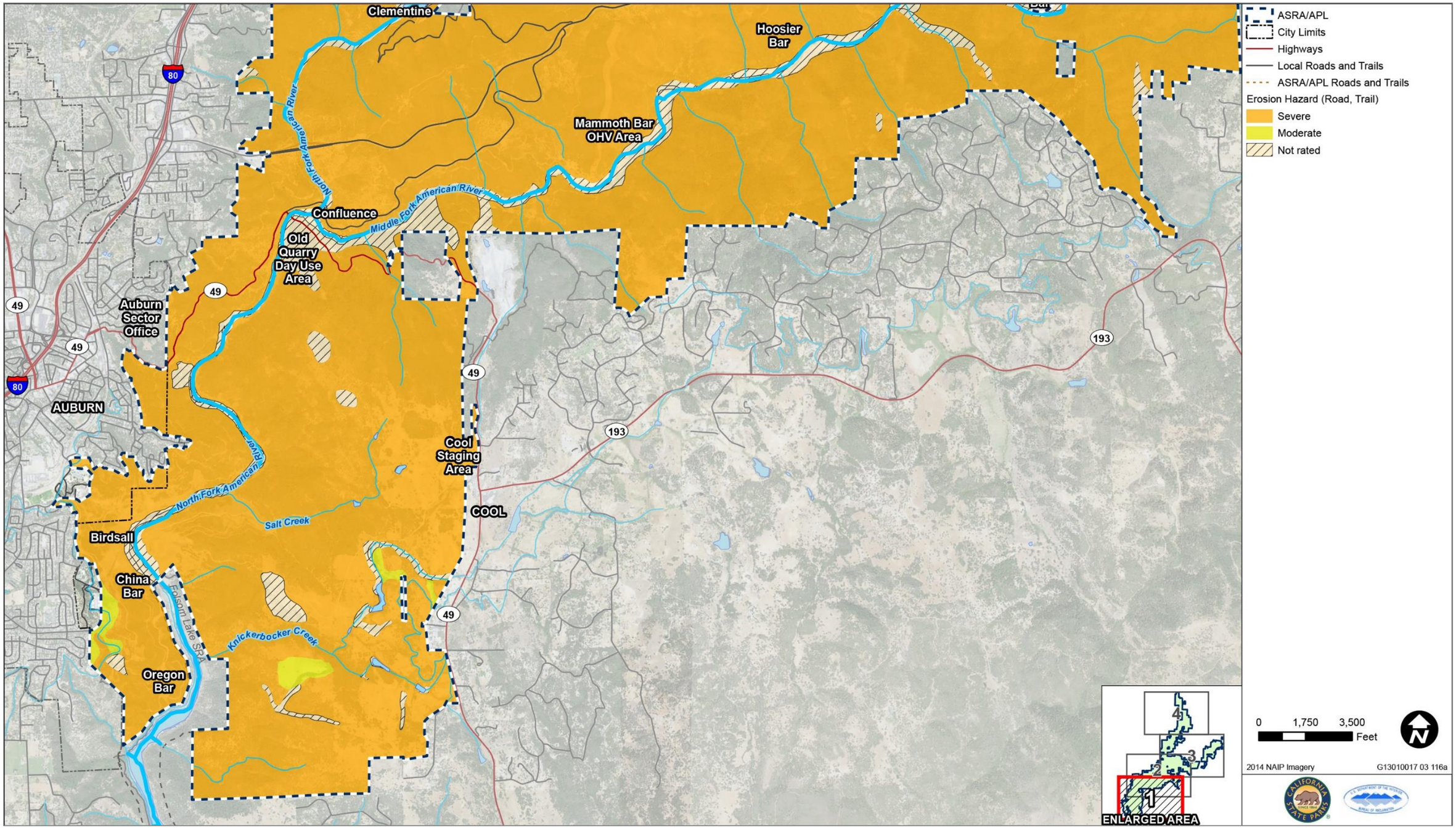
Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-4c Erosion Hazard for Ground-Disturbing Activities Occurring Off Roads and Off Trails (3 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

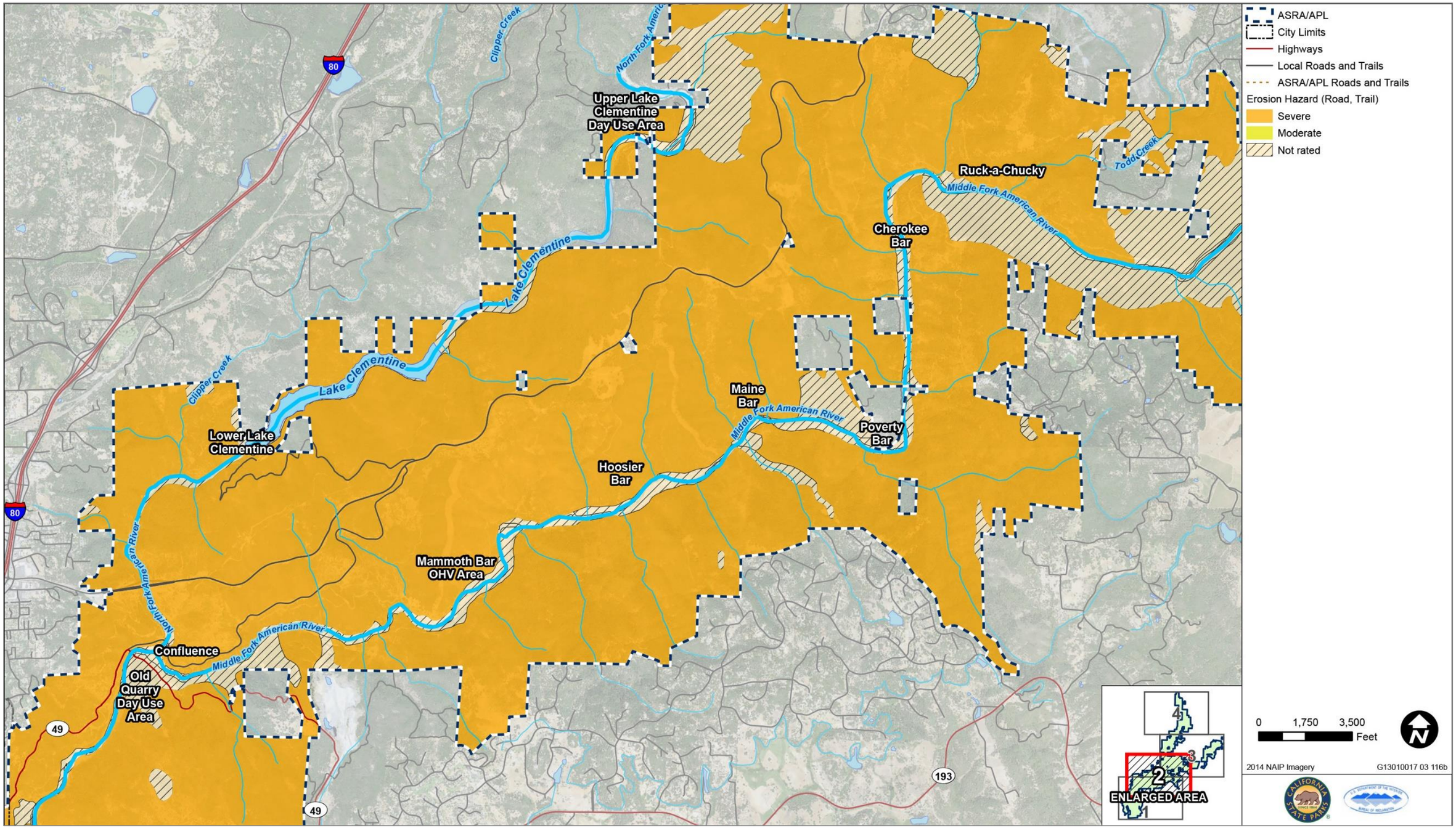
Figure 2.2-4d Erosion Hazard for Ground-Disturbing Activities Occurring Off Roads and Off Trails (4 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-5a

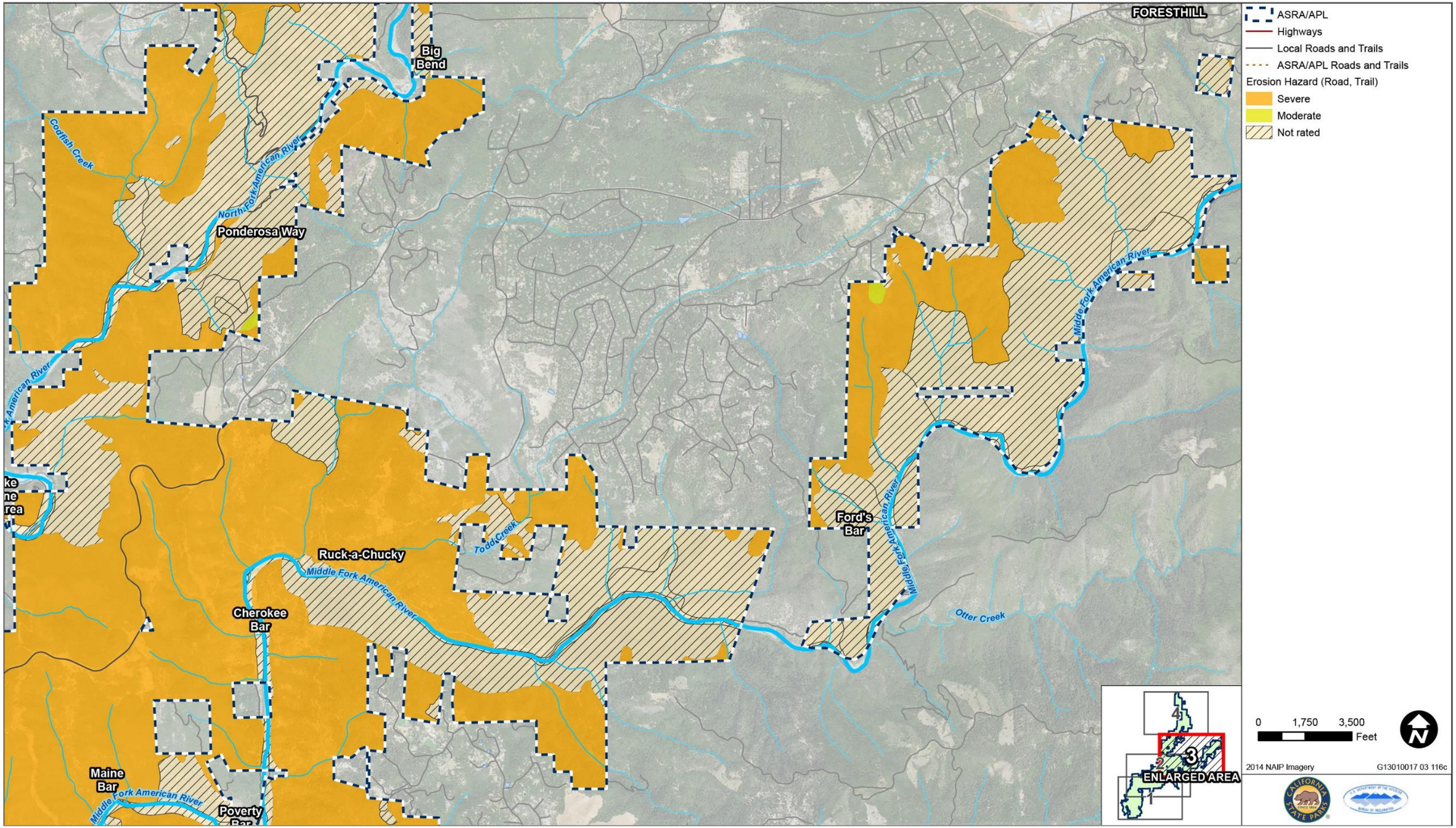
Erosion Hazard for Unpaved Roads and Trails (1 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014 2014 NAIP Imagery

Figure 2.2-5b

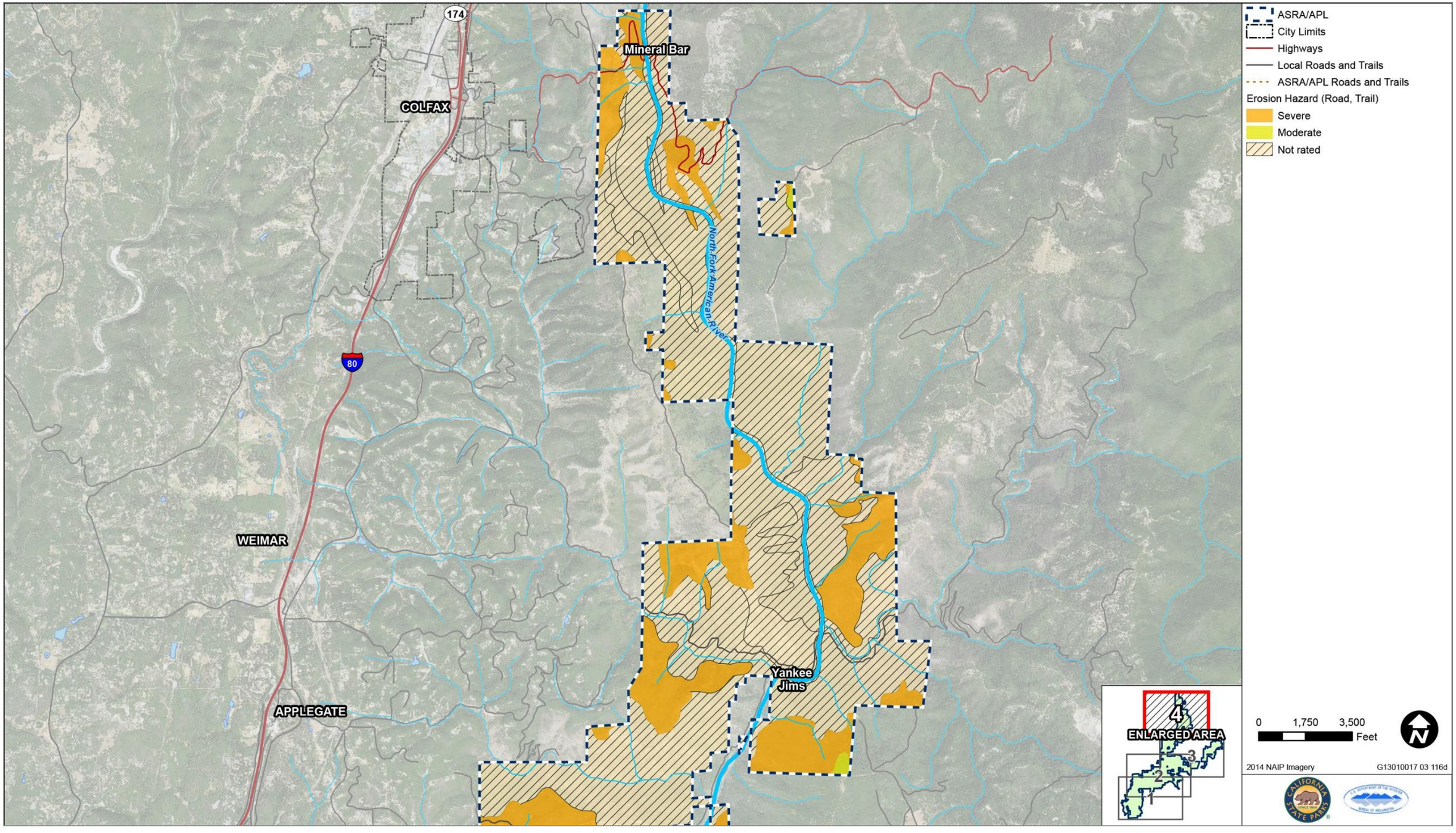
Erosion Hazard for Unpaved Roads and Trails (2 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-5c

Erosion Hazard for Unpaved Roads and Trails (3 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from NRCS in 2014

Figure 2.2-5d

Erosion Hazard for Unpaved Roads and Trails (4 of 4)

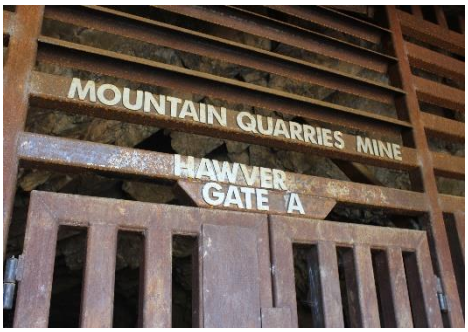
Mineral Resources

Mineral resources within ASRA/APL consist of gold; sand and gravel; and chromite within Placer County (DOC 1995). Portions of El Dorado County that overlap with the ASRA/APL boundary contain gold and limestone deposits (DOC 2001). Current mining activities within APL or directly adjacent to ASRA/APL include limestone mining at the Cool Cave Quarry, and recreational collection of minerals. Historically, several hydraulic mining operations, primarily for gold, were active within ASRA/APL.

Mineral Land Classification Zones

Areas subject to mineral land classification studies are divided by the State Geologist into various Mineral Resources Zone (MRZ) categories that reflect varying degrees of mineral potential. The MRZ categories consist of:

- **MRZ-1:** Areas where available geologic information indicates there is little likelihood for the presence of substantial mineral resources.
- **MRZ-2a:** Area underlain by mineral deposits where geologic data indicate that substantial measured or indicated resources are present. MRZ-2a areas contain discovered mineral deposits that are either measured or indicated reserves as determined by drilling records, sample analysis, surface exposure, and/or mine information.
- **MRZ-2b:** Are as underlain by mineral deposits where geologic information indicates that substantial inferred resources are present. Inferred reserves are determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic.
- **MRZ-3a and -3b:** Areas containing known mineral occurrences of undetermined mineral resources.
- **MRZ-4:** Areas of unknown mineral resource significance.



Source: Ascent Environmental

Mineral resources within ASRA/APL consist of gold, sand and gravel, chromite, and limestone deposits. Large-scale commercial mining operations occurred in the past; however, mining activities are currently limited to recreational collection.

Cool Cave Quarry

The Cool Cave Quarry mining property currently encompasses about 90 acres of private land and 16 acres of Reclamation-owned lands within APL, but outside of ASRA. It is situated immediately east of SR 49 and north of the town of Cool. The portion of the Quarry within APL is currently operated by Teichert Materials under a temporary land use permit issued by Reclamation for limestone and construction aggregates.

Recreational Gold Collection

Recreational gold panning and rockhounding (recreational collection of rocks and minerals) is a popular activity in ASRA/APL. Gold panning is allowed only in the natural water-washed gravel of streams and the use of tools other than gold pans is prohibited.

Former Mining Operations within ASRA/APL

Throughout ASRA/APL, there have been many historic mining operations, predominantly for gold. Within the ASRA/APL boundary, 9 abandoned mines are located in El Dorado County, and 23 abandoned mines are located within Placer County (DOC 2009). Of the 32 total abandoned mines, 27 were used for gold mining. At sites owned by Reclamation, substantial fencing and signage is used to warn and protect the public from hazards, while retaining the historic integrity of the site.

Source: Ascent Environmental

The climate in ASRA/APL is considered a Mediterranean climate with very hot summer temperatures and rain falling generally between December and March.

Air Quality

Criteria Air Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead are criteria air pollutants (CAPs) and used as indicators of ambient air quality conditions. CAPs are air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB). Counties in California must comply with National Ambient Air Quality Standards (NAAQS) established by the EPA as well as California Ambient Air Quality Standards (CAAQS) set by CARB. Placer and El Dorado counties are in nonattainment with NAAQS for ozone. For CAAQS, these counties are in nonattainment for ozone, $PM_{2.5}$, and PM_{10}.

Concentrations of CAPs are measured at several monitoring stations near ASRA/APL. Data collected by the measurement stations on SR 193 in Cool, on Blackfoot Way in North Highlands, at City Hall in Colfax, and at the Litton Building in Grass Valley are generally representative of ambient air quality in the vicinity of ASRA/APL. Concentrations of CAPs measured at these stations are summarized in Table 2.2-1.

The 1990 amendments to the Clean Air Act (CAA) require EPA to promulgate rules to ensure that federal actions conform to the appropriate state implementation plan (SIP). These rules are known as the General Conformity Rule and are codified at Title 40 of the Code of Federal Regulations, Part 93 (40 CFR 93). Any

federal agency responsible for an action in a nonattainment/maintenance area must determine whether that action conforms to the applicable SIP or is exempt from the requirements of the General Conformity Rule. The federal de minimis levels for annual production of criteria air pollutants are shown in Table 2.2-2.

Table 2.2-1 Summary of Annual Air Quality Data near ASRA/APL (2015–2017)[1]

Ozone [2]	2015	2016	2017
Highest Concentration (1-hour/8-hour, ppm)	0.105/0.092	0.105/0.094	0.106/0.084
Second Highest Concentration (1-hour/8-hour, ppm)	0.094/0.082	0.103/0.0938	0.099/0.084
Number of days state standard exceeded (1-hour/8-hour)	1/13	3/19	4/28
Number of days national standard exceeded (1-hour/8-hour)	0/6	0/15	0/8
Respirable Particulate Matter (PM_{10}) [3]	**2015**	**2016**	**2017**
Highest Concentration (µg/m³) (California)	35.7	39.2	66.0
Second Highest Concentration (µg/m³) (California)	24.4	38.9	64.8
Annual Average (µg/m³) (California)	13	15.8	16.5
Number of days national standard exceeded (measured[5])	0	0	0
Fine Particulate Matter ($PM_{2.5}$) 4	**2015**	**2016**	**2017**
Highest Concentration (µg/m³) (California)	109.8	28.6	29.7
Second Highest Concentration (µg/m³) (California)	24.5	28.3	28.5
Annual Average (µg/m³) (California)	7.6	5.9	5.7
Number of days national standard exceeded (measured[5])	7	6	6

Notes: µg/m^c = micrograms per cubic meter; NA = data not available; ppm = parts per million; * = Insufficient data to determine the value

1. The ambient air quality standards and attainment status for these pollutants are presented in Tables 10-1, 10-3, and 10-4 of the *Auburn State Recreation Area Resources Inventory and Existing Conditions Report*.
2. Ozone measurements are from the station on SR 193 in Cool.
3. PM_{10} measurements are from the monitoring station at the Roseville-N Sunrise Blvd.
4. $PM_{2.5}$ measurements are from the monitoring station at the Auburn-11645 Atwood Road.
5. Measured days are those days that an actual measurement was greater than the level of the daily standard. The number of days above the standard is not necessarily the number of violations of the standard for the year.

Sources: CARB 2018a, 2018b, 2018c; CSP and Reclamation 2016

Table 2.2-2 Federal Conformity De Minimis Levels for Annual Production of Criteria Air Pollutants

Pollutant	Attainment Level	De Minimis Level (tone/year)
Placer County - 8-Hour Ozone (2008)	Severe	25
Placer County - 8-Hour Ozone (2015)	Moderate	100
Placer County - Carbon Monoxide (1971)	Maintenance - Moderate <= 12.7ppm	100
Placer County - $PM_{2.5}$ (2006)	Moderate	100
El Dorado County - 8-Hour Ozone (2008)	Severe	25
El Dorado County - 8-Hour Ozone (2015)	Moderate	100

Source: U.S. EPA Greenbook 2018

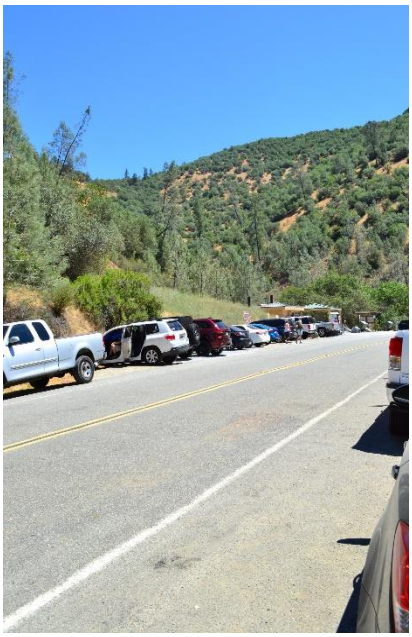
Existing Emissions Sources

Criteria Air Pollutants

Motor vehicles are the predominant source of CAPs and precursor emissions in and near ASRA/APL, including vehicle trips to and from ASRA/APL.

Toxic Air Contaminants

Vehicles traveling along SR 49 represent the predominant non-stationary source of TACs (and hazardous air pollutants [HAPs]) in ASRA/APL. Other sources of TACs in ASRA/APL include any diesel-powered equipment that emit diesel PM, such as off-road maintenance, construction, mining, or forestry equipment.



Source: Ascent Environmental

Vehicles are the predominant source of air pollutants in ASRA/APL.

Naturally Occurring Asbestos

Special Report 190, *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County*, identifies areas within Placer County with the following designations (California Geological Survey [CGS] 2006):

- Area Most Likely to Contain Naturally Occurring Asbestos (NOA)
- Area Moderately Likely to Contain NOA
- Area Least Likely to Contain NOA

Additionally, El Dorado County identified areas within the following four categories considered to be subject to elevated risk of containing NOA (El Dorado County 2005):

- Found Area of NOA
- Quarter-Mile Buffer for Found Area of NOA
- More Likely to Contain Asbestos
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line

The portion of ASRA/APL located in Placer County contains areas considered Most Likely to Contain NOA (CGS 2006). The portion of ASRA/APL located in El Dorado County includes areas identified as Quarter Mile Buffer for Found NOA and More Likely to Contain Asbestos (El Dorado County 2005).

Climate

Existing Climate

The climate in the area near ASRA/APL is characterized as Mediterranean with hot, dry summers and mild winters. Summer temperatures in the Auburn area have historically been hot with temperatures ranging from the 50s to the 90s (degrees Fahrenheit [°F]). Winter temperatures are mild and rarely drop below freezing (32 °F). Rainfall occurs mostly in winter between December and March with an annual average of 37.15 inches from 1981 to 2010 (Western Regional Climate Center 2018).

Effects of Climate Change

Climate change poses a significant threat to human and natural communities in California. ASRA/APL exists within the Sierra Nevada Foothill region, which will experience an increase in temperature and predicted rates and sizes of wildfire, as well as reduction in snowpack and spring snow melt.

According to Cal-Adapt (a climate change scenario planning tool developed by the California Energy Commission, California Natural Resources Agency, and others), annual average temperatures in the plan area are projected to rise by 6.1-9.1°F by 2100, with the range based on Representative Concentration Pathway (RCP) 4.5 and RCP 8.5 emissions scenarios (CEC 2018).

The California Department of Forestry and Fire Protection (CAL FIRE) designates most of the plan area as Very High Fire Hazard Severity Zones, a condition that will likely be exacerbated by climate change (CAL FIRE 2007a, 2007b).

Projected changes in precipitation and snowfall will likely have an effect on ASRA/APL. The North and Middle Forks of the American River flow through ASRA/APL and provide fresh water to surrounding habitats, as well as to Folsom Lake and the lower American River downstream of ASRA/APL. According to Cal-Adapt, annual average precipitation in the Lower North Fork American River Watershed, is projected to increase by 4.3-7.4" by 2100, with the range based on RCP 4.5 and RCP 8.5 emissions scenarios (CEC 2018).

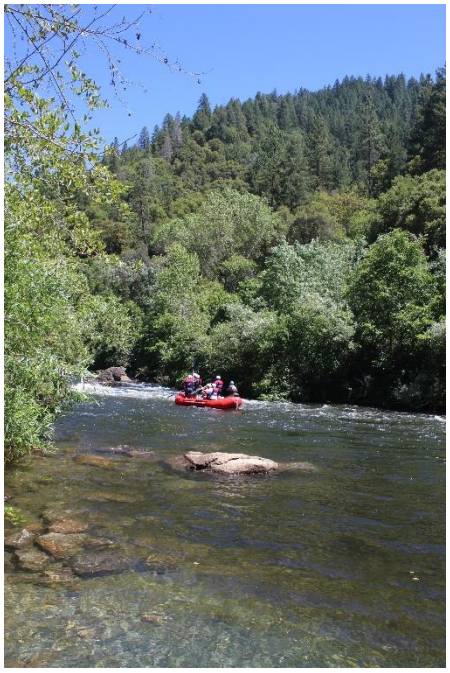
On average, the Sierra snowpack holds up to 50 percent of the total volume of the state's freshwater reservoirs, including Folsom Reservoir just downstream of ASRA/APL. Rising temperatures have already begun to accelerate the rate of snow melt in the Sierras. As runoff continues to occur earlier in the year, less water can be stored for periods of drought. Furthermore, earlier and more rapid melting will produce higher volumes of runoff that will likely increase risk of flooding along affected rivers, including

Source: Ascent Environmental

Snow melt volume and timing, as well as the potential for flood flows in the American River, are being altered by climate change.

the North and Middle Forks of the American River (Governor's Office of Planning and Research et al. 2018). These effects may include changes in the availability of recreational opportunities due to safety considerations (e.g., flooding, landslides, etc.), topography changes due to greater flows within limited areas and increased erosion, changes in habitat types and cover due to changes in temperature and precipitation.

Local Wildfire Regime



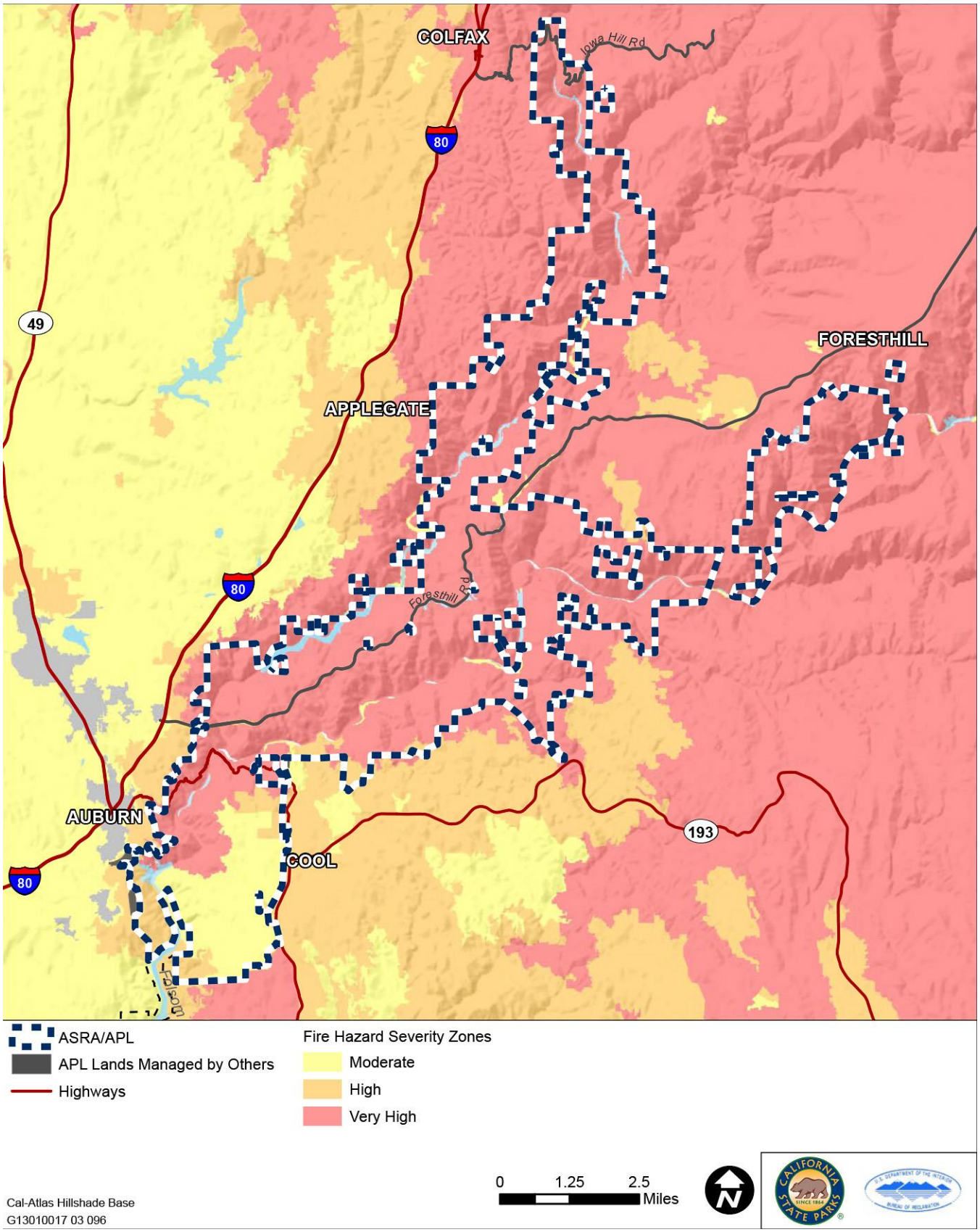
Source: Ascent Environmental

The steep canyons of the North and Middle Forks of the American River create challenging firefighting terrain.

The steep canyons of the North and Middle Forks of the American River create 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 ASRA/APL, 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.

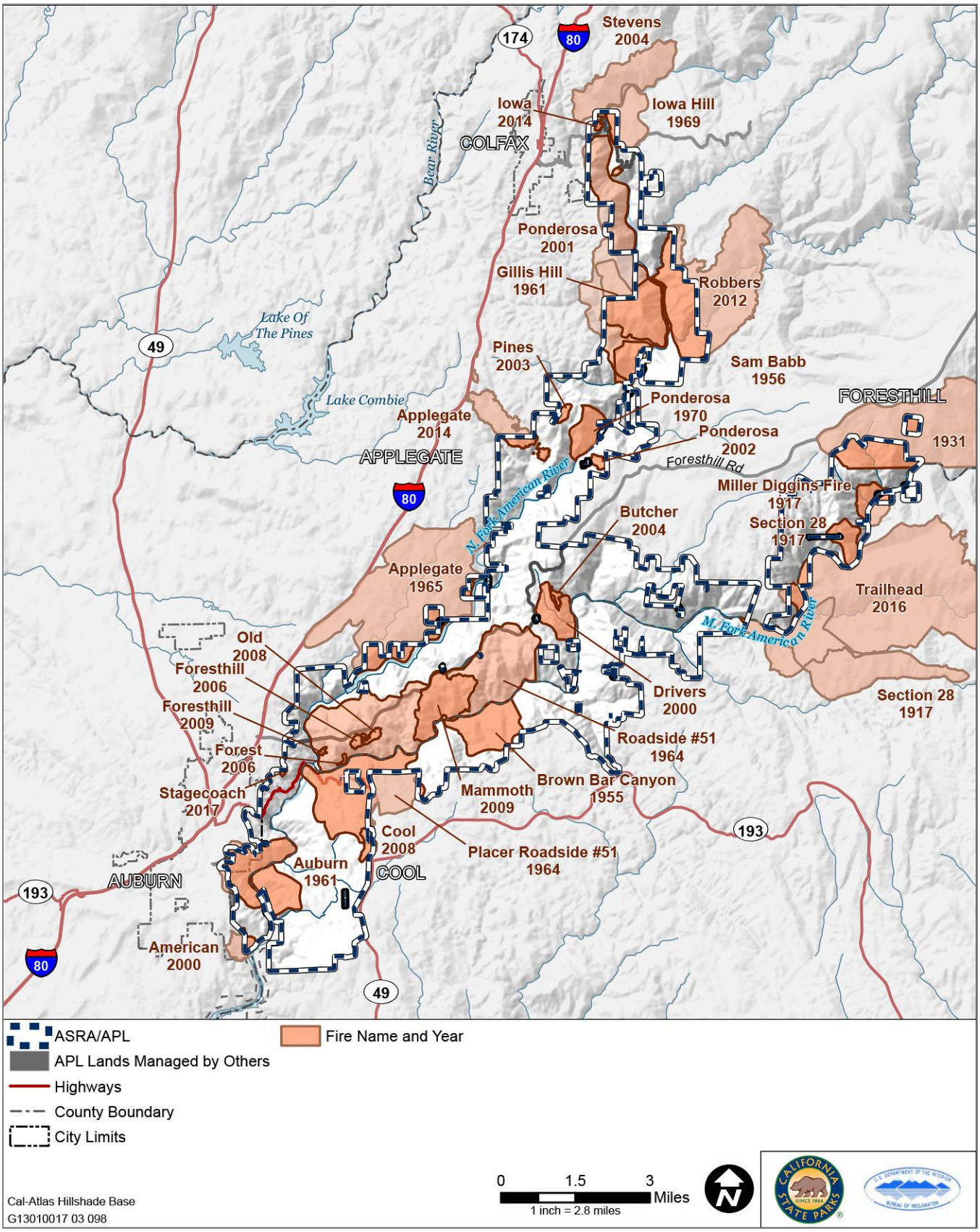
CAL FIRE identifies Fire Hazard Severity Zones at a local, state, and federal level, which cover all fire-prone areas in the state, regardless of land ownership or responsibility. CAL FIRE has designated most parts of ASRA/APL as Very High Fire Hazard Severity, the most extreme fire danger rating. Fire danger decreases in the areas immediately adjacent to the city of Auburn, due in part to vegetation treatment activities, but also because of the decreased density of vegetation as the forest transitions into an urban environment (Figure 2.2-6).

Since the turn of the 20th century, there have been numerous wildfires on lands within ASRA/APL (Figure 2.2-7). Over the last century, thousands of acres of 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 fire play (e.g., the use of fireworks), vehicles sparks, and other human-produced sources.



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

Figure 2.2-6 Fire Severity Ratings within and Surrounding ASRA/APL



Source: Data provided by CSP in 2016; downloaded from CAL FIRE in 2018

Figure 2.2-7 Historic Wildfires within ASRA/APL

Shaded fuel breaks have been created in ASRA/APL, including along the ridgeline of the American River canyon between ASRA/APL and the City of Auburn. A shaded fuel break is an area of decreased fuels and modified vegetation usually 100-300 feet wide. The goal of the fuel break is not to stop a fire, but to remove ladder fuels that would allow a fire to easily move from the ground into the overhead canopy and to increase the probability of successful fire suppression.

2.2.2 Biological Resources

Vegetation and Habitat Types

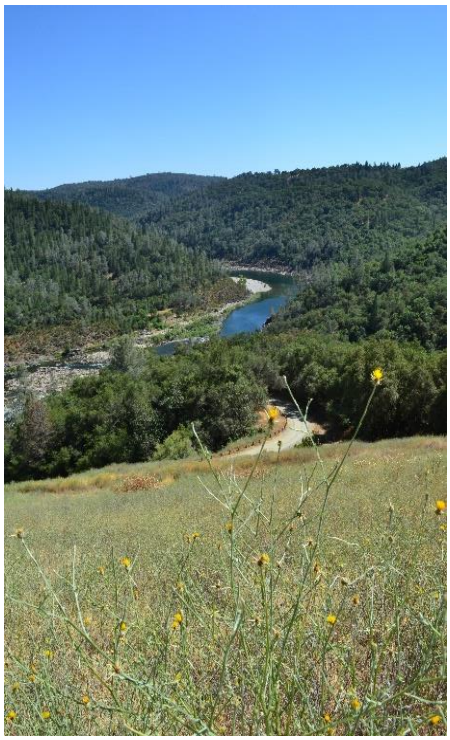
The diverse vegetation and habitat types within ASRA/APL were assessed using remote sensing and field surveys (Tukman 2004). Eighteen vegetation alliances (or series) were identified for ASRA/APL based on the Manual of California Vegetation (MCV) (Sawyer and Keeler-Wolf 1995). An additional classification, called a mapping unit, was created for 20 vegetation types that were observed but for which no MCV alliance or series exists (Tukman 2004). New mapping units were created for Himalayan blackberry (*Rubus discolor*), deciduous foothill shrub, interior live oak-canyon live oak, orchard, and 16 mixed conifer-oak/hardwood types (e.g., Douglas fir and mixed oak) that were not completely described by an MCV alliance. Forested stands that had between 25 percent and 75 percent of relative oak/hardwood cover and between 25 percent and 75 percent of relative conifer cover were assigned mapping units that reflected both their hardwood and conifer components. The major groupings/categories of vegetation alliances in ASRA/APL include conifer forest, oak woodland, riparian, and other land cover types (e.g., water, barren, developed) (see Figures 2.2-8a through 2.2-8d).

Source: Ascent Environmental

The major categories of vegetation alliances in ASRA/APL include oak woodland, conifer forest, and riparian, and other land cover types.

The vegetation types present within ASRA/APL vary in their natural fire frequency and some vegetation types (e.g., chamise chaparral) are dependent on fire for regeneration. These major vegetation types provide habitat for many common wildlife species, such as ensatina (*Ensatina eschscholtzii*), California newt (*Taricha torosa*), slender salamander (*Batrachoseps attenuatus*), turkey vultures (*Cathartes aura*), great horned owl (Bubo virginianus), barn owl (*Tyto alba*), raven (*Corvus corax*), violet green swallow (*Tachycineta thalassina*), white-throated swift (*Aeronautes saxatalis*), red-shouldered hawk (*Buteo lineatus*), duskyfooted woodrat (*Neotoma fuscipes*), California ground squirrel (*Spermophilis beechyii*), and pocket gopher (*Thomomys bottae*). Special-status species and other sensitive resources are summarized below.

Invasive Plants



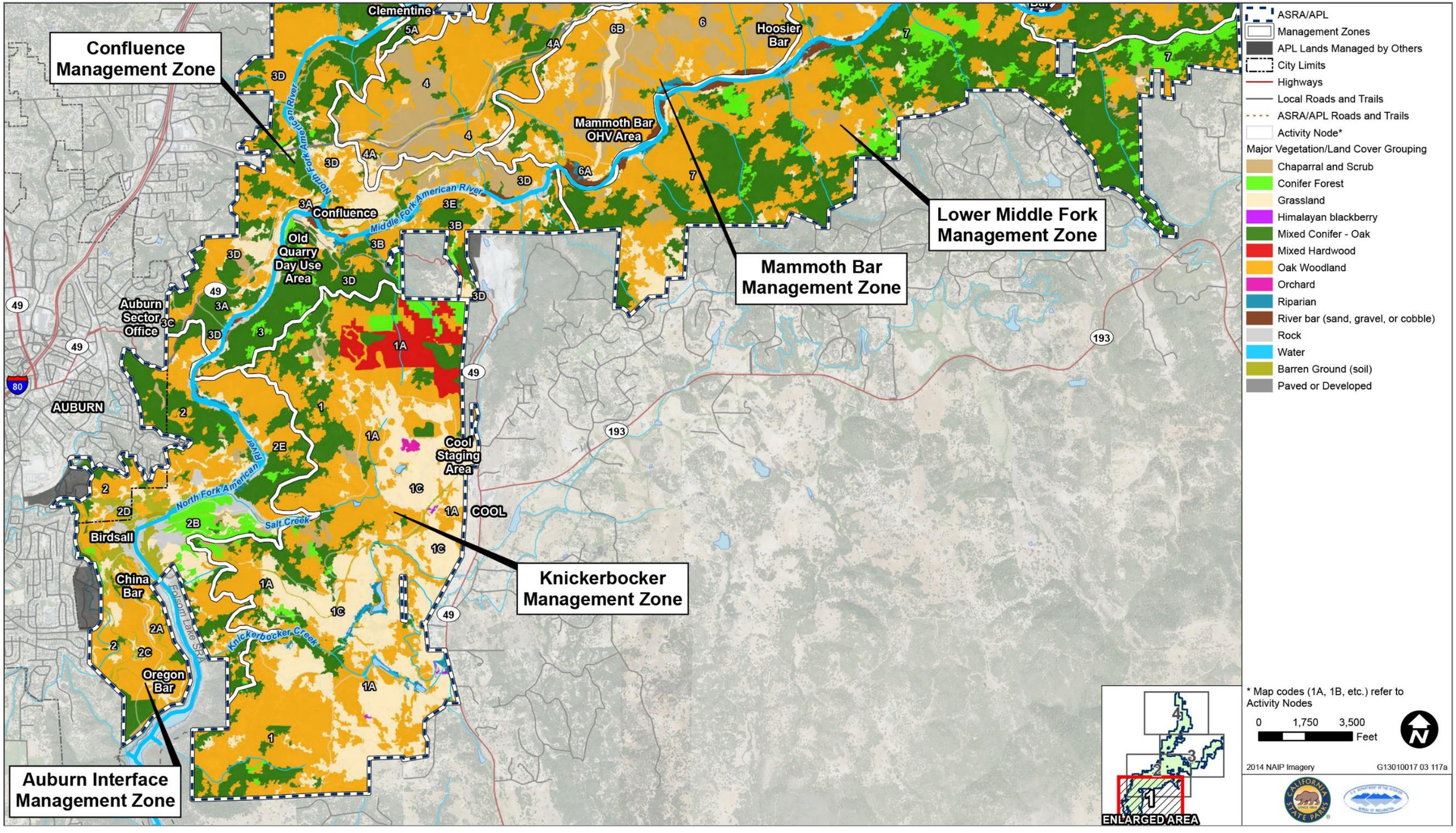
Source: Ascent Environmental

Invasive plant species, such as yellow star thistle, became established in ASRA/APL through accidental transport.

ASRA/APL contains numerous introduced, nonnative plant species. Many of these nonnative plants are considered invasive (Cal-IPC 2019) and/or noxious weeds in California (California Department of Food and Agriculture [CDFA] 2019). However, none of the nonnative plants found in ASRA/APL are on the Federal Noxious Weed List (USDA 2010). Humans sometimes introduce plants intentionally for beneficial purposes, but later the plants turn out to be invasive. These include ornamental species brought to California for landscaping, erosion control and/or feed for livestock, such as French broom (*Genista monspessulana*), Himalayan blackberry, cotoneaster (*Cotoneaster* spp.), and Harding grass (*Phalaris aquatica*). Other species become established through accidental transport, such as on the hooves of livestock and as "hitchhikers" in the global transport of goods and services. In ASRA/APL, these species include yellow star thistle (*Centaurea solstitialis*), medusahead grass, and jointed goat grass (*Aegilops cylindrica*). Twenty-seven invasive plant species are known to occur in ASRA/APL. The *Auburn State Recreation Area Resources Inventory and Existing Conditions Report* (CSP and Reclamation 2016) also includes additional background information regarding invasive plants in ASRA/APL.

Local Habitats of Significance

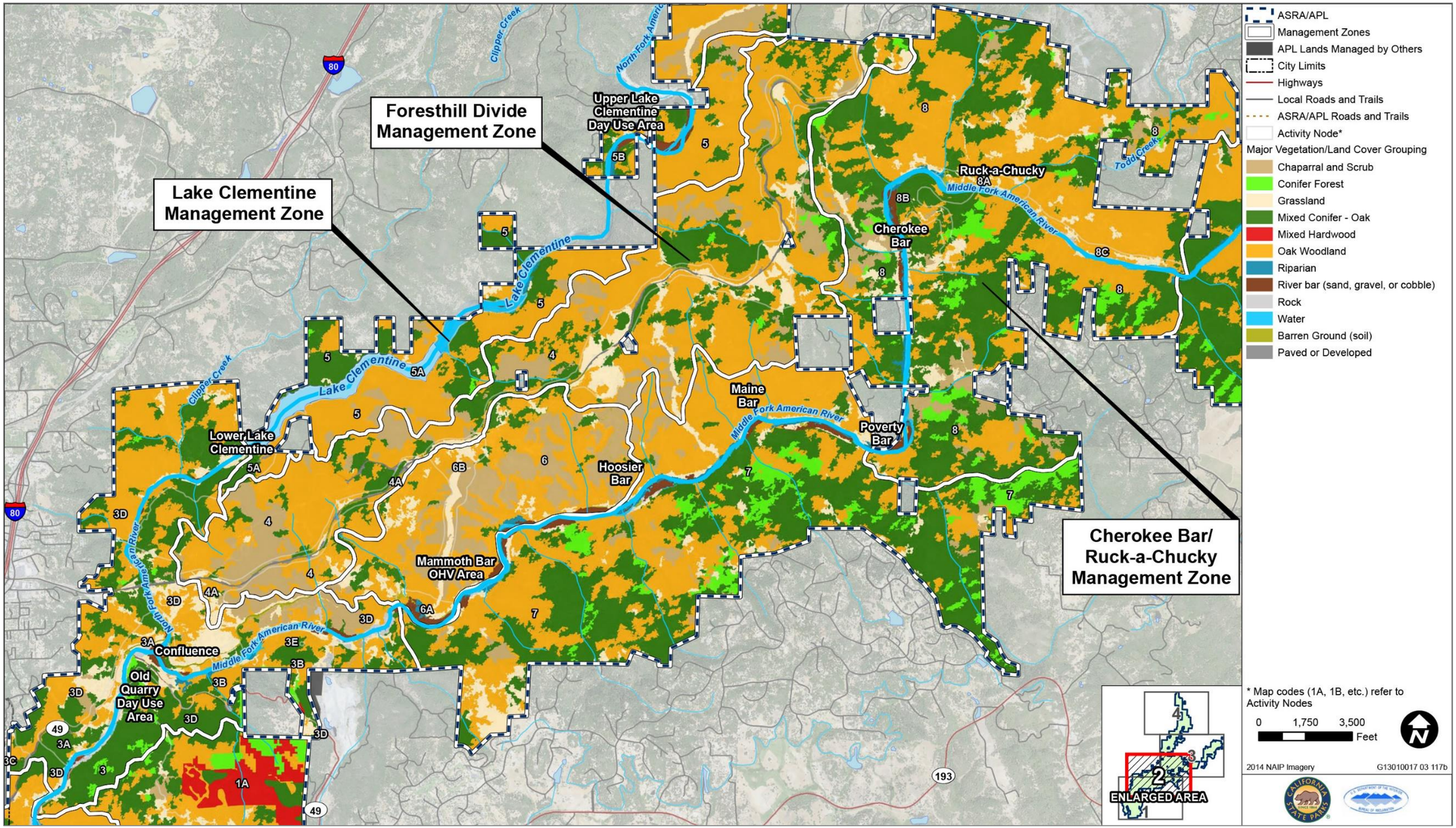
The Cool Cave Quarry located near the confluence of the North and Middle forks of the American River is considered a habitat of significance in ASRA/APL, especially for birds. Numerous bird species, including American peregrine falcon (*Falco peregrinus anatum*), have been observed nesting in the crevices and caves of the quarry.



Source: Compiled by Ascent Environmental in 2017; downloaded from CDFW in 2011, Tukman in 2004, USFS in 2014

Figure 2.2-8a

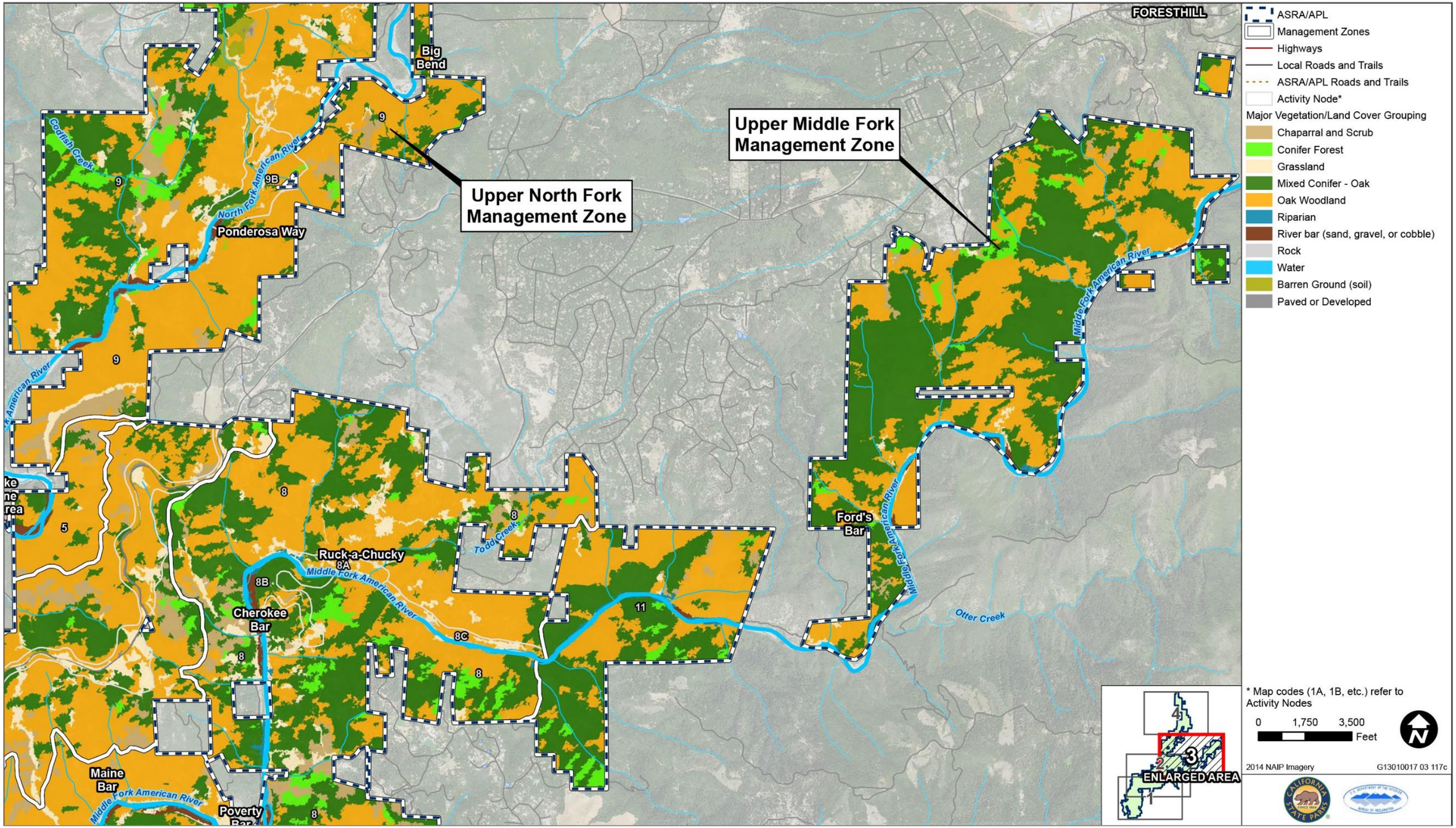
Vegetation Types in ASRA/APL (1 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from CDFW in 2011, Tukman in 2004, USFS in 2014

Figure 2.2-8b

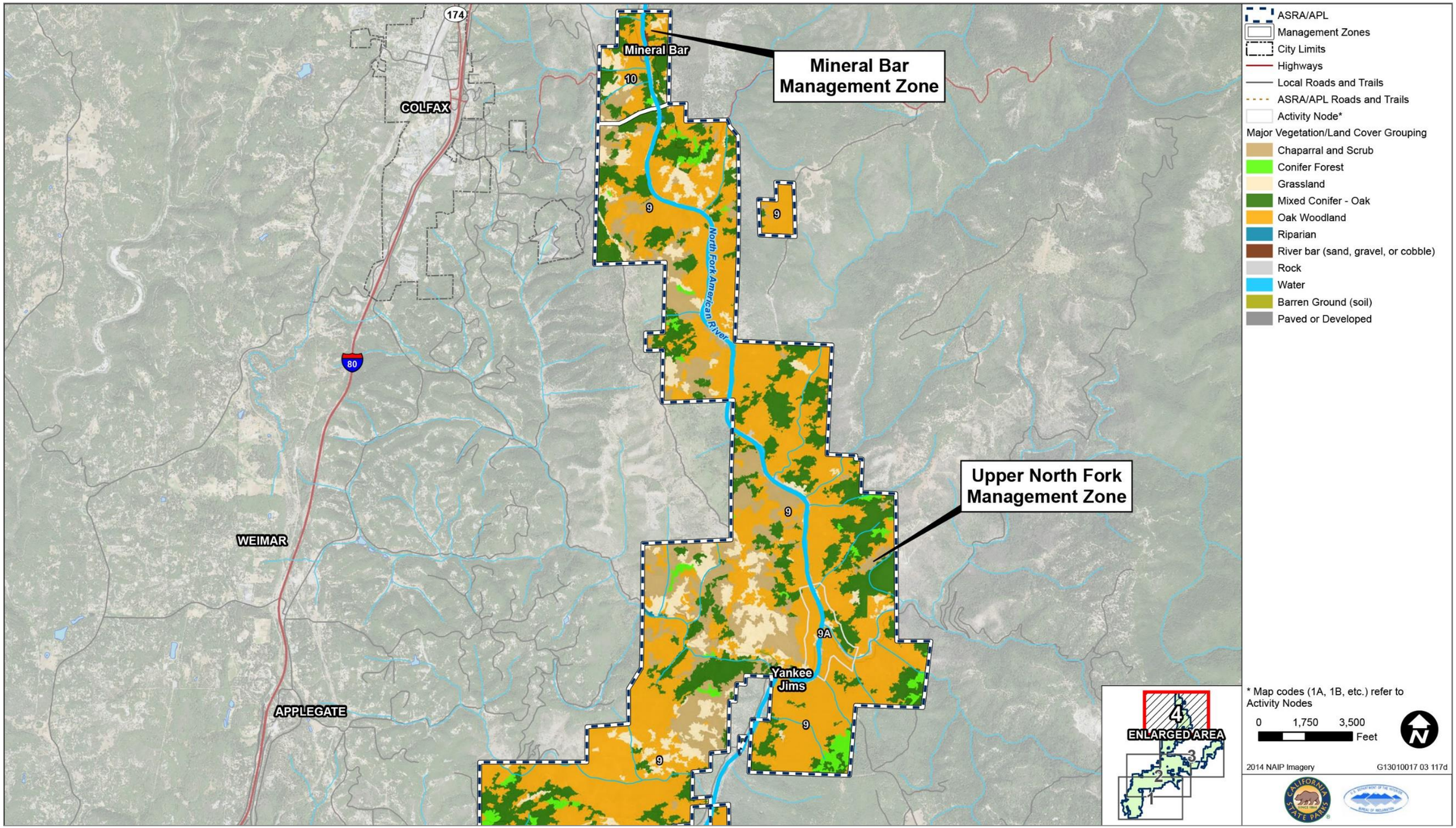
Vegetation Types in ASRA/APL (2 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from CDFW in 2011, Tukman in 2004, USFS in 2014

Figure 2.2-8c

Vegetation Types in ASRA/APL (3 of 4)



Source: Compiled by Ascent Environmental in 2017; downloaded from CDFW in 2011, Tukman in 2004, USFS in 2014

Figure 2.2-8d

Vegetation Types in ASRA/APL (4 of 4)

Wildlife Corridors

ASRA/APL functions as an important east-west link in a contiguous stretch of open space that extends from the Central Valley to the high elevations of the Sierra Nevada (Krause et al. 2015). Wildlife may also move north-south through ASRA/APL, but as discussed in the Sierra Nevada Foothills Wildlife Connectivity Project analysis (Krause et al. 2015), movement is expected to be limited due to barrier effects of SR 49, which passes through the center of ASRA/APL. Species that are likely to use ASRA/APL as a movement corridor include black bear (*Ursus americanus*), mule deer (*Odocoileus hemionus*), and mountain lion (*Felis concolor*). ASRA/APL is also an important movement corridor for raptors. Numerous species have been regularly observed in the river canyons of ASRA/APL, including osprey (*Pandion haliaetus*), bald eagle, and golden eagle (Beard, pers. comm., 2015). ASRA/APL is positioned within an area identified by the California Essential Habitat Connectivity Project (Caltrans and CDFG 2010) as an Essential Connectivity Area (ECA) and a natural landscape block. Natural landscape blocks are areas of relatively intact habitat that can support multiple species, and ECAs are corridors that connect these habitat blocks. ECAs have varying permeability, which is the ease at which species in general can move through the landscape. The Sierra Nevada Foothills Wildlife Connectivity Project (Krause et al. 2015) also identified the ASRA/APL as being within natural landscape blocks and wildlife linkages. ASRA/APL also contains four riparian corridors (Krause et al. 2015): North Fork American River, Middle Fork American River, Todd Creek, and Canyon Creek that are important to the movement of multiple species including Foothill yellow-legged frog (*Rana boylii*).

Source: Ascent Environmental

ASRA/APL functions as an important wildlife corridor for black bears, mule deer, and mountain lions.

Fisheries

The Middle and North Forks of the American River support a wide variety of native and introduced game and nongame fish species. The Middle Fork supports warmwater and coldwater fish species including rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), Hardhead (*Mylopharodon conocephalus*), Sacramento hitch (*Lavinia exilicauda*), Sacramento sucker (*Catostomus occidentalis*), Sacramento pikeminnow (*Ptychocheilus grandis*), and riffle sculpin (*Cottus gulosus*) (Williams 2002; Reclamation 1992, 2002; FERC 2013). The North Fork, including Lake Clementine, supports fish species including small-mouthed bass (*Micropterus dolomieu*), Sacramento sucker, riffle sculpin, Sacramento pikeminnow, bluegill sunfish (*Lepomis cyanellus*), and rainbow trout (Sierra Fund 2015). Both Nimbus Dam and Folsom Dam are barriers to fish migration into the upper American River by anadromous fishes (CDFW

1996). North Fork Dam is also a barrier to fish migration upstream on the North Fork American River.

Sensitive Biological Resources

Sensitive biological resources include those species and biological communities that receive special protection through the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), the federal Clean Water Act (CWA), or local plans, policies, and regulations; or that are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations.

Source: CSP

ASRA/APL's rich historic heritage includes the Gold Rush, mining, transcontinental railroad, and timber harvesting.

Special-Status Plants

Two special-status plant species have been documented in ASRA/APL: Red Hills soaproot (Chlorogalum grandiflorum), and Oval-leaved viburnum (Viburnum ellipticum). These two special-status plant species are considered rare or endangered in California (protected under CEQA, but not legally protected under ESA or CESA). Thirteen additional special-status plants have potential to occur in ASRA/APL based on the presence of suitable habitat and the species' known distribution in the vicinity.

Special-Status Animals

Fourteen special-status animal species have been documented in ASRA/APL. Seven of these special-status animals are California Department of Fish and Wildlife (CDFW) Species of Special Concern: Western pond turtle (Emys marmorata), Coast horned lizard (Phrynosoma blainvillii), Yellow warbler (Dendroica petechial), Black swift (Cypseloides niger), Yellow-breasted chat (Icteria virens), Hardhead (Mylopharodon conocephalus), and Townsend's big-eared bat (Corynorhinus townsendii). Three of the fourteen special-status animal species are CDFW Fully Protected Species: American peregrine falcon, Golden eagle (Aquila chrysaetos), and Ringtail (Bassariscus astutus). Three species are listed, or are a candidate for listing under CESA: Foothill yellow-legged frog (CESA-Candidate Threatened), Bald eagle (Haliaeetus leucocephalus) (CESA-Endangered), and Willow Flycatcher (Empidonax traillii)(CESA-Endangered). Also, a single special-status animal is listed under both the ESA and CESA, Sierra Nevada red fox (Vulpes necator) (ESA- candidate; CESA-Threatened). Several additional special-status species have potential to occur in ASRA/APL based on the presence of suitable habitat and the species' known distribution in the vicinity.

Sensitive Natural Communities

Sensitive natural communities are those plant communities that are of limited distribution statewide or within a county or region that provide important habitat value to native species and have

high potential to support special-status plant and animal species. The list of Vegetation Alliances and Associations (CDFW 2018) provides a list of alliances that are highly imperiled and sensitive.

The four riparian alliances that occur along the North and Middle Forks of the American River and its tributaries, as well as stock ponds, which may contain wetlands, are considered sensitive communities. These alliances include Fremont cottonwood, mixed willow, white alder, and cattail. Valley oak woodland is considered sensitive due to multiple factors including development, fire risk, and lack of regeneration. This lack of regeneration may be caused by over grazing, fire suppression, noxious weeds, and weedy annual grasses (CWCB 2010).

Source: Ascent Environmental

The Maidu Nisenan fished for salmon, hunted game, and gathered acorns along the American River. ASRA/APL contains archeologic resources associated with Native American tribes.

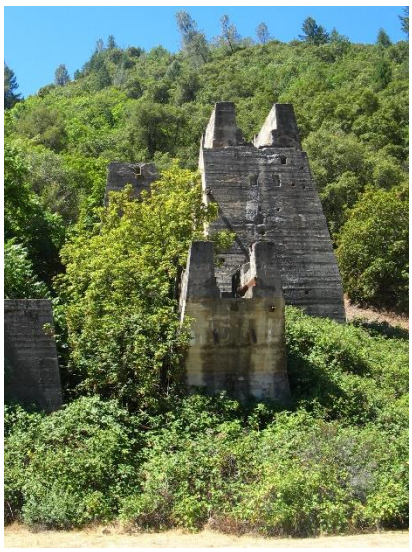
2.2.3 Cultural, Tribal, and Paleontological Resources

Ethnographic Setting

Ethnographic and linguistic studies indicate that ASRA/APL around the North and Middle forks of the American River was the traditional homeland of the Nisenan or Southern Maidu (Beals 1933; Golla 2007; Kroeber 1925, 1929; Wilson and Towne 1978). Today, contemporary Native Americans continue to use the landscape for religious and ceremonial purposes. As the southern linguistic group of the Maiduan language family, Nisenan territory included the southern extent of the Sacramento Valley, east of the Sacramento River between the North Fork Yuba River and Cosumnes Rivers on the north and south, respectively, and extended east to the crest of the Sierra Nevada Range. Several Nisenan villages were located along the North and Middle Forks of the American River. Portions of ASRA/APL may have also been occupied in the Prehistoric era by Plains Miwok. This Hokan linguistic tribal group historically occupied the lower Sacramento River Valley from just north of the Cosumnes River south, including the lower San Joaquin River drainage consisting of the western ends of the Mokelumne River and Jackson Creek. This area is roughly bounded by Sacramento on the north and Stockton to the south. The northern boundary may not have been as firm as indicated in the ethnographic literature, because archaeological evidence along the Cosumnes River suggests that the Nisenan may have displaced the Miwok in this region during the late Phase II (Grady 1969; Deis 1996).

In general, Native American lifeways remained stable for centuries until the early to middle decades of the 19th century, when Euroamerican contact in this region began with infrequent excursions by Spanish missionaries and explorers and travel

through the Sacramento–San Joaquin Valley by Hudson's Bay Company trappers in the early 1800s. With the coming of Russian trappers and Spanish missionaries, cultural patterns began to be disrupted as social structures were stressed. Several names of Native Americans appear in the Book of Baptisms of Mission San Jose in 1811, indicating that raids by the Spanish resulted in the acquisition of native peoples. Apparently, tribelets became united and allied with Yokuts groups to the south in an attempt to resist incursion by the Mexican military. Further, the malaria epidemic of 1833 decimated valley and foothill populations, killing an estimated 75 percent of the tribesmen (Cook 1955). In addition, the influx of Europeans during the Gold Rush era reduced the population further, introducing disease and violent confrontations with the miners.



Source: Ascent Environmental

Remnants of the limestone crusher and loadout facility at the quarry site.

Despite these obstacles, Miwok and Nisenan peoples survived the 19th century. In 1917 land was placed in trust for the Auburn Band of Maidu and Miwok Indians by the United States near the city of Auburn. The Shingle Springs Band of Miwok Indians was formally organized under the Articles of Association and obtained federal recognition in 1976, but it was not until 1994 that the newly reorganized United Auburn Indian Community was granted federal recognition. Both tribes have sought and continue to honor and protect their cultural heritage to benefit future generations (United Auburn Community 2018; Shingle Springs Band of Miwok Indians 2018).

Cultural Resources in ASRA/APL

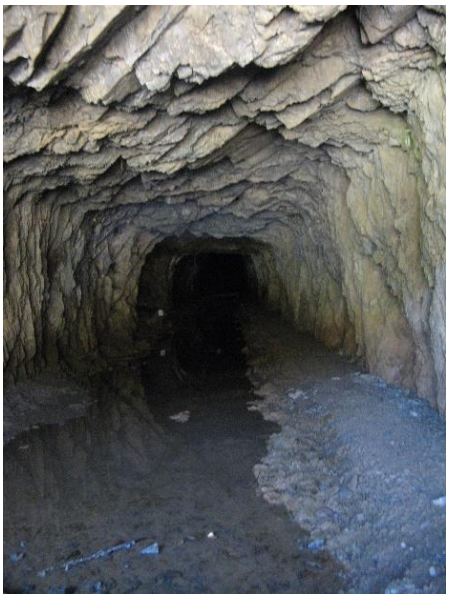
Cultural resources can be defined as physical evidence or place of past human activity. Cultural resources can be identified as sites, objects, landscape, districts, structures, built environments or natural features of significance associated with a group of people traditionally connected with it. Types of cultural resources include, but are not limited to:

- Archaeological resources: The remains of past human activity and records documenting the scientific analysis of these remains.
- Historic structures: material assemblies that extend the limits of human capability.
- Historic districts or cultural landscapes: settings humans have created in the natural world.
- Tribal cultural resources or ethnographic resources: sites, structures, landscapes, objects or natural features of significance to a traditionally associated Native American tribes. This includes tribal cultural resources, as defined in CEQA (PRC Section 21074), and traditional cultural

properties, as defined in Section 106 of the National Historic Preservation Act (NHPA; 36 CFR Section 800.16).

- Museum objects and collections: material items of human behavior and ideas.

Evidence of a rich cultural heritage, Native American, and tribal heritage is abundant within ASRA/APL related to the mining, transcontinental railroad, water conveyance, timber harvesting, ranching, agricultural development, and dam planning or construction. Evidence of Native American, prehistoric, and historic land use has been documented in ASRA/APL mainly by cultural resources surveys conducted by archaeologists in the 1960s and 1970s—Childress and Ritter (1967), True and Crew (1976a, 1976b), Carter and Cooley-Reynolds (1976), Reineohl (1991)—and most recently by Larson, Berg and Mikkelsen (2018).



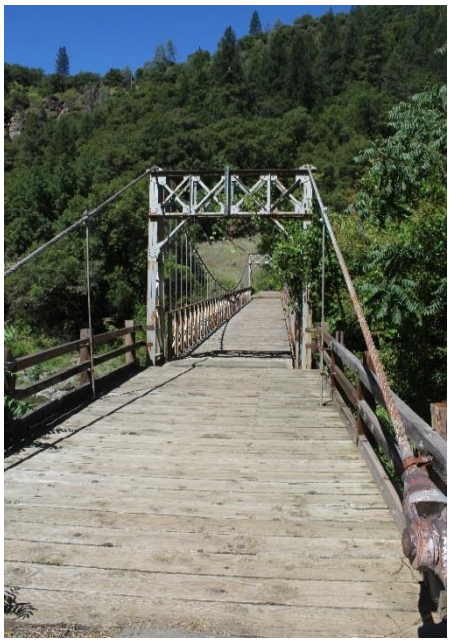
Source: Ascent Environmental

Hawver Cave is a prehistoric site in ASRAAPL/ASRA.

Prehistoric Resources

The majority of documented prehistoric archaeological/Native American sites in ASRA/APL are habitation sites with milling stations and bedrock mortars, some with more than a dozen milling surfaces. Twenty-six well-defined mortars were reported in one location (Childress and Ritter 1967). Other known prehistoric/Native American sites include surface artifact scatters, buried deposits or middens, petroglyphs, rockshelters, and a chert toolstone quarry. At least one prehistoric/Native American site (CA-ELD-16, known as Hawver Cave), which was subsequently destroyed by limestone quarrying, was found to contain human remains (Wallace and Lathrap 1952). CA-PLA-90/H a large dual component site with buried deposits excavated in 1976, also contained human remains.

Prehistoric archaeological and Native American sites are not distributed randomly throughout the landscape but tend to occur in specific geo-environmental settings (Pilgram 1987; Rosenthal and Meyer 2004). Proximity to water, topographic setting, and past distributions of important plant and animal foods made some locations more attractive or unfavorable for past human use or occupation. Thus, patterns in the distribution of known sites are useful for anticipating the locations of unidentified sites.



Source: Ascent Environmental

The Old Iowa Hill Bridge was built in 1928. It is one of six bridges over 50 years old in ASRA/APL.

Historic Resources

Historic sites recorded in ASRA/APL are varied and represent several eras of regional history. Many of the historic resources are remnants of mining activities, such as mine features (e.g., prospect pits, shafts, trenches, tunnels, leveled pads), machinery, tailings, check dams, water conveyance systems (e.g., ditches, flumes), and trash deposits. Unusual mining-related features include the remains of the infrastructure used between 1912 and 1939 to

load limestone from the Mountain Quarries Mine located at Hawver Cave into railroad cars, as well as the related railroad grade, extant railroad bridge (No Hands Bridge), and the remains of stone kilns initially used to produce lime. Other historic resources represent local ranch sites.

Source: Ascent Environmental

Yankee Jims Bridge is eligible for NRHP significance and is anticipated to be improved by Placer County.

Additional historic sites in ASRA/APL include remnants of way stations, homesteads, ranches and towns, such as foundations and rock walls found at places along the river (e.g., Poverty Bar and Oregon Bar on the Middle Fork; Mineral Bar and Yankee Jims crossing on the North Fork), the rock foundation of Gold Rush-era Grizzly Bear House, the remains of ranches and fencelines (e.g., Knickerbocker Flat area), orchards, and trash deposits. Other historic resources that have been documented in ASRA/APL include bridges, bridge remnants, and linear features, such as old roads and water conveyance systems.

What is currently the ASRA sector office was built in 1936 as part of a complex by the Work Projects Administration (WPA), a New Deal organization. It was later utilized in WWII and then by the California Department of Forestry prior to being utilized by CSP in 1977. The complex facility consists of nine buildings that include the office (currently the sector office); a residence and garage (still in their original use); fire truck garage (now storage building); an auto shop (now the maintenance shop); a fuel building; barracks (now vacant or used for storage); a mess hall (now ranger offices) and a small outbuilding that was used for cold storage (Osanna 2005).

None of the historic era sites in ASRA/APL have been evaluated for significance singularly or as collective assemblages, such as Historic Districts or Cultural Landscapes. State and federal historic preservation regulations establish a 50-year benchmark for consideration of historic significance. Of six existing bridges over 50 years of age that are in ASRA/APL, four have been evaluated to date for listing in the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) (Table 2.2-3). Although these bridges were each associated with historic roads or railroad grades, many of which are currently used as recreational trails, the majority of the historic routes have not been systematically surveyed and recorded, or evaluated for NRHP or CRHR inclusion.

One feature in ASRA/APL, the site of Grizzly Bear House, is a listed California Point of Historical Interest (No. 355). This hotel was one of the roadhouses established along the old highland thoroughfare on the Forest Hill Divide during the Gold Rush era.

It is important to note that the exact location of archaeological and Native American resources within ASRA/APL is confidential and disclosure is restricted by federal and state laws, consistent with Section 304 of the NHPA, Section 9(a) of Archaeological Resources Protection Act (ARPA), Executive Order 13007, and California OHP guidelines. The inventory of Native American sacred lands maintained by the NAHC is also confidential (Government Code Section 6254.10). Further, pursuant to AB 52, the location, description and use of tribal cultural resources shall remain confidential unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public (PRC Section 21082.3(c)).

Table 2.2-3 Historical Significance of Bridges in ASRA/APL

Year Built/ Improved	Bridge Name or Description	Location	Historical Significance
1915	Mountain Quarries Railroad Bridge (No Hands Bridge)	North Fork American River, 0.2 mile south of SR 49 bridge	Listed in NRHP and CRHR in 2004
1928	Old Iowa Hill Bridge (Colfax-Iowa Hill Bridge); cable suspension bridge now used for pedestrians, cyclists, and equestrians	North Fork American River at Mineral Bar	Not Evaluated
1930	Yankee Jims Road Bridge (Colfax-Foresthill Bridge); 210-foot long cable suspension	North Fork American River, 1.5 mile west of Shirttail Canyon Road	Eligible for NRHP
1934	Ponderosa Way Bridge; built by CCC	North Fork American River, 1.2 mile south of Big Bend	Not Evaluated
1948/ 1965	SR 49 Bridge	North Fork American River, 03-PLA-049-0.01	Not Eligible for NRHP
1955	Old Foresthill Road Bridge	North Fork American River, 0.3 mile northeast of SR 49	Not Eligible for NRHP
1973	Foresthill Road Bridge (Auburn-Foresthill Bridge)	North Fork American River, 0.6 mile upstream of North Fork/Middle Fork confluence	Not Evaluated (only 45 years old)
1985	Iowa Hill Road Bridge	North Fork American River at Mineral Bar	Not Evaluated (only 33 years old)

Source: Compiled by NIC in 2016

Tribal Cultural Resources and Tribal Consultation under state law

Chapter 0400 (Cultural Resources and Native American Consultation Policy), of CSP's DOM and Departmental Notice 2007-05 indicates consultation with Native American tribes or groups is appropriate in nine primary areas. These include 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, among others. The DOM recognizes that the tribes, groups, and individuals provided on the Native American Heritage

Commission (NAHC) consultation list are eligible to formally consult regarding California's Indian heritage in relation to the activities and cultural resources within the State Park System. Under CSP's consultation policy, California Native American tribes may initiate contact with CSP.

As part of the 2013/2014 legislative session, Assembly Bill (AB) 52 established a class of resources under CEQA (PRC Section 21074), tribal cultural resources (TCRs), and requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete.

At the state level, NAHC is responsible for identifying and cataloging places of special religious or social significance to Native Americans. CSP sent a letter on July 15, 2015, to the NAHC informing the commission of the proposed planning document for ASRA. The NAHC response dated August 4, 2015, states that their search of the Sacred Lands File has indicated the potential of Native American cultural resources within ASRA, and that the Tsi-Akim Maidu and United Auburn Indian Community of the Auburn Rancheria should be contacted for specific information regarding these sites.

Source: Ascent Environmental

Numerous scenic resources, such as panoramic views, vista points, landscapes, rocky outcroppings, and built environment features, contribute to a memorable visual experience for ASRA/APL visitors.

CSP initiated consultation with corresponding tribal groups indicated by the NAHC. Prehistoric archaeological sites are not necessarily the same as TCRs. Corresponding tribes indicated that CSP should assume that the numerous habitation and milling sites/complexes within ASRA/APL are also TCRs, as are the associated viewsheds, landscapes, and plantscapes including certain species targeted for milling such as *Brodiaea* (sp.) and *Quercus* (sp.).

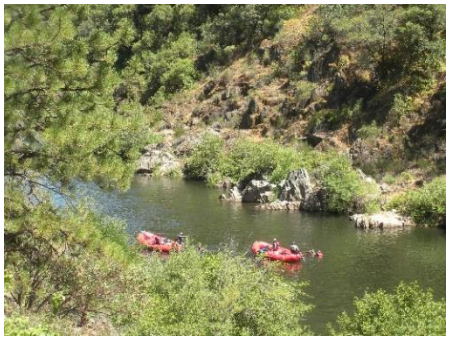
Tribal groups also made recommendations to not completely avoid TCRs, but to maintain the resources and the surrounding areas. During consultation, tribal groups noted that avoidance leads to under-maintained areas. It is important that plants and fuel loads within and around cultural resources are managed so that such sites are accessible to the Native American community (CSP Tribal Liaison personal communication with UAIC).

Tribal groups would also appreciate participating in natural resource management opportunities within the ASRA. Re-introducing Tribal or Traditional Ecological Knowledge (TEK) to the landscape applies the knowledge acquired by indigenous and local peoples over hundreds or thousands of years through direct contact with the environment. This knowledge is specific to a location and includes the relationships between plants, animals, natural phenomena, landscapes and timing of events that are used for lifeways, including but not limited to hunting, fishing, trapping,

agriculture, and forestry. TEK is an accumulating body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (human and non-human) with one another and with the environment. It encompasses the world view of indigenous people which includes ecology, spirituality, human and animal relationships, and more.

Tribal Consultation Procedures under Federal Law

The NHPA, Native American Graves Protection and Repatriation 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. Under the MPA between Reclamation and CSP, CSP personnel will coordinate with Reclamation to ensure that compliance with Section 106 is completed prior to project implementation.



Source: CSP

Whitewater rafting and kayaking are popular recreation activities in the scenic river canyons found in ASRA/APL.

Indian Trust Assets and Indian Sacred Sites

As a Federal land management agency, Reclamation is responsible for identifying and considering potential impacts of its plans, projects, programs, or activities on Indian Trust Assets (ITAs). ITAs are legal interests in property held in trust by the United States for Indian Tribes or individuals. No ITAs are located within ASRA/AP Land the nearest ITA is the Shingle Springs Rancheria approximately 20 miles south of ASRA/APL.

Under Executive Order 13007, in order to protect and preserve Indian religious practices, Reclamation shall:

- Accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and
- Avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of such sacred sites.

Paleontological Resources

One important paleontological resource has been documented within ASRA/APL. Located south of the Middle Fork American River in El Dorado County near Cool, a rich variety of vertebrate fossils have been recovered from the limestone deposits in the Hawver Cave. Fossils recovered from the cave are part of the collections maintained by the University of California Museum of Paleontology (UCMP). Current records indicate UCMP has an inventory of 574 vertebrate fossils from Hawver Cave (UCMP 2019). Hawver Cave/Mountain Quarries Mine is considered highly sensitive for paleontological resources. Extant limestone deposits in the cave may contain additional fossilized remains of Rancholabrean fauna.

Source: CSP

Scenic views in ASRA/APL include views of the thickly wooded river's edge to forested ridgelines high above the canyon floor.

2.2.4 Scenic Resources

Existing Scenic Conditions

Scenic Vistas and Viewsheds

ASRA/APL represents an important scenic landscape resource within the Sierra foothills. Ranging from de-facto wilderness to areas disturbed in anticipation of dam construction, the visual experiences within ASRA/APL vary widely. The wooded canyon and river setting of the majority of ASRA/APL affords visitors with a very high-quality visual experience. In much of ASRA/APL, visitors may have the feeling that they are alone in the world, untouched by sight or sound of another human being.

ASRA/APL is an area of rugged natural beauty with varied topography and diverse vegetation and wildlife. Numerous scenic resources, such as panoramic views, vista points, landscapes, rocky outcroppings, and built environment features, contribute to a memorable visual experience for ASRA/APL visitors. The visual setting of ASRA/APL is primarily characterized by the Middle and North Forks of the American River and the steep canyons carved out by these watercourses over time. These rivers, which feature alternating patterns of tumbling rapids and deep, slow-moving pools, carve their way through the deep canyons of ASRA/APL to Folsom Lake in the southwest. These river canyons have steep sides and are thickly wooded from the river's edge to their ridgelines, rising thousands of feet above the canyon floor. ASRA/APL is also marked by the presence of numerous small tributary streams running into both forks of the American River. These small streams add to the visual environment of ASRA/APL through their creation of small canyons, cascades, and waterfalls.

To facilitate discussion of visual resources, ASRA/APL has been broken down into the following general areas:

- River Canyons
  - Confluence
  - Lake Clementine
  - North Fork
  - Middle Fork
- Auburn Dam Site Ridges and Other Areas
  - Foresthill Divide
  - Mammoth Bar
  - Knickerbocker Flat

These areas have distinctive visual and scenic characteristics. In addition, these areas support differing amounts and types of public recreational use. Discussion of each area includes a general overview of the ways the public commonly experiences these locations. Figure 2.2-9 identifies popular scenic vistas, viewsheds, and visual resources within ASRA/APL. Refer to Appendix B, Scenic Resources, for representative photographs of the areas described below.

Source: CSP

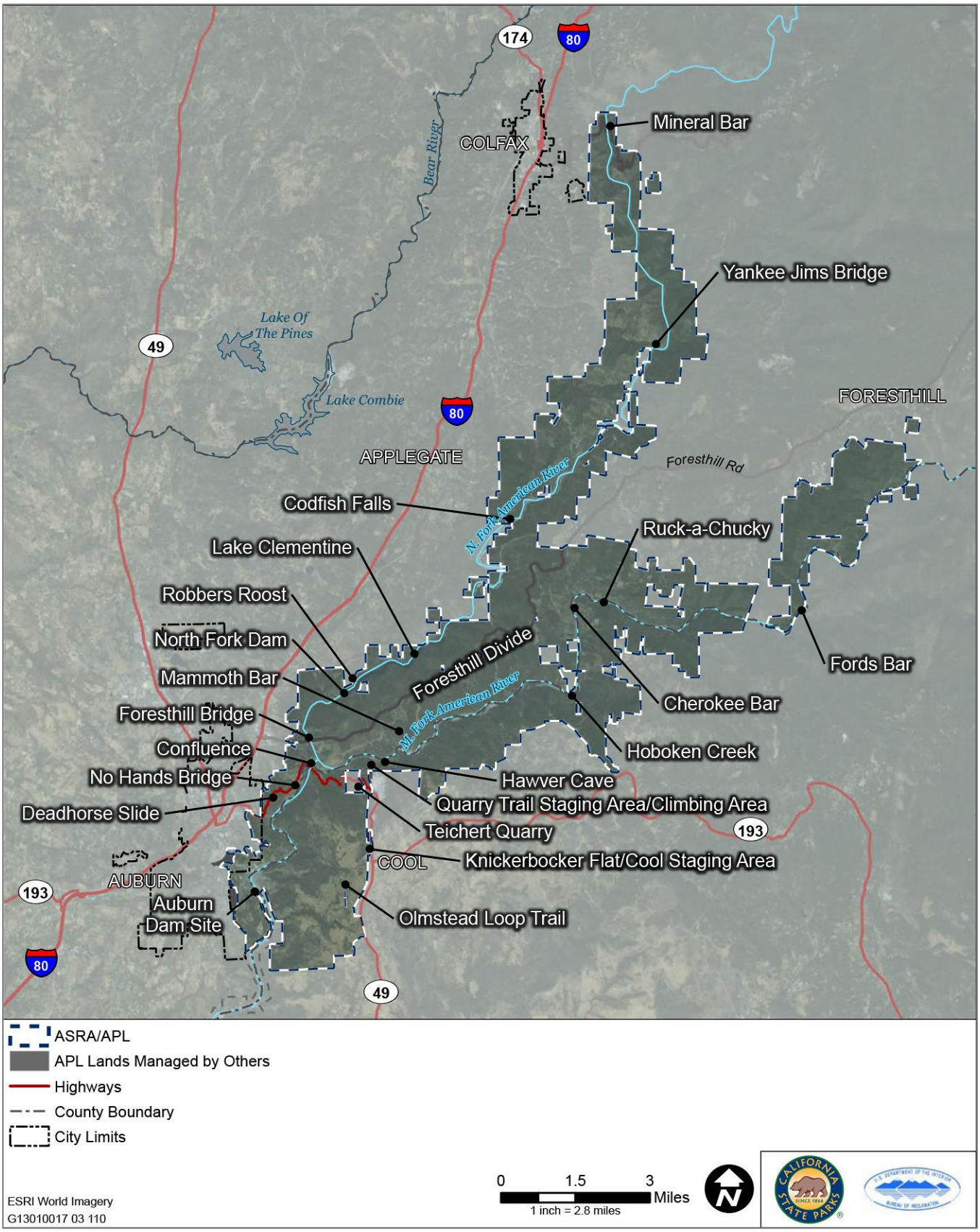
The viewsheds of the main river canyons are marked by alternating views of gravel bars, granite benches, and large granite boulders. River and stream banks are vegetated with typical riparian species of the region, such as willow, white alder, cottonwood, sycamore, and Oregon ash. Canyons tend to rise steeply from the river bottom with forested hillsides.

Viewsheds: River Canyons

The viewsheds of the main river canyons are marked by alternating views of gravel bars, granite benches, and large granite boulders. River and stream banks are vegetated with typical riparian species of the region, such as willow, white alder, cottonwood, sycamore, and Oregon ash. Canyons tend to rise steeply from the river bottom with forested hillsides. Key views representing canyon landscapes are those of the Confluence and lower North Fork, Lake Clementine, the North Fork above Lake Clementine, and the Middle Fork.

Confluence

The Confluence itself occupies a wide portion of canyon bottom marked by gravel bars, boulders, and riparian vegetation including willow and cottonwood. Views of the surrounding canyon include human-made features such as Auburn's Robie Point neighborhood, SR 49, and Mountain Quarries Railroad Bridge (i.e., No-Hands Bridge) (refer to "Human-made Elements," below). Because the Confluence is also a very popular day-use area for hiking, swimming, sunbathing, and socializing during warmer times of the year, parked cars are a frequent sight in the area. Refer to Figure SC-1 in Appendix B, Scenic Resources, of this GP/RMP.



Source: Compiled by Ascent Environmental in 2016

Figure 2.2-9 Locations of Representative Visual Resources within ASRA/APL

Lake Clementine

Lake Clementine is a long, narrow reservoir bounded by a debris dam at its southern end and steep canyon walls on other sides. As the result of damming the North Fork, Lake Clementine offers scenic variety in the form of a peaceful flat-water lake in the midst of what is otherwise an area of rushing rivers and steep slopes. Because the level of Lake Clementine does not fluctuate substantially, the shores of the lake include natural vegetation without a visible "draw-down zone" like many reservoirs. This natural appearance contributes to the high scenic quality of Lake Clementine.

North Fork

The North Fork upstream from Lake Clementine includes rugged and pristine scenery of a rushing river flowing over boulders through a deep, lushly vegetated canyon. Human-made elements are far less apparent in this area than further downstream near the confluence, providing a very high-quality visual experience dominated by the natural environment. The upper portion of the North Fork from Iowa Hill Bridge to Shirttail Canyon is a narrow, steep, rock-lined canyon - compared to the Middle Fork which is wider and more open.

Source: Ascent Environmental

Built elements, such as the Auburn Dam site and PCWA pump station project, detract from the visual quality in ASRA/APL.

Middle Fork

The Middle Fork of the American River, between Mammoth Bar and Oxbow Reservoir, represents another area with natural river scenery. Human-made elements are limited in this area, creating a remote visual experience similar to that of the upper portions of the North Fork. The canyon carved by the Middle Fork is generally wider than that of the North Fork, with the effect of a wider canyon bottom hosting a greater variety of riparian vegetation like willows and cottonwoods.

Auburn Dam Site

At the Auburn Dam Site and within the surrounding area, the visual landscape is characterized by natural river scenery to the northeast and south, but evidence of the partially completed Auburn Dam construction effort also dominates views of the area. The completed concrete abutments of the dam on the eastern and western banks of the American River remain visible, as well as contoured slopes where vegetation has not fully re-established. Other man-made structures that influence the quality of views in this area include the remnants of the tunnel diversion, old Birdsall Dam, and Salt Creek Dam. Refer to Figure SC-2 in Appendix B, Scenic Resources. PCWA's American River Pump Station, which is comprised of several low-lying concrete structures, is also located within the bed of the American River at this location.

Source: CSP

The Mammoth Bar area provides scenic views of the Middle Fork of the American River.

Viewsheds: Ridges and Other Areas

Viewsheds from canyon ridges include river canyons, the Sierra Nevada to the east, and the Sacramento Valley to the west. Refer to Appendix B, Scenic Resources, for photographs showing typical views.

Among the significant and distinctive landscape features visible from these areas are Robber's Roost, a large limestone megalith perched above Lake Clementine on nearby private land, and a former limestone quarry, which was in use from the 1880s to the 1920s, located along the Middle Fork.

Three areas in ASRA/APL that differ in terms of visual resources from the predominant river canyon and ridgeline topography, are the Foresthill Divide, Mammoth Bar, and Knickerbocker Flat.

Foresthill Divide

The Foresthill Divide refers to the raised area that divides the watersheds of the North and Middle Forks of the American River. Foresthill Road is a highway corridor that runs through the area with a high scenic quality. This area is marked by steep and broken hills interspersed with oak thickets, pockets of chaparral, and grassy meadow s that frequently offer high quality views of the river canyons that surround the area. Refer to Figure SC-3 in Appendix B, Scenic Resources.

Mammoth Bar

Mammoth Bar is a large gravel river bar located on the north side of the Middle Fork upstream from the confluence. Mammoth Bar is primarily used as an OHV recreation area and trail use area, and the visual environment of the area is dominated by semi-improved tracks and trails used by the OHV riders with oak and pine trees intermixed among the riding area. This motorcycle and all-terrain vehicle riding area has been used by off-road enthusiasts for close to 40 years and offers a wide range of trails and conditions in a setting next to the Middle Fork of the American River. Long stretches of the riverbank are accessible, offering scenic vistas of the opposite canyon wall. Refer to Figure SC-4 in Appendix B, Scenic Resources.

Knickerbocker Flat

Knickerbocker Flat is an area of approximately 2,500 acres located in the southeastern portion of ASRA/APL, just east of the proposed Auburn Dam site. This area is characterized by a rolling foothill topography with open grassland areas punctuated by oak groves, ponds, and creeks that drain into the North Fork American River. Refer to Figure SC-5 in Appendix B, Scenic Resources. Also, in this area small canyons support riparian vegetation and views into nearby canyons and areas outside

ASRA/APL can be seen from here. As an example, Knickerbocker Canyon is a steep, deep and very scenic side canyon creek that flows into the Middle Fork below the Auburn Dam site. On clear days, Pilot Hill and sometimes the Sutter Buttes and Mt. Diablo are visible.

Built Elements

Significant built (i.e., human-made) elements of ASRA/APL's visual landscape include man-made structures related to recreational access (e.g. parking facilities, access roads, and kiosks), bridges, and dams. These elements contrast with the natural scenery that characterizes the visual environment of most of ASRA/APL. However, many of these human-made elements add visual interest and provide visual connections to the area's history, which adds to the overall visual character of ASRA/APL. These areas include the North Fork Dam at Lake Clementine, which includes rushing water spilling over the dam; Yankee Jims Bridge; foundations of historic buildings near Yankee Jims Bridge; Ponderosa Bridge; concrete abutments at the Auburn Dam site; quarries; mineshafts; the Iowa Hill Bridge on the North Fork above Lake Clementine; the site of the Old Greenwood Bridge, destroyed in 1964 by a flood created by the catastrophic failure of the Hell Hole Dam; the Foresthill Bridge; and No-Hands Bridge, located just below the confluence. Refer to Figures SC-6 through SC-9 in Appendix B, Scenic Resources, for typical views within ASRA/APL that incorporate human-made elements.

Source: Ascent Environmental

The traveling public experiences views of ASRA/APL from I-80, SR 49, Foresthill Road, Ponderosa Way, Yankee Jims Road, and Iowa Hill Road. Views from these roads include a mixture of native vegetation in the foreground interspersed with more distant vistas in certain locations.

Elements Detracting from Visual Quality

Adjacent development in the areas of Auburn and Foresthill in Placer County and Cool in El Dorado County is visible from many parts of ASRA/APL. This visual intrusion of adjacent development, particularly in the Foresthill and Auburn areas, constitutes an element that, although currently subject to community design standards, sometimes detracts from the visual quality of certain portions of areas within ASRA/APL, such as the Confluence, North Fork, and Middle Fork, from which these developed areas are visible. In particular, homes built on or near ridgetops are highly visible from several locations within ASRA/APL. Development within ASRA/APL, such as ASRA/APL roads, parking areas, and the Mammoth Bar OHV area may also detract from the visual quality of some areas.

In addition, the Teichert quarry, within APL but outside of ASRA, is a significant visual intrusion on the scenic beauty of the surrounding area.

Built features associated with the Auburn Dam site, diversion tunnel, and PCWA pump station project located on the North Fork of the American River, affects views of the canyon with built

features and alterations to natural features, including by the presence of access roads, exposed bedrock of the dam keyway, presence of the pump station, and concrete abutments. Other human-made features that detract from the visual quality in ASRA/APL include metal and concrete debris at various locations in the North Fork American River and Middle Fork American River, including debris from the collapsed SR 49 bridge near the confluence.

Other areas of ASRA/APL that have been modified by mining and quarry activity include the Cool Cave Quarry along the Middle Fork and Horseshoe Bar and Sliger Mine. While these anomalous features of ASRA/APL are also considered to be cultural resources due to their status as tangible remainders of historic-era human activity in ASRA/APL, they do figure prominently as markers of human activity on what is otherwise a relatively unaltered natural landscape. Accordingly, these features can also be considered as built features that detract from the visual quality of ASRA/APL's natural landscape.

Source: Ascent Environmental

The Painted Rocks Trail contains views of meadows, oak woodlands, and rock outcroppings.

Additionally, various maintenance improvements and operations can be considered to detract from the existing visual quality. In some cases, like the planned replacement of the Yankee Jims Bridge, and the planned replacement of Ponderosa Bridge projects may result in additional shadows cast on the swimming areas below that could detract from the natural landscape. In addition, historic railroad tracks in ASRA/APL may detract from the natural scenery but provide visual interest related to the history of the landscape. Other necessary activities, like wildfire prevention clearing, and road improvements for erosion control or safe passage, could be construed as a detraction from the natural landscape and aesthetic features of ASRA/APL.

Visual Character of Facilities

Facilities throughout ASRA/APL are generally built out of naturally- and neutrally-toned materials. These facilities are characteristic of other parks and recreation areas in the regions and are likely consistent with visitor expectations. While these features reduce the intactness of the natural scenery in some areas, they do not significantly detract from the visual quality of ASRA/APL. Visitor facilities in ASRA/APL are occasionally degraded through vandalism or graffiti, which detracts from the overall visual character of ASRA/APL.

External Views and Scenic Routes

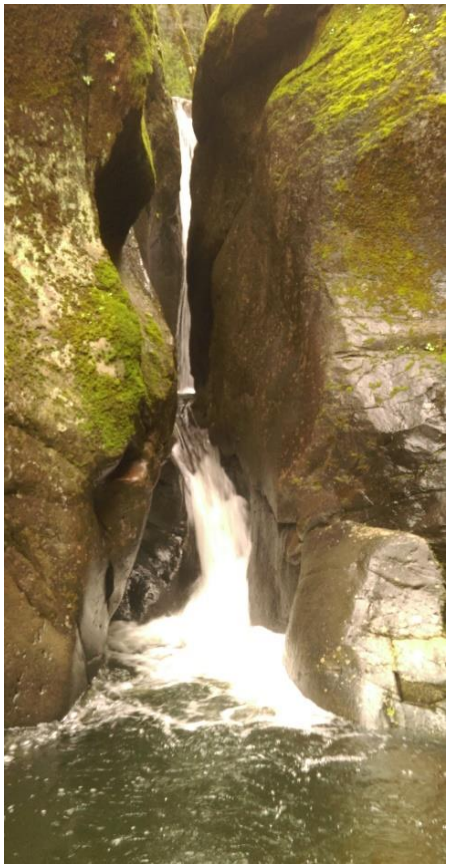
Public views are those views from locations that are accessible to the general public. Views into ASRA/APL from external viewpoints vary by location. At some points adjacent to ASRA/APL, such as Overlook Park which is within the APL, but outside of the ASRA

boundary, public views into ASRA/APL are partially screened by vegetation. Refer to Figure SC-10 in Appendix B, Scenic Resources.

The town of Cool, which abuts the eastern boundary of ASRA/APL, has views into the Knickerbocker Flat area. Views in this area consist of the Cool Staging area with grasslands and oak woodlands in the surrounding area. Views into ASRA/APL from Cool do not include exceptional scenic vistas, but these views do contribute to the overall character and aesthetic quality of Cool.

The traveling public experiences views of ASRA/APL from I-80, SR 49, Foresthill Road, Ponderosa Way, Yankee Jims Road, and Iowa Hill Road. Views from these roads include a mixture of native vegetation in the foreground interspersed with more distant vistas in certain locations. Views into ASRA/APL make up part of the viewshed of SR 49, which is listed as "Eligible" for designation as a scenic highway by the California Scenic Highway Mapping System (Caltrans 2015). In particular, views from SR 49 within ASRA/APL near the confluence provide unique vistas that contribute to the visual quality of this road. While views from SR 49 to the north of the Cool/Knickerbocker Flat area are not of exceptional scenic quality, the area immediately north of the Cool Staging Area provides the view of undisturbed oak woodland/grassland from SR 49.

Ridgetop residences in the areas of Maidu Drive and Olive Orchard Drive in Auburn and Eagle Ridge Road, Happy Pines Drive, Long Ridge Court, Birchwood Court, Nugget Drive, Oakwood Lane, Morning Star Place, and Eagle Crest Drive in Foresthill are visible from portions of the Confluence and Lower North Fork, as well as from portions of the Middle Fork.



Source: Ascent Environmental

Pleasant natural sounds experienced in ASRA/APL include the sound of rushing water in the river, wildlife calls, and wind rustling vegetation. These natural sounds contribute to the overall visitor experience within ASRA/APL.

Light and Glare

The CSP offices located in the Confluence Management Zone have electricity and night lighting. Lights visible from ASRA/APL at night include ridgetop residences, the PCWA pump facilities, ARD facilities, and vehicle lights on roadways within the recreation area. Daytime glare is generally limited to vehicles in parking lots and on roadways; structures within the recreation area are not constructed using reflective materials.

Auditory Resources

ASRA/APL encompasses an expansive, mostly remote, landscape with pleasant natural sounds typical of a natural area in the Sierra foothills. Pleasant natural sounds experienced in ASRA/APL include the sound of rushing water in the river, wildlife calls, and sounds of wind rustling vegetation. These natural sounds contribute to the overall visitor experience within ASRA/APL.

Visitors to ASRA/APL also experience human-made sounds that can either be neutral or detract from the visitor experience, depending on the location, time, and context, in which they occur. Human-made sounds in ASRA/APL include traffic noise along SR 49 and other roads, power boat traffic along Lake Clementine, and off-highway vehicle noise at Mammoth Bar. Mining activities at the Teichert quarry are periodically audible from Mammoth Bar (when OHV activities are not taking place), the climbing area above the Quarry Trail, and on the Quarry Trail. On busy summer weekends, visitors may experience unpleasant or excessive noise in some areas including Yankee Jims, Ponderosa Crossing, and Upper Lake Clementine resulting from loud music, parties, and high concentrations of visitors.

2.3 ASRA/APL Land Uses and Facilities

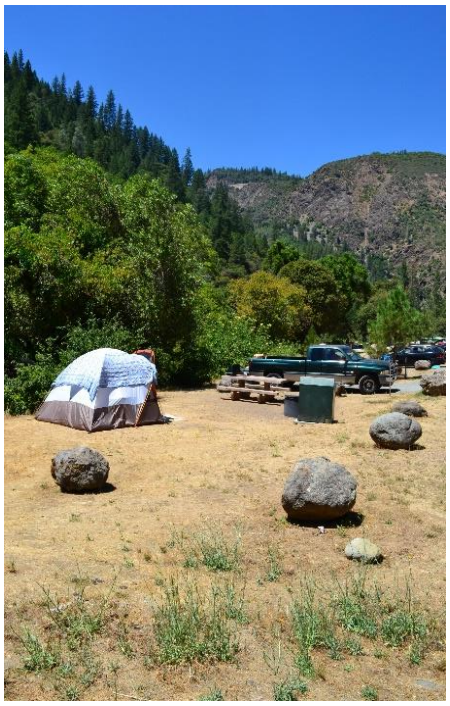
2.3.1 Existing ASRA/APL Land Uses

Current land uses in ASRA/APL support a wide variety of recreational activities and areas of administrative and commercial activity. ASRA/APL consists of mostly undeveloped, forested canyons used for dispersed recreation, as well as natural and cultural resource protection. The land uses found within the management zones in ASRA/APL include the following (Table 2.3-1 and Figure 2.3-1):

- **Recreation (High and Medium Intensity).** Areas that allow more intensive recreational use in a developed and structured setting are designated as Recreation. These areas accommodate the highest levels of visitor use in ASRA/APL, 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. The Recreation designation is further classified by intensity of use. High Intensity Recreation represents the most extensively-developed areas in ASRA/APL and the major gateways for visitors. Medium Intensity Recreation areas are somewhat less developed and offer fewer facilities.

- **Resources (Low Recreation Intensity).** Resource-designated areas are where natural and cultural resource values will be protected while allowing lower intensity recreation and interpretation that is compatible with, and dependent on, the resource values. These areas offer opportunities for more challenge- and adventure-based recreational activities in a more natural setting. Facilities in these areas (if provided) tend to be more primitive than in Recreation areas and direct vehicle access may not always exist. Resource management in Resources areas emphasizes protecting and restoring natural processes with only minor modification of non-sensitive resources permitted to accommodate additional visitor use.

- **OHV (High and Medium Intensity).** Areas that allow for motorized off-road vehicle use are designated OHV, and support other compatible uses, as described in the High and Medium Intensity Recreation Use designation.



Source: Ascent Environmental

Current land uses in ASRA/APL support a wide variety of recreational activities, including camping.

Source: CSP

Recreational opportunities in ASRA/APL include OHV use in specified locations.

- **Administration.** Administration areas contain facilities associated with the operation and maintenance of the SRA or nearby public lands. These areas provide vehicle access and are of a sufficient size to locate the parking, utilities, and infrastructure needed to support administrative and visitor use. Interpretive and visitor information facilities and activities may be provided. Portions of these areas are generally restricted to staff and related personnel associated with facilities operations. Resource management in Administration areas generally emphasizes modification of natural processes to accommodate operation and maintenance facilities. Multi-agency facilities also may be appropriate in these areas.

Table 2.3-1 Management Zones and Primary Land Uses

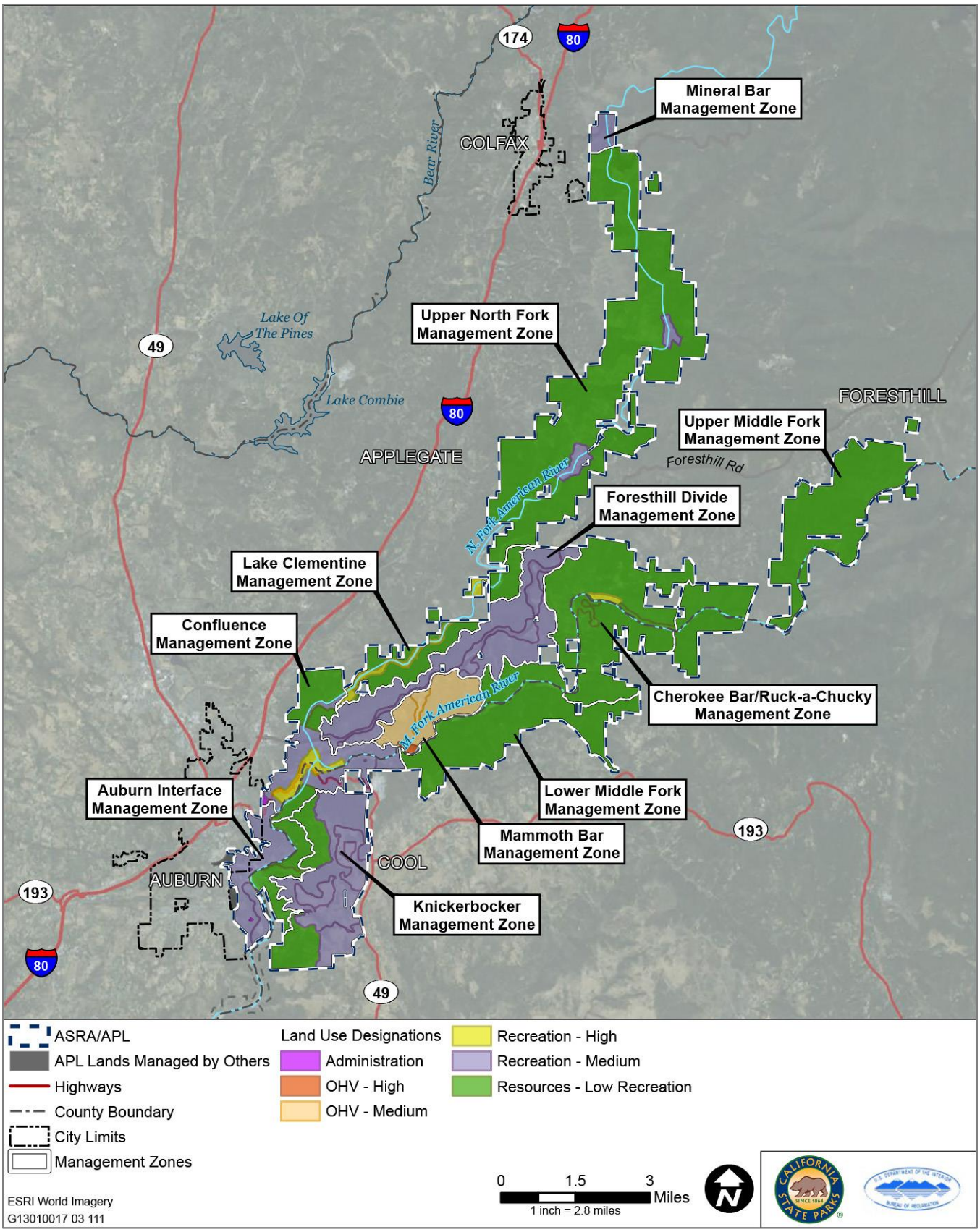
Management Zones	Primary Land Uses
Auburn Interface	Administration, Recreation (Medium), Resources (Low Recreation)
Confluence	Administration, Recreation (High and Medium)
Knickerbocker	Recreation (Medium), Resources (Low Recreation)
Foresthill Divide	Recreation (Medium)
Mammoth Bar	OHV (High and Medium)
Lake Clementine	Recreation (High and Medium)
Lower Middle Fork	Recreation (Medium)
Cherokee Bar/Ruck-a-Chucky	Recreation – (High), Resources (Low Recreation)
Upper North Fork	Recreation (Medium), Resources (Low Recreation)
Mineral Bar	Recreation (Medium), Resources (Low Recreation)

Source: Compiled by Ascent Environmental in 2018

The southeastern portion of ASRA/APL, south of the Middle Fork of the American River, falls within El Dorado County. The remaining parts of ASRA/APL are within Placer County. ASRA/APL 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. State and federal lands are exempt from city or county land use designations.

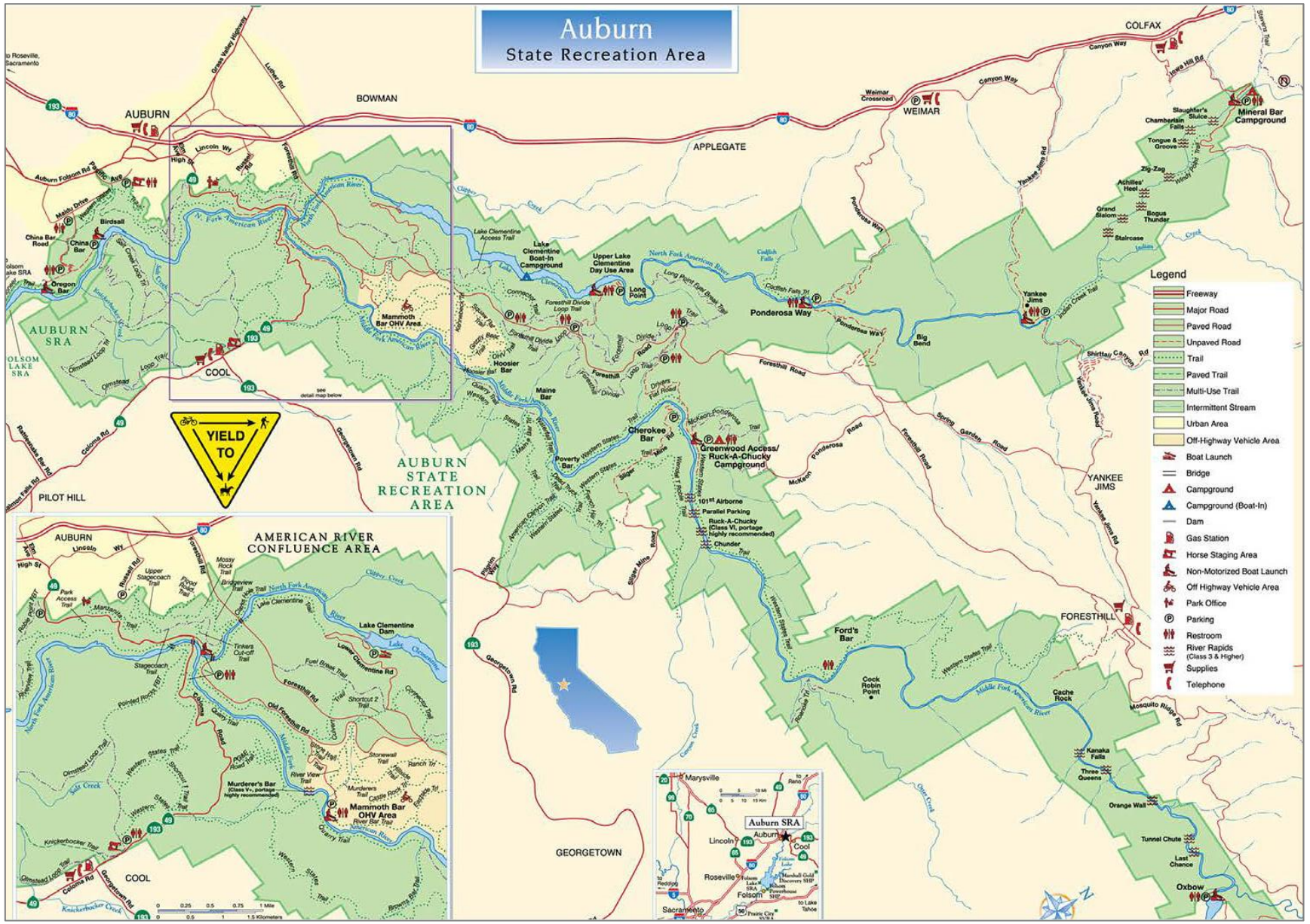
2.3.2 Recreation Facilities

Park and recreation facilities intended to support recreational use in ASRA/APL are dispersed broadly throughout ASRA/APL. Recreation facilities vary at the different use areas to support the primary recreation activities (Table 2.3-2). See Figure 2.3-2 for facility locations.



Source: Compiled by Ascent Environmental in 2016

Figure 2.3-1 Existing Land Use Designations within ASRA/APL



Source: CSP 2010

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Figure 2.3-2 Existing Recreation Facilities at ASRA/APL

Table 2.3-2 Primary Outdoor Recreation Activities and Facilities in ASRA/APL

Use Area	Primary Uses and Recreation Opportunities	Facilities Supporting Recreation
Auburn Sector Office	Visitor information	ASRA/APL office, trail connections
Maidu/China Bar/Auburn Dam Overlook	Rafting, kayaking, fishing, hiking, canyon viewing, special events	Two river access locations (Oregon Bar and Birdsall); parking areas; visitor contact station; Cardiac, Cardiac Bypass, and Pioneer Express trails among others; Rocky Island Rapids; raft put-in/take-out
Auburn Staging Area	Hiking, horseback riding	Parking, portable toilets, water, Western States trailhead
Confluence	Hiking, swimming, fishing, rafting, kayaking, tubing, filming/photography, special events, gold panning, beach play, trails, hiking, mountain biking, equestrian use	Mountain Quarries "No-hands" Bridge, Western States Trail, beach areas, visitor contact station, restrooms, parking lot, road-side parking interpretive panels, trailheads for trailhead for the Stagecoach, Lake Clementine, Clarks Hole and Confluence Trails
Knickerbocker Flat/Cool Staging Area/Olmstead Loop	Hiking, horseback riding, mountain biking, fishing, special events	Parking lots, including one for horse trailers; paved road to Auburn Dam site; trails; trailhead for Olmstead Loop Trail; Rocky Island River Access
Foresthill Divide	Hiking, mountain biking	Road-side parking, portable toilets, trailheads, Foresthill Divide Loop Trail
Mammoth Bar	OHV, mountain biking, picnicking, bouldering, rafting, kayaking	OHV tracks, beach, boat landing, trails, raft take-out/put-in
Quarry Trail/Cool Cave Climbing Area	Hiking, mountain biking, rock climbing, special events	Trailhead, parking lot, portable toilets, picnic area
Lake Clementine	Boating, wakeboarding, water skiing, wake surfing (tubing not allowed), kayaking, canoeing, sailboarding, stand-up paddle boarding, boat-in camping, swimming, beach play	Marina, fuel dock, boat ramp, parking lot, floating restrooms, group campsites, primitive boat-in campsites. Upper Lake Clementine Day Use Area includes parking, portable toilets, life vest loan station, beach area.
Deadhorse Slide	Hiking, canyon viewing	Parking
Ruck-a-Chucky	Camping, day use, fishing, special events, gold panning, rafting	Primitive campsites, parking, day use area, raft put-in/take-out, vault toilets, trails
Cherokee Bar	Day use	River access
Fords Bar	Camping, day use	Composting toilets; campsites for commercial rafting outfitters, whitewater boaters, and Western States Trail hikers
Canyon Creek (end of Driver's Flat Road)	Hiking, horseback riding, fishing, day use, rafting, kayaking	Trails, composting toilet
Ponderosa Crossing	Rafting and kayaking, swimming, gold panning	Raft take-out/put-in, portable toilets, roadside parking, Codfish Falls Trail trailhead
Yankee Jims/Shirttail Canyon	Swimming, rafting, kayaking, day use, hiking, gold panning	Parking, interpretive signs, portable toilets, swimming hole, raft take-out/put-in, Indian Creek Trail
Mineral Bar Area	Hiking, rafting, kayaking, gold panning, camping, swimming, fishing, picnicking	Campground, day use area, raft put-in, vault toilets, Windy Point Trail, Pennyweight Trailhead

Source: Compiled by Ascent Environmental in 2018

2.3.3 Utilities and Service Systems

Water

Source: Ascent Environmental

Hikers walk along the Codfish Creek Trail along the North Fork of the American River.

Except for the Auburn Sector Office, potable water via municipal utility infrastructure is not currently available within ASRA/APL. Other areas with potable water utility lines include the China Bar entrance station, Auburn Staging Area, and the Cool Staging Area. PCWA supplies water to areas north of the plan area; and Georgetown Divide Public Utility District (GDPUD) provides water south of ASRA/APL. Water storage and conveyance infrastructure exists within ASRA/APL; however, this infrastructure serves water users outside of ASRA/APL.

Wastewater

Wastewater treatment facilities near ASRA/APL include the Auburn Wastewater Treatment Plant and on-site wastewater services for the Auburn Lake Trails Subdivision. Except for the Auburn Sector Office and the China Bar entrance station, wastewater service within ASRA/APL is limited to vault toilets and portable chemical toilets. Composting toilets are found at several locations along the river.

Electricity and Natural Gas

PG&E provides both natural gas and electricity to customers in the areas surrounding ASRA/APL. Natural gas and electrical transmission lines located within and near ASRA/APL include (Smith, pers. comm., 2015):

- 60 kilovolt (kV) line near the quarry
- 12 kV line along Maidu Drive
- 12 kV line along Old Auburn Foresthill Road
- 21 kV power lines near the intersection of SR 49 and SR 193, in Cool
- High pressure gas mains near the intersection of SR 49 and SR 193, in Cool

Electricity service is provided at the Auburn Sector Office, China Bar entrance station, Lower Lake Clementine entrance kiosk, and Upper Lake Clementine entrance kiosk.

Law Enforcement

CSP staff are responsible for public safety and law enforcement within ASRA/APL. CSP peace officers patrol ASRA/APL, responding to emergencies and issuing citations. Along with maintenance and seasonal staff, peace officer/rangers are the most highly visible representatives of CSP throughout ASRA/APL. As of 2018, ASRA/APL had one State Park Peace Officer Supervisor and four permanent State Park Peace Officer/Ranger staff.

Local law enforcement for the area are provided by the Placer County Sheriff, City of Auburn Police Department, and El Dorado County Sheriff. California Highway Patrol (CHP) officers based out of the CHP office in Newcastle provide traffic management and investigation of traffic collisions in the unincorporated areas of Placer County and El Dorado County(CHP 2018). Auburn Police Department patrols a limited area nearest China Bar and the City of Auburn boundary.

Source: Ascent Environmental

CSP staff are responsible for public safety and law enforcement within ASRA/APL. CSP peace officers patrol ASRA/APL, responding to emergencies and issuing citations.

Fire Protection Services

The Reclamation Fire Management Plan (FMP) for Auburn Project Lands, including ASRA/APL, designates California Department of Forestry and Fire Protection (CAL FIRE) Nevada-Yuba-Placer Unit and Amador-El Dorado Unit to provide fire suppression responses and coordinate emergency actions as initial responders to all wildfires on APL. The nearest stations are at the following locations:

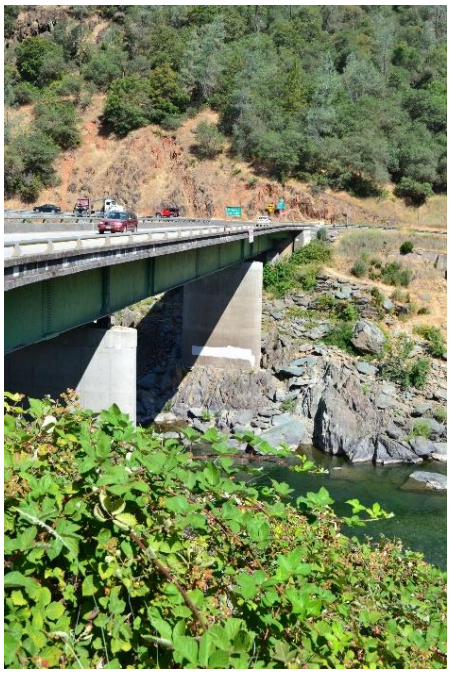
- 13760 Lincoln Way, Auburn
- 24020 Fowler Road, Colfax
- 25150 Foresthill Road, Foresthill

Nearby fire stations that serve the areas surrounding ASRA/APL include:

- El Dorado County Fire Station 72, 7200 St. Florian Court, Cool (full-time staff)
- Pilot Hill Fire Station, 4302 State Highway 49, Pilot Hill (volunteer staff)
- Foresthill Fire Protection District Station 88, 5981 Gold Street, Foresthill

Solid Waste Collection

In general, solid waste generated at ASRA/APL is collected by CSP staff, although visitors are encouraged to pack out their refuse at several locations. Solid waste hauling service is managed through a third-party contract for a number of locations, including the Auburn Sector Office, and Lower Lake Clementine Boat Ramp. The concessionaire operating at the Auburn Staging Area provides collection service at that location.



Source: Ascent Environmental

Primary access to ASRA/APL is provided by SR 49 and several other local/regional roadways.

2.3.4 Transportation and Circulation

Traffic Volumes

The major roadways within ASRA/APL are Old Auburn-Foresthill Road, Foresthill Road, and SR 49. During peak visitation periods, these roadways experience traffic congestion, in particular, near the Confluence, Auburn, and Cool.

Vehicle Access

Primary access to ASRA/APL is provided from SR 49 and several other local/regional roadways. Various agencies, including CSP, California Department of Transportation (Caltrans), Placer County, and El Dorado County are responsible for the maintenance of these roadways. Because of the size of ASRA/APL and dispersed resources around the river, access to and within ASRA/APL is provided by paved roads and dirt/gravel roads. Former construction roads or other old roads within ASRA/APL provide access for administrative vehicle use.

Public Transportation Access

ASRA/APL is not currently served by public transit.

Bicycle Access

Road bicyclists travel on the regional roads through ASRA/APL. Not all of the trails within ASRA/APL allow mountain biking. Some of the trails that are open to mountain bicyclists include the Confluence Trail, Foresthill Divide Loop, Fuel Break Trail, Olmstead Loop Trail, Quarry Road Trail, and Stagecoach Trail.

Pedestrian Access

ASRA/APL includes approximately 130 miles of trails with six major trailheads that are available for pedestrian use. The roads and highways that access ASRA/APL do not contain sidewalks.

Parking

There is an estimated parking capacity equivalent to 1,579 total parking spaces that provide access to ASRA/APL (see Table 2.3-3), with an additional 167 parking spaces outside of the ASRA/APL that provide access to ASRA/APL. Parking includes roadside parking along highways and local roads, as well as a combination of parking areas. Parking congestion has been observed particularly on summer weekends, when parking congestion can impact traffic flows or create unsafe conditions in some locations. A detailed breakdown of parking capacity at locations throughout ASRA/APL are included in Section 11.2.4, Parking, of the *Auburn State Recreation Area Resources Inventory and Existing Conditions Report* (CSP and Reclamation 2016).

Source: Ascent Environmental

ASRA/APL has an estimated 1,579 parking spaces, with some located along the side of the road.

Table 2.3-3 Existing Parking Capacity in ASRA/APL

Management Zone	Number of Parking Spaces
Knickerbocker	75
Auburn Interface	122
Confluence	404
Foresthill Divide	242
Lake Clementine	255
Mammoth Bar	200
Lower Middle Fork	5
Cherokee Bar/Ruck-a-Chucky	96
Upper North Fork	110
Mineral Bar	70
Total	1,579

Source: Compiled by CSP in 2016

2.4 Visitor Experience

2.4.1 Visitor Profile

ASRA/APL draws the majority of its visitors from the local and regional area. Visitor surveys showed that most people who visit ASRA/APL come from 25 or fewer miles away. Forty-eight percent of visitors surveyed were from Placer County, with an additional 13 percent from Sacramento County and 12 percent from El Dorado County (CSP 2007). In 2014, ASRA/APL received a recorded 890,000 visitors, although actual visitation numbers are likely greater, estimated at approximately one million. Visitation has steadily increased over the years, with the number of recorded visitors exceeding one million in the 2000/2001, 2002/2003, and 2011-2012 fiscal years (see Figure 2.4-1; CSP n.d.).

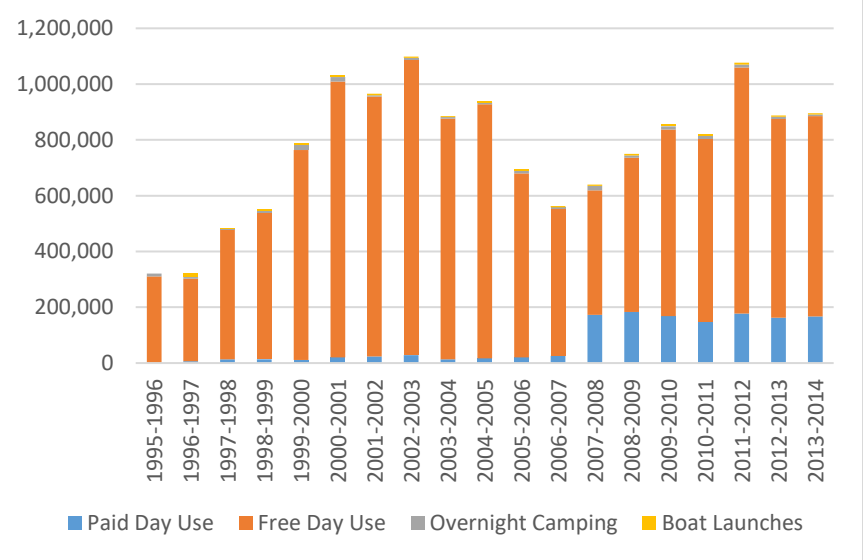


Figure 2.4-1 Annual Recorded Visitation from 1995 – 2013

2.4.2 Recreation Opportunities

The following discussion focuses on the recreation uses and opportunities within ASRA/APL. For a description of recreation facilities that support recreation use and visitors to ASRA/APL, refer to Section 2.3.2. Table 2.3-1, above, shows the areas where recreation is concentrated in ASRA/APL and which activities are most common. Figure 2.3-1 shows where these use areas are located in ASRA/APL.

Source: Ascent Environmental

Swimming, wading, and sunbathing occur along the banks of both the North Fork and Middle Fork of the American River.

Trail Use

The trails within ASRA/APL provide opportunities for hiking, running, biking, and horseback riding. Trail use within ASRA/APL occurs via approximately 130 miles of trails with at least six major trailheads and over 40 named trails, including 20 miles of the Western States Trail.

Off-Highway Vehicle Use

OHV use, including motorcycle and ATV use, is popular within the Mammoth Bar OHV use area with two tracks for OHV use. One of the tracks is designated for younger riders (i.e., youth), and both are also used for mountain biking at times when OHV use is not occurring.

Whitewater Rafting and Boating

Whitewater recreation is popular on both forks of the river, with Class II, III, IV, and V runs for rafting, kayaking, tubing, and other non-motorized boating. In addition to personal craft use by visitors, 21 private outfitters are permitted to offer whitewater trips on the North and Middle Forks of the American River under a detailed permit system (see Section 2.7.2, Concession Agreements).

Camping

Camping is allowed in designated campsites at Mineral Bar Campground, Ruck-a-Chucky Campground, and boat-in campsites at Lake Clementine. In addition to the designated campsites, permits to camp along the river are available to rafters on request.

Rock Climbing

Technical rock climbing is a popular activity in the Cave Valley Climbing Area which is adjacent to the Cool Cave Quarry and the historic Mountain Quarries Mine. Technical rock climbing in ASRA/APL is prohibited in areas outside of the Cave Valley Climbing Area.

Hunting and Fishing

Hunting for deer, California quail, dove, bandtailed pigeon and turkey is allowed within certain areas of ASRA/APL within seasons from September through January. Fishing is allowed within ASRA/APL and primarily occurs within easily accessible areas, such as Lake Clementine.

Swimming, Wading, and Sunbathing

Swimming, wading, and sunbathing are common within ASRA/APL along the banks of both the North Fork and Middle Fork of the American River. In addition, Upper Lake Clementine provides a popular destination for visitors to ASRA/APL for swimming along a large shoreline with opportunities for wading and sunbathing.

Waterskiing, Wake Boarding, and Power Boating

Motorized watercraft activities, including waterskiing, wake boarding, and power boating, occur within lower Lake Clementine and are prohibited upstream of the last boat-in camp to upper Lake Clementine and within the marina area of lower Lake Clementine.

Source: Ascent Environmental

Lake Clementine offers various recreational opportunities, include boating and kayaking.

Special Events

A variety of special events, including the Tevis Cup ride, the Western States Endurance Run, and the Cool Mountain Bike Race, occur either wholly or partly within ASRA/APL. These special events include a wide variety of activities, such as civil war reenactments, rubber duck races, and school trips. From 2013 – 2015, an average of 39 special events occurred within ASRA/APL each year, with an average of 11,721 total special-event participants each year and an average of 328 participants for each event. Additional special events are held at ARD, which are within the APL but outside of the ASRA boundary.

Source: Ascent Environmental

ASRA/APL is served by a combination of staff dedicated full-time to ASRA/APL, seasonal staff, and, indirectly, district and headquarter CSP staff allocated for specific projects at or related to ASRA/APL.

2.5 Ongoing Operations and Maintenance Functions

CSP has managed ASRA through a series of agreements with Reclamation since 1977. Most recently, CSP is managing ASRA through a 25-year Managing Partner Agreement (MPA) with Reclamation that was executed in 2012, as further described in Section 2.7.1.

Under the MPA, Reclamation has delegated most ongoing operations and maintenance responsibilities for ASRA to CSP. In accordance with the MPA, CSP's responsibilities related to operations and maintenance include providing the following services in ASRA: law enforcement and emergency services, visitor services, recreation facility maintenance, management of recreation and public use, and limited resource protection and management.

2.5.1 Public Safety

As described in section 2.3.3 under "Law Enforcement," CSP peace officer/rangers patrol ASRA, respond to emergencies, issue citations, conduct investigations, and make arrests, and are present at visitor contact locations.

2.5.2 Visitor Services, Facility Maintenance, and Management of Recreation and Public Use

With respect to CSP visitor services, ASRA is served by a combination of staff dedicated full-time to ASRA, seasonal staff, and, indirectly, district and headquarter CSP staff allocated for specific projects at/related to ASRA. The Gold Fields District staff also contribute some of their time on projects or tasks at ASRA.

CSP staff is responsible for recreation facility maintenance and development, public use and management, including interpretation and education, public safety and law enforcement, resource protection and management (within limits defined in MPA) and administration of ASRA. Regular maintenance and housekeeping of public use facilities at ASRA/APL is needed at campgrounds, day-use areas, restrooms, and parking areas. CSP staff also groom the tracks at Mammoth Bar OHV area and operate sprinklers during summer months. CSP staff maintain and repair of trailheads, trails, roadways, and other recreation facilities as well as develop and construct new recreation facilities.

Administrative staff operate the CSP office, staff the CSP public service counter, sell CSP passes and provide information, assist with tracking attendance, managing special events and concessions, and collecting and depositing payments from the self-pay stations. At Lake Clementine, maintenance workers maintain hazard and speed limit buoys and replace buoys, moorings, and cable on a regular basis.

CSP maintenance and seasonal staff, in addition to peace officers patrolling, responding to emergencies, and issuing citations, are the most highly visible representatives of CSP throughout ASRA.

Seasonal staff work as receptionists at the CSP sector office, maintenance aides assisting with light facility maintenance, housekeeping and grounds keeping staff, and as CSP visitor services aides staffing entrance stations. In 2014 and 2015, the monthly 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).

Source: Ascent Environmental

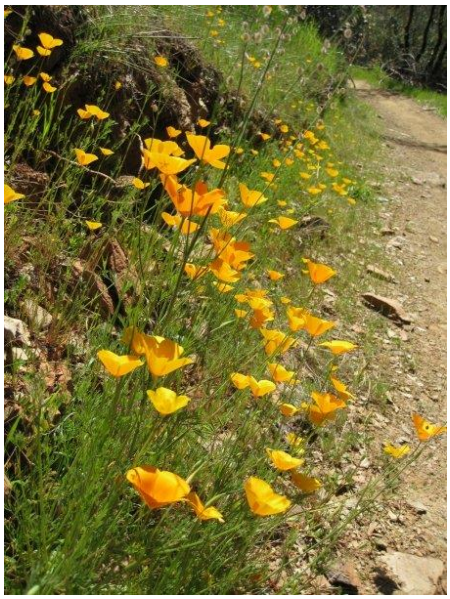
Visitor contact stations provide information to visitors, including maps and exhibits related to the natural and historical context of ASRA/APL.

2.5.3 Natural and Cultural Resource Management

Per the MPA between Reclamation and CSP, Reclamation has the primary responsibility for the protection of natural and cultural resources in ASRA/APL. If funding and as staffing allows, CSP may assist in the protection and management of natural and cultural resources within ASRA.

2.6 Interpretation and Education

Interpretive and educational resources in ASRA/APL are limited. The ASRA/APL headquarters provides a source for information for visitors but does not serve as a dedicated visitor center. Interpretive signage is at the Mountain Quarries Mine and

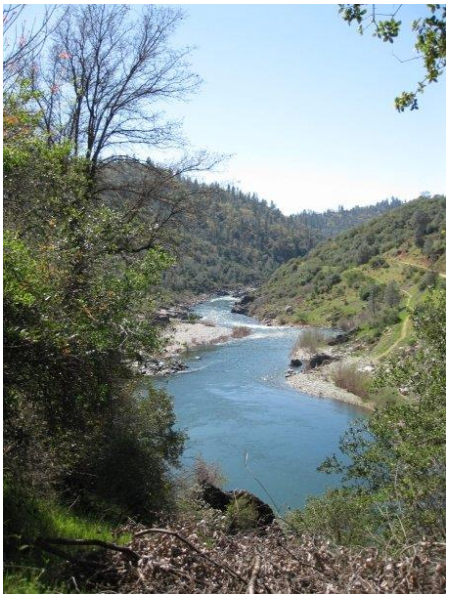


Source: Ascent Environmental

ASRA/APL consists primarily of federal lands, the majority of which are administered by Reclamation.

Railroad site, Confluence area visitor contact station, and Yankee Jims parking area.

Additionally, volunteer groups provide interpretive and educational programs covering the history of the indigenous people, gold mining history, bridges past and present, fauna and natural features, river safety, and proper trail stewardship.



Source: Ascent Environmental

Several agreements are in place between federal and state land management agencies that consolidate the management of federal lands under Reclamation and delegate some of Reclamation's management authority within ASRA/APL to CSP.

2.7 ASRA/APL Management Agreements and Partnerships

2.7.1 Management Agreements

ASRA/APL consists of mostly federal lands(see Table 2.7-1). A small portion of the land within ASRA/APL is owned by CSP. Several formal agreements are in place between federal, state and local land management agencies within ASRA/APL. In general, these agreements consolidate the management of federal lands under Reclamation then delegate some of Reclamation's management authority within ASRA/APL to CSP and ARD through separate MPAs.

Table 2.7-1 Lands Administered within ASRA/APL

Agency	Acreage[1]
California State Parks	831
U.S. Army Corps of Engineers	76
U.S. Bureau of Land Management	7,059
U.S. Bureau of Reclamation	22,410
U.S. Forest Service	59

1. The sum of these ownership acreages does not equal the amount of land within the ASRA/APL plan area, which is approximately 30,600 acres, due to mapping discrepancies.

Source: Compiled by Ascent Environmental in 2018

1980 Memorandum of Understanding – BLM/Reclamation

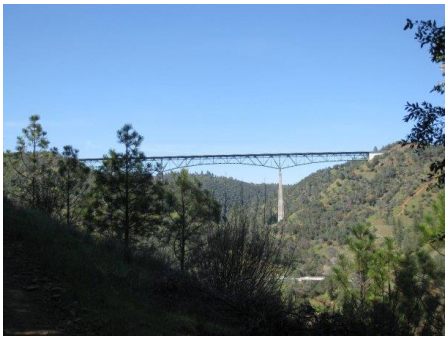
In September 1980, Reclamation[1] and the U.S. Bureau of Land Management (BLM) entered into a memorandum of understanding (MOU) "Concerning the Management of Certain Uses and Protection of Resources within the Auburn Project Area." This MOU recognized that Reclamation had an interim agreement to allow CSP to "provide additional on-the-ground management

[1] The Bureau of Reclamation was briefly named Water and Power Resources Service from 1979 to 1981. The MOU was signed under this name.

primarily to prevent resource damage from uncontrolled off-road vehicle (ORV) use, prevent theft of wood and vegetation, control and limit camping, and provide fire protection and visitor safety" (DOI 1980). The MOU authorized Reclamation to provide interim management for BLM land through Reclamation's agreement with CSP. However, no facilities can be placed on BLM land without prior approval from BLM.

1999 North Fork Dam/Reservoir Use Permit – USACE/Reclamation

USACE granted Reclamation a permit for the "use, occupancy, and management" (USACE 1999) of the area now known as Lake Clementine. Per an amendment signed on April 10, 2013, this permit has been extended to March 31, 2038.



Source: Ascent Environmental

Management of ASRA/APL involves agreements between agencies, including CSP, Reclamation, PCWA, and the Auburn Area Recreation and Park District.

2012 Management Agreement – Reclamation/CSP

In 2012, CSP and Reclamation entered into an MPA "for the administration, operation, maintenance, and development of recreation uses and facilities at Folsom Lake, Lake Natoma, and Auburn Dam and Reservoir area project lands" (DOI 2012). CSP and Reclamation additionally entered into a Financial Assistance Agreement that provides for cost sharing of Operation and Maintenance costs within the MPA. The term of the MPA is until January 24, 2037. The areas to be managed by CSP were shown on maps within the MPA but could be altered from time to time with agreement by both parties.

Additional Agreements

In 2000, Reclamation entered into a 25-year management agreement with the Auburn Area Recreation and Park District (ARD) for "the Management, Development, Operation, and Maintenance of Certain Reclamation Land and Facilities at Auburn Dam and Reservoir Project Area – Auburn Dam Overlook, Railhead Areas, and the Administration Building on Maidu Drive with Adjacent Property" (Reclamation 2000). These lands are within the APL, but outside of ASRA. This agreement allows ARD to construct and/or install, develop, manage, maintain, and operate public recreation facilities in these areas. This GP/RMP will not alter the management of these APL areas.

In addition, Reclamation and PCWA have current lease agreements for operation of PCWA's American River Pumping Plant facilities and the Auburn Dam Service Complex on Maidu Drive, which are within ASRA/APL. This allows PCWA to operate the pump and would enable PCWA to continue to divert water

pursuant to their water right permits for the PCWA Middle Fork Project in the event the Auburn Dam is constructed. Teichert has an active temporary land use permit from Reclamation to mine and produce limestone and construction aggregates within the APL outside of the ASRA boundary.

Source: Ascent Environmental

Many volunteer groups support ASRA/APL. For instance, ASRA Canyon Keepers organizes hikes, conducts trail maintenance, provides guided history walks, and assists the profession ranger staff.

In 2014, Reclamation and CSP entered into a Cooperative Agreement to delineate responsibilities for creating a combined GP/RMP (Reclamation 2014). This document includes a scope of work to produce this plan and information on how the cost will be shared.

2.7.2 Concession Agreements

Reclamation authorizes concessions on their lands that establish or continue to provide necessary and appropriate facilities and services based on the policies and principles in directive and standard LND P02 (Reclamation 2002). This standard directs Reclamation and its managing partners to ensure that concessions are planned, developed, and managed to meet public needs, are compatible with the natural and cultural resources, and provide a variety of services that are consistent with authorized project purposes.

As the managing partner, CSP has concession agreements with a number of concessionaires or permittees for different types of services, such as whitewater rafting, photography, and marina operation. These agreements between CSP and private or non-profit organizations allow the concessionaire to undertake specific operation or maintenance responsibilities within ASRA.

2.7.3 Volunteers

In addition to the relationships with federal agencies and concessionaires discussed in Sections 2.7.1 and 2.7.2 above, operations at ASRA/APL are also supported through partnerships with several volunteer groups.

The most prominent volunteer group are the Auburn State Recreation Area Canyon Keepers (ASRACK, also known as Canyon Keepers). ASRACK is a non-profit volunteer group that organizes hikes, conducts trail maintenance, provides guided history walks, and assists the professional ranger staff at ASRA/APL through volunteer work (ASRACK 2018). They also provide volunteers for the contact station at the Confluence area for the weekend days between Memorial Day and Labor Day.

Other volunteer groups that assist CSP with management of ASRA/APL, such as providing interpretation and education, maintenance, and patrols, include:

- Folsom-Auburn Trail Riders Action Coalition (FATRAC)
- Mounted Assistant Unit (MAU)
- Protect American River Canyon (PARC)
- Western States Trail Foundation (WSTF)

2.8 Planning Influences

This section provides an overview of planning efforts as well as federal and state regulations that could influence implementation of the GP/RMP.

Source: CSP

The mission of California State Parks 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."

2.8.1 Reclamation Planning Hierarchy

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 more specific subsequent authorizations. The purpose of the RMP is to chart the desired future condition for the area in question, such as the APL, with goals, objectives, standards, and guidelines with sufficient detail to direct future development, but flexible enough to allow resolution of day-today problems (Reclamation 2003). Reclamation land management strategies include responsible management that balances resource development with public recreation and protection of natural and cultural resources and environmental values, including for the APL.

Reclamation resource management planning occurs under a planning hierarchy that begins with Reclamation's mission statements. The specific legal basis for Reclamation's resource management planning are contained in the Federal Water Project Recreation Act of 1965 (Public Law 89-72), Reclamation Recreation Management Act of 1992 (Public Law 102-575), and project-specific authority, in this case Public Law 89-161, which authorized the Secretary of the Interior to construct, operate and maintain the Auburn-Folsom South Unit, American River Division, Central Valley Project.

2.8.2 CSP System-wide Planning

Long-range, management level planning extends beyond the scope and scale of a single State Park unit. System-wide planning typically addresses issues and trends, needs and deficiencies, roles and responsibilities, or actions and opportunities for a whole range of issues of interest to CSP. System-wide planning policies and objectives are considered during the General Plan process so ASRA can support, and be consistent with, the desired long-range goals of CSP and other agencies.

Source: CSP

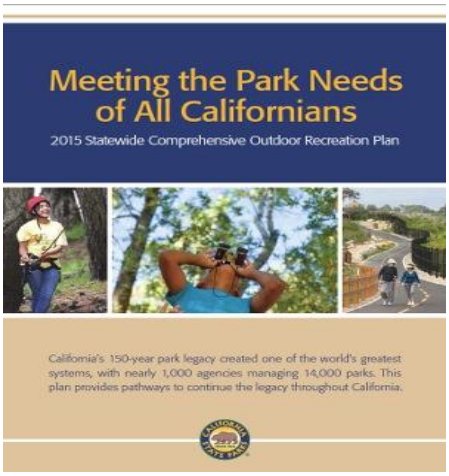
Federal laws influence management and allowable activities within ASRA/APL.

The mission of California State Parks 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." Each unit's Declaration of Purpose and Vision Statement, as well as the General Plan's management goals and guidelines, must be within the context of the CSP Mission Statement.

State Park System Plan

The California State Park System Plan describes both the challenges that face the State Park system as well as the goals, policies, objectives and proposals for new programs and initiatives needed to guide the State Park system. The latest Plan in 2002 identified priorities relevant to ASRA/APL such as:

- Develop an urban interface management strategy to provide adequate protection of park resource values at parks in and near major urban and suburban areas.
- The on-site development of new recreation facilities and the renovation of existing ones should reflect responsiveness to public demand tempered by a concern for compatibility with the natural and cultural resources of the area.
- Continue to develop and rehabilitate interpretive facilities such as museums, visitor centers, outdoor interpretive panels, campfire centers and interpretive trails.



Source: www.greeninfo.org

The Statewide Comprehensive Outdoor Recreation Plan and associated research provide policy guidance to all public agencies engaged in providing outdoor recreational lands, facilities and services throughout the California.

California Outdoor Recreation Plan

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) is the state's strategy for identifying the wide range of ways in which recreation providers can deal with obstacles and create the outdoor recreation opportunities to meet public demand now and in the coming years. The SCORP and associated research, updated every five years, provide strategies for all public agencies – federal, state, local, and special districts engaged in

providing outdoor recreation lands, facilities and services throughout the state -- for meeting the outdoor recreation needs of Californians.

The SCORP presents valuable information about participation in, and demand for, water-dependent outdoor recreation activities including fishing and motor boating, paddle sports, and swimming. The SCORP inventories protected lands throughout the state, compiles public opinions about outdoor recreation and the management of public waters and lands, and discusses California's Recreation Policy. Relevant recommendations from the SCORP include: informing communities of the importance of parks; improving the use, safety, and condition of existing parks; and sharing success stories to advance park and recreation services.

Source: Ascent Environmental

The waters of the North and Middle Forks of the American River are protected and lead to Lake Clementine.

Transformation Action Plan

In 2015, a Transformation Team was formed to help strengthen CSP and better serves California's diverse population and create a more inviting and relevant state park system through a two-year tactical Transformation Action Plan. The plan set forth 30 initiatives that support four strategic goals for improving the state park system:

1. Protect and enhance natural and cultural resources.
2. Develop excellent management systems.
3. Maintain high-quality operations and public service.
4. Create meaningful connections and relevancy to people.

The Transformation Action Plan was completed in 2017 and a sustainability strategy has been developed to encourage continued implementation of the goals and initiatives developed by the Transformation Action Plan. The State Parks system can use this plan to continuously make improvements through new and improved park and recreation programs, services and systems into the future.

Source: California State Parks

CSP's Transformation Action Plan identifies initiatives supporting four strategic goals that will create a more inviting and relevant state park system.

2.8.3 ASRA/APL Regulatory Influences

Federal

Clean Water Act (Public Law 92-500)

The CWA consists of the Federal Water Pollution Control Act of 1972 and subsequent amendments. Section 404 of the act prohibits the discharge of fill material into waters of the United States, including wetlands, except as permitted under separate regulations by USACE and EPA. To discharge dredged or fill

pursuant to their water right permits for the PCWA Middle Fork Project in the event the Auburn Dam is constructed. Teichert has an active temporary land use permit from Reclamation to mine and produce limestone and construction aggregates within the APL outside of the ASRA boundary.

Source: Ascent Environmental

Many volunteer groups support ASRA/APL. For instance, ASRA Canyon Keepers organizes hikes, conducts trail maintenance, provides guided history walks, and assists the profession ranger staff.

In 2014, Reclamation and CSP entered into a Cooperative Agreement to delineate responsibilities for creating a combined GP/RMP (Reclamation 2014). This document includes a scope of work to produce this plan and information on how the cost will be shared.

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Reclamation authorizes concessions on their lands that establish or continue to provide necessary and appropriate facilities and services based on the policies and principles in directive and standard LND P02 (Reclamation 2002). This standard directs Reclamation and its managing partners to ensure that concessions are planned, developed, and managed to meet public needs, are compatible with the natural and cultural resources, and provide a variety of services that are consistent with authorized project purposes.

As the managing partner, CSP has concession agreements with a number of concessionaires or permittees for different types of services, such as whitewater rafting, photography, and marina operation. These agreements between CSP and private or non-profit organizations allow the concessionaire to undertake specific operation or maintenance responsibilities within ASRA.

2.7.3 Volunteers

In addition to the relationships with federal agencies and concessionaires discussed in Sections 2.7.1 and 2.7.2 above, operations at ASRA/APL are also supported through partnerships with several volunteer groups.

The most prominent volunteer group are the Auburn State Recreation Area Canyon Keepers (ASRACK, also known as Canyon Keepers). ASRACK is a non-profit volunteer group that organizes hikes, conducts trail maintenance, provides guided history walks, and assists the professional ranger staff at ASRA/APL through volunteer work (ASRACK 2018). They also provide volunteers for the contact station at the Confluence area for the weekend days between Memorial Day and Labor Day.

conservation, resources management planning, public access and recreation, trespass abatement and law enforcement, remediation of damage to land resources, fire management, public use, and other applicable considerations. All Reclamation policies, directives, and standards will be adhered to in the implementation of this GP/RMP.

Americans with Disabilities Act of 1990

The Americans with Disabilities Act (ADA) prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. It sets minimum standards for accessibility for alterations and new construction of facilities. It also requires public accommodations to remove barriers in existing buildings where it is easy to do so without much difficulty or expense.

Architectural Barriers Act of 1968

The Architectural Barriers Act (ABA) issues accessibility guidelines that address federal facilities and other facilities designed, built, altered, or leased with Federal funds.

Source: Ascent Environmental

State and federal laws guide activities that may affect endangered species, cultural resources, water quality, and other important topics.

Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) regulates the taking of terrestrial and freshwater species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Section 106 of National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, the Archaeological Resource Protection Act of 1979, and the Advisory Council on Historical Preservation are the laws and organizations that maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in or may be eligible for listing in the NRHP.

Generally, Section 106 compliance is triggered when there is a federal action associated with the project, such as issuance of a federal permit for activities within a Water of the U.S.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 3001 et seq.) establishes rights of Indian tribes and Native Hawaiian organizations to claim ownership of certain cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony, held or controlled by federal agencies and museums that receive federal funds. NAGPRA requires agencies and museums to identify holdings of such remains and objects, and to work with appropriate Native Americans toward their repatriation. Permits for the excavation and/or removal of cultural items protected by the Act require Native American consultation, as do discoveries of cultural items made during federal land use activities.

Source: Ascent Environmental

Public Resources Code Section 5024.5 protects historic resources on state-owned lands.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (65 FR 67249), was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications. When implementing such policies, agencies shall consult with tribal officials as to the need for Federal standards and any alternatives that limits their scope or otherwise preserves the prerogatives and authority of Indian tribes.

Government-to-Government Relations with Native American Tribal Governments (Memorandum signed by President Clinton; April 29, 1994) (61FR 42255) directs Federal agencies to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect Federally recognized tribal governments. Federal agencies must assess the impact of Federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during such development.

State

California Environmental Quality Act

The California Environmental Quality Act of 1970 (CEQA) requires state agencies to analyze and disclose the potential environmental effects, both direct and indirect, of a proposed discretionary action. The Environmental Impact Report (EIR) is an integral component of this General Plan.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act grants the State Water Resources Control Board and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the proposed project is the Central Valley RWQCB. Under its regulatory authority established by this act, the Central Valley RWQCB has adopted a Basin Plan that contains water quality standards and control measures for the North and Middle Forks of the American River.

Source: USFS

The Foothill yellow-legged frog is listed as a CESA-Candidate Threatened species that has been documented in ASRA/APL.

Access for Visitors with Disabilities

One of the goals of California State Parks is to make sure that everyone – including visitors with mobility challenges – has access to the natural and cultural wonders that make up the system. The *Access to Parks Guidelines*, first issued in 1994 and revised in 2015, details the procedure to make state parks more accessible while maintaining the quality of park resources. Recommendations and regulations for complying with ADA and state regulations are also included in the guidelines. The *All Visitors Welcome: Accessibility in State Park Interpretive Programs and Facilities* was issued in 2003, providing guidance on developing accessible interpretive programs and facilities. Few areas in ASRA/APL provide access for visitors with disabilities.

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the taking of state-listed endangered or threatened species, as well as candidate species being considered for listing. "Take," under CESA, is defined as an activity that would directly or indirectly kill an individual of a species.

Global Warming Solutions Act (AB 32 and SB 32) and the Climate Change Scoping Plan Update

In September 2006, the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32, was signed into law, which requires that statewide GHG emissions be reduced to 1990 levels by 2020. In August 2016, Senate Bill (SB) 32 and AB 197 were signed into law and serve to extend California's GHG reduction programs beyond 2020, establishing a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update (Scoping Plan), which lays out the framework for achieving the 2030 reductions established by SB 32 and Assembly Bill 197 of 2016. The 2017 Climate Change Scoping Plan Update identifies the GHG reductions needed by each emissions

sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030 as well as a general framework to meet the 2050 target of 80 percent below 1990 levels of GHG as directed by Executive Order S-3-05. The Scoping Plan also identifies how GHGs associated with proposed projects could be evaluated under CEQA. Specifically, it recommends that achieving "no net increase" in GHG emissions should be the overall objective of land use projects evaluated under CEQA if conformity with an applicable local GHG reduction plan cannot be demonstrated. The Scoping Plan also acknowledges that the "no net increase" thresholds or consistency with a local GHG reduction plan may not be applicable to all projects. In such cases, CARB recommends that air quality management districts develop specific thresholds in consideration of 2030 GHG reduction targets (CARB 2017).

Public Resources Code

Section 5019.50-5019.80

California Public Resources Code (PRC) Section 5019.50-5019.80, Classification of Units of the State Park System, provides for the designation of State Park units and offers guiding principles for State Park improvements. The PRC classifies different types of State Park units and provides guidance for the upkeep and improvements. This code is used as a reference to plan appropriate improvements within ASRA.

Source: Ascent Environmental

ASRA/APL draws most of its visitors from the local and regional area; therefore, existing and projected regional demographics play an important part in planning for the future of ASRA/APL.

Sections 5024 and 5024.5

The California State Legislature enacted PRC sections 5024 and 5024.5 as part of a larger effort to establish a state program to preserve historical resources. These code sections require state agencies to take a number of actions to ensure the preservation of state-owned historical resources under their jurisdictions. Specifically, PRC 5024.5 requires that before altering a historic resource, the management agency must notify the State Historic Preservation Officer and give them 30 days to review and comment on the plan. If the officer determines that the proposed action will have an adverse effect on the resource, mitigation measures must be adopted to eliminate the potential effects.

AB 52 CEQA Guidelines Update for Tribal Cultural Resources

As part of the 2013/2014 legislative session, AB 52 established a new class of resources under CEQA, Tribal Cultural Resources, and requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete. CEQA also requires lead agencies to consider whether projects will impact tribal cultural resources. Public Resources Code, Section 21074 states the following:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

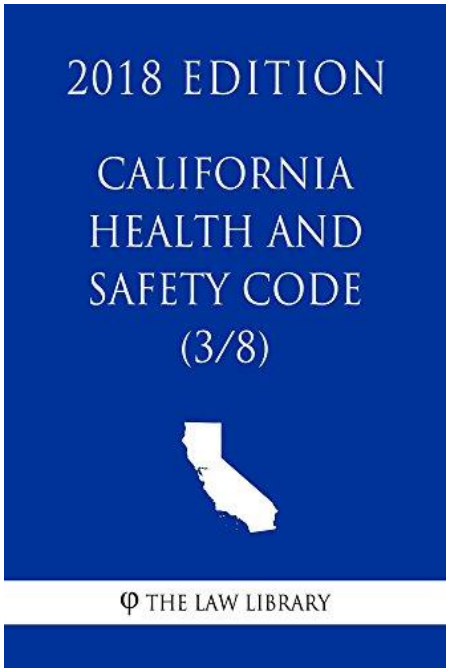
      A) Included or determined to be eligible for inclusion in the CRHR.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

   2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).



Source: amazon.com

The California Health and Safety Code has been recently updated and protects Native American resources.

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that if human remains are discovered during construction outside of a dedicated cemetery, the project owner is required to contact the county coroner and further excavation or disturbance of land cease until the coroner has made a determination. If the coroner determines the remains are Native American, and if the remains have been identified on non-federal lands, the coroner must contact the NAHC within 24 hours and the procedures outlined in PRC Section 5097.98 must be followed. When the discovery is made on federal lands, the provisions set forth in NAGPRA apply rather than the California Health and Safety Code.

California Code of Regulations, Title 14, Division 3

California Code of Regulations (CCR) Title 14, Natural Resources, Division 3, Department of Parks and Recreation established regulations that pertain to the management and use of units of the State Park System.

2.8.4 Demographics, Trends, and Projections

Existing and projected regional demographics play an important part in planning for the future of ASRA/APL. The majority of visitors come from the local area; therefore, existing and projected regional demographics play an important part in managing ASRA/APL. The projected population growth in the region is an indication of potential increases in visitation to ASRA/APL and may indicate a need for additional facilities and maintenance (see Table 2.8-1). The geographic area used to delineate the regional demographics is based on information received through visitor surveys at ASRA/APL. The visitor surveys showed that most people who visit ASRA/APL come from 25 or fewer miles away.

Population

The regional population includes the population in the Sacramento Region, which includes Placer, El Dorado, Sacramento, Sutter, Yuba, and Yolo counties.

Between 1990 and 2000, El Dorado County grew by 24 percent, Placer County grew by 44 percent, and Sacramento County grew by 18 percent. Placer County continued its high growth rate from 2000 to 2010. However, recent estimates show a slowed population growth in all three counties from 2010 to 2015 (Table 2.8-1). The rate of growth in Placer County over the last 25 years exceeded that of the state, as well as the Bay Area and the Sacramento region.

Table 2.8-1 Regional Population Growth

Location	2010	2015	2020	2030	2040	2050	2060
California	37,253,956	38,714,725	40,619,346	44,085,600	47,233,240	49,779,362	51,663,771
El Dorado County	181,058	184,917	190,850	201,509	208,092	206,977	205,052
Placer County	348,432	369,454	396,203	447,625	509,936	566,954	620,037
Sacramento County	1,418,788	1,470,912	1,554,022	1,730,276	1,912,838	2,047,662	2,153,833
Sacramento Region	2,322,267	2,416,344	2,547,064	2,836,824	3,145,647	3,382,557	3,577,916
Bay Area	7,150,739	7,510,942	14,320,284	15,282,791	15,717,676	16,108,613	16,435,215

Source: DOF 2007, 2014, 2015

Age and Ethnicity

In 2010, the median age for Placer County residents was 34.5 years old, younger than the median age for Sacramento County (38.5), the Sacramento Region (36), the Bay Area (37) (U.S.

Census 2010). El Dorado County resident's median age was considerably older, at 43.6 years old.

Both El Dorado and Placer counties have a significantly higher percentage of persons who identify as Caucasian than Sacramento County and the Sacramento Region as a whole (DOF 2014). The 2010 population in Placer County was approximately 76 percent Caucasian and El Dorado was 80 percent Caucasian, both of which are significantly higher than in Sacramento County (48 percent), the Sacramento region (56 percent), and California (40 percent). The second-largest ethnic group in Placer, El Dorado, and Sacramento counties was Hispanic, representing approximately 13, 12, and 22 percent of the total population, respectively. This ethnic group represents a significantly lower proportion than in the state overall (38 percent).

Income and Education

Median household income in Placer and El Dorado counties in 2013 was $72,725 and $69,297, respectively. This is greater than California's $61,094 median household income in 2013. In fact, Placer County had the highest per household and per capita income of any county in the Sacramento region and El Dorado County's income was second only to Placer County (ACS 2013a). This is a long-standing trend, with incomes in Placer and El Dorado counties significantly higher than other Sacramento region counties and California in 1999 as well (U.S. Census 2000).

Within the Sacramento region, approximately 29 percent of residents over age 25 have at least a bachelor's degree. Thirty-five percent of Placer County residents have at least a bachelor's degree while 32 percent of El Dorado residents have at least a bachelor's degree. The only county to have a greater percentage of residents with higher education is Yolo County, where UC Davis is located, where 38 percent of residents have at least a bachelor's degree. In general, both El Dorado and Placer county residents have higher educational attainment than the region and state (ACS 2013b).

Source: Ascent Environmental

The visitor surveys show that most people who visit ASRA/APL come from 25 or fewer miles away.

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View of the North Fork Dam at Lake Clementine

CHAPTER 3

Issues and Analysis

3 Issues and Analysis

This chapter describes the assumptions upon which this plan is based. It also summarizes the key issues addressed in this GP/RMP.

3.1 Planning Assumptions

The following assumptions are based on current state and federal laws, regulations, and California State Parks (CSP) and U.S. Bureau of Reclamation (Reclamation) policy, which form the basis for planning and set the parameters for addressing recreational, operational, and resource management planning issues.

CSP and Reclamation will:

- Manage federal lands within ASRA/APL consistent with Public Law 89-161, which authorized the acquisition of lands for and construction of the Auburn Dam and Reservoir to provide for the purposes of water supply, hydropower generation, outdoor recreation, public use and enjoyment, and fish and wildlife enhancement. The GP/RMP will provide a plan for the management of ASRA/APL without the construction of the Auburn Dam and Reservoir, while recognizing that Congress may fund the Auburn Dam and Reservoir for construction at some time in the future or deauthorize the Project. The GP/RMP will reflect that certain lands were withdrawn by the U.S. Bureau of Land Management (BLM) for BLM management.
- Administer ASRA/APL consistent with the terms of the Managing Partner Agreement (MPA) between CSP and Reclamation, executed January 24, 2012; the 1980 Memorandum of Understanding between the BLM and Reclamation for management of certain lands; the Interagency Agreement between BLM and Reclamation executed March 1983; and Amendment No. 3 to the Department of the Army Permit No, DACW05-4-99-536 North Fork Dam, CA executed April 10, 2013. These agreements specify the roles and responsibilities of each agency relative to the management, operation and maintenance, funding, use, and development of ASRA/APL.
- Collaborate with other agencies, non-profit organizations, volunteers, and other regional partners to assist with the management of ASRA/APL.

Source: Ascent Environmental

China Bar is the site of the partially constructed Auburn Dam project. The GP/RMP provides a plan for the management of ASRA/APL without the construction of the Auburn Dam and Reservoir, while recognizing that Congress may fund an Auburn Dam and Reservoir at some time in the future.

Source: Ascent Environmental

Development of the GP/RMP requires consideration of the issues and concerns of California and the United States. ASRA/APL provides many important resources, including wildlife habitats, historic, tribal cultural, and prehistoric resources, and recreation resources. Input from local, regional, and statewide interests is an important part of the GP/RMP.

- Coordinate the planning and management of ASRA/APL with the planning and management of other Reclamation lands surrounding ASRA/APL. Coordinate with planning efforts related to the adjacent Auburn-Folsom South Unit lands and waters that make up the federal lands of Folsom Lake, Lake Natoma, and Folsom Lake SRA and other open space providers and agencies with nearby public land to consider connectivity and compatibility of recreational, interpretive, and resource management programs. Coordinate with BLM, U.S. Forest Service (USFS), and other agencies regarding management of lands withdrawn for Reclamation purposes.

- Continue to provide wildfire response and suppression efforts through cooperative agreements with the California Department of Forestry and Fire Protection (CAL FIRE). Wildfire suppression efforts may also be coordinated with additional agencies including Auburn City Fire Department and local fire protection districts. Placer County and El Dorado County Offices of Emergency Services will continue to coordinate evacuation response in the event of a wildfire emergency in or near ASRA/APL.

- Manage and protect rare, threatened, and endangered species and sensitive natural communities and wildlife habitats, as required by federal and state laws and each agency's policies and directives.

- Protect the historic, tribal cultural, and archeological resources present in ASRA/APL, as required by federal and state laws.

- Consult with federally recognized Indian tribes and California Native American tribes and obtain a respectful understanding of the long-term needs for protection and treatment of Native American tribal cultural resources, heritage and sacred sites, objects, cultural landscapes, or human remains. CSP must conduct tribal consultation pursuant to PRC Section 21074 regarding tribal cultural resources (TCRs) in compliance with CEQA.

- CSP and Reclamation will maintain a variety of recreational opportunities, access for visitors with mobility limitations, and events within ASRA/APL, to meet recreation demand without conflicting with other purposes of ASRA/APL.

- Consider the issues and concerns of all citizens of California and the United States, including adjacent land owners and residents during the planning and implementation process. Seek input from local, regional, and statewide and national interests.

- Reclamation and CSP will seek to maintain the approximate size and configuration of ASRA/APL, in consideration of the terms of the MPA. On an opportunistic basis, CSP will consider strategic acquisitions of private inholdings or adjacent lands from willing sellers to achieve ASRA/APL goals consistent with Reclamation and CSP's policies and regulations.

3.2 Issues and Analysis

The issues discussed in this chapter draw upon CSP and Reclamation's knowledge of the uses, operations, and resources of ASRA/APL; as well as information from early public engagement. The issues were also identified through coordination with other agencies that have knowledge of, or jurisdiction over ASRA/APL or surrounding areas. This chapter incorporates information from the 2015 Resources Inventory and Existing Conditions Report and the 2015 Issues, Opportunities, and Constraints Report prepared to support this GP/RMP. Refer to Section 1.8, Interagency, Stakeholder, and Public Involvement, for a summary of public outreach and interagency coordination that informed this plan.

Source: CSP

Trails provide recreational opportunities for mountain biking, equestrians, and hikers. The implementation of the GP-RMP will allow for the development of a Trail Management Plan. Trail management planning helps to address trail routing, expansion, connectivity, and user conflict improvements.

3.2.1 Recreational Opportunities and Visitor Experience

Trail Management, Use, and Connectivity

Issue: Enhancing trail connectivity and reducing trail use conflicts.

Trails are one of the most heavily- used recreation resources within ASRA/APL. A majority of the special events and a significant portion of the dispersed recreation in ASRA/APL focus on the use of trails by hikers, runners, mountain bikers, and equestrians. Trails and trail management were a major topic of public comments. Primary concerns focused on (a) equity of trail access for different uses (b) the desire to increase trail connectivity and extend the trail system, (c) trail etiquette and conflicts between user groups, and (d) trail maintenance and resource protection.

The lack of a trail management plan makes it difficult to comprehensively address trail routing, expansion, or connectivity improvements (both within ASRA/APL and between ASRA/APL and surrounding areas). Similarly, the lack of a trail management plan increases the difficulty of making changes in trail use in an equitable way to address conflicts among user groups. There are a

large number of non-system trails for which decisions on whether to keep and improve or to remove and restore need to be made.

The challenge of public safety related to speed and trail etiquette is largely a matter of public awareness, understanding, respect, and civility. It is also a problem related to confusion with trail signage, enforcement challenges, or efficient reporting of violations of trail regulations by other trail users. Additionally, the lack of complete natural and cultural resource inventories limits the ability of CSP to assure the protection of special-status species and other sensitive resources during trail maintenance activities.

Managing River Recreation

Issue: Managing whitewater recreation and other river use to address increasing demand.

The basis for the current management of whitewater use on the North and Middle Forks of the American River within ASRA/APL is the Draft Whitewater Management Plan developed by CSP in 1987 and the IRMP adopted by Reclamation in 1992. Over 20 commercial whitewater companies operate on the North and Middle Forks of the American River under concession contracts. Many more non-commercial rafters and kayakers also run the rivers within ASRA/APL.

Source: CSP

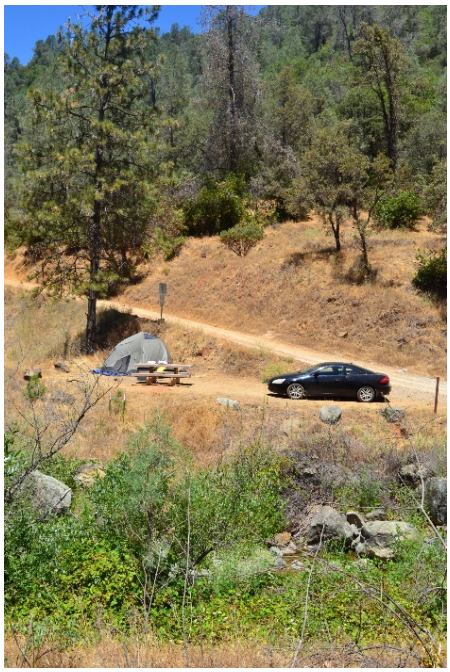
Over 20 private whitewater companies operate on the North and Middle Forks of the American River under a permitting system. Many more non-commercial rafters or kayakers also run the rivers within ASRA/APL. Other popular river-oriented recreation uses include swimming, sunbathing, picnicking, tubing, and fishing.

Commercial whitewater boating has been managed on the North and Middle Forks of the American River by CSP since 1982. CSP issues concession contracts to commercial outfitters and has established a number of management practices, including limits on total amount of commercial whitewater boating on peak use days, a process for allocating commercial use, number and timing of trip starts, group size limits, take out and lunch stop locations and requirements. Non-commercial (private) whitewater use is not regulated. Facilities for access have been improved over the years, including improved access routes to the river and more restrooms at access points and lunch stops. Reclamation and CSP do not manage lands of the Eldorado or Tahoe National Forests along the Middle Fork American River, including the river access at Indian Bar near the Oxbow Powerhouse. Changes to the current whitewater management program may be made administratively through the implementation of the concession contract process to be consistent with CSP's policies and regulations and to provide for safe commercial boating recreation with minimum conflicts among groups and users, while protecting natural and cultural resources.

Other popular river-oriented recreation uses include swimming, sunbathing, picnicking, tubing, and fishing. These other river uses are primarily limited by the number and accessibility of river access points. During the summer river access points that are accessible by vehicle become extremely crowded and the demand exceeds the available parking. Road conditions make access to the river difficult on some ASRA/APL roads.

A 1993 study completed by Reclamation found that the Middle Fork, from Oxbow Dam to the confluence with the North Fork; the Upper North Fork from the Colfax-Iowa Hill Bridge to the upper end of Lake Clementine; and the lower North Fork from the North Fork Debris Dam to the intake of the Auburn Dam diversion tunnel within ASRA/APL, were eligible for designation as national wild and scenic rivers. The study recommended the potential classification of the Middle Fork and Upper North Fork of the American River as "scenic" rivers, and a potential classification of the lower North Fork of the American River as a "recreational" river. A suitability determination has not been completed, hence the rivers remain undesignated although the agencies are obligated to protect the outstanding remarkable values of the rivers identified in the eligibility study.

There is an opportunity to plan and identify appropriate activities, facilities, access areas, parking and use areas in the lower North and Middle Forks. These areas could be opened for additional uses to help reduce congestion in other areas of the river, and provide additional boating or swimming opportunities. Lower river reaches are typically less difficult for boating and offer a wider variety of opportunities for casual recreational visitors than the advanced Class III-V rapids of the upper reaches. Commercial boating operations on the lower reaches were not envisioned as requiring permits under the draft 1987 Whitewater Management Plan.



Source: Ascent Environmental

Development and implementation of the GP/RMP provides an opportunity to increase recreation opportunities, such as overnight camping, which was identified as a statewide demand.

Providing Adequate Camping Opportunities

Issue: Addressing the unmet demand for camping opportunities.

ASRA/APL includes a total of 38 developed campsites within three separate campgrounds. The campgrounds are heavily used and are consistently at capacity during busy periods. At 30,600 acres, ASRA/APL offers very few campsites for its size. Similarly, with an estimated 1,000,000 visitors per year, ASRA/APL offers very few campsites for this level of visitor demand. The CSP 2015 Statewide California Outdoor Recreation Plan (2015 SCORP) 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 in 2012 by CSP for the SCORP, 35 percent of respondents stated a desire for more opportunities for camping, which indicates that there is a statewide unmet demand for camping opportunities (CSP 2014).

The GP/RMP provides an opportunity to identify appropriate camping opportunities, which could help to reduce congestion at existing campgrounds in ASRA/APL and contribute to meeting demand for camping opportunities statewide. ASRA/APL offers sufficient space and a variety of locations that could be suitable for camping while minimizing resource or user conflicts. The major constraints to additional camping identified by CSP and Reclamation staff and members of the public include: difficult or limited vehicle access and public safety concerns regarding the potential for wildfire.

Impact of Adjacent Lands on Visitor Experience

Issue: Identifying property boundaries and exploring opportunities to acquire adjacent private lands.

Source: Ascent Environmental

Private lands located adjacent to ASRA/APL include the area containing Robber's Roost, a notable rock outcropping that can be seen from within ASRA/APL.

Numerous private parcels exist as inholdings surrounded by, or adjacent to public lands within ASRA/APL. The planning efforts for the Auburn Reservoir had specified a "take line" for acquiring parcels within and above the 1,140-foot elevation, but acquisitions of those parcels had not been completed. Residential development is occurring on private lands along or below the canyon rim and within the "take line." This development has the potential to degrade the scenic values and natural setting that is important to visitor experiences. While neither CSP nor Reclamation have jurisdiction over private development adjacent to public lands, there is general support by CSP staff at ASRA/APL for the GP/RMP to prioritize protection of the scenic and natural integrity of the area from adjacent development.

Fee-title acquisition or purchase of conservation easements on inholdings or adjacent private lands by CSP could improve visitor experiences. Private-land acquisitions could be completed by a state agency, local agency, or non-profit land conservancy.

In addition to acquisition, other options to protect ASRA/APL resources and visitor experiences include coordination with local jurisdictions to address zoning, development standards, incentives, and enforcement of existing requirements on adjacent private lands. CSP involvement in the local land use planning and development process, including commenting on development

proposals on adjacent lands and inholdings will also help to protect ASRA/APL resources and uses.

At this time, neither Reclamation nor CSP have plans to acquire additional land for ASRA/APL. However, CSP could accept donated lands and could consider strategic acquisitions with substantial resource values, scenic benefits or recreation opportunities. Any potential future acquisition of land by Reclamation would be only in relation to development of an Auburn Dam and Reservoir.

Local jurisdictions may have concerns about imposing zoning or development restrictions on adjacent private lands, or removing land from the tax rolls. For CSP, a key constraint for acquisitions is getting an endowment or funding source, along with the property acquisition, to operate and maintain the property into the future.

Providing Adequate Public Information, Education, and Interpretation

Issue: Expanding interpretive and educational opportunities within ASRA/APL.

Both Reclamation and CSA maintain websites that provide interpretive, educational, and informative information on the APL and ASRA respectively. While Reclamation's APL website focuses more on the purpose of Auburn Dam and Reservoir, CSP's website includes interpretive and educational messaging on the natural and cultural resources found with ASRA. In general, public information, education, and interpretive placards within ASRA/APL lack consistency at kiosks and information boards. ASRA/APL tends to include less interpretive or educational opportunities than many other recreation areas in the State Parks system, and wayfinding within the large and spread out recreation resource can be difficult.

Source: Ascent Environmental

The GP/RMP calls for the preparation of an Interpretation and Education Plan to enhance public information, education, and interpretation efforts at ASRA/APL.

ASRA/APL includes the potential for several interpretive or educational themes related to the area's history, Native American culture and heritage, paleontological resources, natural resources, water resources, and the Auburn Dam project. The GP/RMP will identify these themes and develop a framework for more detailed interpretive planning. Wayfinding improvements could improve the visitor experience and provide better access to visitors not familiar with the area.

The public information, education, and interpretation efforts at ASRA/APL would benefit from a comprehensive interpretive and wayfinding plan; however, funding and resources for the plan may be limited. Coordinating the various missions, goals, and resource

availability of multiple agencies and organizations would be a challenge for the creation of a multi-agency/organization visitor center. CSP and Reclamation do not currently have full-time professional interpretive specialists at ASRA/APL to guide interpretive and education improvements. The CSP Gold Fields District does have a full-time professional interpretive specialist that provides services to all of the park units in the District.

Source: Ascent Environmental

Increased threat of wildfire from the addition of new recreation facilities in ASRA/APL is a notable concern. The GP/RMP provides an opportunity to identify and implement new strategies for wildfire management.

3.2.2 Resource Management

Wildfire Management

Issue: Managing wildfire risk while providing recreation opportunities.

CAL FIRE has designated most parts of ASRA/APL as Very High Fire Hazard Severity, the most extreme fire danger rating (CAL FIRE 2007a, 2007b). Fire danger decreases in the areas immediately adjacent to the city of Auburn, due in part to vegetation treatment activities, but also because of the decreased density of vegetation as the forest transitions into an urban environment (CAL FIRE 2007a). The steep canyons and dry climate contribute to the lands' wildfire risk.

Statewide, the frequency, extent, and intensity of wildfires are expected to increase in the future as a result of climate change (CAL FIRE 2007b). *California's Fourth Climate Change Assessment Statewide Summary Report (http://www.climateassessment.ca.gov/)* states that climate change will make forests more susceptible to extreme wildfires. By 2100, if greenhouse gas emissions continue to rise, one study found that the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and that the average area burned statewide would increase by 77 percent (Governor's Office of Planning and Research et al. 2019). The risk at ASRA/APL is exacerbated by the remote and inaccessible nature of much of the land, which makes emergency evacuation and suppression access difficult in portions of ASRA/APL.

Current wildfire management efforts focus on managing boundary vegetation to reduce the risk of wildfire spreading between ASRA/APL and adjacent developed areas, and enforcing regulations that limit visitor activities that could result in wildfire ignitions. To address fire management and wildfire risk, Reclamation prepared a 2007 draft Fire Management Plan for the APL (which includes the entirety of ASRA). A substantial update to this plan has been finalized and is available on the ASRA website. This Fire Management Plan outlines an approach to fire and fuels management that will focus on mitigating fire hazard

near infrastructure and residences by reducing the probability of ignition from human sources, as well as by reducing hazardous fuel loading throughout the area through a variety of vegetation management strategies. The Auburn Fire Management Plan (FMP) addresses approaches for wildfire suppression, prescribed fire, mechanical and non-mechanical fuels reductions, post-fire restoration, and adjacent community protection. The implementation of the Auburn FMP can help reduce risks to public safety and the potential for wildfire-related impacts to natural and cultural resources.

The GP/RMP provides the opportunity to better define and coordinate wildfire management strategies consistent with the Auburn FMP. The GP/RMP includes strategies to improve vegetation management to reduce fire fuel loads, establish defensible space, and identify and prioritize various forest and vegetation types, their current conditions, and appropriate forest and vegetation management prescriptions. The GP/RMP also expands periodic fire restrictions that can reduce the risk of human-caused ignitions. In addition, the GP/RMP identifies physical improvements and management strategies to improve emergency access and evacuation in a wildfire scenario.

Preserving Special-Status Plants, Animals, and Sensitive Habitats

Issue: Protecting special-status plants, animals, and sensitive habitats

Two special-status plant species have been documented in ASRA/APL: Red Hills soaproot, and oval-leaved viburnum. These species occur in cismontane woodland, conifer forest, and chaparral habitats within ASRA/APL. The *Auburn State Recreation Area Resources Inventory and Existing Conditions Report* (CSP and Reclamation 2016) also includes additional background information regarding special-status plants in and adjacent to ASRA/APL. These species could be affected by future wildfires; fuels management activities; habitat loss and fragmentation associated with development of new roads, trails, and facilities; and competition or habitat degradation by invasive plants. Eighteen additional special-status species have the potential to occur in ASRA/APL, based on the presence of suitable habitat and the species' known distribution in the vicinity. Oak woodlands have been identified as at risk and susceptible to insects and diseases, including sudden oak death syndrome and other plant diseases.

Source: Ascent Environmental

Red Hills soaproot is one of three special-status plant species that are known to occur in ASRA/APL.

Several sensitive animal species are known or have the potential to occur within ASRA/APL. Some examples of species that have the potential to be affected by recreational facilities and recreational use are those that depend on riparian habitats (e.g., yellow-breasted chat, yellow warbler, foothill yellow-legged frog, California red-legged frog, valley elderberry longhorn beetle). Other species that depend on habitats that are subject to a high level of recreational use include those that are found in the Cave Valley Climbing Area (peregrine falcon, ring-tailed cat), which is a popular climbing destination. These species could be disturbed by recreational use, if the use is not properly managed. All of the sensitive animal species that are documented to occur in ASRA/APL could be affected by future wildfires as a result of high fuel loads.

Habitat conditions for special-status plants and animals can be improved by identifying and then restoring habitat that has been degraded by current or previous human activities. These habitats can be restored through active restoration or revegetation and/or through restrictions on the type and level of use in these areas. Protecting existing, pristine habitat can also improve habitat conditions for special-status plants and animals.

Recreational activities can degrade habitats and result in damage to sensitive plants and disturbances to sensitive animal species. An ongoing challenge exists in balancing high-quality recreational opportunities and access while protecting sensitive species and their habitats, such as oak woodland and riparian habitats and the Cave Valley Climbing Area.

Source: CSP

ASRA/APL is rich in historic, archeological, and tribal cultural resources, including resources related to mining. The No Hands Bridge, formerly known as the Mountain Quarries Railroad Bridge, is listed in the National Register of Historic Places.

Controlling Invasive Plants

Issue: Preventing and managing infestations of invasive plants.

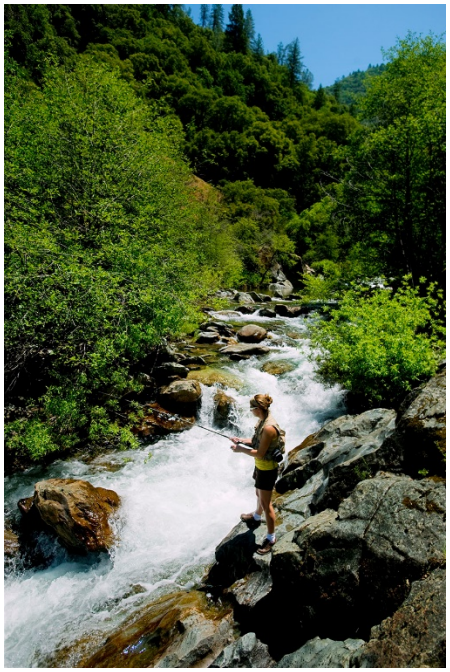
Many species of invasive plants occur within ASRA/APL. Some of these species have the ability to displace native plants and wildlife, alter fire regimes and soil chemistry, and reduce the overall biodiversity of areas in which they become established. The management of noxious and invasive plant species has been an ongoing issue for ASRA/APL.

There is an opportunity to more aggressively treat invasive plants before they become well established. Regular proactive surveys could be effective in early identification of invasive species, particularly in heavily used sites where recreational activities can serve as a vector for transporting invasive species, and in sensitive habitats where the impact of invasive species can be most pronounced. Educational or management actions might be able to reduce the introduction of new invasive species. Introductions of

aquatic invasive species can be prevented through outreach, education, and inspection and watercraft cleaning stations, which can be much more effective than controlling them once established.

Fuel management practices, such as creating shaded fuel breaks, can be an opening for invasive exotic species to become established. Fuel reduction and vegetation management should include maintenance practices that control and prevent new populations of invasive exotics from becoming established.

Staffing and funding constraints limit the ability to conduct pre-emptive invasive species surveys and more aggressive control efforts. ASRA/APL is a popular destination with multiple access points. This provides numerous possibilities for the unintentional introduction and spread of invasive species and plant diseases.



Source: CSP

Implementation of the GP/RMP provides an opportunity for adaptive management approaches to changes in temperature and runoff caused by climate change that could affect recreation patterns in ASRA/APL.

Protecting Cultural Resources

Issue: Identifying and preserving cultural resources

ASRA/APL is rich in historic, archeological, and tribal cultural resources, including resources related to mining, Native American presence, timber harvesting, and transportation. Much of the gold mining history and historical sites are found along the North and Middle Forks of the American River, while evidence for past Native American use of the landscape is present throughout ASRA/APL. The current cultural resources inventory of ASRA/APL is incomplete and outdated.

Completing comprehensive surveys to document cultural resources would provide a better opportunity to avoid impacts to these resources and could inform educational and interpretive efforts. Increases in visitation could degrade cultural resources, however the established visitor use patterns provide an opportunity to more efficiently focus survey efforts in the areas where the potential for disturbance of cultural resources is more likely. The size, terrain, and vegetation of ASRA/APL have constrained the ability to conduct comprehensive cultural resource surveys with the available staff.

Adapting to Climate Change

Issue: Adapting to extreme temperatures and resulting levels of precipitation due to climate change.

Projected changes in precipitation will likely influence ASRA/APL in light of anticipated changes in recreation demand. The North and Middle Forks of the American River flow through ASRA/APL and provide fresh water to surrounding habitats, as well as to Folsom Lake and the lower American River downstream of

ASRA/APL. Additionally, rising temperatures will result in precipitation falling in the form of rain, causing a decline in Sierra Nevada snowpack of up to 60 percent by 2090. On average, the Sierra snowpack holds up to 30 percent of the total volume of the State's freshwater reservoirs. California populations rely on the slow melt of the snowpack as a source of water during the summer months when precipitation rates decline. As runoff continues to occur earlier in the year, less water can be stored for periods of drought. Furthermore, earlier and more-rapid melting may produce higher volumes of runoff that would increase risk of seasonal flooding or low flows along affected rivers, including the North and Middle Forks of the American River.

Changes in temperature and runoff events will likely affect recreation use patterns. With increased maximum temperatures, demand for water-oriented recreation, such as swimming and tubing, would be expected to increase and take place over a longer period of the year. Other forms of water-oriented recreation along the hydrologically unregulated North Fork could shift in timing to adjust to changes in runoff patterns and resulting streamflows. Dry-season flow volumes may be lower, and rain runoff may increase in proportion to what has been historically snowmelt runoff. Prolonged and frequent rain events may cause erosion limiting trail and road access until repairs can be made. Peak use periods for trail use, camping, and other upland recreation could also shift to earlier in the spring or later in the fall to avoid the hottest periods of the summer.

Source: Ascent Environmental

Narrow canyons bisected by the American River are some of the iconic scenic resources associated with ASRA/APL.

Uncertainty in the specific timing and magnitude of climate change effects makes it difficult to plan for long-term adaptation. Climate change effects can add to the complexity of managing ASRA/APL (e.g., combating the prevalence of invasive species, plant diseases, and wildfire risk). Maintenance or enhancement activities in response to altered aquatic and terrestrial habitats and ecological conditions must consider resiliency to wildfire risk and the ability to address fuel loads, access, and infrastructure improvements. Funding or resource constraints can limit the ability of fuels management efforts to address increasing wildfire potential. Water supply management and changes in flow regimes can diminish or interfere with recreation opportunities.

Protecting Scenic Views

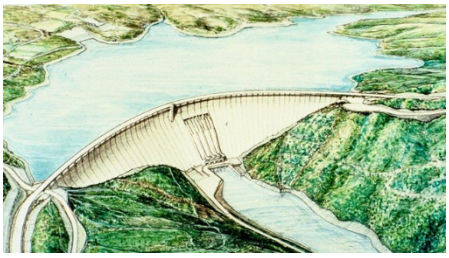
Issue: Limiting scenic impacts from adjacent development.

ASRA/APL represents an important scenic landscape within the Sierra foothills. Ranging from de-facto wilderness to areas disturbed by dam construction, the visual experiences vary widely.

The wooded canyon and river setting of the majority of ASRA/APL affords visitors with a very high-quality visual experience. In much of ASRA/APL, visitors may have the feeling that they are alone in the world, untouched by sight or sound of another human being.

Significant human-made elements of ASRA/APL's visual landscape include historic buildings, bridges, and dams, some of which have scenic value related to their prominence, iconic appearance, or historic appeal. These elements contrast with the natural scenery that characterizes the visual environment encompassing most of ASRA/APL. However, many of these human-made elements add visual interest and provide visual connections to the area's history, which adds to the overall visual character of ASRA/APL. Facilities, such as restrooms and kiosks, throughout ASRA/APL are generally built out of neutral-toned materials. These facilities are characteristic of other parks and recreation areas in the region, and are likely consistent with visitor expectations. While these features reduce the intactness of the natural scenery in some areas, they do not significantly detract from the visual quality of ASRA/APL.

In addition to adjacent residential development, activities that could temporarily or permanently affect the scenic quality of ASRA/APL include the potential replacement of Placer County's Yankee Jims Bridge, Reclamation's replacement of Ponderosa Bridge, construction of the proposed Auburn-To-Cool Trail Bridge, possible expansion of the Teichert Quarry, wildfire scars, forest thinning projects, and potential road or facility expansions. The primary threat to scenic quality is from adjacent development on private lands. Reclamation and CSP have no jurisdiction over these lands, which significantly limits the ability to control scenic impacts.



Source: USACE

Public Law 89-161 authorized construction of the Auburn Dam project, which would result in creation of a reservoir that would inundate a large portion of ASRA/APL.

3.2.3 Infrastructure and Facilities

Potential for Facility Inundation

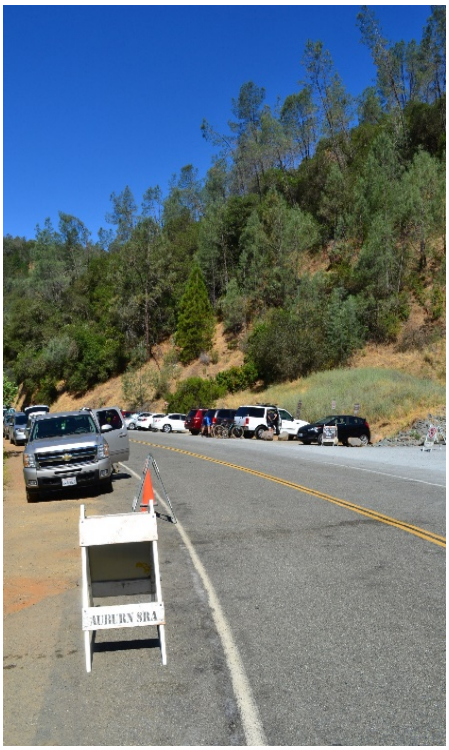
Issue: Balancing facility improvements with the risk of inundation under a future reservoir.

ASRA/APL currently has very limited developed infrastructure, particularly when compared to other nearby State Park units or other units of a similar size. While it has been decades since Public Law 89-161 authorized the construction of the Auburn Dam project, and no funding for the completion of construction has yet been appropriated, it is possible that much of ASRA/APL could be inundated under a reservoir at some future time. Additionally, there is potential for inundation in ASRA/APL due to natural flooding events that could significantly impact facilities

which are constructed in the floodplain. The prospect of inundation discourages substantial investment in permanent facilities of all types within the prospective reservoir level, or the conceptual "take line" for land acquisition.

Some level of new facility or infrastructure development is desirable and necessary to meet the SRA's vision and purpose. For example, access improvements could alleviate parking congestion, spread visitor use to reduce crowding in heavily used areas, or provide improved accessibility.

Future inundation could result in the need to remove infrastructure within a prospective dam inundation area and incur the loss of investment made in new infrastructure. CSP may be responsible for removal of new recreational facilities developed by CSP within a future inundation zone, if removal was determined to be necessary. This possibility of inundation could also make it difficult to secure funding for any major infrastructure or facility investments.



Source: Ascent Environmental

The GP/RMP includes a number of approaches to reduce congestion, including parking congestion and improved traffic controls, in heavily-used areas of ASRA/APL.

Parking Limitations and Congestion

Issue: Providing adequate parking opportunities that consider the limited space and variable visitation and circulation patterns of ASRA/APL.

Parking is very limited throughout ASRA/APL. Parking congestion occurs in heavy-use areas, especially at the Confluence, some trailhead staging areas, river access points, river beach-use areas, SR 49-mile marker 64, and at lower Lake Clementine. The informal, and in some places unauthorized, parking along highways and roads sustains locally high levels of visitor use and access, but it contributes to congestion and public safety concerns. Developing more parking can improve visitor access and safety, but can also increase use of already popular areas, which has the potential to damage natural and cultural resources, and reduce the overall quality of the visitor experience. The implementation of fees for parking in recent years has not alleviated the congestion in some areas. Instead it has contributed to different patterns of use, circulation, and parking.

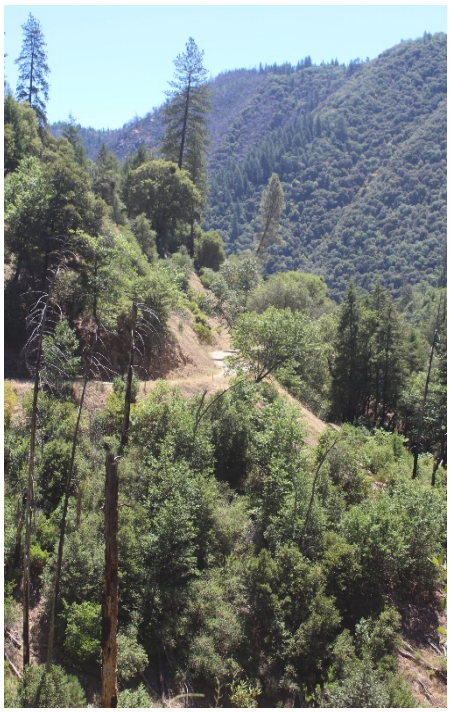
The opportunity to increase parking is limited in much of ASRA/APL, because of the river canyon topography. There may be public concern for the impact of more facilities on the beauty and natural quality of the area, or concern about increases in use of certain areas, such as the upper North Fork. Ridership levels may not be high enough to make shuttle services financially feasible. Caltrans' right-of-way on SR 49 and Caltrans regulations along highways may constrain the ability to create additional parking.

In addition to the number of parking spaces available, the designs of traffic controls along roadways, in relation to pedestrian access, is also key to ensuring smooth vehicle and visitor access through the area to reduce periodic local congestion. In some locations, there are no crosswalks or traffic signs in key areas between parking and pedestrian visitor attractions, such as ranger kiosks, pay stations, and interpretive signage. Thorough planning of traffic controls may help alleviate much of the existing congestion and potential safety issues. In particular, crosswalks could be installed at intersections near signed trails. Installation of crosswalks or other improvements on roadways would require coordination and approval of the agency that owns, operates and maintains the transportation facility, such as Caltrans for SR 49.

Road Conditions and Access

Issue: Providing adequate roadway access and circulation.

Roads within ASRA/APL provide public access to existing recreation areas, and staff access for management, operations, and emergency response. Some roads in ASRA/APL are narrow and winding, and have heavy traffic combined with limited parking. Many roads are unpaved and can become rutted and washed out, especially after winter and spring rains. Current maintenance staffing levels are not able to ensure ASRA/APL roads are passable in all weather conditions. Different agencies are responsible for the maintenance of different roads in ASRA/APL, and in some cases, maintenance responsibility is unclear.



Source: Ascent Environmental

Some public access roads in ASRA/APL are difficult to use during summer weekends, holidays, and other peak use periods and during the spring rainy season. This could create challenging conditions in the event of an evacuation or if access by emergency responders is needed.

The public access roads are narrow, sometimes steep and unpaved, and often have limited shoulders, which can result in challenging driving conditions for visitor use, especially during busy summer weekends, holidays, and other peak use periods and during the spring rainy season. Difficult road conditions and a limited number of access roads can delay emergency evacuation. Limited maintenance of roads that are not open to public vehicle use, but which could be used by staff for access, rescue, and maintenance is not only a hazard to staff and rescuers, but creates slower response time for rescues. The condition of roads can also create difficulties in an emergency evacuation situation, particularly if large numbers of visitors were trying to evacuate along a narrow and difficult road.

Additional staff and funding would be needed to increase maintenance operations. Paving some existing unpaved roads, grading and improving roads and road shoulders, creating bicycle trail connections, or providing public transit would also all require additional funding. Improving road conditions and accessibility could increase use of certain areas, which could damage natural or

cultural resources or hinder a high-quality visitor experience. Limiting the size and numbers of boats on the Lake Clementine road or creating one-way roads could improve circulation, but could also reduce the quality of visitor experience by making access to currently used areas less convenient. The environmental review and clearance process under a programmatic approach, while time consuming initially, would reveal a more streamlined review for each subsequent road maintenance and repair.

Source: Ascent Environmental

Additional picnic sites, group day-use areas, and new campsites could be added to strategic locations throughout ASRA/APL to meet the demand for picnicking and camping and to reduce congestion in heavily-used areas of ASRA/APL.

Facilities for Camping and Picnicking

Issue: Expanding new and existing campgrounds and picnic sites at locations where feasible.

Campgrounds at ASRA/APL only exist at two river access points. Ruck-A-Chucky has five primitive sites, while Mineral Bar has 16 designated sites. These campgrounds offer opportunities for drive-in small camper or tent camping for families, individuals, or small groups. They are very small areas with limited facilities and no potable water systems, and they do not provide space for RV parking or large groups. There are also 15 primitive boat-in campsites at Lake Clementine. Limited permits are available for some remote camping outside of designated campgrounds and campsites. A few developed picnic sites exist, and no group picnic facilities have been developed.

Opportunities for new or expanded camping exist at several locations. The campgrounds at Mineral Bar, Ruck-A-Chucky, and/or Lake Clementine may be able to be expanded to provide additional camping opportunities with limited need for additional infrastructure or access improvements. Other sites that could be considered for new campgrounds include Knickerbocker Flat, Mammoth Bar, Rocky Point, Cherokee Bar, or Foresthill Divide.

Opportunities for additional picnic sites and group day-use areas exist at each of the possible campground locations described above, as well as at many of the other existing river access points and trailheads.

Current and comprehensive resource inventories do not exist for all areas of ASRA/APL. Project-level resource surveys would need to be completed to help determine the specific location, size, and design of new or expanded campgrounds and picnic sites. Because new facilities might detract from the natural state and beauty of ASRA/APL, care must be taken in siting campgrounds, design, and facilities selection. The topography and presence of historic resources near the existing Mineral Bar and Ruck-A-Chucky campgrounds could affect the feasibility of expanding these existing facilities.

Adequacy of Administrative and Maintenance Facilities

Issue: Improving administrative and maintenance facilities to better serve ASRA/APL's needs.

The existing Reclamation facilities are currently occupied by CSP administration and maintenance as agreed to through the MPA. These facilities are wood-framed buildings used by CAL FIRE in the 1950s and 1960s. The administration building is small with limited privacy, storage, or meeting space. Space is limited for additional public information, displays, interpretation, and public educational activities that are normally found at SRAs or other parks.

Construction of a new administration and maintenance facility would require significant funding. Sharing the facility with other agencies could reduce the cost to CSP and Reclamation, but would be dependent on the needs, priorities, and available funding of other agencies.

Source: Ascent Environmental

Swimming and sunbathing are popular activities at the confluence of the North and Middle Forks of the American River, which is one of the most heavily used areas of ASRA/APL.

3.3 Area-specific Issues and Analysis

3.3.1 Confluence Management Zone

Managing Visitor Use and Access

Issue: Providing facilities and management actions to enhance visitor experiences and access in the Confluence area.

The area surrounding the confluence of the North and Middle Forks of the American River is the most heavily used portion of ASRA/APL, and swimming and sunbathing at the confluence is one of the most popular activities in ASRA/APL. The confluence is easily accessed from the junction of SR 49 and Old Foresthill Road. Most of the swimming and sunbathing use occurs on the large gravel bar and rock outcrops at the confluence. Visitors park along the shoulder, turn-outs, and wide spots along Old Foresthill Road and SR 49. On peak summer weekends, hundreds of vehicles are parked in this area. There is sufficient space to allow for approximately 250 vehicles at the confluence. At these peak times, all available space for parking is occupied and pedestrians must walk along the highway or roadway, and some must cross the roadways to visit the kiosk, sign boards, restrooms, or fee station. The potential for pedestrian accidents increases during peak visitation. Because of the topography of the steep canyon walls, there is little opportunity to create large dedicated parking

areas off the highway at the confluence. In some locations, traffic controls and crosswalks may be inadequate or lacking on roadways in ASRA/APL.

Opportunities for improved facilities or management actions include: improved parking; providing a shuttle service; expanding the Quarry Trailhead; allowing commercial outfitters and kayak instruction; including a pedestrian crossing on the SR 49 bridge; improving traffic controls and crosswalks; and creating a new multi-use trail from Auburn to the confluence. Installation of crosswalks or other improvements on roadways would require coordination and approval of the agency that owns, operates and maintains the transportation facility, such as Caltrans for SR 49.

Major constraints to managing visitor use and access near the confluence include traffic on SR 49 and Old Foresthill Road, and limited parking around the confluence. The topography surrounding the confluence constrains the ability to create more on-site parking. The potential for extremely high river flows near the confluence is a consideration in developing facilities near the river. The high levels of use at the area have the potential to diminish the quality of visitor experiences or result in resource damage, such as erosion, damage to vegetation, introduction of invasive species, litter, noise, or human or animal waste.

Source: Ascent Environmental

Opening the Mountain Quarries Mine to guided tours would enhance the variety and quality of educational and interpretive activities at ASRA/APL.

Appropriateness of Public Access into the Mountain Quarries Mine

Issue: Clarifying the desired type and level of public access at the Mountain Quarries Mine.

Hawver Cave was a natural limestone cave system discovered within limestone deposits in and adjacent to ASRA/APL. Beginning in 1912, the limestone mining operations of the Pacific Portland Cement and Mountain Quarries Railroad Consolidated excavated most of the natural cave system. For decades, the mine was accessed by the public until it was closed with steel gates in 2006. CSP policy (Department Operations Manual [DOM] 0307.4.1) is to protect cave resources and natural cave conditions, including water quality and water flow, and not to permit public use until natural and cultural resource protection and human safety are assured.

The variety and quality of educational and interpretive activities at ASRA/APL can be enhanced by providing appropriate access to the cave/mine, such as guided tours. The Canyon Keepers group could provide a volunteer base to act as docents or support other related management activities. Revenue generated from guided tours could offset the costs of administering the program. Public safety in the mine/cave is a key concern. Additional geotechnical

surveys and other assessments, as well as public safety improvements may be needed before allowing public access. Potential conflicts between public access to the mine/cave and ongoing Teichert limestone mining operations, under Reclamation land- use permit, are a concern. If not designed and planned appropriately, access to the cave/mine could disturb special-status bats and other sensitive wildlife species, or could damage cultural and paleontological resources.

3.3.2 Auburn Interface Management Zone

Providing an Auburn-to-Cool Trail Crossing

Issue: Establishing an Auburn-to-Cool trail crossing to restore trail connectivity.

The Auburn-to-Cool Trail (ACT) is a multi-use recreation trail route between Auburn and Cool that existed because of the Auburn Dam construction that temporarily rerouted the river through a tunnel diversion. The trail crossed the reach of the North Fork American River that was dewatered by the diversion tunnel built for the construction of the Auburn Dam. With completion of the PCWA American River Pump Station in 2007, the river channel was re-watered and the temporary dry trail crossing was eliminated. The EIR/EIS for the project found that the loss of the trail was a significant, unmitigated impact. In the final EIR/EIS, as part of the mitigation for the loss of the trail, the State of California (Natural Resources Agency and CSP) committed to providing $1 million towards a feasibility study, planning, and development of a trail crossing. PCWA committed to contributing up to $500,000 towards the construction of a bridge or alternate trail. Conceptual level planning was done in the Auburn to Cool Trail Crossing Feasibility Study which was completed in 2007. However, detailed planning, design, technical studies and environmental review have not been completed for. a new trail bridge.

Source: Ascent Environmental

A bridge across the river is needed to provide connectivity for users of the Auburn-to-Cool Trail.

The ACT Crossing Feasibility Study identified a number of crossing options, including: siting a new trail bridge at several potential locations including Oregon Bar and near the diversion tunnel outlet; utilizing existing bridge crossings such as No Hands Bridge or SR 49 Bridge for multi-use trail connections; and use of seasonal bridge crossings. Each of these options provide different advantages, related to cost, feasibility, and trail connection opportunities. None of these options necessarily needs to be considered exclusively and any of the crossing locations could

improve trail connectivity to Folsom Lake SRA, as well. The cost of a trail bridge of this length (300-500 feet) and the cost of inspection and maintenance of such a bridge are key considerations.

Any option that involved new crossings or trail construction could create environmental impacts that would need to be analyzed and avoided through project conditions or mitigated. Options that use existing bridges could result in conflicts among user groups, or road bikes and traffic on SR 49. Seasonal bridges would not provide trail connectivity during cooler, winter months. Future construction of an Auburn Dam would inundate the existing bridges and seasonal crossing locations and could inundate a new trail bridge crossing depending on where it was sited. The transportation and circulation north and south through ASRA/APL has been limited by the prospective dam project, with fewer bridge crossings than have been available historically. The nearest other crossings for the American River are in Folsom, and the nearest crossing of the Middle Fork tributary canyons upstream, besides SR 49 and No Hands Bridge, is at Ellicott Crossing on the Rubicon River.

Source: Ascent Environmental

With implementation of the GP/RMP, the existing OHV track could be relocated from the area that has been flooded and damaged in the past, which would also provide opportunities for expanding recreation opportunities in the Mammoth Bar area.

3.3.3 Mammoth Bar Management Zone

Management of Off-Highway Vehicle (OHV) and Other Uses at Mammoth Bar

Issue: Addressing OHV use and facilities consistent with other visitor uses and resource goals.

The Mammoth Bar OHV area has been used by OHV recreationists for decades. The OHV area is part of ASRA/APL and is managed by CSP staff. It is not a designated State Vehicle Recreation Area (SVRA), which is a formal CSP unit designation for CSP park units funded by CSP's Off-Highway Motor Vehicle Recreation (OHMVR) Division and managed for OHV recreation. In addition, Reclamation policies under CFR 43 Part 420, Off-Road Vehicle Use, only allow OHV use on Reclamation lands managed by non-Federal entities in designated areas so long as the management is consistent with CFR 43 Part 420 and applicable non-Federal laws and regulations. (recognizing that Mammoth Bar is an exception that was originally intended for interim use until inundation by the Auburn Dam), which could constrain approaches that maintain OHV use. CFR 43 Part 420 allows opening or closing of OHV use on Reclamation-owned lands if the Reclamation Regional Director has approved the designation of the use. change. However since OHV use at Mammoth Bar was

pre-existing before CFR 43 Part 420 went into effect in 1974 no further designation is required by Reclamation.

In general, there are two potentially conflicting opportunities related to OHV use at Mammoth Bar. One option would be to continue providing and potentially enhancing a very popular OHV recreation opportunity at Mammoth Bar. Another option would be to reduce or eliminate potential resource damage and user conflicts at Mammoth Bar by relocating, removing, or reducing the area allocated to OHV use.

Additional recreation activities could be accommodated at Mammoth Bar in an area that is already being used for higher-impact recreation. Group picnic sites or a campground could be considered. Some public comments have suggested free-ride trails (jumps, other built features), downhill trails, and more technical and challenging trails for mountain bikes in the area. Unauthorized downhill mountain bike use occurs within ASRA/APL, and providing for and managing this type of use in a controlled area may help reduce illegal use elsewhere. This could occur as part of a change in the OHV use or in addition to maintaining the current uses of the area.

The motocross track was flooded and partially washed away in 2005 and again in 2017. Plans are underway to relocate the track to higher ground in the same general vicinity as the existing track, which will reduce the possibility of the track being affected by floodwaters in the future. Should the track be damaged by floodwaters in its future planned location, it is likely the track will not be rebuilt in its current location. Should that happen, the existing track footprint could be used for additional day use or camping facilities with the potential for a new track in an upland area out of the river corridor. Locating an OHV track on a river bar is not an ideal location and in addition to periodic flooding presents water quality concerns. When the track is washed away, it presents water quality and sensitive-species issues, including degrading of water quality and damage to habitat for sensitive species.

Source: Ascent Environmental

Public access to Upper Lake Clementine is only provided from May 15 through October 15.

3.3.4 Lake Clementine Management Zone

Access to Upper Lake Clementine

Issue: Improving the accessibility of Upper Lake Clementine.

Upper Lake Clementine is a popular beach area and gravel bar on the upstream end of the lake that provides day-use recreation opportunities, including swimming, sunbathing, informal picnicking,

and carry-in launching of small, non-motorized watercraft. The site is also used as a take-out location by whitewater river rafters launching upstream of the lake. Motor vehicle access is available via a steep, unpaved road, which is passable by most two-wheel-drive vehicles. This access road is open to the public from May 15 through October 15. It is closed during the winter and spring because of the steepness of the road, native clay surface material that is slippery when wet, and erosion potential if vehicles were allowed on the road during rainy conditions.

Additional non-motorized lake and beach recreation activities can be provided by expanding the season and improving access to Upper Lake Clementine. The site provides opportunities for increased concessions or special events, such as kayak or paddle board rentals and classes, and additional day-use facilities, such as group picnic sites.

The steepness and unpaved surface of the access road is a constraint to allowing public use during seasonal wet periods. The river bar at Lake Clementine is the primary level ground in the area and it floods during high-water events. Its limited size and the frequent flooding of the entire bar constrain the type and amount of facilities that could be developed at the site. Additionally, this area also provides suitable breeding habitat for foothill yellow-legged frog, which would need to be taken into consideration for any future projects in this area.

Source: CSP

Recreational mineral collection, particularly gold panning, is a popular activity in ASRA/APL within the North and Middle Forks of the American River. State law now prohibits the use of any motorized vacuum or suction dredge equipment for instream mining.

3.4 Issues Related to Existing Regulations

During the public engagement and planning process for the GP/RMP, some comments focused on activities that are managed under existing state and federal regulations. In particular, numerous public comments addressed recreational mineral collection, and nude bathing and beach use. Because these topics are regulated by existing state and/or federal law and agency policy, the GP/RMP does not propose to make changes related to these activities. CSP and Reclamation intend to manage these activities within ASRA/APL in accordance with the relevant laws and agency policies.

Additionally, improving access for visitors with disabilities in ASRA/APL is an issue that is addressed by the State Parks Transition Plan for ASRA and regulated by the Americans with Disabilities Act and the Architectural Barriers Act. The GP/RMP will be implemented in accordance with these regulations and will support implementation of the Transition Plan. These issues are further discussed below.

Recreational Mineral Collection

Issue: Clarifying existing law, policy, and publicly available information at ASRA/APL regarding recreational mineral collection.

Mineral exploration, gold panning, sluicing, and dredge mining have been important parts of the use and history of the American River in the Auburn area, including the parts of the river now within ASRA/APL. Recreational gold panning is still occurring in ASRA/APL on both the North and Middle Forks of the American River. CSP regulates and manages recreational mineral collection pursuant to Title 14 Sections 4301, 4307, and 4611 of the California Code of Regulations. Suction dredging was a popular activity on the North and Middle Forks of the American River until 2009, when a statewide moratorium on suction dredging was put in place. State law now prohibits the use of any motorized vacuum or suction dredge equipment for instream mining.

On January 8, 2018, the U.S. Supreme Court rejected a challenge to the State of California's ban on suction-dredge mining for gold, a mechanized technique that extracts minerals from riverbeds while dumping residue that can include toxic mercury back into the environment. The GP/RMP cannot allow suction dredging because it would be in violation of current state law. If state law changes in the future, CSP and Reclamation could reconsider this issue.

Source: Ascent Environmental

Currently, ASRA/APL has limited accessibility and recreation options for visitors with disabilities. Roads or trails in ASRA/APL with flatter profiles could provide accessible trail opportunities.

Nude Bathing and Beach Use

Issue: Clarifying existing regulations on nude bathing and beach use.

Nude bathing and beach use are prohibited by state law (Title 14, Section 4322 of the California Code of Regulations). However, these activities have been common and well-established in portions of ASRA/APL, primarily along the river downstream of the confluence. Nude bathing appears to have decreased with the re-opening of the lower North Fork to boating in 2007 after completion of the American River Pump Station project. However, the activity still occurs. Public comments from a contingent of supporters advocated for officially sanctioned nude bathing areas. However, nude bathing and beach use are currently prohibited in ASRA/APL, and the GP/RMP cannot allow activities that conflict with state regulations.

Access for Visitors with Disabilities

Issue: Improving the accessibility of visitors with disabilities.

Few areas in ASRA/APL provide access for visitors with disabilities. The steep terrain makes disabled access to many popular areas difficult. River access is particularly limited for disabled visitors, because of the rugged terrain and limited vehicular access to the river. Trail use is the most popular activity in ASRA/APL; however, very few trails allow for wheelchair (or other disabled) accessibility. Older buildings, such as the CSP headquarters, may not meet Americans with Disabilities Act (ADA) or Architectural Barriers Act (ABA) requirements.

Source: Ascent Environmental

CSP has begun implementing some improvements in the park to remove barriers to access for people with disabilities, including providing accessible restrooms.

New facility improvements identified in the GP/RMP can provide additional access for disabled visitors. Some roads and trails have more gradual grades and could provide accessible trail opportunities, such as those in the Confluence area. Through implementation of the GP/RMP and development of a roads and trails management plan a comprehensive evaluation can identify appropriate locations for disabled trail access and trailhead parking.

Since 2005, California State Parks has been operating under a federal consent decree resulting from a class action lawsuit. In settling Tucker, et al. v. State of California Department of Parks and Recreation et al., CSP agreed to remove architectural and programmatic access barriers and construct accessible trails following a court approved timeline. To date, CSP has completed hundreds of barrier removal and accessible trail projects statewide.

The CSP Transition Plan for ASRA has identified a preliminary list of improvements that are needed to remove accessibility barriers for users, including improvements to campgrounds, parking, restrooms, routes, boat facilities, and the sector office (CSP 2005). The facilities have not been fully evaluated yet by CSP for final determination of barrier removal. However, the Mineral Bar Area of ASRA/APL contains accessible features that include restrooms, parking, a picnic area, and a raft put-in area (CSP 2019) and a project to improve accessibility of the Quarry Trail was completed by CSP in spring 2019. Additionally, CSP policies (DOM chapter 2600) provide guidance for addressing the accessibility component of existing and future facilities, programs, and other aspects of managing ASRA, and includes guidance for compliance with federal and state accessibility laws, regulations, and guidelines.