5 Environmental Analysis

This Chapter examines the potential environmental impacts of the CSP Project. The analysis of each resource category begins with an examination of the existing physical setting (baseline conditions as determined pursuant to Section 15125(a) of the CEQA Guidelines) that may be affected by the CSP Project. The effects of the CSP Project are defined as changes to the environmental setting that are attributable to project construction and operation.

Significance criteria are identified for each environmental issue area. The significance criteria serve as a benchmark for determining if a project would result in a significant adverse environmental impact when evaluated against the baseline. According to the CEQA Guidelines Section 15382, a significant effect on the environment means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the CSP Project." If significant impacts are identified, feasible APMs are formulated to eliminate or reduce the level of the impacts and focus on the protection of sensitive resources.

CEQA Guidelines Section 15126.4(a)(3) states that mitigation measures are not required for effects which are not found to be significant. Therefore, where an impact is less than significant, no APMs may be proposed; however, where potentially adverse impacts may occur, SCE has in some instances proposed APMs to minimize the potential adverse impact. Compliance with laws, regulations, ordinances, and standards designed to reduce impacts to less than significant levels are not considered mitigation measures under CEQA.

5.1 Aesthetics

This section examines visual resources in the area of the CSP Project to determine how the CSP Project could affect the aesthetic character of the landscape. This section includes a description of existing visual conditions and an evaluation of potential visual impacts on aesthetic resources resulting from the construction, operation, and maintenance of the CSP Project. The CSP Project includes modifying existing 55 kV subtransmission facilities along existing utility ROWs in northern Inyo County and southeastern Mono County between Control Substation west of Bishop and the Fish Lake Valley Metering Station near the California-Nevada Border.

Visual or aesthetic resources are generally defined as the natural and built features of the landscape that can be seen. Landforms, water, and vegetation patterns are among the natural landscape features that define an area's visual character, whereas buildings, roads and other structures reflect human modifications to the landscape. These natural and built landscape features are considered visual resources that contribute to the public's experience and appreciation of the environment. This section analyzes whether the CSP Project would alter the perceived visual character of the environment and cause visual impacts.

5.1.1 Environmental Setting

5.1.1.1 Landscape Setting

The CSP Project is located in an area within eastern California and is part of a physiographic region that extends from the eastern edge of the Sierra Nevada to the Colorado Plateau. This region is characterized by abrupt changes in topography, with steep, relatively narrow mountain chains, generally oriented on a north-south axis, that are separated by flat, arid alluvial valleys. Figure 5.1-1a shows the CSP Project location within the regional landscape context.

The CSP Project area extends from the Owens Valley on the west to Fish Lake Valley on the east and is dominated by the intervening White Mountains. Elevations in the CSP Project area range from approximately 4,200 feet in the valley bottoms to over 10,000 feet above mean sea level (ft amsl) at its high point, with broad panoramic vistas of the surrounding terrain available from many locations. The predominant vegetation cover consists of sparse, low-growing desert scrub, punctuated by scattered stands of stunted coniferous forest at higher elevations. Exposed areas of underlying soil and rock, consisting of light-colored volcanic pumice and sand, interspersed with darker outcrops of basalt and shale, are a predominant visual element. When seen in conjunction with the surrounding vegetation, this exposed rock and soil pattern contributes to the predominant mottled color and texture seen in the landscape.

The region's diverse, natural landscape scenery attracts seasonal recreational visitors including hikers, offroad vehicle users, and campers. The local population is almost entirely concentrated within the northern Owens Valley in and around Bishop, a regional tourist destination and community of approximately 3,800 residents located at the junction of U.S. 395 and SR-168. This population includes members of the Bishop-Paiute tribe who occupy reservation land that lies partly within the city. Scattered residential areas are also found along Silver Canyon Road in the community of Laws east of Bishop and along U.S. 6 within Chalfant Valley to the north. The isolated Deep Springs Valley, east of the White Mountains, is the location of Deep Springs College, a private educational facility whose resident population is less than 100.

Outside of the developed locations described above, the CSP Project area is sparsely populated, and includes large area of land that have restricted public access. Paved roads are limited to relatively few locations within the valley bottoms and at widely spaced mountain crossings, with U.S. 395, the main north-south highway through the Owens Valley, and the east-west aligned SR-168 constituting the primary vehicle access routes

through the region. Narrower secondary paved and unpaved roadways, many consisting of gravel tracks only suitable for off-road vehicles, also provide access within the CSP Project area.

Established built landscape features seen within the overall project area include wood utility poles, overhead power lines including those included in the CSP Project, substations, and telecommunications towers. Additionally, the lattice steel towers supporting a LADWP 230 kV transmission line are notable visible elements in the Owens Valley. Due to the scattered population and limited development, sources of nighttime lighting are localized and sparse, mainly found around Bishop and localized communities in Chalfant and Deep Springs valleys.

The majority of the CSP Project lies on undeveloped land within unincorporated portions of Inyo and Mono counties in California, with large portions situated on land administered by the USFS and BLM.

From the western terminus of the CSP Project at Control Substation, located in the open, high desert landscape at the northwestern edge of the Owens Valley, the CSP Project alignment crosses SR-168, a designated state scenic highway, and U.S. 395, an eligible state scenic highway, and skirts residential areas on the outskirts of Bishop, approximately 5 miles northeast of the substation. After passing over the historic railroad community of Laws east of Bishop, the alignment enters the INF and traverses the rugged, predominately sparsely-forested White Mountains, largely paralleling unpaved access roads up Silver Canyon and ultimately reaching an elevation of approximately 10,800 feet. From the summit of the White Mountains the CSP Project alignment follows Wyman Canyon to Deep Springs Valley where it enters BLM administered land and follows SR-168, the primary east-west paved roadway through the region. Running generally parallel to SR-168 the alignment continues northeast for approximately 9 miles, traversing the approximately 6,400-foot high Gilbert Summit and crossing SR-168 multiple times before descending to Fish Lake Valley's flat, open desert agricultural landscape. The CSP Project's eastern terminus is the Fish Lake Valley Metering Station near the California/Nevada state line.

Two shorter taps extend from the main CSP Project alignment. In Segment 4 the Zack Tap extends 16 miles northeast from Bishop into the Chalfant Valley, an area of scattered residences. In Segment 5, east of the White Mountains, within Deep Springs Valley, the approximately 2.4 mile-long Deep Springs Tap bifurcates from the main CSP Project alignment to terminate at Deep Springs Substation at Deep Springs College, a small private residential campus.

5.1.1.2 Scenic Resources

Scenic resources are those natural and built landscape patterns and features that are considered visually or aesthetically pleasing, and therefore contribute positively to the definition of a distinct community or region. Scenic resources may include trees or other important vegetation; landform elements, such as hills or mountains, ridgelines or rock outcroppings; water features, such as rivers, bays, or reservoirs; and landmarks, important buildings, or historic sites and structures.

The White Mountains, including the Ancient Bristlecone Pine Forest, constitute a dominant landscape feature and scenic resource that is visible from many locations within the CSP Project area. The Ancient Bristlecone Pine Forest is a protected area within the White Mountains that is the home to trees considered to be the oldest in the world. A Visitor Center and viewing trail loop is located at Schulman Grove, approximately 2 miles away from the CSP Project alignment and not within view. Patriarch Grove, 12 miles to the north and more than 6 miles from the CSP Project alignment, includes the world's largest bristlecone pine, viewing trails and a picnic area.

Additional scenic resources described in Section 5.1.1.2 include landscape features of the Owens Valley, as well as built historic features such as the Laws Railroad Museum, the site of a former railroad depot and a California Landmark that is listed on the National Registry of Historic Places. Other built historic features include wooden cabins and stone smelter at Roberts Ranch and other locations in Wyman Canyon. Photographs are included in Figures 5.1-2a through p and photograph descriptions are included in Appendix J to this PEA.

In addition, various public roadways are recognized for providing visual access to scenic resources in the CSP Project vicinity. Table 5.1-1 is a summary of designated scenic routes in the CSP Project area. In the Owens Valley near its western terminus at Control Substation the CSP Project crosses SR-168 where this roadway is a designated State Scenic Highway. Additionally, north of Bishop the CSP Project crosses U.S. 395, which is an eligible State Scenic Highway. Within the White Mountains, the CSP Project crosses White Mountain Road, which is a part of the Ancient Bristlecone Scenic Byway, a 34 mile-long route that follows a portion of SR-168 and continues along White Mountain Road to the Patriarch Grove. On the east side of the White Mountains, the CSP Project crosses SR-168 once again where it is an eligible State Scenic Highway on its trajectory through Deep Springs Valley and over Gilbert Summit, as is SR-266, crossed by the CSP Project near its eastern terminus in Fish Lake Valley.

Approximately 20 miles of the CSP Project crosses INF, administered by the USFS, and approximately 18.5 miles of the CSP Project crosses BLM-administered land. Section 5.1.2, Regulatory Setting, provides additional detail on policies regarding scenic resources, and Figures 5.1-3a and -3b map BLM and USFS visual management zones in the CSP Project area.

Roadway location	Designation	Relationship to Project	Representative Photograph and Viewpoint # (Figures 5.1-1a and 5.1-2)
Ancient Bristlecone Scenic Byway Inyo National Forest	National Scenic Byway	Project crosses	17, 18
SR-168 west of U.S. 395, Inyo County	Designated State Scenic Highway	Project crosses near Control Substation	1, 2
SR-168 east of U.S. 395, Inyo County and Mono County	Eligible State Scenic Highway Mono County Scenic Highway	Project crosses and runs parallel	27, 28, 29, 31
U.S. 395 Inyo County	Eligible State Scenic Highway	Project crosses	5, 6
SR-266 Mono County	Eligible State Scenic Highway	Project crosses	30

Table 5.1-1: Summary of Scenic Roadways Within the CSP Project Area

5.1.1.3 Viewshed Analysis

The CSP Project viewshed is defined as the general area from which a project is visible. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into foreground, middleground, and background zones. The foreground is defined as the zone within 0.25 to 0.5 mile from the viewer. The middleground is defined as the zone extending from the foreground to a maximum of 3 to 5 miles from the viewer; and the background zone extends from the middleground to infinity (USFS 1995). The BLM defines a foreground-middleground zone out to 3 to 5 miles, a

background zone out to 15 miles, and a seldom seen distance zone including portions of the landscape which are generally not visible from key observation points (KOPs), or portions which are visible but at a distance of more than 15 miles (BLM 1986).

Viewing distance is a key factor that affects the potential degree of project visibility. Visual details generally become apparent to the viewer when they are observed in the foreground, at a distance of 0.25 to 0.5 mile or less. Analysis of a proposed project primarily considers the potential effects of project elements on foreground viewshed conditions although consideration is also given to the potential effects on the middleground and background views.

The viewshed of the CSP Project is presented in Figure 5.1-1b. Viewing distance is topographicallyconstrained in much of Segment 3, but is not generally topographically-constrained in Segments 1, 2, 4, or 5. Viewing distance is not generally constrained by vegetation or structures. In Segments 1, 2, 4, and 5, the viewing angle of existing and proposed CSP Project infrastructure is functionally zero due to the flat topography along much of these Segments; in Segment 3, the viewing angle ranges from functionally zero to approximately ± 30 degrees.

5.1.1.4 Landscape Units

Two Landscape Units are utilized for purposes of documenting and describing existing visual conditions within the CSP Project viewshed. These Landscape Units or subareas are based upon the physical and cultural landscape characteristics found along the CSP Project alignment. Table 5.1-2 summarizes the Landscape Units in terms of their location and approximate length. Figure 5.1-1a depicts the location of Landscape Units in relationship to the CSP Project alignment and photograph viewpoints.

Table 5.1-2: Summary of Landscape Units

		Approximate
Landscape Unit	Location	Length (miles)
1: Control Substation to INF boundary	Inyo County	12
2: INF Boundary to Fish Lake Valley Metering Station near the	Inyo County and Mono County	33
California/Nevada Border		

Notes:

Segment 4 is excluded from all landscape units due to the very limited scope of work (replacement of two poles) in this Segment. One pole is located on BLM-managed lands that are designated VRM Class II; the pole replacement would be consistent with the management goals for this area. The other pole is located on LADWP-owned lands. Segment 5 is included in Landscape Unit 2.

5.1.1.4.1 Landscape Unit 1 (Photographs 1 through 10)

Landscape Unit 1 begins at Control Substation and extends east approximately 12 miles to the boundary of INF. Located within the generally flat northern Owens Valley at an elevation of approximately 4,150 ft amsl, this landscape unit is dominated by the City of Bishop. Situated near the confluence of the Owens River and adjacent creeks draining the nearby mountains, land use in this area is characterized by a mixture of undeveloped open space, residential and commercial development, and scattered agricultural and recreational uses. In contrast to the characteristic high desert scrubland that is most typical of the regional landscape, the area in the vicinity of Bishop appears distinct due to availability of surface water as well as groundwater. Riparian marshes and cottonwoods and willows occupy the floodplains north and east of the city, and areas of irrigated pasture extend out from Bishop's commercial center, along with landscaped residential districts that include numerous mature trees.

Photographs 1 through 10 in Figures 5.1-2 a through 5.1-2e show representative views of the CSP Project and surrounding landscape character found within Landscape Unit 1. Two of these views are KOPs

selected to show the CSP Project as seen from sensitive locations including viewpoints at the Laws Railroad Museum (refer to Figure 5.1-1a). The Visual Resources Technical Report in Appendix J to this PEA includes a detailed description of each representative photograph.

5.1.1.4.2 Landscape Unit 2 (Photographs 11 through 32)

Approximately 2 miles east of Laws, the CSP Project crosses into the INF, near the entrance to Silver Canyon. Landscape Unit 2 runs approximately 33 miles east from the forest boundary to near the California state line. As shown on Figure 5.1-1a, this Landscape Unit includes an approximately 2.4 mile extension south to Deep Springs Substation (Segment 5). In this landscape unit, the broad, open vistas characteristic of the comparatively flat, sparsely vegetated Owens Valley give way to the more varied topography and vegetation of the White Mountains where, open, long-range views of the CSP Project alignment are limited, and close-range views of CSP Project elements are more prevalent when access routes pass through relatively narrow canyons. At the same time, variations in topography as well as variable daylight conditions have a noticeable influence on the visibility of poles and overhead conductors.

Photographs 11 through 32 in Figures 5.1-2f through 5.1-2p show representative views of the CSP Project and surrounding landscape character found within Landscape Unit 2. Three of these views are KOPs selected to show the CSP Project as seen from sensitive locations in the White Mountains (refer to Figure 5.1-1a). The Visual Resources Technical Report in Appendix J to this PEA includes a detailed description of each representative photograph.

5.1.1.5 Viewers and Viewer Sensitivity

Accepted visual assessment methods, including those adopted by the BLM, USFS, and other federal agencies, establish sensitivity levels as a measure of public concern for changes to scenic quality. Viewer sensitivity, one of the criteria used to evaluate visual impact significance, can be divided into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. Visual sensitivity will vary with the type of users (BLM 1984). The primary viewer groups within the CSP Project viewshed are described below.

5.1.1.5.1 Motorists

Motorists or roadway travelers are the largest viewer group in the CSP Project area. Included in this group are motorists traveling on the region's network of paved roadways, such as SR-168, U.S. 395, U.S. 6 and SR-266, which are crossed by the CSP Project. Recreational roadway users also include those using unpaved BLM and USFS off-highway vehicle (OHV) recreation routes within Silver and Wyman canyons, as well as visitors accessing the Bristlecone forests in the White Mountains along White Mountain Road.

Motorists include both local and regional travelers who are familiar with the visual setting and recreational travelers using area roadways on a less regular basis. Local travelers include those commuting to or residents of Bishop, as well as drivers of commercial vehicles. Regional motorists include long distance truck drivers, and recreational visitors to the area as noted below. The duration of motorists' views is generally brief, and depending upon the travel route and type of roadway, could range from a few seconds to up to several minutes. Viewer sensitivity for motorists ranges from low to high and can be generally considered moderate, with a high sensitivity for motorists on SR-168, a designated State Scenic Highway; on the Ancient Bristlecone Scenic Byway; and on other scenic roadways noted below in Section 5.1.1.2.

5.1.1.5.2 Recreationalists

Recreationalists, including visitors to the INF and BLM lands, constitute another important viewer group. Activities include sightseeing, winter sports, on- and off-road vehicle touring, hiking, bird watching, wildlife viewing, photography, stargazing, fishing, camping, horseback riding, running, bicycling, backpacking, and rock climbing. Off-road vehicle users, or recreational motorists, include those using unpaved USFS or BLM OHV recreation routes within the Silver Creek Canyon and Wyman Canyon in the White Mountains as well as the Ancient Bristlecone Scenic Byway. The duration of views for this viewer group ranges from short to long, and the general expectation of a natural-appearing landscape setting among some recreationalists raises their sensitivity to high.

5.1.1.5.3 Residents

The CSP Project area is predominantly uninhabited, with residential populations largely concentrated in and immediately around the City of Bishop within the Owens Valley where views toward the CSP Project are either screened by intervening structures and vegetation or, where open views are available as in the case of residents along Bishop's northern perimeter, the CSP Project is not particularly noticeable due to distance or backdrop conditions. A limited number of residences border the CSP Project alignment, and in these cases close range views of CSP Project structures may be available. Locations of these residential viewers include places in or near the community of Laws and Deep Springs College in Deep Springs Valley. Residential views tend to be long in duration, and the sensitivity of this viewer group is considered moderate to high.

5.1.1.6 Representative Viewpoints

Thirty-two representative viewpoints have been identified for the CSP Project; these are shown on Figure 5.1-1a. Table 5.1-3, a summary of this set of representative photographs, includes information on the viewpoint location, primary type of viewers, backdrop conditions, and approximate viewing distance to the CSP Project. The viewing direction for each viewpoint is presented in Figure 5.1-1a. Table 5.1-3 also highlights a subset of the photographs that are KOPs. Taken together, these photographs convey a general sense of the existing visual character of the landscape within the vicinity of the CSP Project. The set of photographs also demonstrates that existing transmission, subtransmission and distribution facilities within the CSP Project viewshed, including those of the CSP Project, are established elements of the visual setting of the area.

Photograph number and Location * denotes KOP	Primary Viewers	Viewing Distance	Predominant Backdrop for Project Structures	
LANDSCAPE UNIT 1				
1. SR-168 crossing near Control Substation	Recreational Motorists Local Motorists	500 feet	Landscape	
2. SR-168 near Control Substation	Recreational Motorists Local Motorists	1,000 feet	Landscape	
3. Bishop Creek Battleground Historic Marker	Recreational Motorists	0.2 mile	Landscape	
5. Rocking K Road at Ed Powers Road	Local Motorists	0.4 mile	Landscape	
5. U.S. 395 west of Bishop	Regional Motorists	500 feet	Landscape and Sky	
6. U.S. 395 west of Bishop	Regional Motorists	350 feet	Landscape and Sky	
7. Saniger Lane at Dixon Lane	Residents	0.5 mile	Landscape	
8. U.S. 6 north of Bishop	Regional Motorists Local Motorists	0.25 mile	Landscape	
*9. Silver Canyon Road at Laws Railroad Museum	Recreationalists Local Motorists	150 feet	Landscape and Sky	
*10. Laws Railroad Museum	Recreationalists	100 feet	Sky and Landscape	
LANDSCAPE UNIT 2				
*11. Silver Canyon Road at INF boundary	Recreationalists	350 feet	Landscape	
12. Silver Canyon Road in lower canyon	Recreationalists	200 feet	Landscape	

 Table 5.1-3: Summary of Representative and KOP Photographs

Photograph number and Location * denotes KOP	Primary Viewers	Viewing Distance	Predominant Backdrop for Project Structures
13. Silver Canyon Road in upper canyon	Recreationalists	160 feet	Landscape
15. Silver Canyon Road near high point	Recreationalists	1000 feet	Landscape and Sky
15. Silver Canyon Road near White Mountain overlook	Recreational Motorists Recreationalists	400 feet	Landscape
16. Silver Canyon Road near White Mountain Substation	Recreational Motorists Recreationalists	< 300 feet	Landscape
17. White Mountain Road (Ancient Bristlecone Scenic Byway)	Recreational Motorists Recreationalists	300 feet	Sky
*18. White Mountain Road (Ancient Bristlecone Scenic Byway) at Wyman Creek Road	Recreational Motorists Recreationalists	400 feet	Landscape
19. Wyman Creek Road at historic cabin	Recreationalists Recreational Motorists	100 feet	Landscape and Sky
20. Wyman Creek Road in upper canyon	Recreationalists Recreational Motorists	250 feet	Landscape and Sky
21. Wyman Creek Road in middle of canyon	Recreationalists Recreational Motorists	375 feet	Landscape
22. Wyman Creek Road near Roberts Ranch	Recreationalists Recreational Motorists	150 feet	Landscape
23. Wyman Creek Road in lower canyon	Recreationalists Recreational Motorists	200 feet	Landscape
25. Wyman Creek Road at INF boundary	Recreationalists Recreational Motorists	100 feet	Landscape
*25. Wyman Creek Road near INF boundary	Recreationalists Recreational Motorists	325 feet	Landscape
26. Wyman Creek Road in Deep Springs Valley	Recreationalists Recreational Motorists	450 feet	Landscape
27. SR-168 in Deep Springs Valley	Local and Regional Motorists	250 feet	Landscape and Sky
28. SR-168 east of Gilbert Summit	Regional motorists Local Motorists	150 feet	Sky and Landscape
29. SR-168 in Fish Lake Valley	Local and Regional Motorists	250 feet	Sky and Landscape
30. SR-266 in Fish Lake Valley	Regional Motorists	0.3 mile	Landscape
31. SR-168 near Deep Springs College	Residents Local and Regional Motorists	350 feet	Landscape and Sky
32. Deep Springs College entry road	Residents	0.4 mile	Landscape

 Table 5.1-3: Summary of Representative and KOP Photographs

5.1.1.7 Representative Photographs

5.1.1.7.1 High Resolution Photographs Taken from the Representative Viewpoints

Figures 5.1-2a through 5.1-2p present a set of 32 photographs taken from representative locations along the alignment, within the CSP Project viewshed.

5.1.1.7.2 Information for Each Photograph

Information regarding the camera body, lens model, focal length, and camera height are provided in Section 5.1.4.3. Capture time and date information is unavailable as the photographs were taken prior to issuance of the *Guidelines*.

5.1.1.7.3 GIS Data

GIS data associated with each photograph location are provided under separate electronic cover.

5.1.1.8 Visual Resource Management Areas

Approximately 20 miles of the CSP Project crosses the INF, administered by the USFS, and approximately 18.5 miles of the CSP Project crosses BLM-administered land. Section 5.1.2, Regulatory Setting, provides additional detail on policies regarding scenic resources, and Figures 5.1-3a and -3b maps BLM and USFS visual management zones in the CSP Project area.

5.1.2 Regulatory Setting

Federal, State, and local regulations were reviewed for applicability to the CSP Project.

5.1.2.1 Regulatory Setting

5.1.2.1.1 Federal

5.1.2.1.1.1 Federal Land Policy and Management Act of 1976

The Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code [U.S.C.] 1701) and the U.S. Department of the Interior's (DOI) BLM Land Use Planning Handbook (BLM 2005) both emphasize the importance of protecting the quality of scenic resources on public lands. FLPMA sections relevant to Project are:

Section 102(a): "The public lands [shall] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values."

Section 103(c): Identifies "scenic values" as resources for public management. Section 201(a): "The Secretary shall prepare and maintain on a continuing basis and inventory of all public lands and their resources and other values (including...scenic values)."

Section 505(a): "Each right-of-way shall contain terms and conditions which will...minimize damage to the scenic and esthetic values."

FLPMA's legal mandate to protect the quality of scenic resources on public lands is carried out by BLM and detailed in BLM's Visual Resource Management (VRM) system, described below.

5.1.2.1.1.2 U.S. Department of Agriculture, Forest Service

For purposes of managing visual resources of lands within their jurisdiction, the USFS applies an inventory and assessment system known as the Scenery Management System (SMS). Adopted in 1995, the SMS establishes management goals to describe the level of modification associated with land use activity that is acceptable in a given area. These standards or Scenic Integrity Objectives (SIOs) range from "Very High", which is typically applied only to highly sensitive landscapes such as wilderness areas or special classified areas, to "Very Low", a standard that allows land use activity that may appear dominant in relationship to the natural landscape while not completely harmonizing with the natural setting (USDA

1995). Only one SIO class applies to any given area. It is important to note that the SIO does not necessarily represent current scenery conditions, but instead is a guideline for forest management objectives over time (Table 5.1-4).

Scenic Integrity Objective (SIO)	Characteristics
Very High	This SIO generally provides for ecological changes only. This refers to landscapes where the valued (desired) landscape character is intact with only minute, if any, deviations. The existing landscape character and sense of place is expressed at the highest possible level. The landscape is unaltered.
High	This SIO is used for landscapes where the valued landscape character "appears intact." Deviations may be present but they must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
Moderate	This SIO is used for landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low	This SIO is used for landscapes where the valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed but they borrow value attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes, or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but should be compatible or complimentary to the character within.

Table 5.1-4: USFS Scenery Management System Scenic Integrity Objectives

Source: USFS 1995

5.1.2.1.1.3 U.S. Department of Agriculture, Forest Service. Draft Revised Land Management Plan for the Inyo National Forest

Approximately 20 miles of the CSP Project alignment cross the INF. The Land Management Plan for the INF establishes management objectives for this area. As shown on Figure 5.1-3a, approximately 7.6 miles of the CSP Project cross parts of the INF with SIO of Moderate; under this SIO noticeable deviations in the setting must remain visually subordinate to the landscape character being viewed. Approximately 12.5 miles of the CSP Project cross areas with SIO of High where, as noted in Table 5.1-4 above, deviations may be present but they must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.

5.1.2.1.1.4 U.S. Department of Agriculture, Forest Service. National Forest Scenic Byway Program

The National Forest Scenic Byways are roads that have been designated by the USFS as scenic byways. The Ancient Bristlecone Scenic Byway begins on the outskirts of Bishop in the Owens Valley at the junction of U.S. 395 and SR-168. The roadway climbs through Pinyon Pine-Juniper woodlands within the INF and continues along White Mountain Road to the summit of the White Mountains where it terminates at Patriarch Grove of ancient Bristlecone pines. The CSP Project crosses this scenic roadway near White Mountain Substation.

5.1.2.1.1.5 U.S. Department of the Interior, Bureau of Land Management

The FLPMA of 1976 requires BLM to protect the quality of scenic values on public lands (43 U.S.C. 1701). To this end, BLM has developed the Visual Resource Management (VRM) system to identify and maintain scenic values and visual quality. Under this system, BLM-administered lands are inventoried, analyzed, and assigned visual ratings or Management Classes. Class designations are derived from an

analysis of scenic quality (rated by landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modification), a determination of viewer sensitivity levels (sensitivity of people to changes in the landscape), and distance zones. Management Classes describe the different degrees of modification allowed to the basic elements of the landscape (form, line, color, texture). Management classes and their corresponding goals are defined in Table 5.1-5 and discussed below.

Management Class	Goals
Class I	To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.
Class II	To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.
Class III	To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
Class IV	To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

 Table 5.1-5: BLM Visual Management Classes and Goals

A portion of the CSP Project alignment crosses BLM-administered land in the Owens Valley and east of the White Mountains. Figure 5.1-3b shows the CSP Project with VRM classifications on BLM-administered land. Approximately 2 miles of the CSP Project in Segment 2 in the Owens Valley crosses lands with BLM classification of VRM Class III. In addition, Segment 4 crosses another 5.4 miles of BLM Class III land. The BLM management goals in Class III areas allow for a moderate level of change to existing landscape character. In these areas, management activity may attract attention, but should not dominate the view of the casual observer.

East of the White Mountains, within Landscape Unit 2, approximately 10 miles of the CSP Project in Segment 3 crosses BLM administered land that is VRM Class II. In addition, Segment 4 crosses another 2.2 miles of VRM Class II land. Management goals for VRM Class II areas call for retaining the existing landscape character and allow for a low level of change to existing landscape character and any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

5.1.2.1.1.6 BLM Desert Renewable Energy Conservation Plan Record of Decision

Covering more than 20 million acres in seven California counties including Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego County, the Desert Renewable Energy Conservation Plan (DRECP) was developed as an interagency plan by the BLM, the USFWS, the California Energy Commission (CEC), and the CDFW. The BLM manages approximately 10 million acres of the 22.5 million acres covered in the overall Plan area.

The DRECP landscape-scale planning effort was undertaken to achieve two sets of overarching goals. The first is Renewable Energy. To address these goals, the plan identifies specific development focus areas with high- quality renewable energy potential and access to transmission in areas where environmental impacts can be managed and mitigated. The second overarching goal concerns Conservation. The plan specifies species, ecosystem and climate adaptation requirements for desert wildlife, as well as the protection of recreation, cultural, visual, and other desert resources. Through the DRECP Record of Decision (ROD) an approved Land Use Plan Amendment (LUPA) establishes a policy framework for BLM-managed land, including management and conservation of visual resources. Figure 11 of the DRECP LUPA is a map of the plan area showing VRM Classes for the entire planning area (September 2016).

BLM-administered land crossed by the CSP Project east of the White Mountains is within the area governed by the DRECP ROD. A map of the CSP Project area showing the CSP Project alignment with VRM classes on BLM-administered is included as Figure 5.1-3b.

5.1.2.1.1.7 BLM Bishop Resource Management Plan Record of Decision

The Owens Valley section of the CSP Project alignment crosses BLM-administered lands that are located in the Bishop Resource Management Plan's (RMP) Management Area 6-Benton and Management Area 7-Owens Valley. The Bishop RMP provides guidance for these areas. Area-wide visual resources policies of the Bishop RMP ROD (1993) require use of non-specular wire and corten steel towers for all power lines, and also calls for managing all activities to conform with Visual Resource Management (VRM) standards, stating that enforcement emphasis for VRM classes II-IV will be along KOPs. Outside KOPs, the BLM will apply designated VRM class prescriptions but the Area Manager may allow development to exceed the VRM class for reasons such as technological infeasibility or low visitor use. Figure 5.1-3b is a map of the CSP Project area showing the CSP Project alignment with VRM classes on BLM-administered land.

5.1.2.1.1.8 Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands

BLM guidance is provided in this document in the form of 122 BMPs to avoid or reduce potential visual impacts associated with the siting, design, construction, operation, and decommissioning of utility-scale renewable energy generation facilities, including wind, solar, and geothermal facilities as well as ancillary components, such as electric transmission structures and access. Selection of structure types and selection of appropriate materials surface treatments are among the pertinent BMPs outlined in this document to minimize potential visual effects and contrast associated with transmission facilities.

5.1.2.1.1.9 U.S. Department of Transportation, National Scenic Byways Program

The National Scenic Byways Program was established under the Intermodal Surface Transportation Efficiency Act of 1991, and reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. The act allows states, the BLM, the USFS, and other agencies to apply for funding to enhance the intrinsic qualities of the roadways. The Ancient Bristlecone Scenic Byway, which the CSP Project crosses, is listed as a National Scenic Byway.

5.1.2.1.1.10 Federal Aviation Administration

Generally, marking or lighting is recommended by the FAA for those spans or structures that exceed 200 feet in height above ground level (AGL); however, marking or lighting may be recommended for spans and structures that are less than 200 feet AGL, but located within close proximity to an airport or other high-density aviation environment.

5.1.2.1.2 State

5.1.2.1.2.1 California Department of Transportation, Scenic Highway Program

The State Scenic Highway Program—a provision of Sections 260 through 263 of the Streets and Highways Code—was established by the Legislature in 1963 to preserve and enhance the natural beauty of California. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a State Scenic Highway changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection

program, applies to Caltrans for scenic highway approval, and receives the designation from Caltrans. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways. However, State legislation is required.

From the City of Bishop west to Lake Sabrina, SR-168 is a designated State Scenic Highway. The CSP Project crosses this designated State Scenic Highway near Control Substation. The CSP Project also crosses sections of U.S. 395, SR-168, and SR-266 that are eligible State Scenic Highways (refer to Figure 5.1-1a).

5.1.2.1.2.2 California State Parks Office of Historic Preservation, California Landmarks and Points of Historic Interest

The Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration, and protection of California's historic resources including California Historic Landmarks and Points of Historic Interest. These resources are buildings, sites, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value. Description of the CSP Project's visual setting includes two such resources.

Situated approximately 0.35 mile from Control Substation, the Bishop Creek Battleground Historical Marker is located along SR-168, and commemorates an historic battle between newly arrived citizens of Owens Valley and the original inhabitants of the land, the Paiute and Shoshone Indians. Photograph 3 (Figure 5.1-2b) is a view toward the CSP Project from this marker.

Listed on the National Registry of Historic Places, the Laws Railroad Museum and Historical Site is a designated California Landmark that includes almost 50 structures on 11 acres commemorating the history of Owens Valley and the Eastern Sierra. The CSP Project alignment crosses the Museum site, which is located approximately 4 miles northeast of Bishop in the community of Laws. Photographs 9 and 10 (Figure 5.1-2e) include the Laws Railroad Museum.

5.1.2.1.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the CSP Project. Pursuant to GO 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the CSP Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.1.2.1.3.1 Inyo County General Plan

The Inyo County General Plan Circulation Element and Conservation/Open Space Element contain the following goals and policies, respectively:

Goal SH-1. Maintain a system of scenic routes that will preserve and enhance the quality of life for present and future generations.

Policy SH-1.3. Expand Scenic Route Designations. The County will work with Caltrans to obtain Scenic Route designations on all portions of U.S. 395 and State Routes 168 and 190. The County should also work with Caltrans to identify and have designated other scenic corridors in the County

Goal VIS-1. Preserve and protect resources throughout the County that contribute to a unique visual experience for visitors and quality of life for County residents.

Policy VIS-1.3 Grading Impacts. Man-made slopes should be treated to reflect natural hillside conditions in the surrounding area.

5.1.2.1.3.2 Mono County General Plan

The eastern end of Segment 3 as well as those locations where work will occur in Segment 4 are located in unincorporated Mono County. The Circulation and Conservation and Open Space Elements of the Mono County General Plan (2009) contain policies related to visual resources in the CSP Project area as follows:

Circulation Element

Objective 2.A. Minimize the impact on the environment and scenic resources of communications projects and infrastructure.

Action 2.A.1.c. Encourage placement of towers outside community areas.

Conservation and Open Space Element

This General Plan element states that visual impacts of utility corridors and overhead utility lines have become an issue both in community areas and undeveloped areas. Goals and policies are included under topics of Energy Resources and Visual Resources.

GOAL 15. Minimize the visual, environmental, and public health and safety impacts of electrical transmission lines and fluid conveyance pipelines.

Policy 15.A.9. Require that materials used to construct transmission towers harmonize with the natural surroundings. Self-protecting bare steel and other types of non-reflective surfaces are appropriate in many areas. Towers constructed of material other than steel, such as concrete, aluminum, or wood should be considered. Coloring of transmission line towers to blend with the landscape should be considered.

Policy 15.A.10. Above-ground transmission lines shall be non-specular wire construction.

GOAL 20. Protect and enhance the visual resources and landscapes of Mono County.

Policy 20.A.1. In order to protect and enhance important scenic resources and scenic highway corridors as identified in the Master Environmental Assessment (MEA), designate such areas throughout the county for Open Space, Agriculture, Resource Management, or similar low intensity uses.

Action 20.A.1.a. Identify important scenic resources, including scenic highway corridors, in the MEA.

Policy 20.A.3. Preserve the visual identity of areas outside communities.

Objective 20.B. Maintain a countywide system of state and County-designated scenic highways. (See RTP for designated roads.)

Policy 20.B.1. Maintain existing State-designated scenic highways.

Action 20.B.1.a. Enforce required regulations for protection of roadways designated as state scenic highways.

Action 20.B.1.b. Work with appropriate agencies to protect visual resources within existing designated scenic highway corridors.

Policy 20.B.3. Maintain existing County-adopted scenic highways.

Policy 20.C.3. Proposed transmission and distribution lines shall be designed and sited to minimize impacts to natural and visual resources.

5.1.2.1.3.3 Mono County Regional Transportation Plan – 2015 Update

The Mono County Regional Transportation Plan includes a list of County Scenic Highways as well as goals and policies summarized below. State Route-168 within Fish Lake Valley is the only county scenic roadway within sight of the CSP Project.

Goal 6. Develop and enhance the transportation and circulation system in a Manner that protects the county's natural and scenic resources and that maximizes opportunities for viewing those resources.

Policy 6.B. Maintain State and Local scenic highway and byway designations and provide opportunities to enhance/interpret natural and scenic resources along those routes.

Policy 6.C. Designate additional Federal, State, and Local scenic highways and byways within the county.

5.1.3 Impact Questions

5.1.3.1 Impact Questions

The significance criteria for assessing the impacts to aesthetics come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources within a State Scenic Highway, including, but not limited to: trees, rock outcroppings, and historic buildings
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point)
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

5.1.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.1.4 Impact Analysis

5.1.4.1 Visual Impact Analysis

5.1.4.1.1 Would the Project have a substantial adverse effect on a scenic vista?

5.1.4.1.1.1 Construction

Less than Significant Impact. For the purpose of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality.

An established scenic overlook is located along a paved segment of White Mountain Road, part of the Ancient Bristlecone Scenic Byway, approximately 2 miles south of the Ancient Bristlecone Visitor Center, which constitutes the gateway for recreational visitors to the White Mountains. Located approximately 3.6 miles south of the CSP Project alignment, the CSP Project is not visible from this scenic overlook due to intervening topography.

White Mountain overlook, an informal pullout adjacent to White Mountain Substation approximately 3 miles north of the visitor center along an unpaved portion of White Mountain Road, affords recreational motorists and hikers views of the Owens Valley and Sierra Nevada Mountains and includes a view of CSP Project elements near the top of Silver Canyon. As shown in Photo 15 (Figure 5.1-2h), a view from Silver Canyon Road near the White Mountain overlook, a number of existing wood poles can be seen below a scattered stand of trees. The tops of the poles are well below the summit of the more distant south canyon wall. The replacement of existing wood poles with new, somewhat taller replacement poles of similar form will represent a minor change to the view toward the CSP Project alignment, and the increased pole height will not obstruct the expansive distant landscape views that are currently available from the overlook. As a result, the CSP Project will not substantially affect the existing visual character or quality of this view and potential impacts to this scenic vista will be less than significant.

5.1.4.1.1.2 Operations

No Impact. Operation and maintenance activities required for the rebuilt subtransmission lines will not change from those currently required for the existing system; thus, no operation-related impacts to a scenic vista would occur.

5.1.4.1.2 Would the Project substantially damage scenic resources within a State Scenic Highway, including, but not limited to: trees, rock outcroppings, and historic buildings?

5.1.4.1.2.1 Construction

Less than Significant Impact. As outlined in Section 5.1.1 and Table 5.1-1 and shown on Figure 5.1-1a, within the CSP Project area a portion of SR-168 located west of Bishop is a designated State Scenic Highway; Segment 1 is visible from this Highway. Within Segment 1 of the CSP Project, only OPGW will be installed on existing structures; no subtransmission poles will be removed and replaced. Therefore, no change to scenic resources within this roadway corridor would occur and there would be no impact.

Table 5.1-1 notes that portions of the CSP Project will also be visible from three eligible State Scenic Highways including portions of U.S. 395, SR-168 and SR-266. Photographs 5 and 6 (Figure 5.1-2c), two views taken from the segment of U.S. 395, which is an eligible State Scenic Highway where the CSP Project crosses the highway north of Bishop, show that existing steel poles on either side of the highway are similar in form to CSP Project replacement poles. As noted above, no CSP Project poles will be replaced in Segment 1 south of U.S. 395. North of U.S. 395 the existing wood poles will be replaced with fewer, more widely spaced, replacement poles. These changes would be minor and incremental and it is therefore expected that there would not be a substantial effect on motorists' views from the eligible State Scenic Highway portion of U.S. 395.

The eastern portions of Segment 3 and Segment 5 parallel and cross an eligible State Scenic Highway section of SR-168 east of the White Mountains (Figure 5.1-1a), where the overall visibility of the CSP Project would be reduced as a result of the permanent removal of all poles within one of the two existing alignments and the replacement of poles within the remaining alignment with more widely spaced poles. This includes the permanent elimination from view of previously-visible elements (poles and conductor) along an approximately 1.8 mile-long portion of the highway. Similarly, where the CSP Project crosses SR-266 in Fish Lake Valley, a single subtransmission alignment will replace existing parallel wood pole lines, with fewer new poles more widely spaced compared to the existing poles.

Taken together, the incremental effects described above would not result in damage to existing scenic resources along a State Scenic Highway. Therefore, the impact is less than significant.

5.1.4.1.2.2 Operations

No Impact. Operation and maintenance activities required for the rebuilt subtransmission lines will not change from those currently required for the existing system; thus, no operation-related impacts to existing scenic resources within a State Scenic Highway corridor would occur.

5.1.4.1.3 Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

5.1.4.1.3.1 Construction

Less than Significant Impact. Construction-related visual impacts resulting from the temporary presence of equipment, materials, and work crews along the CSP Project alignment, staging and work areas, and stringing sites would not substantially degrade the existing visual character of the landscape. To varying degrees, construction activity will be noticeable to a small number of local residents in the community of Laws, as well as some motorists and recreational visitors. Construction activities will take place over a greater than two-year period, but activities will be considerably shorter in duration at any one location.

Trees or portions of trees that encroach on existing access and spur roads along upper Silver Canyon and portions of Wyman Canyon may be trimmed or removed to facilitate the safe movement of construction equipment. Similarly, trees or portions of trees within or adjacent to stringing sites, construction laydown areas, construction work areas, staging yards, and helicopter landing zones may be trimmed or removed to permit the safe operation of construction equipment; however, these construction areas will be preferentially sited in non-treed areas to minimize the trimming or removal of trees. As presented in Section 3.5.4.3.1, only the minimum amount of vegetation necessary for the safe construction and operation of structures and facilities will be removed. If restoration and/or revegetation occurs within sensitive habitats, a habitat restoration and/or revegetation plan(s) would be developed by SCE with the appropriate resource agencies and implemented after construction is complete. In general, the visual effects of vegetation removal will be minor and not noticeable to the public and the impact would be less than significant.

During construction, migration of fugitive dust from the construction sites would be limited by control measures set forth by the regional air quality management district; these measures may include the use of water trucks and other dust control measures. Minor disturbance of land within and along the CSP Project alignments will occur as a result of installing replacement poles and removing existing structures. In addition, minor land disturbance may occur at some of the temporary staging and work areas that will be established as part of the CSP Project construction; these areas will generally be located on disturbed land located near or on the existing CSP Project alignments. A limited degree of visual contrast could occur as a result of land disturbance activity such as creation of newly exposed soil areas for construction; however, because SCE would restore all areas that would be temporarily disturbed by construction including locations where structures are removed, staging yards, construction work areas, and stringing sites, among others to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE following the completion of construction of the CSP Project, the effect would be minimized so that the disturbed areas will blend in with the surrounding landscape setting, thus reducing visual contrast and potential visibility of these areas. As a result, any visual character degradation resulting from temporary construction activity would be less than significant.

The CSP Project would result in incremental permanent visual change that would not substantially alter or degrade the existing visual character in the area. The CSP Project includes replacing or modifying existing

subtransmission facilities within existing utility ROWs that are located in rural, sparsely populated portions of Inyo County and Mono County.

Within the northern Owens Valley (Landscape Unit 1), close-range public views of the CSP Project would be available in a limited number of locations including U.S. 395, where the CSP Project crosses the highway approximately 3.5 miles northwest of Bishop, and U.S. 6, crossed by the CSP Project approximately 2.5 miles northeast of Bishop. The CSP Project alignment also passes within approximately 0.5 mile of a small number of residences along Bishop's northern perimeter, and skirts the Laws Railroad Museum, a recreational facility east of Bishop. In these locations, new CSP Project components will be seen within the context of existing utility infrastructure that includes adjacent power alignments and distribution lines. In many instances within this area, the surrounding or backdrop landforms and vegetation, combined with the effect of distance, would diminish the visibility of CSP Project components. Additionally, CSP Project subtransmission line replacement will result in a net reduction in the total number of visible structures due to approximately doubling the distance between replacement poles along Segment 2 and approximately 14 miles of Segment 3, and the consolidation of two single-circuit alignments into one double-circuit line along the entire length of Segment 3. Figures 5.1-4 and 5.1-5 showing existing and post-Project views as seen from two KOPs within Landscape Unit 1 portray views from within the community of Laws, a sensitive location in proximity to a California Historical Landmark. As discussed above and outlined on Table 5.1-6, the simulations demonstrate that the incremental change associated with the CSP Project would not substantially alter or degrade existing landscape or visual character in the area.

In Landscape Unit 2, the CSP Project alignment primarily traverses largely uninhabited portions of INF and BLM land. To varying degrees, CSP Project components will be visible from locations within Deep Springs Valley and over Gilbert Summit along SR-168 east of the White Mountains, as well as publiclyaccessible unpaved off-road tracks and public recreation areas. Figures 5.1-6 through 5.1-8 are pairs of existing and post-project views from KOP locations within the INF near White Mountain summit and near the BLM/USFS boundary east of the summit, respectively. This set of figures demonstrates that intervening landforms partially or fully screen CSP Project elements from all but a limited number of viewers in this area, and similar to instances in Landscape Unit 1, where more open views are available, the level of CSP Project visibility is diminished due to backdrop conditions and viewing distance. Moreover, the permanent removal of approximately half of the existing poles in this area would represent an incremental improvement to the visual setting. East of the White Mountains the CSP Project parallels a section of SR-168 that is an eligible State Scenic Highway, where the overall visibility of the CSP Project would be reduced as a result of the permanent removal of all poles within one of the two existing alignments including the permanent elimination from view of previously visible elements along an approximately 1.8 mile-long portion of the highway. Replacement of existing poles within the remaining alignment would include fewer, more widely spaced, taller poles. Similarly, where the CSP Project crosses SR-266 in Fish Lake Valley, a single subtransmission alignment will replace two existing parallel wood pole lines, with fewer new poles more widely spaced compared to the existing poles. In light of the changes outlined above and summarized in Table 5.1-6 as well as demonstrated by the set of visual simulations from the five KOPs presented on Figures 5.1-4 through 5.1-8, the CSP Project would result in incremental visual change that will not substantially alter or degrade existing visual character or quality in the area. Therefore, the impact would be less than significant.

5.1.4.1.3.2 Operations

No Impact. Operation activities required for the rebuilt subtransmission lines will not change from those currently required for the existing system; thus, no operation-related impacts to aesthetic conditions would occur.

5.1.4.1.4 Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

5.1.4.1.4.1 Construction

Less than Significant Impact. Most construction will take place during daylight hours; however, at limited times some construction along the CSP Project alignment may be required or finished at night, and these activities will require lighting for safety. Any required lighting would be limited to an individual work area and would be temporary in nature. Staging yards may be lit for staging and security; and lighting would be directed on site and away from potentially sensitive receptors. Non-specular conductors and non-reflective insulators, and dulled replacement structures will replace existing components, thus reducing potential glare (refer to APM AES-1). Therefore, the CSP Project will not result in a substantial light or glare effect and the impact would be less than significant.

5.1.4.1.4.2 Operations

No Impact. No new permanent lighting is proposed for the CSP Project. Non-specular conductors and non-reflective insulators, and dulled replacement structures will replace existing components thus reducing potential glare (refer to APM AES-1). Operation activities required for the rebuilt subtransmission lines will not change from those currently required for the existing system; thus, no operation-related impacts to day or nighttime conditions would occur.

5.1.4.2 Analysis of Selected Viewpoints

The information requested in the CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* document is, as allowed in the *Guidelines*, contained in the Visual Resources Technical Report in Appendix J.

5.1.4.3 Visual Simulation

Photographs were taken using a digital single-lens reflex (SLR) camera with standard 50-millimeter lens equivalent, which represents an approximately 40-degree horizontal view angle. Photography viewpoint locations were documented in the field using photo log sheet notation, global positioning system (GPS) recording, and basemap annotation. Digital aerial photographs and project design information supplied by SCE and Arcadis provided the basis for developing three–dimensional computer modeling of the new project components. For each simulation viewpoint, viewer location was input from GPS data using 5 feet as the assumed eye level. Computer "wireframe" perspective plots were overlaid on the simulation photographs to verify scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the three-dimensional modeling combined with selected digital site photographs. The simulations presented on Figures 5.1-4 through 5.1-8 consist of two full-page images designated "a" and "b," with the existing views shown in the "a" figure and the after visual simulations in the "b" figure.

5.1.4.4 Analysis of Visual Change

5.1.4.4.1 Methodology and Assumptions

The visual analysis is based on site reconnaissance and review of technical data including maps and drawings provided by SCE as well as review of aerial and ground level photographs of the CSP Project area, review of public policy and planning documents, and computer-generated visual simulations that portray the CSP Project's appearance. Field observations were conducted in October 2017 to document existing visual conditions in the CSP Project vicinity, including potentially affected sensitive viewing locations.

Visual simulations were prepared to support the impact analysis and illustrate before-and-after visual conditions in the CSP Project area as seen from five key sensitive public viewpoints or KOPs. The KOPs represent views where the CSP Project would be most visible to the public from sensitive locations such as designated scenic roadways, recreation facilities, areas in proximity to residences, or public land subject to scenic resource management policy.

This visual assessment employs methods based, in part, on those adopted by the BLM, the USFS, USDOT Federal Highway Administration (FHWA), and other accepted visual analysis techniques. The impact analysis describes change to existing visual resources and assesses viewer response to that change. Central to this assessment is an evaluation of key views from which the CSP Project will be visible to the public. The visual impact assessment is based on an evaluation of the CSP Project-related changes to the existing visual resources that will result from construction and operation of the CSP Project; the changes were assessed, in part, by evaluating views of the CSP Project provided by the computer-generated visual simulations and comparing them to the existing visual environment. Sections 5.1.4.3 and 5.1.4.4, Visual Simulations and Visual Change, includes a description of the technical methods that were employed to prepare the visual simulations.

5.1.4.4.2 Description of Visual Change

The set of visual simulations presented on Figures 5.1-4 through 5.1-8 documents the CSP Project-related visual change that would occur at five KOPs, and provides the basis for evaluating potential visual effects associated with the CSP Project from these key public views. The methodology employed for preparing the simulations includes systematic site photography, computer modeling, and digital rendering techniques.

This section includes description of the CSP Project-related change and an evaluation of potential visual effects on key public views, primarily as represented by the set of five KOP visual simulations. Table 5.1-6: Summary of Visual Effects at Key Viewpoints, presents an overview including viewpoint location with corresponding visual sensitivity factor(s); approximate viewing distance; and summary of visible change and potential effect that would occur at each KOP location. As summarized in Table 5.1-6 and detailed under discussion of the two Landscape Units, the visual change associated with the CSP Project would not substantially alter existing visual conditions in the CSP Project area.

		v i	
Photograph number and Location (Figure number)	Visual Sensitivity Factor(s)	Viewing Distance/ Distance Zone	Visual Change and Effect
LANDSCAPE UNIT 1	•	·	•
9. Silver Canyon Road at Laws Railroad Museum looking west (Figure 5.1-4)	Proximity to California Historical Landmark Proximity to recreational facility with high viewer sensitivity	100 feet/ Foreground	Permanent removal of subtransmission structures along roadway edge. Reduction in height of existing wood pole in immediate foreground. Removal of subtransmission structures represents an incremental improvement to the visual character of landscape in this area.
10. Laws Railroad Museum looking east (<i>Figure 5.1-5</i>)	Proximity to California Historical Landmark Proximity to recreational facility	250 feet/ Foreground	Taller wood pole-equivalents and a single TSP replace existing wood poles. Increased distance between poles results in fewer subtransmission structures visible in landscape.

Table 5.1-6: Summary of Visual Effects at Key Viewpoints

Photograph number and Location (Figure number)	Visual Sensitivity Factor(s)	Viewing Distance/ Distance Zone	Visual Change and Effect
	with high viewer sensitivity		Increased height of replacement poles does not significantly alter views of White Mountains in backdrop, and overall change would not substantially affect existing landscape character.
LANDSCAPE UNIT 2	•		
11.Silver Canyon Road at INF looking east (<i>Figure 5.1-6</i>)	High USFS SIO classification Off-highway recreation route with high viewer sensitivity	350 feet/ Foreground	A single alignment of somewhat taller replacement wood pole-equivalent replaces two existing parallel alignments of wood poles resulting in fewer visible subtransmission structures overall. Incremental increase in visibility of some new structures when seen against landscape backdrop in particular lighting conditions.
			Overall change would not substantially affect existing landscape character and scenic integrity.
18. White Mountain Road (Ancient Bristlecone Scenic Byway) at Wyman Creek Road looking north (<i>Figure 5.1-7</i>)	High USFS SIO Classification Ancient Bristlecone Scenic Byway with high viewer sensitivity	<500 feet/ Foreground	Single alignment of incrementally taller wood pole- equivalents and a single TSP replaces two existing parallel alignments of wood poles resulting in fewer visible subtransmission structures overall. Incremental increase in contrast of replacement structures against landscape backdrop compared with existing wood poles, resulting in slight increase in visibility of individual poles in foreground.
			Overall change would not substantially affect existing landscape character and scenic integrity.
25. Wyman Creek Road near INF boundary looking east (<i>Figure 5.1-8</i>)	BLM VRM Class II classification Off-highway recreation route with high viewer sensitivity	300 feet/ Foreground	Single alignment of fewer taller wood pole- equivalents replaces two existing parallel alignments of wood poles.
			Incremental increase in height of replacement poles does not substantially affect existing view of distant mountain backdrop from roadway.
			Visual contrast of replacement poles in the landscape similar to existing wood poles. Overall change would not substantially affect existing landscape character.

Table 5.1-6: Summary of Visual Effects at Key Viewpoints

5.1.4.4.3 Landscape Unit 1

Beginning at Control Substation and extending approximately 12 miles across the Owens Valley to the boundary of the INF, generally distant views of the CSP Project predominate, with close-range public views of the CSP Project limited to where the CSP Project crosses SR-168 and U.S. 395 and along Silver Canyon Road and the community of Laws near the eastern edge of the Owens Valley.

5.1.4.4.3.1 Figure 5.1-4: Visual Simulation: Silver Canyon Road at Laws Railroad Museum (VP 9)

Approximately 3.8 miles northeast of Bishop the CSP Project alignment's parallel circuits pass through Laws, the site of the open-air Laws Railroad Museum, a California Landmark that is listed on the National

Registry of Historic Places. This foreground viewing location is considered to have a high viewer sensitivity. Looking west along Silver Canyon Road, Figure 5.1-4a shows a close-range view of a portion of the railroad museum on the left, and wood poles supporting the existing northern alignment of the CSP Project adjacent to the right side of the roadway. The poles are seen against the backdrop of sky and the Sierra Nevada mountains. Partially seen against a backdrop of trees, the closest pole supports a steel cobrahead light fixture in addition to distribution and communication cable. Whereas the closest pole is a noticeable element in the foreground, the poles and overhead conductor that recede along the roadway increasingly blend into the landscape background with greater distance from this viewpoint.

In the Figure 5.1-4b simulation, the existing wood poles along the roadway have been removed, with the exception of the pole in the immediate foreground. This change is the result of displacement of the existing single-circuit alignment from its present location along the roadway edge and its consolidation with a new double-circuit line situated approximately 800 feet to the south. The simulation also shows the remaining pole in the foreground is noticeably shorter and has been modified to support only the existing light fixture. A comparison of Figures 5.1-4a and 5.1-4b demonstrates that the removal of CSP Project structures and the decrease in height of the remaining pole results in an incremental reduction in visual contrast and improvement to the scenic integrity at this location.

5.1.4.4.3.2 Figure 5.1-5: Visual Simulation: Laws Railroad Museum (VP10)

Figure 5.1-5a, a foreground view looking east approximately 800 feet to the south of the Laws Railroad Museum frontage along Silver Canyon Road, shows the existing southern alignment of the CSP Project traversing the railroad museum site, an area with high viewer sensitivity. Historic railroad equipment and several outbuildings along with a CSP Project pole dominate the foreground. Similar to the previous KOP view, CSP Project poles are noticeable against the sky and the lighter hues of mountains in the background; however, as seen from this location, trees partially block views of more distant poles. In addition, various museum yard elements including equipment of similar color to the poles, along with adjacent buildings and trees, provide multiple focal points in the foreground.

The Figure 5.1-5b simulation shows the existing wood CSP Project poles replaced by a smaller number of replacement poles. The existing CSP Project structure in the immediate foreground seen in Figure 5.1-5a, along with multiple wood poles visible beyond, have been permanently removed. In addition to the replacement poles being somewhat taller, the simulation shows their updated structure design with multiple horizontal insulators that extend directly from the pole, thus eliminating the need for crossarms. Although the replacement poles appear somewhat darker compared to the weathered wood poles that have been removed, the medium-dark brown color of the new structures, most noticeably in the case of the poles seen in the foreground, is compatible with the appearance and texture of the machinery and structures seen within the museum yard. A comparison of Figures 5.1-5a and 5.1-5b demonstrates that the overall form and appearance of the new poles does not fundamentally deviate from existing structures being replaced and the increased height of the new poles would not substantially alter the general visibility and visual contrast of the CSP Project in relation to the landscape backdrop. As shown in the Figure 5.1-5b visual simulation, the permanent removal of approximately half of the existing CSP Project poles would represent an incremental improvement to the visual setting. In light of changes described above, the introduction of the new replacement poles represents an incremental effect that would not result in a substantial change in the existing landscape character and scenic integrity.

5.1.4.4.4 Landscape Unit 2

Within Landscape Unit 2, the CSP Project alignment traverses the INF and crosses the rugged, largely uninhabited, and for the most part sparsely-forested White Mountains, where it generally parallels unpaved access or off-highway recreation roads in an area of varied topography and vegetation. In this

environment, open, long-range views of the CSP Project alignment are limited to locations near the almost treeless summit of the White Mountains. Visibility of CSP Project elements is also influenced by the variations in backdrop topography as well as daylight conditions where access routes pass through relatively narrow canyons. Viewer sensitivity in this area is generally high.

5.1.4.4.4.1 Figure 5.1-6: Visual Simulation: Silver Canyon Road at Inyo National Forest (VP 11)

Figure 5.1-6a is a view looking east near the lower entrance to Silver Canyon. Taken along Silver Canyon Road, a limited vehicle access off-highway recreation route that closely parallels the CSP Project alignment, the photograph shows parallel arrays of existing wood poles receding into the distance along the left side of the roadway. The degree of the poles' visibility varies depending on the backdrop. Many of the weathered wood poles blend in with the light sandy terrain visible above the road to the left, while the tops of several poles in the foreground are somewhat more noticeable when seen against the darker terrain that characterizes the more distant backdrop.

The Figure 5.1-6b simulation shows taller wood pole-equivalents having replaced the existing wood poles that were closest to the roadway edge in the foreground. The design of these replacement poles includes a tiered array of light colored, roughly horizontal insulators which differ from the single wood crossarm supporting the paired vertical insulators seen on the existing wood poles. The simulation also depicts the permanent removal of the parallel set of existing wood poles that were to the left. A comparison of Figures 5.1-6a and 5.1-6b demonstrates that the increased height of the new poles would not alter the overall visibility of CSP Project components in relation to the landscape backdrop. Although the more uniform, darker color of the new poles seen in the Figure 5.1-6b simulation contrasts more readily with the landscape backdrop in the foreground, the level of contrast diminishes when seen against the darker terrain in the distance. At the same time, the medium-dark brown color of the new structures is similar to and compatible with the informational sign seen in the immediate foreground as well as with the dark colored outcrops within the surrounding terrain. In this respect the CSP Project does not generally deviate from the overall color and texture of the surrounding landscape. Moreover, the permanent removal of approximately half of the existing structures would represent an incremental improvement to the visual setting. Overall the changes described above including the introduction of the new replacement poles and the permanent removal of the parallel set of existing wood poles represents an incremental effect that would not result in a substantial change in the existing landscape character and scenic integrity.

5.1.4.4.4.2 Figure 5.1-7: Visual Simulation: White Mountain Road (Ancient Bristlecone Scenic Byway) at Wyman Creek Road (VP 18)

Figure 5.1-7a shows an open, and slightly elevated foreground view along the CSP Project alignment from the junction of White Mountain Road (part of the Ancient Bristlecone Scenic Byway) and Wyman Canyon Road. Parallel arrays of wood poles traverse the rolling topography of the summit, along with part of a nearby distribution alignment supported by shorter wood poles including one seen in the foreground. Although a limited number of poles could be seen at close range where the alignment crosses this unpaved roadway (refer to Photograph 17 on Figure 5.1-2i, taken approximately 620 feet east of the Figure 5.1-7 viewpoint), from this location CSP Project poles are generally seen within the context of an expansive landscape that includes a backdrop of the surrounding White Mountain terrain. As shown on Figure 5.1-7a, under these typical viewing conditions, CSP Project poles are not particularly noticeable elements, due to their slender profile and small scale relative to the overall composition of the surrounding landscape.

The Figure 5.1-7b simulation shows the two parallel sets of weathered wood poles have been removed and replaced with a single line of taller poles adjacent to Wyman Creek Road seen in the left center of the view. The overall form of the new poles is similar to those being replaced, and is also similar to the

existing wood poles that remain in the foreground, while the color of the new poles is similar to the medium-dark brown informational signs seen along the roadway. A comparison of Figures 5.1-7a and Figure 5.1-7b shows that the CSP Project results in fewer visible subtransmission structures due to the consolidation of the parallel lines into a single alignment. Although the replacement poles are taller and appear somewhat darker in color than the poles being replaced, when seen against the mottled backdrop of mountain terrain, the increased contrast is not pronounced, and is barely perceptible with increasing distance from the viewpoint. As a result, the introduction of the new poles combined with the reduction in the total number of visible structures represents an incremental change that does not substantially alter the existing landscape character and scenic integrity in this location.

5.1.4.4.4.3 Figure 5.1-8: Visual Simulation: Wyman Creek Road near Inyo National Forest boundary (VP 25)

Figure 5.1-8a shows the open, panoramic landscape of Deep Springs Valley, as seen along Wyman Creek Road looking east. In this foreground view, multiple poles that support the two existing parallel CSP Project alignments can be seen at relatively close range and are noticeable features in the landscape, due to the contrast between their vertical profile in relationship to the predominantly horizontal orientation of landscape features, as well as contrast of their darker color against the lighter uniform texture of the distant valley floor and backdrop of the Inyo Mountains. The viewer sensitivity along this off-highway recreation route is high.

The Figure 5.1-8b simulation shows four, taller poles supporting a single, double-circuit alignment, having replaced eight existing wood poles of the existing parallel alignments. In place of single crossarms with vertical insulators characteristic of the existing wood poles shown in Figure 5.1-8a, insulators are directly attached to the new poles. As shown in the simulation, this change, along with the increased height and somewhat darker color of the new poles is most apparent in the close-range view of the structure visible in the immediate foreground, which is more noticeable in part, because the top of this structure along with overhead conductor is silhouetted against the sky above the distant mountain backdrop. The simulation also shows, however, that with increasing distance, the replacement structures' visibility is diminished due to weaker contrast with the texture and color of the landscape backdrop. Comparison of the Figure 5.1-8a and 5.1-8b existing and simulation views indicates that differences in the overall appearance between the existing poles and new poles is an incremental change in terms of form and color, and in combination with the overall reduction in the number of visible structures, the effect does not represent a significant change in the level of contrast and intactness within the landscape. Therefore, the introduction of the new poles represents an incremental effect that would not result in a substantial change in the existing landscape character and scenic integrity at this location.

5.1.4.5 Lighting and Marking

Lighting and marking is addressed in Section 3.3.5.2, Aviation Lighting and/or Marking.

5.1.5 CPUC Draft Environmental Measures

No significant impacts to aesthetics would occur as a result of the CSP Project. However, SCE will, at the direction of the CPUC, implement the following Draft Environmental Measure during construction of the CSP Project:

Aesthetics Impact Reduction During Construction

All project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of project construction, project staging and temporary work areas will be returned to pre-project conditions, including re-grading of the site and revegetation or re-paving of disturbed areas to match pre-existing contours and conditions.





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2. SR-168 looking southeast towards Control Substation

Refer to Figure 4.1-1 for photograph viewpoint locations



REPRESENTATIVE PHOTOGRAPHS

ARCADIS







3. Bishop Creek Battleground Historic Marker near SR-168 looking west



4. Rocking K Road at Ed Powers Road looking east

Refer to Figure 4.1-1 for photograph viewpoint locations

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS











FIGURE: 5.1-2c





7. Saniger Lane at Dixon Lane looking north

Refer to Figure 4.1-1 for photograph viewpoint locations



CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS







ENVIRONMENTAL VISION



*9. Silver Canyon Road at Laws Railroad Museum looking west



*10. Laws Railroad Museum looking east

Refer to Figure 4.1-1 for photograph viewpoint locations * Key viewpoints; see Figures 4.1-4 and 4.1-5 for visual simulations



REPRESENTATIVE PHOTOGRAPHS









11*. Silver Canyon Road at Inyo National Forest boundary looking east



12. Silver Canyon Road in lower canyon looking east

Refer to Figure 4.1-1 for photograph viewpoint locations * Key viewpoint; see Figure 4.1-6 for visual simulation



REPRESENTATIVE PHOTOGRAPHS

ARCADIS









13. Silver Canyon Road in upper canyon looking west



14. Silver Canyon Road near high point looking north

Refer to Figure 4.1-1 for photograph viewpoint locations



REPRESENTATIVE PHOTOGRAPHS

EDISON'

ARCADIS

FIGURE: 5.1-2g




15. Silver Canyon Road near White Mountain overlook looking southwest



REPRESENTATIVE PHOTOGRAPHS

EDISON

ARCADIS



Refer to Figure 4.1-1 for photograph viewpoint locations

101819





17. White Mountain Road (Ancient Bristlecone Scenic Byway) looking west



Refer to Figure 4.1-1 for photograph viewpoint locations * Key viewpoint; see Figure 4.1-7 for visual simulation







FIGURE: 5.1-2i



19. Wyman Creek Road at historic cabin looking west



20. Wyman Creek Road in upper canyon looking east

Refer to Figure 4.1-1 for photograph viewpoint locations

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS

EDISON

ARCADIS







21. Wyman Creek Road in middle of canyon looking east



22. Wyman Creek Road near Roberts Ranch looking east

Refer to Figure 4.1-1 for photograph viewpoint locations



REPRESENTATIVE PHOTOGRAPHS









23. Wyman Creek Road in lower canyon looking northwest



24. Wyman Creek Road at Inyo National Forest boundary looking west

Refer to Figure 4.1-1 for photograph viewpoint locations

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS

EDISON

ARCADIS







*25. Wyman Creek Road near Inyo National Forest boundary looking east



26. Wyman Creek Road in Deep Springs Valley looking east

Refer to Figure 4.1-1 for photograph viewpoint locations * Key viewpoint; see Figure 4.1-8 for visual simulation

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS





FIGURE: 5.1-2m



27. SR-168 looking southwest



28. SR-168 east of Gilbert Summit looking northeast

Refer to Figure 4.1-1 for photograph viewpoint locations

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS

EDISON

ARCADIS

FIGURE: 5.1-2n







ARCADIS

FIGURE: **5.1-20**

EDISON



31. SR-168 near Deep Springs College looking northeast



32. Deep Springs College entry road looking east

Refer to Figure 4.1-1 for photograph viewpoint locations

CONTROL-SILVER PEAK PROJECT

REPRESENTATIVE PHOTOGRAPHS





ARCADIS

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CONTROL-SILVER PEAK PROJECT EXISTING VIEW -- SILVER CANYON ROAD

AT LAWS RAILROAD MUSEUM

EDISON

ARCADIS

FIGURE:

5.1-4a

Existing View from Silver Canyon Road at Laws Railroad Museum (VP 9)

Refer to Figure 4.1-1 for photograph viewpoint locations



AT LAWS RAILROAD MUSEUM

EDISON

ARCADIS

FIGURE:

5.1-4b

Refer to Figure 4.1-1 for photograph viewpoint locations



CONTROL-SILVER PEAK PROJECT EXISTING VIEW --

LAWS RAILROAD MUSEUM

EDISON

ARCADIS

FIGURE:

5.1-5a

Existing View from Laws Railroad Museum (VP 10)

Refer to Figure 4.1-1 for photograph viewpoint locations



LAWS RAILROAD MUSEUM

EDISON

ARCADIS

FIGURE:

5.1-5b

Refer to Figure 4.1-1 for photograph viewpoint locations







AT WYMAN CREEK ROAD

EDISON

ARCADIS

FIGURE: 5.1-7a

Refer to Figure 4.1-1 for photograph viewpoint locations





CONTROL-SILVER PEAK PROJECT EXISTING VIEW -- WYMAN CREEK ROAD

NEAR INYO NATIONAL FOREST

EDISON

ARCADIS

FIGURE:

5.1-8a

Existing View from Wyman Creek Road near Inyo NF (VP 25)

Refer to Figure 4.1-1 for photograph viewpoint locations



5.2 Agriculture and Forestry Resources

This section describes the agriculture and forestry resources in the area of the CSP Project and the potential impacts that may result from construction and operation of the CSP Project.

5.2.1 Environmental Setting

5.2.1.1 Agricultural Resources and GIS

5.2.1.1.1 Agricultural Resources

5.2.1.1.1.1 Areas Designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

The CSP Project alignment is not located on lands identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

5.2.1.1.1.2 Areas under Williamson Act Contracts

The alignment is not located on lands under a Williamson Act contract. Inyo County does not participate in the Williamson Act program (California Department of Conservation 2016a). No portion of the CSP Project alignment traverses lands under a Williamson Act contract in Mono County (California Department of Conservation 2016b).

5.2.1.1.1.3 Agricultural Use Zoning

No portion of the CSP Project alignment in Inyo County is located on lands zoned for agricultural use. Mono County does not establish zoning of parcels.

5.2.1.1.1.4 Areas Subject to Active Agricultural Use

The CSP Project alignment does not traverse lands under active agricultural use in Inyo County. The CSP Project alignment traverses lands under active agricultural use in Mono County; approximately 1 mile of Segment 3 of the CSP Project alignment in Mono County crosses lands designated for agricultural use, encompassing approximately 9.9 acres.

5.2.1.1.2 GIS Data

GIS data for agricultural resources within the CSP Project area are provided under separate electronic cover.

5.2.1.2 Forestry Resources and GIS

5.2.1.2.1 Forestry Resources

5.2.1.2.1.1 Forest Land

Forest lands are defined in California PRC Section 12220(g) as being capable of supporting "10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Figureset 5.2-1 illustrates the distribution of lands categorized by the California Department of Forestry and Fire Protection (CAL FIRE) as having greater than 10 percent tree density (CAL FIRE 2015).

5.2.1.2.1.2 Timberland

Public Resources Code Section 4526 defines timberland to mean "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable

of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."

5.2.1.2.1.3 Timberland Zoned Timberland Production

Public Resources Code Section 51104(g) defines timberland production zone (TPZ) as "an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses."

The CSP Project alignment does not cross lands zoned, by Inyo County or Mono County, as forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (California Department of Conservation 2017a and b; CALFIRE 2015). Further, the CSP Project alignment does not cross lands identified by the USFS that "may be suitable" for timber harvest (USFS 2019).

5.2.1.2.2 GIS Data

GIS data for forestry resources within the CSP Project area are provided under separate electronic cover.

5.2.2 Regulatory Setting

Federal, State, and local regulations were reviewed for applicability to the CSP Project.

5.2.2.1 Agriculture and Forestry Regulations

5.2.2.1.1 Federal

5.2.2.1.1.1 Farmland Protection Policy Act

The National Agricultural Land Study of 1980-1981 found that millions of acres of farmland were being converted out of agricultural production in the United States each year. The 1981 Congressional report, "Compact Cities: Energy-Saving Strategies for the Eighties" (Compact Cities report), identified the need for Congress to implement programs and policies to protect farmland and combat urban sprawl and the waste of energy and resources that accompanies sprawling development.

The Compact Cities report indicated that much of the sprawl was the result of programs funded by the Federal Government. With this in mind, Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. The final rules and regulations were published in the Federal Register on June 17, 1995. The FPPA and its implementing rules and regulations set forth provisions intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

5.2.2.1.2 State

5.2.2.1.2.1 Williamson Act

The California Land Conservation Act of 1965 (Williamson Act) enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments receive an annual subvention of forgone property tax revenues from the State via the Open Space Subvention Act of 1971.

California Government Code Section 51238 provides that, unless local organizations declare otherwise, the erection, construction, alteration, or maintenance of gas, electric, water, or communication facilities is compatible with Williamson Act contracts.

5.2.2.1.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the CSP Project. Pursuant to GO 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the CSP Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.2.2.1.3.1 Inyo County General Plan, Conservation and Open Space Element

Section 6.2, Agricultural Resources, of the Conservation and Open Space Element of the Inyo County General Plan contains the following goals and policies:

GOAL AG-1: Provide and maintain a viable and diverse agricultural industry in Inyo County.

Policy AG-1.1 Identify Important Agricultural Lands. Support and encourage the identification of important agricultural lands within the County.

Policy AG-1.2 Continue Agricultural Production. Support and encourage continued agricultural production activities in the County.

Policy AG-1.4 Minimize Land Conflicts. Preserve and protect agricultural lands from encroachment by incompatible land uses.

5.2.2.1.3.2 Inyo County General Plan, Land Use Element

The Land Use Element designations for agricultural properties traversed by the CSP Project alignment are as follows:

Agriculture (A). This designation provides for agricultural uses on land that is suited by soils and water resources to the production of food and fiber on a regular and sustained basis, limited agricultural support services, agriculturally-oriented services, agricultural processing facilities, public and quasi-public uses, and certain compatible nonagricultural activities. Residential uses associated with the agricultural use are allowed at a maximum density of 1 du/40 acres. The FAR for nonresidential uses shall not exceed 0.10 with the following exceptions: the FAR for agriculturally oriented services (e.g. stables, feed stores, silos, etc.) shall not exceed 0.25.

5.2.2.1.3.3 Inyo County Zoning Ordinance

Section 18.03.040, Interpretation, of the Zoning Ordinance of the County of Inyo, California, states:

The provisions of this title shall be held to the minimum requirements. Nothing in this title shall repeal or amend any ordinance requiring a permit or license to cover any business activity. These regulations are not intended to impair or interfere with any existing easement, covenant or other agreement between parties; provided, however, that where this title imposes a greater restriction upon any use or upon the height or bulk of a building or structure, or requires larger building sites, yards or other open spaces than are imposed or required by any other law, ordinance, covenant or easement, than the provisions of this title shall control. (Ord. 943 § 4, 1995.)

The definitions of each of the zones crossed by the CSP Project alignment are silent regarding the use of said zones for the construction or operation of electric transmission lines. The reconstruction of existing electrical infrastructure is not listed as a prohibited use in any zoning designation.

5.2.2.1.3.4 Mono County General Plan, Conservation/Open Space Element

The Conservation/Open Space Element of the Mono County General Plan contains the following goals, objectives, policies, and actions relevant to agriculture and forestry resources:

GOAL 1. Preserve natural open-space resources which contribute to the general welfare and quality of life for residents and visitors in Mono County and to the maintenance of the county's tourism economy.

Policy 1.A.3. Protect agricultural uses to maintain the open-space character of the county.

Action 1.A.3.b. Avoid conversion of lands currently used for agricultural production to nonagricultural use, unless such a conversion could enhance other critical resource values.

Action 1.A.3.c. Support the Land Conservation Act of 1965 (the Williamson Act) to preserve open space and agricultural uses of land within the fiscal means of the County and as directed by the Board of Supervisors.

GOAL 5. Preserve and protect agricultural and grazing lands in order to promote both the economic and open-space values of those lands.

Objective 5.A. Encourage the retention of agricultural and grazing lands.

Policy 5.A.1. Discourage the conversion of agricultural lands to non-agricultural uses.

5.2.2.1.3.5 Mono County General Plan, Land Use Element

The Land Use Element correlates all land use issues into a set of coherent development policies for the private lands in the unincorporated area of the county. Each and every parcel of land in the unincorporated area of the county has been duly assigned a land use designation, or in rare cases multiple designations. Except as otherwise expressly provided by the Land Development Regulations set forth in Section VI of the Land Use Element, no land may be developed or used except in the manner permitted by its assigned designation. The Land Use Element designation for agricultural properties traversed by the CSP Project alignment are as follows:

Agricultural (AG). The "AG" designation is intended to preserve and encourage agricultural uses, to protect agricultural uses from encroachment from urban uses, and to provide for the orderly growth of activities related to agriculture. Public utility buildings and structures are listed as a use permitted subject to use permit.

Chapter 11 of the Land Use Element addresses utilities. Section 11.010, Placement of Utility Infrastructure, states:

A. Exemption for Regulated Public Utilities.

The provisions of this section shall not apply to distribution and transmission lines owned and operated as part of the statewide electrical network regulated by the California Public Utilities Commission ([C]PUC). The authority for this exemption is set forth in the California Constitution, Article XII, Section 8, which vests exclusive regulatory authority over the distribution and transmission lines of these

utilities in the California Public Utilities Commission. However, the County shall work with the (C)PUC and applicant to cooperatively meet the standards set forth in Section F.

5.2.3 Impact Questions

5.2.3.1 Agriculture and Forestry Impact Questions

The significant criteria for assessing the impacts to agriculture and forestry resources come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, to nonagricultural use
- Conflict with existing zoning for agricultural use, or a Williamson Act contract
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))
- Result in the loss of forest land or conversion of forest land to non-forest use
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use

5.2.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.2.4 Impact Analyses

5.2.4.1 Agriculture and Forestry Impacts

5.2.4.1.1 Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, to nonagricultural use?

5.2.4.1.1.1 Construction

No Impact. There is no mapped Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in Inyo or Mono counties. Therefore, the CSP Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

5.2.4.1.1.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.2.4.1.2 Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

5.2.4.1.2.1 Construction

No Impact. The CSP Project alignment does not cross any lands under a Williamson Act contract, and is not located on lands zoned for agricultural use. Mono County does not utilize zoning, but rather uses Land Use designations. The CSP Project alignment is located on lands designated Agricultural (AG). The Land

Use Element of the Mono County General Plan notes that public utility buildings and structures are an allowable use on such lands. Therefore, there would be no impact under this criterion.

5.2.4.1.2.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.2.4.1.3 Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

5.2.4.1.3.1 Construction

No Impact. The CSP Project alignment is not located on lands zoned or designated as timberland. Portions of Segment 3 are located on lands identified by CAL FIRE as having greater than 10 percent tree density, and thus meeting the definition of forest lands per California PRC Section 12220(g). These lands occur exclusively in Inyo County, and are zoned Open Space-40 acre minimum (OS-40). The Zoning Ordinance of the County of Inyo is silent regarding construction or operation of electric transmission lines on lands zoned OS-40. Therefore, the CSP Project would not conflict with existing zoning of these lands, and no impact would occur.

5.2.4.1.3.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.2.4.1.4 Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

5.2.4.1.4.1 Construction

Less than Significant Impact. Portions of Segment 3 are located on lands identified by CAL FIRE as having greater than 10 percent tree density; these areas thus meet the definition of forest lands per California PRC Section 12220(g). The central portion of Segment 3 traverses the INF, including areas that are forested. More than 20 million acres of forestland are found in California; more than 550,000 acres of forestland are found in Inyo County alone (CAL FIRE 2018, USFS 2016). During construction, individual trees may be trimmed or removed to facilitate safe construction and to ensure compliance with vegetation management requirements. For the purposes of this analysis, assuming that each construction work area located in forestlands is fully forested, and that each construction work area would be completely cleared during construction, then 112.2 acres of forestland would be 'lost'; this represents 0.000006 percent of the total forest lands found in the State and 0.0002 percent of the total forest lands found in Inyo County; therefore, impacts would be less than significant. Note that the CSP Project includes only selective trimming and removal of trees sufficient to facilitate safe construction, and does not anticipate the removal of all trees from construction work areas.

5.2.4.1.4.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. In those portions of Segment 3 that are located on forest land, the existing two pole lines would be replaced with a single pole line. By abandoning one pole line, and eliminating the concomitant pruning/removal of trees during O&M activities along this abandoned pole line, the CSP Project will result in a net gain of acreage that could become forest land over time. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.2.4.1.5 Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

5.2.4.1.5.1 Construction

No Impact. Construction of the CSP Project would not involve any other changes in the exiting environment that could result in the conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, no impacts would occur under this criterion.

5.2.4.1.5.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.2.4.2 Prime Farmland Soil Impacts

There is no mapped Prime Farmland in Inyo or Mono counties. Therefore, the CSP Project would not impact any Prime Farmland soils.

5.2.4.3 Williamson Act Impacts

This is addressed in Section 5.2.4.1.2 above.

5.2.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for Agricultural and Forestry Resources.

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5.3 Air Quality

This section describes the air quality in the area of the CSP Project. The potential impacts resulting from construction and operation of the CSP Project are also addressed.

5.3.1 Environmental Setting

5.3.1.1 Air Quality Plans

The CSP Project area is located within the Great Basin Valleys Air Basin (GBVAB), so named because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys and basins. The Basin includes Alpine, Mono, and Inyo counties. The GBVAB is under the jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD), which regulates air pollutant emission from all stationary sources in the Basin.

The GBUAPCD has jurisdiction over an area of approximately 13,975 square miles. This area includes the entirety of Inyo, Mono, and Alpine counties. The GBUAPCD was formed in 1974 when Inyo, Mono, and Alpine counties collaborated through a joint powers agreement with the purpose of meeting and enforcing applicable Federal, state, and local air quality regulations.

It is the responsibility of the GBUAPCD to ensure that State and Federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California (California Ambient Air Quality Standards – CAAQS) and by the Federal government (National Ambient Air Quality Standards – NAAQS) for the following criteria air pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter with a mean diameter of less than 10 microns (PM_{10}), particulate matter with a mean diameter of less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Furthermore, California has additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility. Attainment of the State and Federal ambient air quality standards protect sensitive receptors and the public from criteria pollutants that are known to have adverse human health effects.

5.3.1.2 Air Quality

The United States Environmental Protection Agency (USEPA) compares ambient air criteria pollutant measurements with NAAQS to assess the status of air quality of regions within the states. Similarly, the California Air Resources Board (CARB) compares air pollutant measurements in California to CAAQS. Based on these comparisons, regions within the states and California are designated as one of the following categories:

- Attainment. A region is designated as attainment if monitoring shows ambient concentrations of a specific pollutant are less than or equal to NAAQS or CAAQS. In addition, areas that have been re-designated from nonattainment to attainment are classified as "maintenance areas" for a 10-year period to ensure that the air quality improvements are sustained.
- Nonattainment. If the NAAQS or CAAQS is exceeded for a pollutant, then the region is designated as nonattainment for that pollutant.
- Unclassifiable. An area is designated as unclassifiable if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Presently, the ambient air in the area of the CSP Project alignment is classified by the CARB as nonattainment for O_3 and PM_{10} . The ambient air in the area is either unclassified or classified as attainment for all other State regulated air pollutants. The attainment status of each CAAQS and NAAQS pollutant is shown in Table 5.3-1.

The closest ambient air quality monitoring station to the CSP Project alignment that monitors for O_3 is the Bishop-Line Monitoring Station, located approximately 1 mile from the alignment. The closest ambient air quality monitoring station to the CSP Project alignment that monitors for PM_{10} is the Lee Vining-SMS Monitoring Station, located approximately 50 miles from the alignment. The following exceedances of the NAAQS and CAAQS were measured at these stations during 2017, 2018, and 2019 (CARB 2021b):

- The 1-hour ozone CAAQS was not exceeded on any days during 2017-2019.
- The 8-hour ozone CAAQS was not exceeded during 2019 and exceeded on one day in 2017 and seven (7) days in 2018.
- The daily PM₁₀ CAAQS was not exceeded during 2018 and 2019 and was exceeded one time during 2017.
- The annual PM₁₀ CAAQS was not exceeded in 2017 and insufficient data were available for 2018 and 2019.

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Status	Concentration ³	Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 μg/m3)	Nonattainment	_	—
	8 Hours	0.070 ppm (137 μg/m ³)	Nonattainment	0.070 ppm	Attainment/ Unclassified
Respirable Particulate Matter (PM ₁₀)	24 Hours	50 μg/m ³	Nonattainment	150 μg/m ³	Unclassified (Nonattainment in Mono Basin)
	AAM	20 µg/m ³	Nonattainment		
Fine Particulate Matter (PM _{2.5})	24 Hours	—	_	35 µg/m ³	Attainment/ Unclassified
	AAM	12 µg/m ³	Attainment	12.0 μg/m ³	Attainment/ Unclassified
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
	1 Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm (57 μg/m ³)	Attainment	0.053 ppm (100 μg/m ³)	Attainment
	1 Hour	0.18 ppm (339 μg/m ³)	Attainment	0.100 ppm (188 μg/m ³)	Unclassified
Sulfur Dioxide (SO ₂)	24 Hours	0.04 ppm (105 μg/m ³)	Attainment	0.14 ppm (365 μg/m ³)	Attainment
	1 Hour	0.25 ppm (655 μg/m ³)	Attainment	0.075 ppm (196 μg/m ³)	Attainment
	AAM	—		0.030 ppm (80 μg/m ³)	Attainment
Lead (Pb)	30-Day Average	1.5 μg/m ³	Attainment	_	—
	Calendar Quarter			1.5 μg/m ³	Attainment
	Rolling 3- Month Average	—	—	0.15 μg/m ³	Attainment
Visibility- Reducing Particles (VRP)	8 Hours		Unclassified		
Sulfates	24 Hours	25 μg/m ³	Attainment	No national standards	
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (42 μg/m ³)	Attainment		

Table 5.3-1: Air Quality Standards and Attainment Status for the Great Basin Valleys Air Basin
		California Standards		National Standards		
Pollutant	Averaging Time	Concentration	Status	Concentration ³	Status	
Vinyl Chloride (C ₂ H ₃ Cl)	24 Hours	0.010 ppm	No			
		$(26 \ \mu g/m^3)$	information			
			available			

Table 5.3-1: Air Quality Standards and Attainment Status for the Great Basin Valleys Air Basin

Acronyms:

 $mg/m^3=$ milligrams per cubic meter; ppm= parts per million; $\mu\,g/m^3=$ micrograms per cubic meter;

AAM = Annual Arithmetic Mean; CARB = California Air Resources Board; NAAQS = National Ambient Air Quality Standards; Source: CARB 2021a

5.3.1.3 Sensitive Receptor Locations

Some exposed population groups—including children, and people who are elderly or ill—can be especially vulnerable to airborne chemicals and irritants, and are termed "sensitive receptors." In addition, due to sustained exposure durations, all persons located within residential areas are considered sensitive receptors. In general, sensitive receptor locations could include, but are not limited to: schools, hospitals, day care centers, convalescence homes, residential uses, places of worship, libraries, offices, city and county buildings, and outdoor recreational areas.

Due to the remote nature of much of the CSP Project alignment, sensitive receptor locations are widely scattered along the alignment. Section 5.13, Noise; Section 5.15, Public Services; and Section 5.16, Recreation, provide descriptions of the locations of residential areas and other sensitive receptors in the vicinity of the CSP Project alignment. Residential sensitive receptors are located within 1,000 feet of the CSP Project alignment in the community of Laws in Segment 3; along SR-261 adjacent to Segment 5; and along Segment 3 southeast of the community of Oasis. Deep Springs College is also located within 1,000 feet of the alignment in Segment 5.

5.3.2 Regulatory Setting

Federal, State, and local regulations were reviewed for applicability to the CSP Project.

5.3.2.1 Regulatory Setting

5.3.2.1.1 Federal

The 1970 Federal Clean Air Act (CAA) established ambient air quality standards (AAQS) for six major pollutants—O₃, particle pollution (PM₁₀, PM_{2.5}), CO, NO₂, SO₂, and lead. These six air pollutants are known to have adverse impacts on human health and the environment. To protect human health and the environment, the USEPA set primary and secondary maximum ambient thresholds for criteria pollutants. The primary thresholds were set to protect human health - particularly for children and the elderly, as well as for individuals who suffer from chronic lung conditions (e.g., asthma and emphysema). The secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings. The NAAQS is comprised of the combined primary and secondary standards set by the USEPA. The 1977 CAA Amendments required each state to develop and maintain a State Implementation Plan (SIP) for each criteria pollutant that exceeds the NAAQS for that pollutant. The SIP serves as a tool to reduce pollutants that are known to cause impacts if they exceed ambient thresholds and to achieve compliance with the NAAQS. In 1990, the CAA was amended to strengthen regulation of both stationary and mobile emission sources for the criteria pollutants. In July 1997, the USEPA developed new health-based NAAQS for O₃ and PM₁₀. However, these standards were not fully implemented until 2001, after the resolution of several lawsuits. The new federal O₃ standard of 0.080 parts per million (ppm), established in 1997, was based on a longer averaging period (8

hours versus 1 hour), recognizing that prolonged exposure to O_3 is more damaging. In March 2008, the USEPA further lowered the 8-hour O_3 standard from 0.080 ppm to 0.075 ppm, and in 2015 the standard was lowered to 0.07 ppm. The new federal PM standard is based on finer particles (2.5 microns and smaller versus 10 microns and smaller), recognizing that finer particles may have a higher residence time in the lungs and contribute to greater respiratory illness. In February 2007, the NAAQS for NO₂ was amended to lower the existing 1-hour standard of 0.25 ppm to 0.18 ppm, which is not to be exceeded; and established a new annual standard of 0.030 ppm, which is also not to be exceeded. Table 5.3-1: Air Quality Standards and Attainment Status for the Great Basin Valleys Air Basin contains a list of the NAAQS and CAAQS.

5.3.2.1.2 State

The California Clean Air Act (CCAA) requires air districts to develop and implement strategies to attain CAAQS. For some pollutants, the California standards are more stringent than the national standards. Regional air quality management districts are mandated to prepare an air quality plan specifying how federal and state standards would be met. The CAAQS are listed in Table 5.3-1: Air Quality Standards and Attainment Status for the Great Basin Valleys Air Basin. The CARB enforces the CAAQS and works with the state's Office of Environmental Health Hazard Assessment in identifying toxic air contaminants (TACs) and enforcing rules related to TACs, including the Air Toxic Hot Spots Information and Assessment Act of 1987. Enacted to identify TAC hot spots where emissions from specific sources may expose individuals to an elevated risk of adverse health effects, this act requires that businesses or other establishments identified as significant sources of toxic emissions provide the affected population with information about health risks posed by the emissions. The CARB also regulates mobile emission sources in California (e.g., construction equipment, trucks, and automobiles) and oversees the air districts. Relevant programs related to the oversight of mobile source emissions include the Off-Road and On-Road Mobile Sources Emission Reduction Programs, the Portable Equipment Registration Program (PERP), and the Airborne Toxic Control Measure for Diesel Particulate Matter (DPM) from Portable Engines. The Mobile Sources Emission Reduction programs are aimed at reductions of PM₁₀, CO, NO_x, and VOCs. The CARB has also adopted specific control measures for the reduction of DPM from off-road, in-use diesel vehicles (rated 25 horsepower and higher), such as backhoes, bulldozers, and earthmovers used in construction projects. Additional DPM control measures are also in place for heavy-duty, on-road diesel trucks operated by public utilities and municipalities. The PERP and Airborne Toxic Control Measure for DPM from Portable Engines provide for statewide registration and control of DPM from portable engines rated 50 horsepower and higher.

5.3.2.1.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the CSP Project. Pursuant to GO 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the CSP Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.3.2.1.3.1 Great Basin Unified Air Pollution Control District

The GBUAPCD is responsible for regulating emissions from stationary sources. The GBUAPCD monitors air quality within the district and maintains an air monitoring network with monitoring stations through the GBVAB. The GBUAPCD seeks to pursue quantitative reductions in the amount of air pollutants being

released within the district. The GBUAPCD is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the GBVAB. An AQMP is prepared and implemented by an air pollution district for a county or region designated as being in "nonattainment" of the national and/or California ambient air quality standards. The term "nonattainment area" is used to refer to an air basin in which one or more ambient air quality standards are exceeded.

The GBUAPCD established the following rules to regulate air quality that are applicable to the CSP Project:

- Rule 401—Fugitive Dust. This rule requires reasonable precaution measures to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the source from which the emission originates.
- Rule 402—Nuisance. This rule prohibits the discharge of air contaminants, from any source, or other materials that cause injury, detriment, nuisance or annoyance to the public.
- Rule 404-A—Particulate Matter. This rule regulates the allowable concentration of particulate matter discharged per standard dry cubic foot of exhaust gas. Concentrations may not exceed 0.3 grains per standard dry cubic foot of exhaust gas.
- Rule 404-B—Oxides of Nitrogen. This rule regulates the allowable concentration of nitrogen oxides emitted in exhaust fumes to not exceed 250 parts per million by volume.
- Rule 416—Sulfur Compounds and Nitrogen Oxides. This rule controls the discharge of sulfur compounds and nitrogen oxides. Sulfur compounds may not exceed 0.2 percent by volume, and nitrogen oxides may not exceed 140 pounds per hour.
- Rule 417—Organic Solvents. This rule prohibits the discharge of more than 15 pounds of organic materials into the atmosphere in one day, or more than 3 pounds in any one hour.
- Rule 431—Particulate Emissions. The purpose of this rule is to improve and maintain the level of air quality in GBUAPCD communities by controlling the emissions of particulate matter, thereby protecting and enhancing the health of its citizens. The rule designates the town of Mammoth Lakes as a "High Road Dust Area (HRDA)," or a community where the GBUAPCD has determined that dust on roads contributes to exceedances of the State or federal 24-hour PM2.5 or PM10 standards previously mentioned. This rule does not identify any further HRDAs but identifies the Board of the GBUAPCD as having the power to determine whether any additional communities qualify for HRDA status. The rule also calls for paved-road dust-reduction measures, as well as pollution-reduction education programs.

5.3.2.2 Air Permits

SCE has not identified the need to apply for or receive any air quality-related discretionary permits from the GBUAPCD; SCE will comply with applicable rules and will develop and implement required plans.

5.3.3 Impact Questions

5.3.3.1 Impact Questions

The significant criteria for assessing the impacts to air quality come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Result in a cumulatively considerable net increase of any criteria pollutant for which the CSP Project region is nonattainment under an applicable federal or state ambient air quality standard

- Expose sensitive receptors to substantial pollutant concentrations
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

5.3.3.1.1 Thresholds for Construction Emissions

Section 15002 of the CEQA Guidelines defines a significant effect on the environment as "a substantial adverse change in the physical condition which exists in the area affected by the proposed project." The impact of a project to air quality is determined by examining the types and levels of emissions generated by the CSP Project and its impact on factors that affect air quality. As such, projects should be evaluated in terms of identified air pollution thresholds. The GBUAPCD has no significance thresholds particular to its air basin. Notwithstanding, CEQA will allow reliance on standards or thresholds promulgated by other agencies. As such, the analysis utilized the values developed by the Eastern Kern Air Pollution Control District (EKAPCD) based on location, topography and attainment status. The EKAPCD Guidelines for Implementation of CEQA provides significance thresholds. If the thresholds are exceeded, a potentially significant impact could result.

A project would have a significant air quality impact on the environment, if it would:

- Emit criteria air pollutants levels exceeding the trigger levels in EKAPCD Rule 210.1 of: 15 tons per year of PM₁₀; 27 tons per year of SO_x; or 25 tons per year of VOC or NO_x;
- Emit more than 137 pounds per day of NO_x or VOC from motor vehicle trips (indirect sources only);
- Cause or contribute to an exceedance of any California or National Ambient Air Quality Standard;
- Exceed the District health risk public notification thresholds; or
- Be inconsistent with adopted federal and state Air Quality Attainment Plans.

5.3.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.3.4 Impact Analysis

5.3.4.1 Impact Analysis

5.3.4.1.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

5.3.4.1.1.1 Construction

No Impact. The GBUAPCD is the agency responsible for managing local air quality and administering California and federal air pollution control programs ensuring attainment and maintenance of the ambient air quality standards. To this end, the district has established an air quality management plan (AQMP). Generally, a project may be inconsistent with an AQMP or applicable attainment plan if it could cause population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in an applicable AQMP or attainment plan. Because construction of the CSP Project would not result in population growth, the CSP Project would not conflict with the growth projections used in the development of the applicable AQMP. Please see Section 5.14, Population and Housing, for a discussion of economic and population growth.

Furthermore, the emissions associated with CSP Project construction would be temporary and would represent a small fraction of the regional emission inventories included in the applicable AQMP.

Construction of the CSP Project would be performed in compliance with applicable air district rules and regulations; this would ensure that activities are consistent with air district efforts to achieve attainment and maintenance of the standards. CSP Project-related emissions occurring in compliance with these rules and regulations would not conflict with or obstruct implementation of the applicable air quality plan.

Because the CSP Project's construction emissions are not expected to substantially contribute to the regional emissions and would not conflict with the growth projections in the applicable AQMP, and because construction of the CSP Project would be performed in compliance with applicable air district rules and regulations, the CSP Project would not conflict with or obstruct implementation of the applicable AQMPs, and there would be no impact.

5.3.4.1.1.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.3.4.1.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard?

5.3.4.1.2.1 Construction

Less than Significant Impact with Mitigation. Emissions during the construction phase would include criteria air pollutants that could contribute to existing or projected violations of the ambient air quality standards for ozone and PM₁₀. Reconstruction of the existing 55 kV subtransmission line elements would result in air pollutant emissions from construction equipment and material handling at the various work areas and from off-site motor vehicle trips carrying workers and materials, and helicopter use. Motor vehicles, helicopters, off-road equipment, and other construction equipment would directly emit criteria air pollutants and TACs.

The equipment and workforce are itemized and detailed in Table 3.6-1: Construction Equipment and Workforce Estimates. Table 5.3-2: Estimated Construction Emissions, Controlled and Table 5.3-3: Estimated Construction Emissions, Uncontrolled, summarizes the estimated total construction emissions.

Construction Year	VOC	NO _x	SO_2	PM10	PM _{2.5}
2024	0.672	15.8	0.079	7.63	0.931
2025	0.509	11.0	0.055	9.28	1.06
2026	2.04	17.3	0.099	8.98	1.12
2027	0.009	0.042	0.000	4.94	0.501
Maximum	2.04	17.3	0.099	9.28	1.12
Significance Threshold (pounds per day/tons per year)	25	25	27	15	None
Exceedance?	No	No	No	No	N/A

Table 5.3-2: Estimated Construction Emissions, Controlled

Construction-related emissions would be spread over a development schedule of 33 months over four years (May 2024-February 2027). Based on the construction activity forecast, none of the evaluated pollutants would be emitted at levels above the threshold for the construction duration of the CSP Project.

Construction Year	VOC	NO _x	SO ₂	PM10	PM _{2.5}
2024	0.727	16.3	0.079	18.5	2.04
2025	0.576	11.5	0.055	23.0	2.46
2026	2.20	19.0	0.099	21.5	2.43
2027	0.016	0.133	0.000	12.6	1.28
Maximum	2.20	19.0	0.099	22.95	2.45
Significance Threshold (pounds per day/tons per year)	25	25	27	15	None
Exceedance?	No	No	No	Yes	N/A

Table 5.3-3: Estimated Construction Emissions, Uncontrolled

The GBVAB is classified as nonattainment for ozone and PM_{10} . As shown in Table 5.3-2, controlled construction emissions (including implementation of APM AIR-1) would not exceed the EKAPCD's significance thresholds. Therefore, construction of the CSP Project could not result in a cumulatively considerable net increase. As a result, impacts would be less than significant with mitigation.

5.3.4.1.2.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.3.4.1.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

5.3.4.1.3.1 Construction

Less than Significant Impact. Sensitive receptors in the vicinity of the CSP Project alignment could be exposed to increases in pollutants as a result of the fugitive dust released during excavation activities and vehicle travel on unpaved roads and as a result of the use of internal combustion engines on construction equipment. Pollutant emissions would be distributed over the construction period and across the CSP Project alignment, and thus would not be concentrated in any one area. Further, activities at any given construction work area would last a matter of days, and where multiple activities are scheduled for a given construction work area, activities would generally not overlap or be performed consecutively. As a result, the actual emissions that would be created at a single site, and thus at a single sensitive receptor, would be dramatically lower than the overall CSP Project emissions.

In addition, compliance with applicable local air district regulations would reduce emissions from off-road equipment use. Review of Office of Environmental Health Hazard Assessment guidance indicates a Health Risk Assessment is not required for the CSP Project; however, while a formal Health Risk Assessment was not completed for the CSP Project, health impacts from the CSP Project's emissions are not expected due to the distance between the sensitive receptors and the CSP Project's construction activities and the limited and non-consecutive duration of construction activities in the vicinity of any given sensitive receptor. Therefore, impacts would be less than significant due to the separation between construction activities and sensitive receptors, compliance with local air district regulations, and because sensitive receptors would only be exposed for short periods of time.

5.3.4.1.3.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines that would be rebuilt under the CSP Project. No material changes in O&M

activities or the locations of these activities are anticipated with implementation of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.3.4.1.4 Would the Project result in other emissions (such as leading to odors) adversely affecting a substantial number of people?

5.3.4.1.4.1 Construction

Less than Significant Impact. Potential odor sources associated with construction of the CSP Project include equipment exhaust. These emissions would be short-term, distributed throughout the alignment, intermittent in nature, would disperse quickly, and would cease upon completion of construction. Because odors would be temporary and would disperse rapidly with distance from the source, and because the majority of construction activities would occur in unoccupied, open space areas, construction-generated odors would not result in the frequent or long-term exposure of a substantial number of people to objectionable odorous emissions. Therefore, impacts would be less than significant.

5.3.4.1.4.2 Operations

Less than Significant Impact. Potential odor sources associated with O&M activities include equipment exhaust. These emissions would be short-term, limited to the location of the O&M activity and intermittent in nature, would disperse quickly, and would cease upon completion of the O&M activity at a given location. Because odors would be temporary and would disperse rapidly with distance from the source, and because the majority of O&M activities would occur in unoccupied, open space areas, O&M-generated odors would not result in the frequent or long-term exposure of a substantial number of people to objectionable odorous emissions. Therefore, impacts would be less than significant.

5.3.4.2 Air Quality Emissions Modeling

Emissions from ground construction activities were estimated using the California Emissions Estimator Model (CalEEMod) v2016.3.2. The Model uses widely accepted models for emission estimates and default data from sources such as USEPA AP-42 emission factors, CARB vehicle emission models, and CEC and other agency studies (California Air Pollution Control Officers Association [CAPCOA] 2013). Helicopter emissions were estimated based on the Swiss Federal Office of Civil Aviation (FOCA) Guidance on the Determination of Helicopter Emissions (FOCA 2015). Emissions modeling results are presented in Appendix B.

5.3.4.3 Air Quality Emissions Summary

Table 5.3-2 summarizes the controlled air quality emissions for the project and applicable thresholds for the applicable attainment area Table 5.3-2 summarizes the uncontrolled air quality emissions. The controlled emissions estimates were generated assuming the use of Tier 4 equipment per APM AIR-1.

5.3.4.4 Health Risk Assessment

Review of Office of Environmental Health Hazard Assessment guidance (Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments, February 2015) indicates a Health Risk Assessment is not required for the CSP Project.

5.3.5 CPUC Draft Environmental Measures

No significant impacts to air quality would occur as a result of the CSP Project. SCE has amended the CPUC Draft Environmental Measure for Dust Control During Construction for applicability to the CSP Project; the activities presented below would be implemented during construction of the CSP Project.

- All exposed surfaces with the potential of dust-generating shall be watered or covered with tackifier, wood mulch, coarse rock, or other dust minimization product to reduce the potential for airborne dust from leaving the site.
- Cover all haul trucks entering/leaving the site and trim their loads as necessary.
- Use wet power vacuum street sweepers to sweep all paved access road, parking areas, staging areas, and public roads adjacent to project sites to comply with local AQMP track-out minimization requirements during construction. Where vehicles and equipment continue to track soils onto the paved road, additional measures, such as rumble strips or tire wash-offs, shall be installed.
- Apply gravel or non-toxic soil stabilizers on all parking areas, staging areas, and their supporting unpaved access roads.
- Stockpile management will comply with the project SWPPP.
- Soil stabilization will comply with the project SWPPP.
- All vehicle speeds shall be limited to fifteen (15) miles per hour or less on unpaved areas.
- Implement dust monitoring in compliance with the standards of the local air district.
- Halt construction grading activities during any periods when wind speeds are in excess of 50 mph.

5.4 Biological Resources

This section describes the biological resources along the CSP Project alignment. Potential impacts to biological resources during construction and operation of the CSP Project are also discussed.

5.4.1 Environmental Setting

This section provides a detailed description of the biological resources found along the CSP Project. The CSP Project contains five distinct segments as described in Chapter 3; discussions in this Section are divided by Project Segment where appropriate.

5.4.1.1 Biological Resources Technical Report

The TLRR Sensitive Species and Habitat Report: Control-Silver Peak 55 kV Subtransmission Line and the Wetlands and Other Waters Jurisdictional Delineation Report: Control-Silver Peak 55 kV Subtransmission Line prepared for the CSP Project summarize the methodologies used during the biological resources and jurisdictional delineation surveys performed along the CSP Project alignment; the survey area covered approximately 1,908 acres. These reports discuss observed natural communities, observed special-status species, species with the potential to occur along the CSP Project alignment, and jurisdictional features. These reports are provided in Appendix C to this PEA.

Table 5.4-1 below presents the dates on which surveys along the CSP Project alignment were conducted.

		• •	
Type of Survey	Year	Date(s)	Segments
Reference Site Plant Surveys	2017	April 19 and 20	1, 2, 3
Reference Site Plant Surveys	2017	April 26 and 27	1, 2, 3
Reference Site Plant Surveys	2017	May 2 and 3	1, 2, 3
Reference Site Plant Surveys	2017	May 9 - 11	1-5
Special-status Plant Surveys	2017	June 5 - 9	1-5
Special-status Wildlife Surveys	2017	June 5 - 9	1-5
Vegetation Mapping and Classification	2017	June 5 - 9	1-5
Special-status Plant Surveys (Late Bloomers)	2017	September 13 and 14	1-5
Special-status Plant Surveys	2018	May 3 and 4	1-5
Special-status Wildlife Surveys	2018	May 3 and 4	1-5
Vegetation Mapping and Classification	2018	May 3 and 4	1-5
Special-status Plant Surveys	2018	June 4 - 6	1-5
Special-status Wildlife Surveys	2018	June 4 - 6	1-5
Vegetation Mapping and Classification	2018	June 4 - 6	1-5
Special-status Plant Surveys	2018	July 16 and 17	1-5
Special-status Wildlife Surveys	2018	July 16 and 17	1-5
Vegetation Mapping and Classification	2018	July 16 and 17	1-5

Table 5.4-1: Biological Surveys Conducted within the CSP Project Alignment

5.4.1.2 Survey Area (Local Setting)

The field survey area was a 150-foot-wide corridor spanning 75 feet on each side of the centerline for the entire 60.5-mile CSP Project alignment and a 100-foot radius area around existing poles. Details on the survey methodology are provided in Appendix C to this PEA document.

5.4.1.3 Vegetation Communities and Land Cover

Thirty-six alliances and 55 associations were identified during the 2017 and 2018 surveys; the identified alliances include 5 woodland alliances, 24 shrubland alliances, and 7 herbaceous alliances. A summary of vegetation alliances identified is presented in Table 5.4-2. Sensitive natural communities are treated by CDFW as alliances or associations with "threat" ranks of S3 or higher (S1, S2, S3), whereas S4 and S5 rankings are not designated as sensitive or threatened (CDFW 2020). In addition, the updated California Natural Communities List (CDFW 2020) designates sensitive associations without always assigning a threat ranking. Six additional vegetation types were also mapped that address agricultural and landscape plantings, open water, unvegetated wash or river bottom, developed areas, and disturbed areas. Figureset 5.4-1 shows the vegetation alliances and associations along the CSP Project alignment.

		Area Mapped on CSP Project	Area Mapped within Anticipated	California State Rarity
Vegetation Alliance	Vegetation Association	alignment (acres)	Work Areas (acres)	Ranking
Woodland Forest Vegeta	ation			~-
Bristlecone Pine Woodland	Pinus longaeva Association	22.9	15.4	<u>S2</u>
Aspen Groves	Populus tremuloides - Pinus longaeva Provisional Association	5.6	3.4	S 3
Limber Pine Woodland	Pinus flexilis - Pinus longaeva Provisional Association	2.3	1.8	S 3
Red Willow Thickets	Salix laevigata Association	0.3	0.2	S 3
Singleleaf Pinyon Woodland	Pinus monophylla – (Juniperus osteosperma) / Artemisia tridentata subsp. vaseyana Association	186.3	113.3	S4
	Total Acres Woodland Vegetation	216.5	133.0	
Shrubland Vegetation				
Small-leaf Mountain Mahogany Scrub	Cercocarpus intricatus Association	3.8	2.7	S2
Water Birch Thicket	<i>Betula occidentalis / Salix</i> spp. Association	1.6	1.3	S2
Bitter Brush Scrub	Purshia tridentata var. glandulosa - Artemisia tridentata subsp. vaseyana Association	19.4	11.8	\$3
Fremont's and Nevada Smokebush Scrub	Psorothamnus arborescens - Sarcobatus baileyi Provisional Association	10.9	0.0	Yes ²
	Psorothamnus arborescens Provisional Association	107.2	19.2	
	Psorothamnus polydenius - Atriplex confertifolia Provisional Association	2.7	0.0	
	<i>Psorothamnus polydenius</i> Provisional Association	7.6	0.1	
Utah Serviceberry - Alderleaf Mountain- mahogany - Littleleaf Mountain-Mahogany Scrub	Philadelphus microphyllus var. microphyllus Provisional Association	2.0	0.7	S3 ²
Winterfat Scrubland	Krascheninnikovia lanata Association	3.2	1.1	S 3
Interior Rose Thickets	Rosa woodsii Provisional Association	2.4	1.8	S 3
Spiny Menodora Scrub	Menodora spinescens Association	6.3	1.0	S 3
	Menodora spinescens - (Ephedra nevadensis) Association	1.9	1.7	S 3

 Table 5.4-2: Natural Communities and Land Cover Types Mapped within the CSP Project

 Alignment

Vegetation Alliance	Vegetation Association	Area Mapped on CSP Project alignment (acres)	Area Mapped within Anticipated Work Areas (acres)	California State Rarity Ranking
Sandbar Willow Thickets	Salix exigua Association	35.9	25.3	g
	Salix exigua - (Salix gooddingii) Provisional Association	1.9	0.0	S4
Shadscale Scrub	Atriplex confertifolia Great Basin Association	57.6	9.0	S 4
	Atriplex confertifolia - Ephedra nevadensis Association	3.3	2.9	S4
	Atriplex confertifolia – Krascheninnikovia lanata Association	17.8	10.9	Yes ²
	Atriplex confertifolia - Psorothamnus arborescens Provisional Association	12.6	2.6	Yes ²
	Atriplex confertifolia - Menodora spinescens Provisional Association	1.2	0.0	S4
Nevada Joint fir -	Ephedra nevadensis Association	116.4	56.5	S4
Anderson's Boxthorn - Spiny Hopsage Scrub	Ephedra nevadensis - Psorothamnus arborescens Provisional Association	3.1	0.0	S 4
Allscale Scrub	Atriplex polycarpa Association	21.0	11.9	S4
Arroyo Willow Thickets	Salix lasiolepis Association	53.8	35.4	Yes ²
	Salix lasiolepis / Rosa woodsii / mixed herbs Association	0.5	0.4	Yes ²
Blackbrush Scrub	Coleogyne ramosissima Association	13.1	6.0	S4
Cheesebush - Sweetbush	Ambrosia salsola Association	87.6	32.2	S4
Scrub	<i>Ambrosia salsola - Atriplex canescens</i> Association	22.5	11.3	S4
	Ambrosia salsola - Atriplex confertifolia Association	1.5	0.8	S4
Curl Leaf Mountain- mahogany Scrub	<i>Cercocarpus ledifolius – Artemisia tridentata</i> subsp. <i>vaseyana</i> Association	25.2	16.8	S4
Fourwing Saltbush Scrub	Atriplex canescens Association	78.4	27.7	S4
	Atriplex canescens Desert Wash Association	8.2	0.0	S4
	Atriplex canescens - Psorothamnus arborescens Provisional Association	0.6	0.4	Yes ²
Greasewood Scrub	Sarcobatus vermiculatus Association	95.5	18.2	S4
	Sarcobatus vermiculatus - Atriplex confertifolia Association	5.2	0.0	Yes ²
Needleleaf Rabbitbrush Scrub	Ericameria teretifolia Association	25.3	15.3	S4
Quailbush Scrub	Atriplex lentiformis Association	51.0	15.4	S4
	Atriplex lentiformis - Ericameria nauseosa Provisional Association	2.5	0.0	
Big Sagebrush Scrub	Artemisia tridentata Association	8.3	7.1	S5
Mountain Big Sagebrush Scrub	Artemisia tridentata subsp. vaseyana Association	405.2	259.5	S4
	Artemisia tridentata subsp. vaseyana – Purshia tridentata Association	8.4	3.3	<u>S4</u>
California Buckwheat Scrub	Eriogonum fasciculatum Association	12.3	8.2	S5
Rubber Rabbitbrush Scrub	Ericameria nauseosa Association	115.5	49.6	S5
	Total Acres Shrubland Vegetation	1,456.7	666.1	

Table 5.4-2: Natural Communities and Land Cover Types Mapped within the CSP Project Alignment

Vegetation Alliance Vegetation Association		Area Mapped on CSP Project alignment (acres)	Area Mapped within Anticipated Work Areas (acres)	California State Rarity Ranking
Herbaceous Vegetation			_ , , , ,	
Alkali Sacaton - Scratchgrass - Alkali Cordgrass Alkaline Wet Meadow	Muhlenbergia asperifolia - Distichlis spicata Provisional Association	6.1	3.1	S2
Yerba Mansa - Nuttall's Sunflower - Nevada Goldenrod Alkaline Wet Meadows	Anemopsis californica Association	0.1	0.0	S2
Ashy Ryegrass – Creeping Ryegrass Turfs	Leymus triticoides Association	6.2	5.0	83
Hardstem and California Bulrush Marshes	Schoenoplectus acutus Association	0.2	0.1	S3S4, Yes ²
Salt Grass Flats	Distichlis spicata Association	2.5	1.6	S4
	<i>Distichlis spicata</i> - annual grasses Association	0.5	0.1	S 4
Baltic and Mexican Rush Marshes	Juncus arcticus var. balticus – (var. mexicanus) Association	1.5	1.3	S 4
Cattail Marshes	<i>Typha (latifolia, angustifolia)</i> Association	0.3	0.1	85
	Phragmites australis subsp. americanus Provisional Association	0.6	0.3	85
	Total Acres Herbaceous Vegetation	17.9	10.7	
	Total Acres Native Vegetation	1,691.1	809.8	
	Total Acres Non-Native Vegetation	0.0	0.0	
	Total Acres All Vegetation	1,691.1	809.8	
Active Agriculture		18.3	6.2	None
Ornamental/Landscaped (lav	wns, gardens)	0.9	0.1	
Open Water (ponds, lakes, s	treams, rivers)	1.1	0.6	
Developed (towers, roads, et	tc)	193.5	100.1	
Disturbed (cleared area supp	orting ruderal vegetation, if any)	2.3	0.1	
Unvegetated Wash or River	Bottom	0.5	0.3	
	Total Manned Acres	1 007 7	017.1	

Table 5.4-2: Natural Communities and Land Cover Types Mapped within the CSP Project Alignment

Notes:

1 As of April 2019

2 Included as Sensitive on 2018 CDFW California Sensitive Natural Communities list or with CDFW guidance

Alliance Rarity Rankings (CDFW 2018, Sawyer et. al 2009):

S1: Fewer than 6 viable occurrences statewide and/or up to 518 hectares

S2: 6-20 viable occurrences statewide and/or 518-2,590 hectares

S3: 21-100 viable occurrences statewide and/or 2,590-12,950 hectares

S4: Greater than 100 viable occurrences statewide, and or more than 12,950 hectares

S5: Demonstrably secure because of its statewide abundance

Undeveloped lands account for approximately 89 percent of the survey area. Tree-dominated vegetation occurs along moist drainages and at higher elevations in the White Mountains, covering 13 percent of vegetated areas within the CSP Project alignment. Singleleaf Pinyon Woodland (*Pinus monophylla* Woodland Alliance) occurs above 6,400 ft amsl in the White Mountains and occupies the largest area of the woodland vegetation types, covering 11 percent of vegetated areas. Above 8,500 ft amsl, Bristlecone Pine Woodland (*Pinus longaeva* Woodland Alliance) covers the highest north-facing slopes and ridgetops within the alignment. Willows (*Salix*

species), aspens (*Populus tremuloides*), and other riparian trees and shrubs such as water birch (*Betula occidentalis*) form groves, woodlands, and thickets in moist areas and riparian drainages in montane and lowland areas, covering 6 percent of vegetated areas within the CSP Project alignment.

Shrublands account for 86 percent of the vegetated areas within the CSP Project alignment, with shrubland vegetation dominated by Mountain Big Sagebrush Scrub (*Artemisia tridentata* subsp. *vaseyana* Shrubland Alliance) covering 22 percent of the survey area within the CSP Project alignment, the greatest cover of any vegetation type within the alignment, where it occurs in the White Mountains. Shrublands dominated by one of several species of smokebush (*Psorothamnus*) provided the greatest cover in the Owens Valley, Chalfant Valley, and Deep Springs Valley on alluvial fans, slopes, and in dry washes, followed by associations within Nevada Joint Fir - Anderson's Boxthorn - Spiny Hopsage Scrub (*Ephedra nevadensis – Lycium andersonii – Grayia spinosa* Shrubland Alliance) on mid-elevation slopes and Rubber Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance) on the drier margins of moist valley bottoms and in disturbed areas. Lowlands with alkaline substrates in the Chalfant Valley, Owens Valley, Deep Springs Valley, and Fish Lake Valley support "chenopod scrub" vegetation types, including Greasewood Scrub (*Sarcobatus vermiculatus* Shrubland Alliance), Fourwing Saltbush Scrub (*Atriplex canescens* Shrubland Alliance), Shubland Alliance), and Alliance).

There are few mapped herbaceous alliances within the CSP Project alignment; herbaceous vegetation covers one percent of the alignment in the moist alkali meadows and freshwater wetlands in the Owens River Valley. There were no non-agricultural areas supporting non-native vegetation in large enough stands (2 acres or more) to be mapped within the CSP Project alignment.

These alliances and associations support a diverse range of wildlife species, including nesting and foraging birds, mammals (especially rodents), reptiles, amphibians, and invertebrates. New growth and blooming in spring and summer provides forage and nectar sources for many wildlife species, and vegetation associated with wetlands and drainages can be disproportionately important as wildlife habitat due to the availability of surface water, at least seasonally. Descriptions of each natural community are provided in Appendix C to this PEA document.

5.4.1.3.1 Sensitive Natural Communities

Sensitive natural communities are defined as communities of limited distribution within California or within a county or region. These communities may or may not contain special-status species. CDFW has assigned Alliance Rarity Ratings to alliances included in the *California Manual of Vegetation, Second Edition* (Sawyer, Keeler-Wolfe, and Evens 2009) and in the updated California State Natural Communities List (CDFW 2018a). Sensitive natural communities are treated by CDFW as alliances or associations with "threat" ranks of S3 or higher (S1, S2, S3), whereas S4 and S5 rankings are not designated as sensitive or threatened (CDFW 2018a). The state ranking system for S3 and above includes the estimated number of existing acres in California for the sensitive natural communities. The rankings are defined as follows:

- S1, Critically Imperiled: Critically imperiled in California because of extreme rarity (often five or fewer occurrences) or because of some factor(s), such as very steep declines, making it especially vulnerable to extirpation from the state.
- S2, Imperiled: Imperiled in California because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.

• S3, Vulnerable: Vulnerable in California due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

Table 5.4-3 lists the 26 sensitive natural communities observed within the CSP Project alignment, which cover 302.4 acres, as shown on Figureset 5.4-1.

Table 5 4-3	• Sensitive	Natural	Communities	Manned	within the	CSP Proje	et Alignment
1 able 5.4-5	. Sensitive	naturar	Communices	mappeu	within the		ci Angimment

Sensitive Woodland Alliances and Associations
Riparian woodland and forest alliances (all associations sensitive within observed alliances)
Red Willow Thickets (Salix laevigata Woodland Alliance)
Montane coniferous forest alliances (all associations sensitive within observed alliances)
Bristlecone Pine Woodland (Pinus longaeva Woodland Alliance)
Limber Pine Woodland (Pinus flexilis Woodland Alliance)
Montane broadleaf forest alliance (association sensitive within observed alliance)
Aspen Groves (Populus tremuloides Forest Alliance)
Sensitive Shrubland Alliances and Associations
Riparian shrubland alliances (all alliances and their associations are sensitive unless a sensitive association is included
within a non-sensitive alliance)
Water Birch Thicket (Betula occidentalis Shrubland Alliance)
Interior Rose Thickets (Rosa woodsii Shrubland Alliance)
Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance), Salix lasiolepis Association
Salix lasiolepis / Rosa woodsii / mixed herbs Association in Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance)
Montane shrubland alliances (all associations sensitive within observed alliances)
Bitter Brush Scrub (Purshia tridentata Shrubland Alliance)
Utah Serviceberry - Alderleaf Mountain-mahogany - Littleleaf Mountain-mahogany Scrub (Amelanchier utahensis -
Cercocarpus montanus - Cercocarpus intricatus Shrubland Alliance)
Small-leaf Mountain Mahogany Scrub (Cercocarpus intricatus Shrubland Alliance)
Wash and alluvial fan alliance (all associations sensitive within observed alliances)
Fremont's and Nevada Smokebush Scrub (<i>Psorothamnus fremontii – Psorothamnus polydenius</i> Shrubland Alliance) – 4 sensitive associations
Psorothamnus arborescens - Sarcobatus baileyi Provisional Association in Fremont's and Nevada Smokebush Scrub
Psorothamnus arborescens Provisional Association in Fremont's and Nevada Smokebush Scrub
Psorothamnus polydenius - Atriplex confertifolia Provisional Association in Fremont's and Nevada Smokebush Scrub
Psorothamnus polydenius Provisional Association in Fremont's and Nevada Smokebush Scrub
Alkaline slopes, flats, and playas alliances (all alliances and their associations are sensitive unless a sensitive association is included within a non-sensitive alliance)
Atriplex canescens - Psorothamnus arborescens Provisional Association in Fourwing Saltbush Scrub Alliance (Atriplex canescens Shrubland Alliance)
Sarcobatus vermiculatus - Atriplex confertifolia Association in Greasewood Scrub Alliance (Sarcobatus vermiculatus Shrubland Alliance)
Atriplex confertifolia – Krascheninnikovia lanata Association in Shadscale Scrub Alliance (Atriplex confertifolia Shrubland Alliance)
Atriplex confertifolia - Psorothamnus arborescens Provisional Association in Shadscale Scrub Alliance
Upland alliances in rocky substrates (all alliances and their associations are sensitive unless a sensitive association is included within a non-sensitive alliance)
Winterfat Scrubland (<i>Krascheninnikovia lanata</i> Shrubland Alliance)
Spiny Menodora Scrub (<i>Menodora spinescens</i> Shrubland Alliance) – 2 sensitive associations
Menodora spinescens Association in Spiny Menodora Scrub
Menodora spinescens - (Ephedra nevadensis) Association in Spiny Menodora Scrub
Sensitive Herbaceous Alliances and Associations
Marshes and Moist Edge Alliances (all associations sensitive within observed alliances)
Alkali Sacaton - Scratchgrass - Alkali Cordgrass Alkaline Wet Meadow (Sporobolus airoides – Muhlenbergia asperifolia –
Sparting oracilis Herbaceous Alliance)

Table 5.4-3: Sensitive Natural Communities Mapped within the CSP Project Alignment

Yerba Mansa - Nuttall's Sunflower - Nevada Goldenrod Alkaline Wet Meadows (Anemopsis californica - Helianthus nuttallii - Solidago spectabilis Herbaceous Alliance)

Hardstem and California Bulrush Marshes (Schoenoplectus [acutus, californicus] Herbaceous Alliance)

Ashy Ryegrass - Creeping Ryegrass Turfs (Leymus cinereus - Leymus triticoides Herbaceous Alliance)

The four associations within Fremont's and Nevada Smokebush Scrub represent the sensitive natural community that occupies the largest area (128.5 acres) within the CSP Project alignment; this community forms large stands on the alluvial fans and upland margins of drainages in the Owens Valley, Chalfant Valley, and Deep Springs Valley. One of the associations within the Fremont's and Nevada Smokebush Scrub, the *Psorothamnus arborescens - Sarcobatus baileyi* Provisional Association, supports Bailey's greasewood, a special-status shrub species that does not generally form large stands in California.

Montane areas in the White Mountains at or above 6,000 ft amsl support several sensitive natural communities covering 35.7 acres, including but not limited to Bristlecone Pine Woodland, Limber Pine Woodland, Aspen Groves, Small-leaf Mountain Mahogany Scrub, and the *Philadelphus microphyllus* var. *microphyllus* Provisional Association of Utah Serviceberry - Alderleaf Mountain-Mahogany - Littleleaf Mountain-Mahogany Scrub.

Riparian and wetland vegetation is considered a sensitive natural community in California because it often provides suitable habitat for special-status plant and wildlife species. More than 115 acres of riparian and wetland vegetation were mapped along the CSP Project alignment, including but not limited to Red Willow Thickets, Aspen Groves, Water Birch Thicket, Interior Rose Thickets, Sandbar Willow Thickets, Arroyo Willow Thickets, and other riparian vegetation, along with marsh vegetation such as Alkali Sacaton - Scratchgrass - Alkali Cordgrass Alkaline Wet Meadow, Yerba Mansa - Nuttall's Sunflower -Nevada Goldenrod Alkaline Wet Meadows, Ashy Ryegrass - Creeping Ryegrass Turfs, Baltic and Mexican Rush Marshes, Hardstem Rush Marsh, and Cattail Marshes.

5.4.1.4 Aquatic Features

Potentially jurisdictional wetlands and non-wetland waters occur throughout the CSP Project alignment. General wetland habitats that occur within Segments 1, 2, 3, and 4 of the CSP Project alignment include emergent freshwater wetlands, scrub-shrub wetlands, and forested/woodland wetlands. Potentially jurisdictional non-wetland waters found in Segments 1, 2, 3, 4, and 5 are generally classified as rivers and streams. The Owens River is the only major river within the CSP Project alignment. Surface waters within Segment 3 also include Silver Creek and Wyman Creek. Appendix C to this PEA contains the *Wetlands and Other Waters Jurisdictional Delineation Report: Control Silver Peak 55 kV Subtransmission Line* (Arcadis 2019b). This document includes figures illustrating potentially jurisdictional waters and detailed tables of features identified along the CSP Project alignment.

5.4.1.5 Habitat Assessment

5.4.1.5.1 Special-status Plant Species

For the purposes of this PEA, special-status plants are defined as:

- Federally listed species (i.e., plants listed as threatened or endangered under the Federal Endangered Species Act [FESA])
- Species considered "sensitive" by BLM on BLM lands
- Species considered "sensitive" by the USFS

- State-listed species (i.e., plants listed as threatened, endangered, or rare under the California Endangered Species Act [CESA])
- Species that are candidates for possible future listing as threatened or endangered under FESA
- Plants by the California Native Plant Society (CNPS) with a California Rare Plant Rank (CRPR) of 1B or 2B Plants that meet the definition of rare or endangered under CEQA, including species considered by the CNPS to be rare, threatened, or endangered in California (i.e., CRPRs 1A, 1B, 2A, 2B, and certain rank 3 and 4 species with local significance).

The desktop review identified 60 special-status plant species that have the potential to occur within 10 miles of the CSP Project alignment. Of these, nine special-status plant species were actually observed along the CSP Project alignment during the 2017-2018 surveys. Locations of observed special-status plant species are shown in Figureset 5.4-2, and habitat and location information for observed special-status plant species are presented in Table 5.4-4, along with their potential to occur in other locations along the CSP Project alignment.

No Federally or California Endangered or Threatened plant species were observed within the CSP Project alignment during the 2017 and 2018 surveys and no Federally or California Endangered or Threatened plant species have the potential to occur within the CSP Project alignment. Nine non-listed special-status plant species were observed within the CSP Project alignment; these include two shrub species, one cactus species, three herbaceous perennial species (including one grass), and three annual species representing almost 15,000 individuals (Table 5.4-4 and Figureset 5.4-2); an additional seven plant species were observed with a CRPR of 4. The majority (94 percent) of the observed individuals of special-status plant species are annuals or herbaceous perennials that pass the dry season as seeds or as dormant plants with no above-ground green foliage and underground storage organs. Total precipitation in the water year 2016/2017 was 9.2 inches, 4 inches greater than the mean and three times greater than the previous (2015/2016 water year) or subsequent water year (2017/2018 water year), which contributed to widespread germination and growth of annuals and herbaceous perennials in spring 2017 during the surveys; these herbaceous species were likely more abundant and conspicuous during the surveys compared with other years. Although well-adapted to the California winter climate within the CSP Project alignment, these species are vulnerable to disturbance during their growing season, as well as weed infestations and animal grazing.

Table 5.4-5 lists special-status plant species that were not observed along the CSP Project alignment along with their potential to occur on the alignment; it also includes special-status plant species observed at reference sites. No listed plant species are likely to occur along the CSP Project alignment. All California Natural Diversity Database (CNDDB) special-status plant species records reported within the CSP Project alignment are presented in Figureset 5.4-3 (CNDDB 2020).

Details about observed special-status plant species, including habitat requirements, species descriptions, and life history, are provided in Appendix C to this PEA document. In addition, the reports in Appendix C include discussions and tables summarizing whether or not special-status plant species are likely to occur along the CSP Project alignment, as well as special-status plant species observed at reference sites but not observed along the CSP Project alignment.

5.4.1.5.2 Special-status Wildlife Species

For the purposes of this PEA, special-status wildlife species are defined as:

- Species listed or candidates for listing as threatened or endangered under FESA
- Species considered to be "sensitive" by the BLM
- Species considered "sensitive" by the USFS

- Species listed or candidates for listing as threatened or endangered under the CESA
- CDFW Fully Protected species
- Species designated as a California Species of Special Concern (CSC) by the CDFW
- Migratory birds and any of their parts, eggs, and nests, as protected by the Migratory Bird Treaty Act (MBTA)
- Furbearing mammals, as protected from take by California Fish and Game Code (CFGC) CCR 14 § 460

SCE identified fifty-three special-status wildlife species with potential to occur within 10 miles of the CSP Project alignment. Of these, seven special-status wildlife species were observed along the CSP Project alignment during 2017-2018 special-status wildlife surveys. One California Threatened wildlife species (Swainson's hawk [*Buteo swainsoni*]) and one CDFW Fully Protected wildlife species (desert bighorn sheep [*Ovis canadensis nelsonii*]) were observed along the CSP Project alignment during the 2017-2018 surveys.

In addition, four CSC were observed: olive-sided flycatcher (*Contopus cooperi*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), and yellow-headed blackbird (*Xanthocephalus xanthocephalus*). Three BLM Sensitive species were observed: northern sagebrush lizard (*Sceloporus graciosus graciosus*), Swainson's hawk, and desert bighorn sheep. One USFS Sensitive species was observed: desert bighorn sheep.

Locations of observed special-status wildlife species are shown in Figureset 5.4-4, and habitat and location information for observed special-status wildlife species are presented in Table 5.4-6, along with their potential to occur in other locations along the CSP Project alignment.

Table 5.4-7 lists the special-status wildlife species that were not observed along the CSP Project alignment along with their potential to occur on the alignment. A summary of special-status wildlife reported from the CSP Project alignment is provided below. All CNDDB special-status wildlife species records reported within the CSP Project alignment are presented in Figureset 5.4-5 (CNDDB 2020).

Details about observed special-status wildlife species, including habitat requirements, species descriptions, and life history, are provided in Appendix C to this PEA document. In addition, the reports in Appendix C include discussions and tables summarizing special-status wildlife species that have the potential to occur within the CSP Project alignment but that were not observed.

5.4.1.5.2.1 Fish

Owens pupfish (*Cyprinodon radiosus*) and Owens tui chub (*Siphateles bicolor snyderi*), both Federally Endangered species, have historical ranges that overlap the CSP Project alignment but have been extirpated from these locations. An extirpated population of the Owens pupfish occurred in the Owens River between eastern Bishop and Laws over a century ago in an area that overlaps the CSP Project alignment in Segment 3. Two extirpated populations of the Owens tui chub occurred in the Owens River between eastern Bishop and Laws as well as in the Owens River near Five Bridges Road in locations that overlapped the CSP Project alignment in Segments 3 and 4, based on CNDDB (2019) and PISCES (Santos et al. 2014). There is no designated critical habitat for the Owens pupfish and the critical habitat for the Owens tui chub occurs outside of the CSP Project alignment. Page Intentionally Left Blank.

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Observations or Documentation of Species within CSP Project alignment
Aliciella triodon	coyote gilia	-/-/2B.2/-	Occurs within Great Basin scrub and pinyon juniper woodland communities, in soils that are sometimes sandy, at elevations ranging from 3,940 to 5,580 ft amsl.	Occurs within the CSP Project alignment in Greasewood Scrub, Fourwing Saltbush Scrub, Smokebush Scrub, Big Mountain Sagebrush, and other Great Basin scrub vegetation types, mostly in valleys and drainage margins in the CSP Project area.	Twenty observations of 12,122 individuals found northeast of Deep Springs; in the Chalfant Valley between Bishop and the town of Chalfant Valley; and in the White Mountains adjacent to Wyman Creek. One 1969 CNDDB record is located east of the CSP Project alignment at the northern end of Owens Valley ¹ .
Astragalus serenoi var. shockleyi	naked milkvetch, Shockley's milk-vetch	- / - / 2B.2 /-	Occurs in open, dry, alkaline gravelly clay, or granitic alluvium in chenopod scrub, Great Basin scrub, or pinyon and juniper woodlands at elevations ranging from 5,905 to 7,546 ft amsl within the CSP Project alignment.	Occurs along the CSP Project alignment in Mountain Big Sagebrush Scrub in alluvial substrates in montane valleys, generally between 6,000 and 7,500 ft amsl in the CSP Project area.	One observation location with 2 individuals found in Big Sagebrush Scrub in Silver Canyon in the White Mountains. There is one 1964 CNDDB record located along the CSP Project alignment in the same area as the survey observation location ¹ .
Chaetadelpha wheeleri	Wheeler's chaetadelpha, Wheeler's dune-broom	- / - / 2B.2 /-	Occurs on sandy substrates in sand dunes, alkali flats, Creosote Bush Shrublands, or Big Sagebrush at elevations ranging from 2,625 to 5,900 ft amsl.	Occurs in Greasewood Scrub in the Chalfant Valley in the CSP Project area.	Two observations with three individuals found in Greasewood Scrub west of California Highway 6 in Chalfant Valley, California. There is one CNDDB record located within the CSP Project alignment and two within 3 miles of the alignment ¹ .
Eremothera boothii subsp. intermedia	desert shredding primrose	- / - / 2B.3 /-	Occurs on sandy flats and steep loose slopes in Joshua tree woodland and pinyon juniper woodland at elevations ranging from 2,673 to 7,874 ft amsl.	Occurs only in suitable habitat between 4,600 and 7,000 ft amsl in well-drained substrates in Shadscale Scrub, Cheesebush – Sweetbush Scrub, Winterfat Scrub, Mountain Big Sagebrush Scrub, and near Arroyo Willow Thickets in Silver Canyon.	16 occurrences with 1,435 individuals were observed in Shadscale, Cheesebush, Winterfat, and Mountain Big Sagebrush Scrub in the White Mountains in Silver Canyon. There are two CNDDB records within 3 miles of the alignment ¹ . There are no other records within 3 miles of the CSP Project alignment.
Grusonia pulchella	sagebrush cholla	- / - / 2B.2 /-	Occurs in sandy sites generally in Larrea tridentata-Ambrosia dumosa Shrubland, other Mojavean and Sonoran Desert scrub, desert dunes, and Great Basin scrub at elevations ranging from 4,920 to 5,900 ft amsl.	Occurs in suitable habitat in Cheesebush – Sweetbush Scrub on sandy substrates in the Fish Lake Valley near the Nevada border.	Four occurrences with ten individuals were observed in Fish Lake Valley near California Highway 266 in eastern Mono County near the Nevada state line. There are two CNDDB records located within the CSP Project alignment and four within 4 miles ¹ .
Oryctes nevadensis	Nevada oryctes	- / - / 2B.1 /-	Nevada oryctes occurs in sandy soils and dunes at elevations ranging from 3,280 to 4,920 ft amsl.	Occurs in suitable sandy soils in Greasewood Scrub between Bishop and Laws but is unlikely to occur elsewhere within the alignment.	One observation of six individuals found in the Owens Valley between Bishop and Laws. There is one CNDDB record (Occurrence #34) within the CSP Project alignment, and there are

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Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Observations or Documentation of Species within CSP Project alignment
					three CNDDB locations within 1 mile of the survey observation on the alignment ¹ .
Physocarpus alternans	dwarf ninebark	- / - / 2B.3/ -	Occurs on limestone in dry, rocky habitats in pinyon juniper woodland in the White and Inyo Mountains and other high desert elevations at elevations ranging from 5,900 to 10,170 ft amsl.	Occurs only in suitable habitat in Wyman Canyon between 8,500 and 8,800 ft amsl in carbonate substrates in Mountain Big Sagebrush Scrub and pinyon and juniper woodlands.	One occurrence with two individuals were observed in Mountain Big Sagebrush Scrub along Wyman Creek in the White Mountains. There is one CNDDB record located within the CSP Project alignment in the same area as the survey location ¹ .
Sarcobatus baileyi	Bailey's greasewood	- / - / 2B.3 /-	Occurs in alkaline soils, dry lakes, roadsides and washes in Chenopod scrub, at elevations above 3,937 ft amsl.	Occurs only in suitable habitat in the Chalfant Valley near Petroglyph Road and Millner Creek south to the McNally Canal in the Psorothamnus arborescens - Sarcobatus baileyi Provisional Association of Fremont's and Nevada Smokebush Scrub.	Ten occurrences with 914 individuals were observed in Fremont's and Nevada Smokebush Scrub between Chalfant Valley and Bishop west of California Highway 6. There is only one CNDDB record for Bailey's greasewood located approximately 1 mile west of the CSP Project alignment ¹ .
Stipa divaricata	small-flowered rice grass	- / - / 2B.3 /-	Occurs on gravel benches, rocky slopes, and creek banks in pinyon and juniper woodland at elevations ranging from 2,625 to 10,170 ft amsl.	Occurs in suitable habitat only in Wyman Canyon, mostly above 8,000 ft amsl in Mountain Big Sagebrush Scrub and pinyon and juniper woodland vegetation.	Three occurrences with 360 individuals found in three locations along one stretch in Wyman Canyon within the CSP Project alignment in Mountain Big Sagebrush Scrub. There is only one CNDDB record within 3 miles of the CSP Project alignment, it overlaps the alignment in Wyman Canyon where small-flowered rice grass was observed during the surveys ¹ .

Notes:

1 CDFW (CNDDB). 2020. California Natural Diversity Database. RareFind Version 5. Sacramento, California

Based on CNDDB (2020) review of the following quads that intersect the CSP Project alignment: Bishop, Blanco Mountain, Chidago Canyon, Chalfant Valley, Chocolate Mountain, Crooked Creek, Fish Slough, Laws, Soldier Pass, and Sylvania Canyon.

Records from California Consortium of Herbaria (CCH 2020) also reviewed

Status Codes

United States Fish and Wildlife Service (USFWS)	California Department of Fish and Wildlife (CDFW)	Bureau of Land Management (BLM)	United States Forest Service (USFS)
FE Federal Endangered	CE California Endangered	BLM S BLM Sensitive Species	USFS S U.S. Forest Service Sensitive Species
FT Federal Threatened	CT California Threatened		
	CR California Rare		

California Native Plant Society (CNPS)

List 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere List 2: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere List 3: Plants About Which We Need More Information - A Review List

Extensions to List Categories

- .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Special-status P	lants not Observed within	the CSP Project alig	nment, but Observed at Reference	Sites	the coll i fojett angement
Astragalus argophyllus var. argophyllus	silver-leaved milk-vetch	-/-/2B.2/BLMS	Occurs on alkaline or saline playas, meadows and seeps at elevations from 4,068 to 7,700 ft amsl.	Unlikely to occur within the CSP Project alignment; potentially suitable alkaline meadow, playa, and seep vegetation habitat occurs near Bishop and Laws but observations of this species are lacking in these locations.	Observed at a reference site at Fish Slough. There are CNDDB records within 3 miles of the CSP Project alignment in Fish Slough, Chalfant Valley, and northeast of the Bishop Airport; none of these overlap the alignment ¹ .
Astragalus geyeri var. geyeri	Geyer's milk-vetch	-/-/2B.2/-	Occurs on sandy soil within Chenopod scrub and Great Basin scrub at elevations ranging from 328 to 5,249 ft amsl.	Unlikely to occur within the CSP Project alignment below 5,300 ft amsl and is absent within the alignment above 5,300 ft amsl.	Observed at a reference site south of Big Pine and east of Twin Lakes in Inyo County. There are two CNDDB records within 3 miles of the CSP Project alignment ¹ .
Astragalus lentiginosus var. piscinensis	Fish Slough milk-vetch	FT / - / 1B.1 / -	Occurs on the banks of alkaline lakes, at approximately 4,300 ft amsl.	Fish Slough milk-vetch does not occur within the CSP Project alignment. It is endemic to Fish Slough in moist alkaline soils and has never been reported elsewhere.	Observed at a reference site at Fish Slough. Known from fewer than five occurrences, all within Fish Slough north of Bishop, California in Inyo and Mono Counties.
Calochortus excavatus	Inyo County star-tulip	-/-/1B.1/BLM S, USFS S	Occurs in grassy meadows in shadscale scrub at elevations ranging from 4,265 to 6,562 ft amsl. California endemic, occurring primarily in the Owens Valley region of California in Inyo and Mono Counties.	Likely to occur southwest of Laws and in alkaline marshes surrounding Bishop.	Observed at a reference site near Keough Hot Springs, near Manzanar between U.S. Highway 395 and the Owens River, and at Fish Slough. There are multiple CNDDB records in and around Bishop, California ¹ .
Dedeckera eurekensis	July gold	- / CR / 1B.3 / BLM S, USFS S	Occurs in carbonate soils in Mojavean desert scrub at elevations ranging from 940 to 6,890 ft amsl.	Absent within the CSP Project alignment. There are no records of this conspicuous shrub that overlap the CSP Project alignment in any location; records of July gold are absent in Silver Canyon, a west-facing drainage in the White Mountains.	Observed at a reference site in the lower portion of Coldwater Canyon in the White Mountains northeast of Bishop. There are multiple 1998 CNDDB records in west- facing canyons and foothills of the White Mountains above Chalfant Valley ¹ .
Ivesia kingii var. kingii	alkali ivesia	-/-/2B.2/BLM S	Occurs in moist alkaline clay soils in playas, meadows and seeps, and Great Basin scrub habitat at elevations from 3,940 to 6,890 ft amsl.	Does not occur within the CSP Project alignment; potentially suitable moist alkaline habitat is present near Bishop, but there are no records or other documented observations of this species within the CSP Project alignment.	Observed at a reference site at Fish Slough. Two 1989 CNDDB records within 3 miles of the CSP Project alignment occur primarily in Fish Slough, Chalfant Valley, and south of Laws, California ¹ .
Mentzelia torreyi	Torrey's blazing star	-/-/2B.2/-	Occurs in sandy, rocky, alkaline, and volcanic soils in Great Basin	Does not occur within the CSP Project alignment; there are no records for this	Observed at a reference site in an alkali playa northeast of Calvert Lake in the Owens

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Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment species that overlap the CSP Project	Records of Observations or Documentation of Species within or near the CSP Project alignment Valley. Three CNDDB records occur within
			pinyon juniper woodland at elevations ranging from 3,000 to 6,900 ft amsl.	alignment, and the nearest records are reported from Fish Slough outside of the alignment.	3 miles of the CSP Project alignment, all within Fish Slough ¹ : There are other CNDDB records further north in Mono County (near Mono Lake, south of Crowley Lake, and north of Round Valley) and in Inyo County in the Owens Valley between Aberdeen and Independence, California.
Phacelia inyoensis	Inyo phacelia	- / - / 1B.2 / BLM S, USFS S	Inyo phacelia is endemic to Inyo and Mono Counties in California, occurring in alkaline meadow margins and seeps in desert scrub at elevations from 3,700 to 10,500 ft amsl, often in sand dunes or accumulations of sand within alkaline meadow and scrub habitat.	Does not occur in this location due to a lack of suitable habitat and absence of records overlapping the alignment.	Observed at a reference site adjacent to Klondike Lake north of Big Pine. All CNDDB records within 3 miles of the CSP Project alignment occur near Fish Slough and all are approximately 2 miles west of the CSP Project alignment ¹ .
Plagiobothrys parishii	Parish's popcornflower	- /-/1B.1/USFS S	Occurs in moist areas in Mojavean and Great Basin shrublands and Joshua tree woodland in wet, alkaline seeps at elevations ranging from 2,500 to 4,500 ft amsl. It is endemic to the desert areas of California, occurring primarily in the Owens Valley region in Inyo and Mono Counties.	Unlikely to occur in alkaline meadows and marsh edges near Bishop; there are no recent records of this species that overlap the CSP Project alignment.	Observed at a reference site between Keough Hot Springs and Big Pine; near Manzanar north of Lone Pine; and near the southern end of Owens Lake. There are three CNDDB records within the CSP Project area, all of which are over 25 years old and overlap the alignment ¹ .
Sidalcea covillei	Owens Valley checkerbloom	- / CE / 1B.1 / BLM S	Occurs in chenopod scrub in alkaline substrate, dry lakes, washes, and roadsides at elevations ranging from 3,700 to 4,500 ft amsl.	Owens Valley checkerbloom is unlikely to occur in one location within the CSP Project alignment, where the alignment overlaps the area between California Highway 6 and the Owens River, based on a single 1995 CNDDB record in this location.	Observed at a reference site southeast of Independence, California. There are multiple CNDDB occurrences in and around Bishop, California ¹ .
Special-status P	lants Not Observed withir	CSP Alignment but	Reported in CNDDB/CCH for Sur	rounding Areas	
Astragalus kentrophyta var. elatus	spiny-leaved milk-vetch	-/-/2B.2/-	In the White Mountains, occurs on slopes above 9,800 ft amsl. Occurs in rocky, sometimes carbonate substrates in subalpine coniferous forests. The highest elevation within	This species does not occur within the CSP Project alignment. This conspicuous herbaceous perennial is confined to areas above 9,500 ft amsl in the White Mountains. No individuals of this species	There are four CNDDB records within 8 miles of the CSP Project alignment. The remaining four CNDDB records are south of the CSP Project alignment in the Inyo Mountains ¹ .

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
			the CSP Project alignment is 10,498 ft amsl at the head of Silver Canyon and on the ridge between Silver Canyon and Wyman Canyon.	were observed during surveys, and it has not been previously reported within the CSP Project alignment.	
Astragalus platytropis	broad-keeled milk-vetch	-/-/2B.2/-	In the White Mountains, broad- keeled milk-vetch occurs on rocky slopes above 10,200 ft amsl.	This species is unlikely to occur within the CSP Project alignment on rocky slopes in Bristlecone Pine Woodland above 10,000 ft amsl but is absent in all other areas within the CSP Project alignment.	There are two CNDDB records within 2 miles of the CSP Project alignment, both over 25 years old ¹ .
Atriplex argentea var. hillmanii	Hillman's silverscale	- / - / 2B.2 / -	Occurs in Inyo, Lassen, Mono, and San Bernardino Counties.	Unlikely to occur within the CSP Project alignment in the Chalfant and Fish Lake Valleys.	There are six CNDDB records for Hillman's silverscale in California; only one occurs within 2 miles of the CSP Project alignment ¹ .
Boechera dispar	pinyon rockcress	-/-/2B.3/-	Occurs in granitic and gravelly soils in Joshua tree woodland, Mojavean desert scrub, and pinyon juniper woodland at elevations ranging from 4,000 to 8,500 ft amsl.	Unlikely to occur within the CSP Project alignment and only on the lower east-facing slopes of the White Mountains above the Fish Lake Valley.	There are three CNDDB records within 5 miles of the CSP Project alignment ¹ ; near the northern base of Chocolate Mountain, on the east slopes of the White Mountains, near Bishop, and near Cedar Flat in the White Mountains.
Boechera lincolnensis	Lincoln rockcress	- / - / 2B.3 / BLM S	Occurs in soil high in carbonates in shadscale scrub and Mojavean desert scrub from 3,600 to 8,900 ft amsl.	Unlikely to occur within the CSP Project alignment and only in carbonate gravels in Wyman Canyon at 8,000 ft amsl in Singleleaf Pinyon Pine Woodland.	There are two CNDDB records within 10 miles of the CSP Project alignment, both more than 25 years old ¹ ; one overlaps the CSP Project alignment in Wyman Canyon at 8,000 ft amsl
Boechera pendulina	rabbit-ear rockcress	-/-/2B.1/-	Occurs in the White Mountains on limestone outcrops in the subalpine zone above 10,250 ft amsl.	Does not occur within the CSP Project alignment in suitable habitat above 10,000 ft amsl; no individuals were observed and it has not been previously reported from this location.	There are four CNDDB records within 5 miles of the CSP Project alignment ¹ ; several 2016 records occur 5 miles or more north of the CSP Project alignment on limestone substrates in Mono County.
Botrychium ascendens	upswept moonwort	- / - / 2B.3 / USFS S	Occurs in meadows, open forests along streams or around seeps in lower montane coniferous forests at elevations ranging from 5,000 to 10,500 ft amsl.	Does not occur within the CSP Project alignment, owing to the rarity of this species near the alignment and absence of observations within the alignment.	There is one CNDDB record within 4 miles of the CSP Project alignment near the junction of Crooked Creek Road and Deep Springs Road ¹ .
Botrychium crenulatum	scalloped moonwort	- / - / 2B.2 / USFS S	Occurs in the White Mountains in Mono County in the subalpine zone above 11,000 ft amsl.	Does not occur within the CSP Project alignment – the species does not occur in the White Mountains in Inyo County, and suitable moist habitats and seeps at	There are two CNDDB records, one approximately 20 miles northeast of Bishop and 8.5 miles northeast of the CSP Project alignment ¹ .

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
				subalpine elevations are absent within the CSP Project alignment.	
Carex duriuscula	needleleaf sedge	-/-/2B.3/-	Occurs in dry areas of sagebrush scrub and subalpine coniferous forest from 10,450 to 13,500 ft amsl.	Does not occur within the CSP Project alignment, given the rarity of this species in California, minimum elevation required by the species, and absence of observations within the alignment.	There are four CNDDB occurrences of needleleaf sedge, and all are located north of the alignment in the White Mountains in Mono County ¹ .
Chrysothamnus greenei	Greene's rabbitbrush	-/-/2B.3/-	Occurs in sandy washes in sagebrush and in creosote bush scrub from 4,400 to 6,000 ft amsl.	Absent within the CSP Project alignment; this conspicuous shrub was not observed in the Deep Springs Valley and the Fish Lake Valley, and no recent records occur within or near the alignment.	There are two CNDDB records within 3 miles of the CSP Project alignment ¹ . A 1985 record is located in the Deep Springs Valley approximately 0.5 miles south of the Deep Springs Substation; an undated record was reported from the Fish Lake Valley.
Crepis runcinata	fiddleleaf hawksbeard	-/-/2B.2/-	Occurs in moist locations, in alkaline soils, and in Mojavean desert scrub and pinyon and juniper woodland at elevations ranging from 4,100 to 6.500 ft amsl.	Unlikely to occur within the alignment near the margins of the Owens River, based on the lack of recent observations; no previous observations overlap the CSP Project alignment.	There are six CNDDB records within 6 miles of the CSP Project alignment, Fiddleleaf hawksbeard is also reported from the southern end of Deep Springs Valley well outside of the alignment ¹ .
Elymus salina	Salina Pass wild-rye	-/-/2B.3/-	Occurs in rocky substrates in pinyon and juniper woodland on north- facing slopes from 4,400 to 7,000 ft amsl.	Does not occur within the CSP Project alignment given the rarity of this species near the alignment, its primary distribution to the south of the alignment, and lack of recent records.	There is only one CNDDB record within 2 miles of the CSP Project alignment ¹ , located in Fish Slough, approximately 2 miles west of the CSP Project alignment; associated notes suggest this observation may have been misidentified.
Elymus scribneri	Scribner's wheat grass	-/-/2B.3/-	Occurs in the White Mountains in the subalpine to alpine zone above 10,000 ft amsl in alpine rocky areas.	Does not occur given that the highest elevation within the CSP Project alignment is 10,498 ft amsl and does not include alpine rocky habitat; 1.8 miles of the CSP Project alignment occurs at 10,000 to 10,498 ft amsl at the head of Silver Canyon and on the ridge between Silver Canyon and Wyman Canyon.	A 2002 CNDDB record overlaps the alignment along the crest of the White Mountains from Silver Canyon to Wyman Canyon at 10,000 ft amsl; the CNDDB location encompasses a large non-specific area around the Ancient Bristlecone Pine Forest based on collection data. There are other CNDDB records further north in the White Mountains at higher elevations ¹ .
Eremothera boothii subsp. boothii	Booth's evening-primrose	-/-/2B.3/-	Occurs on sandy flats and steep loose slopes in pinyon and juniper woodland and Joshua tree woodland at elevations from 2,700 to 7,900 ft amsl.	Does not occur within the CSP Project alignment, reported from well-drained substrates in Wyman Canyon at about 8,000 ft amsl.	There is one CNDDB record north of the CSP Project alignment in Wyman Canyon on the road between Dead Horse Canyon and Cottonwood Creek ¹ .

Table 5.4-5: Special-status Plant Species Not Observed within the CSP Project Alignme

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Erigeron compactus	compact daisy	-/-/2B.3/-	Occurs in rock or gravelly carbonate substrate in pinyon juniper woodland at elevations ranging from 5,900 to 7,500 ft amsl.	Absent from the alignment given that there are no records closer than 3 miles to the alignment and all records are at least 20 years old.	There are three CNDDB records within 5 miles of the CSP Project alignment on the eastern slopes of the White Mountains, near Mollie Gibson Mines in the White Mountains; and around Grandview Campground south of the alignment in the White Mountains ¹ .
Erigeron uncialis var. uncialis	limestone daisy	-/-/1B.2/USFS S	Occurs in carbonate substrate, particularly limestone crevices, in Great Basin scrub, pinyon and juniper woodland, and subalpine coniferous forest habitats at elevations ranging from 6,200 to 9,500 ft amsl.	Unlikely to occur within the CSP Project alignment, reported from limestone cliffs in an area supporting Mountain Big Sagebrush Scrub and Singleleaf Pinyon Pine Woodland in Wyman Canyon at 8,000 ft amsl based on the reported elevational range for this species.	There is a CNDDB record that overlaps the alignment on vertical cliffs in Wyman Canyon, 0.5 miles southeast from the intersection of Wyman Canyon Road and Mill Canyon Stock Road ¹ .
Eriogonum mensicola	Pinyon Mesa buckwheat	-/-/1B.3/BLM S	Occurs on rocky gravelly slopes in Great Basin scrub, pinyon and juniper woodland, and upper montane coniferous forests at elevations ranging from 5,905 to 8,858 ft amsl.	Unlikely to occur within the CSP Project alignment on rocky slopes in Mountain Big Sagebrush Scrub and Singleleaf Pinyon Pine Woodland in Wyman Canyon at 8,000 ft amsl.	There is one CNDDB record that overlaps the CSP Project alignment in Wyman Canyon at approximately 8,000 ft amsl ¹ .
Erythranthe calcicola	limestone monkeyflower	-/-/1B.3/BLM S	It is found in carbonate substrate and talus slopes in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland habitat at elevation ranging from 3,000 to 7,100 ft amsl.	Does not occur within the CSP Project alignment, known from disturbed areas along small streams from 3,000 to 7,100 ft amsl; there is only one 33-year-old record of the species in the CSP Project area.	There is one CNDDB 1986 record located two miles east and north of the CSP Project alignment in Coldwater Canyon ¹ .
Festuca minutiflora	small-flowered fescue	-/-/2B.3/-	It occurs on moist shady banks in alpine fell fields from 9,350 to 13,300 ft amsl in the White Mountains and the Sierra Nevada.	This species does not occur within the CSP Project alignment. Suitable alpine fell fields are lacking, and the elevations where it has been reported in the White Mountains exceeds the maximum elevation within the alignment.	An undated Mary DeDecker record was reported from White Mountain Peak at 13,300 ft amsl. A 1987 CCH record was reported at the headwaters of the North Fork of Cottonwood Creek at 12,013 ft amsl, approximately 8.8 miles to the north of the alignment.
Fimbristylis thermalis	hot springs fimbristylis	- / - / 2B.2 / -	Occurs in meadows and seeps, especially in alkaline soils and near hot springs at elevations ranging from 350 to 4,400 ft amsl.	There is no suitable habitat for this species within the CSP Project alignment. This species does not occur within the CSP Project alignment.	There are four CNDDB records within 3 miles of the CSP Project alignment, all within Fish Slough ¹ .

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Hackelia brevicula	Poison Canyon stickseed	- / - / 3.3 / -	Occurs in open, rocky areas of dry creek bottoms in broadleaf upland forest, subalpine coniferous forest, and Great Basin scrub habitats from 8,850 to 10,300 ft amsl in Poison Canyon and adjacent canyons in the White Mountains.	Does not occur within the CSP Project alignment; known primarily from Poison Canyon and other interconnected canyons to the north of the alignment in Mono County. Was observed over 30 years ago at 9,501 feet in upper Wyman Canyon.	All eight CNDDB records occur in the White Mountains in Mono County within 8 miles north of the CSP Project alignment and all are over 25 years old ¹ . A flowering specimen of this species was collected in Wyman Canyon at 9,501 feet by Mary DeDecker in 1983 in an area that overlaps the alignment (CCH 2020).
Horkelia hispidula	White Mountains horkelia	-/-/1B.3/USFS S	Occurs in alpine dwarf scrub, Great Basin scrub, and subalpine coniferous forest at elevation ranging from 9,850 to 11,150 ft amsl.	Unlikely to occur within the CSP Project alignment above 10,000 ft amsl.	There are six CNDDB records within 4 miles of the CSP Project alignment all in the White Mountains ¹ .
Hymenopappus filifolius var. nanus	little cutleaf	-/-/2B.3/-	Occurs on limestone soil in pinyon and juniper woodland and subalpine coniferous forest habitat at elevations from 4,900 to 10,200 ft amsl in the Inyo and White Mountains; occurrences in the White Mountains reported from Birch Creek and Mollie Gibson Canyon north of Westgard Pass.	Unlikely to occur on limestone substrates in pinyon and juniper woodland and coniferous forest at elevations from 5,000 to 10,200 ft amsl.	There are seven CNDDB records within 5 miles of the CSP Project alignment; all occur in the White Mountains south of the alignment ¹ .
Mentzelia inyoensis	Inyo blazing star	- / - / 1B.3 / BLM S, USFS S	Occurs in on rocky slopes, canyons, washes and clay hills and sometimes carbonate soils in Great Basin scrub and pinyon and juniper woodland at elevations ranging from 3,600 to 6,600 ft amsl.	Unlikely to occur within the CSP Project alignment on rocky slopes and canyons, sometimes in carbonate substrates, in Mountain Big Sagebrush Scrub and Singleleaf Pinyon Pine Woodland at 6,600 ft amsl in Silver Canyon; based on the lack of recent records within the alignment.	There is one CNDDB record that overlaps the CSP Project alignment in Silver Canyon at approximately 6,600 ft amsl near Silver Canyon Road. There are no other CNDDB records within 5 miles of the CSP Project alignment ¹ . All other occurrences in the White Mountains are in the eastern foothills and the remaining occurrences are recorded in the Sierra Nevada, in foothills of the Inyo Mountains, and in the Cottonwood Mountains.
Populus angustifolia	narrow-leaved cottonwood	-/-/2B.2/-	Narrow-leaved cottonwood does not occur within the CSP Project alignment, only the Populus in Division Creek, Inyo County had been verified as Populus angustifolia.	Absent within the CSP Project alignment. The White and Inyo mountains population of black cottonwood was observed during the surveys within the CSP Project alignment.	The late Dr. John Sawyer of Humboldt State University, an expert on California trees, examined Wyman Canyon specimens of Populus and determined that all cottonwoods in the White and Inyo mountains are a narrow-leaved form of black cottonwood

Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
					(Populus trichocarpa) (unpublished correspondence with CNPS and CDFW).
Potentilla pulcherrima	beautiful cinquefoil	-/-/2B.2/-	Occurs along the dry edges of meadows and streams in Great Basin scrub habitat at elevations ranging from 9,850 to 10,200 ft amsl.	Does not occur within the alignment, given the rarity of this species in California, lack of recent records, and absence of observations.	There is only one record in CNDDB for beautiful cinquefoil in California generally located near Crooked Creek on the east slopes of the White Mountains approximately 3.5 miles north of the CSP Project alignment at 9,880 ft amsl ¹ .
Ranunculus hydrocharoides	frog's-bit buttercup	-/-/2B.1/-	Occurs in wet ground, shallow water, creek edges and lakes at elevations from 3,900 to 9,200 ft amsl.	Unlikely to occur within the CSP Project alignment in reported from marshes and ditches near Bishop and along the Owens River east to Laws.	There are only four CNDDB records of frog's-bit buttercup in California ¹ . One is located approximately 2 miles south of the alignment in canals and ditches in Bishop north of the South Fork of Bishop Creek.
Sphenopholis obtusata	prairie wedge grass	-/-/2B.2/-	Occurs in alkaline soils in wet meadows, streambanks and ponds in creosote bush scrub and pinyon and juniper woodland habitats at elevations ranging from 800 to 9,400 ft amsl.	Unlikely to occur within the CSP Project alignment, reported from moist alkaline soils at seeps and springs in shrublands and pinyon and juniper woodlands east of Laws and at the mouth of Wyman Canyon between 5,700 and 6,000 ft amsl.	There are three CNDDB records of prairie wedge grass within 3 miles of the CSP Project alignment ¹ . a 1988 record in Sliver Canyon overlaps the alignment. The others are within one mile of the alignment in Silver Canyon and at the mouth of Wyman Canyon. A 2009 CCH record is reported 0.1 mile south of the alignment on the south side of Wyman Creek in the Wyman Creek drainage; the alignment in this location occurs to the north of Wyman Creek in upland habitat.
Thelypodium integrifolium subsp. complanatum	foxtail thelypodium	- / - / 2B.2 / -	Occurs in alkaline or silty soils within meadows and seeps in Great Basin scrub and woodlands at elevations from 3,600 to 8,200 ft amsl.	Unlikely to occur in moist alkaline or silty soils in seeps located in shrublands and pinyon and juniper woodlands east of Laws and in Wyman Canyon at 7,200 ft amsl.	There are three CNDDB records within 2 miles of the CSP Project alignment, all over 25 years old in Wyman Creek, east of Laws, and in Fish Slough ¹ .
Thelypodium milleflorum	many-flowered thelypodium	-/-/2B.2/-	Occurs in alkaline or silty soils within meadows and seeps in Great Basin scrub and woodlands at elevations from 3,600 to 8,200 ft amsl.	Does not occur within the CSP Project alignment given the rarity of this species near the alignment, lack of recent records, and absence of observations.	There is only one CNDDB record within 2 miles of the CSP Project alignment: located at the north end of Fish Slough ¹ .
Townsendia condensata	hairy townsendia	-/-/2B.3/-	Occurs on gravelly substrates in subalpine coniferous forest and alpine boulder and rock field habitat from 10,500 to 12,100 ft amsl.	This species does not occur within the CSP Project alignment. Suitable alpine fell fields are lacking, and the elevations where it has been reported in the White	There are six CNDDB records in the White Mountains in Mono County that are within 10 miles north of the CSP Project

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Scientific Name	Common Name	Regulatory Status (Federally Listed/ California Listed/ CNPS/other)	Habitat and Distribution in California	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
				Mountains exceeds the maximum elevation within the alignment.	alignment ¹ ; all records occur above 11,000 ft amsl.
Townsendia leptotes	slender townsendia	- / - / 2B.3 / -	Occurs on rocky or sandy slopes in alpine boulder and rock field habitat at elevations from 11,500 to 12,500 ft amsl.	This species does not occur within the CSP Project alignment - alpine fell fields and elevation requirements are lacking on the alignment where it has been reported in the White Mountains.	There are five CNDDB records in the White Mountains in Mono County that are within 10 miles the CSP Project alignment ¹ ; all records occur above 11,000 ft amsl.
Transberingia bursifolia subsp. virgata	virgate halimolobos	-/-/2B.3/-	Occurs in wet meadows and seeps near aspen groves in pinyon juniper woodland at elevations from 6,562 to 12,139 ft amsl.	Absent from the CSP Project alignment, based on absence of survey and CNDDB or other documented observations.	There are eight CNDDB records for this species in the White Mountains within 10 miles of the CSP Project alignment ¹ : This species has not been documented within the CSP Project alignment.
Trifolium dedeckerae	DeDecker's clover	- / - / 1B.3 / BLM S, USFS S	Occurs in rock crevices on granitic, rocky soil in subalpine and upper and lower montane coniferous forests; pinyon and juniper woodlands at elevations ranging from 6,900 to 11,500 ft amsl.	Unlikely to occur within the CSP Project alignment in Wyman Canyon above 6,800 ft amsl in granitic substrates, primarily in Singleleaf Pinyon Pine Woodland.	A CNDDB record overlaps the CSP Project alignment in Wyman Canyon at 6,800 ft amsl in Singleleaf Pinyon Pine Woodland near the intersection of Wyman Canyon Road and Forest Road N1919 ¹ . There are three additional records of DeDecker's clover reported in CCH (2020) up Wyman Canyon, including a 1977 collection at 7,000 ft amsl by Mary DeDecker.

Notes:

1 CDFW (CNDDB). 2020. California Natural Diversity Database. RareFind Version 5. Sacramento, California

Based on CNDDB (2020) review of the following quads that intersect the CSP alignment: Bishop, Blanco Mountain, Chidago Canyon, Chalfant Valley, Chocolate Mountain, Crooked Creek, Fish Slough, Laws, Soldier Pass, and Sylvania Canyon.

Records from California Consortium of Herbaria (CCH 2020) also reviewed

Status Codes

United States Fish and Wildlife Service (USFWS) FE Federal Endangered FT Federal Threatened

California Department of Fish and Wildlife (CDFW) CE California Endangered CT California Threatened CR California Rare Bureau of Land Management (BLM) BLM S BLM Sensitive Species **United States Forest Service (USFS)** USFS S U.S. Forest Service Sensitive Species

California Native Plant Society (CNPS)

List 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere List 2: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere List 3: Plants About Which We Need More Information - A Review List

- Extensions to List Categories
- .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20-80% occurrences threatened)

.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

The Owens sucker (*Catostomus fumeiventris*) and Owens speckled dace (*Rhinichthys osculus* spp.2), both CSC, have a low potential to occur within the CSP Project alignment where it crosses the Owens River and connected streams and irrigation canals in and around Bishop in Segments 3 and 5. However, these species have suffered steep population declines due to habitat degradation and loss as well as introduction of non-native fish, and neither fish species has been observed in areas that intersect the CSP Project alignment in thirty years.

There are no other special-status fish species with a native range that overlaps the CSP Project alignment. The Federally Threatened Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*) is endemic to Silver King Creek in the Sierra Nevada, and transplants from this population were successfully established 7.5 miles north of the CSP Project alignment in Cottonwood Creek in the White Mountains in 1946, where they became established. Paiute cutthroat trout do not occur within the CSP Project alignment.

5.4.1.5.2.2 Amphibians

No special-status amphibian species were observed during the special-status wildlife surveys.

The northern leopard frog is a CDFW CSC. Potentially suitable habitat for this species includes freshwater marsh and areas of flowing or standing waters in Segment 1 between the Control Substation and Bishop and in Segment 4 between the Owens River and Fish Slough to the north, especially where there is shoreline cover and submerged and emergent aquatic vegetation (Calherps 2019). Although there are three CNDDB occurrences for the northern leopard frog recorded within 5 miles of Bishop, they are all more than 55 years old; based on the lack of recent observations of this species, the Owens Valley population of northern leopard frogs may be extirpated from all areas except Pine Creek west of Bishop due to habitat loss (Jennings and Hayes 1994, Calherps 2019). The northern leopard frog is unlikely to occur within the CSP Project alignment and is likely extirpated from the region.

Two additional amphibian species are reported in the general Project area in CNDDB queries but do not occur within the CSP Project alignment. The Federally Endangered and California Endangered southern mountain yellow-legged frog is endemic to the southern Sierra Nevada and Transverse Ranges; no portion of its range overlaps the CSP Project alignment (USFWS 2012). The California State Threatened and CDFW Fully Protected black toad occurs only near six known springs, watercourses, marshes, and wet meadows at the southern end of Deep Springs Valley (Calherps 2019). Where Segment 5 of the CSP Project alignment crosses the northern end of Deep Springs Valley, it does not intersect freshwater marsh habitat or flowing streams, and the black toad does not occur within the CSP Project alignment.

5.4.1.5.2.3 Reptiles

One special-status reptile species was observed during the special-status wildlife surveys: the northern sagebrush lizard.

The northern sagebrush lizard, a BLM Sensitive species, was observed in two locations within the CSP Project alignment. One individual was observed in Segment 1 northeast of the Control Substation, west of Bishop, and south of Red Hill in Black Brush Scrub at approximately 4,800 ft amsl within 250 feet of a small tributary to Birch Creek. A second individual was observed in Segment 3 in Wyman Canyon, 20 feet from Wyman Creek in Mountain Big Sagebrush Scrub at approximately 7,000 ft amsl (Figureset 5.4-4). The northern sagebrush lizard is likely to occur within the CSP Project alignment in isolated locations in shrublands in the northern Owens Valley in Segments 1 and 2 and in the White Mountains in Segment 3, especially within 500 feet of a stream or river.

The Panamint alligator lizard (*Elgaria panamintina*) is a CDFW CSC, a USFS Sensitive species, and a BLM Sensitive species; it was not observed during 2017-2018 surveys but is likely to occur within the CSP Project alignment in specific habitats in Segment 3 in the White Mountains (Figureset 5.4-5). The Panamint alligator lizard occurs in canyons, gullies, and rocky slopes near permanent water supporting dense vegetation such as riparian scrub habitat between 2,500 to 7,513 ft amsl (CalHerps 2019). A 2015 CNDDB record was reported from Silver Canyon in Arroyo Willow Thickets.

No additional special-status reptile species have been reported from the CSP Project area.

5.4.1.5.2.4 Birds

Nine special-status bird species were observed along the CSP Project alignment during 2017-2018 wildlife surveys. The California Threatened Swainson's hawk was observed incubating eggs in a nest in a tamarisk tree surrounded by Quailbush Scrub within 85 feet of the CSP Project alignment southwest of the town of Chalfant Valley in Segment 5. Based on CNDDB nesting records, Swainson's hawks are likely to nest in large trees or on nearby cliffs or on structures in limited locations along the CSP Project alignment in the Chalfant Valley in Segment 4, along the Owens River in Segments 2, 3 and 4, at the Deep Springs Substation in Deep Springs Valley in Segment 5, and near the Oasis Ranch in the Fish Lake Valley in Segment 3, where open fields, agricultural land, or scrub communities are found in close proximity to mature trees that provide suitable nesting sites. (CNDDB 2020)

Three non-nesting CDFW CSC species observations in or near the Owens River and Silver and Wyman canyons within the CSP Project alignment include the yellow warbler in Silver Canyon in Segment 3, the olive-sided flycatcher in Wyman Canyon in Segment 3, and the yellow-headed blackbird just south of the Owens River in Segment 5. CDFW Watch List (WL) species not included in Table 5.4-6, such as the prairie falcon (*Falco mexicanus*) and Virginia's warbler (*Oreothlypis virginiae*), were also observed in Wyman Canyon.

Suitable nesting habitat for the yellow warbler includes shrubby thickets and woods, particularly along watercourses and in wetlands in willows, alders, and cottonwoods, and this species may nest within the alignment where the alignment crosses riparian vegetation in Wyman Canyon and Silver Canyon below 7,000 ft amsl in Segment 3.

Suitable nesting habitat for the olive-sided flycatcher includes limber pine and Great Basin bristlecone pine forest at high elevations in the White Mountains in Segment 3, which is within the breeding range for this species and where it has a may nest (Shuford et al. 2008).

Suitable nesting habitat for the yellow-headed blackbird is confined to undisturbed freshwater wetlands with dense vegetation and deep water, such as along flooded margins of the Owens River in Segments 2, 3, and 4, in ponded gravel pits north of Bishop in Segment 4, and along Wyman Creek in Segment 3, but there are no observations or CNDDB records of nesting yellow-headed blackbirds within the CSP Project alignment.

The CDFW CSC loggerhead shrike is a resident avian species within the CSP Project area, where it was observed in Segments 1 and 5. Although there are no documented nesting records, it may nest in suitable shrublands within the CSP Project alignment, especially at lower elevations.

Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Observations or Documentation of Species within CSP Project alignment
Reptiles			•	•	
Sceloporus graciosus graciosus	northern sagebrush lizard	- / - / BLM S	Occurs in sagebrush and montane shrublands, preferably with openings and rocks between shrubs for basking. at elevations of 500 feet to about 10,500 ft amsl. In California, the northern sagebrush lizard occurs in the Great Basin Desert east of the Sierra Nevada and in the northeast corner of the state; it is well documented in the White Mountains.	Occurs within the CSP Project alignment in the White Mountains and in shrublands within the alignment in the northern Owens Valley, especially within 1,500 feet of a stream or river.	The northern sagebrush lizard was observed within the alignment northeast of the Control Substation and south of the Rocking K community in Black Brush Scrub at approximately 4,800 ft amsl. A second observation was made in Wyman Canyon, near Wyman Creek in Mountain Big Sagebrush Scrub at approximately 7,000 ft amsl. This species has been well documented in the White Mountains and adjacent Owens Valley (Calherps 2018).
Birds					
Buteo swainsoni	Swainson's hawk	/ CT / BLM S	Occurs in open fields, agricultural land, or scrub communities in close proximity to mature trees, which provide suitable nesting sites.	Occurs within the CSP Project alignment in the Chalfant Valley and likely to occur and nest within or adjacent to the CSP Project alignment in valleys, including the Chalfant Valley, near the Owens River, and near the Oasis Ranch in the Fish Lake Valley.	One Swainson's hawk was observed incubating eggs in an active nest in a tamarisk tree surrounded by Quailbush Scrub within 85 feet of the CSP Project alignment southwest of the town of Chalfant Valley.
Contopus cooperi	olive-sided flycatcher	/ CSC / -	Breeds in open areas in mature forested habitat that generally support tall trees, as well as natural edges of marshes and open water (Cornell 2019).	Occurs within the CSP Project alignment in Wyman Canyon and likely to occur in the upper elevations of the White Mountains that support limber pine and Great Basin bristlecone pine forest within the breeding range for this species.	One olive-sided flycatcher was observed along Wyman Creek near its mouth at 5,700 ft amsl during the surveys. There are no CNDDB records on or near the CSP Project alignment ¹ .
Lanius Iudovicianus	loggerhead shrike	/ CSC / -	Suitable nesting habitat includes shrublands and open areas.	Occurs within the CSP Project alignment near the Owens River and in the Chalfant Valley and may nest in Greasewood Scrub, Big Sagebrush Scrub, and Quailbush Scrub along the CSP Project alignment where this species has been observed.	Loggerhead shrikes were observed vocalizing and foraging in five locations along the CSP Project alignment. There are no CNDDB records for the loggerhead shrike in the vicinity of the CSP Project alignment ¹ .
Setophaga petechia	yellow warbler	/ CSC / -	Occurs in shrubby thickets and woods, particularly along watercourses and in wetlands, especially in willows,	Occurs within the CSP Project alignment in Silver Canyon and is expected within the alignment	One yellow warbler was observed foraging within the CSP Project alignment during the surveys; an adult bird was observed in Arroyo Willow

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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Observations or Documentation of Species within CSP Project alignment
			alders, and cottonwoods up to elevations of 9,000 ft amsl in California ¹ .	where the alignment crosses riparian vegetation at the lower elevations of Wyman Canyon and Silver Canyon below 7,000 ft amsl.	Thickets in Silver Canyon at approximately 5,500 ft amsl. There are no CNDDB records for the yellow warbler within the CSP Project vicinity ¹ .
Xanthocephalus xanthocephalus	yellow-headed blackbird	- / CSC / -	Suitable nesting habitat for this species is confined to undisturbed freshwater wetlands with dense vegetation and deep water, such as along flooded margins of the Owens River and ponded gravel pits north of Bishop.	Occurs within the CSP Project alignment near the Owens River. Portions of the CSP Project area occur within the breeding range of this species (Owens Valley, Deep Springs Valley) within the CSP Project alignment.	A small group of 10 yellow-headed blackbirds was observed near the Owens River at Five Bridges Road; no yellow-headed blackbird nests were observed. There are no CNDDB records within the CSP Project vicinity ¹ .
Mammals					
Ovis canadensis nelsoni	desert bighorn sheep	- / FP / BLM S, USFS S	Desert bighorn sheep inhabit open, rocky, steep areas with available water and herbaceous forage above desert floors in the intermountain west and southwestern United States and northwestern Mexico ¹ .	The desert bighorn sheep occurs and would be expected within the CSP Project alignment in Silver Canyon.	Desert bighorn sheep were observed in two locations in Silver Canyon near Silver Canyon Creek in July 2018; one observation of five adult desert bighorn sheep and one juvenile occurred near Arroyo Willow Thickets at approximately 5,500 ft amsl and the other observation of nine adult desert bighorn sheep occurred near Arroyo Willow Thickets at 6,500 feet. There are three CNDDB ¹ records for herd one in the White Mountains, another herd in the Inyo Mountains south of the Deep Springs Substation, and the third within 10 miles of the alignment in the Sylvania Range southeast of the alignment spanning the Nevada border.

Notes:

1 CDFW (CNDDB). 2020. California Natural Diversity Database. RareFind Version 5. Sacramento, California

Status Codes

USFWS FE Federal Endangered FT Federal Threatened FC Federal Candidate for Listing CDFW CE California Endangered CT California Threatened FP CDFW Fully Protected CSC CDFW Species of Special Concern USFS USFS S U.S. Forest Service Sensitive Species

BLM S BLM Sensitive Species

Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Fish	•	•	•		•
Catostomus fumeiventris	Owens sucker	- / CSC / -	Occurs in soft-bottomed runs in cool-water streams, lakes, and reservoirs in the Owens Valley.	The absence of recent sightings suggests the Owens sucker is unlikely to occur within the alignment where it crosses the Owens River and associated waterways near Laws.	Several CNDDB records occur within the CSP Project area ¹ . All records are over 25 years old.
Cyprinodon radiosus	Owens pupfish	FE / CE, FP / -	Occurs in spring pools, sloughs, swamps, flooded pastures, and irrigation ditches. All of the natural populations of Owens pupfish reported in CNDDB have been extirpated and the only remaining pupfish are in four artificial refugia locations in the Owens Valley ¹ .	Only low-quality habitat for Owens pupfish occurs along the CSP Project alignment due to extirpation of natural populations and the presence of invasive non-native fish. The Owens pupfish is unlikely to occur along the CSP Project alignment due to extirpation of natural populations.	There are three 2008 CNDDB records from Fish Slough located approximately 2 miles west of the alignment and approximately 9 miles north of Bishop. This is the only location in the vicinity of the alignment where Owens pupfish still exist. All of the natural populations of Owens pupfish reported in the CNDDB ¹ have been extirpated and the only remaining pupfish are in four artificial refugia locations in the Owens Valley.
Oncorhynchus clarkii seleniris	Paiute cutthroat trout	FT / - / -	Occurs in Great Basin streams with cool, well-oxygenated waters and clean gravel for spawning. It cannot tolerate presence of other salmonids.	This species is absent; the CSP Project is located outside of the known range of the species.	There are no CNDDB records in the vicinity of the CSP Project area ¹ .
Oncorhynchus mykiss aguabonita	California golden trout	-/CSC/USFS S	Native to Kern Plateau in wide, shallow and exposed streams with little riparian vegetation. Favors stream bottoms of sand, gravel and some cobble. Prefers clear, cold water ¹ .	The CSP Project alignment is outside of the known range of this species. The California golden trout is absent from the CSP Project area.	There are no CNDDB records in the vicinity of the CSP Project area ¹ .
Rhinichthys osculus ssp. 2	Owens speckled dace	- / CSC / -	The Owens speckled dace is found in small streams and springs in Owens Valley. This species occupies a variety of aquatic habitats. It is rarely found in water greater than 29°C.	Based upon the absence of recent sightings, the Owens speckled dace is unlikely to occur within the alignment where it crosses the Owens River and connected streams and irrigation canals.	CNDDB records are accurate with specific locations but are between 25-30 years old ¹ . The species is extirpated at the confluence of the Owens River and Fish Slough.
Siphateles bicolor snyderi	Owens tui chub	FE / CE / -	Historically known to occur in Owens Valley streams, ponds, and ditches.	Does not occur within the CSP Project alignment due to extirpation of natural populations. Historically reported between the Control substation and the Rocking K community, the Bishop	Owens Tui chub have been extirpated from all natural populations in Owens Valley. Remaining Owens tui chub populations are located outside of the CSP Project alignment at Owens River Gorge, Hot Creek Hatchery,

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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
				Creek crossing north of Bishop, and where the alignment crosses the Owens River west of Laws.	Mule Spring, Little Hot Creek and at the University of California White Mountain Research Station.
Amphibians					
Anaxyrus canorus	Yosemite toad	FT / CSC / USFS S	Occurs in the vicinity of wet meadows in the central Sierra Nevada, 6,400 to 11,300 ft amsl primarily in montane wet meadows and seasonal ponds associated with lodgepole pine and subalpine conifer forest.	The Yosemite toad does not occur within the CSP Project alignment given the CSP Project alignment is outside of the geographical range of the species.	There are no CNDDB records near the CSP Project alignment ¹ .
Anaxyrus exsul	black toad	- / CT, FP / BLM S, USFS S	This species is found only in the Deep Springs Valley near springs, watercourses, marshes, and wet meadows.	Does not occur within the alignment in Deep Springs Valley; the alignment does not intersect springs, watercourses, marshes, and wet meadows in this location.	A 1978 CNDDB record (Occurrence #8) is located 5.9 miles south of the CSP Project area in the Deep Springs Valley; a 2017 record (Occurrence #7) occurs 6.9 miles south of the Deep Springs Substation ¹ .
Batrachoseps campi	Inyo Mountains slender salamander	- / CSC / BLM S, USFS S	Occurs in moist canyons on the west and east slopes of the Inyo Mountains, where surface water is present. Lives under rocks on moist sandy loam in steep-walled canyons with permanent springs ¹ .	The Inyo Mountains slender salamander does not occur within the CSP Project alignment, since the restricted range of this species occurs in the Inyo Mountains to the south. Suitable habitat is absent within the CSP Project alignment.	There are no CNDDB records in the vicinity of the alignment ¹ .
Lithobates pipiens	northern leopard frog	- / CSC / -	The northern leopard frog historically occurred in the Owens River basin in a variety of habitats, and may still occur in Pine Creek northwest of Bishop (Calherps 2019). This species requires clear, clean water, adequate cover, and aquatic vegetation.	The northern leopard frog does not occur within the CSP Project alignment. It breeds only in aquatic areas, is not known to occur outside of the Owens Valley within the CSP Project area, and is currently known only from the Pine Creek area in Inyo County.	The three CNDDB ¹ Occurrences (#4, #12, and #14) are all located within 5 miles of Bishop; however, they are all greater than 55 years old.
Rana muscosa	southern mountain yellow-legged frog	FE / CE / USFS S	The southern mountain yellow- legged frog is endemic to the southern Sierra Nevada and Transverse Ranges. It is highly aquatic and is always encountered within a few feet of water.	The southern mountain yellow-legged frog does not occur within the CSP Project alignment as the alignment is north of the currently recognized range of the species.	There are no CNDDB records in the vicinity of the CSP Project alignment ¹ .

Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Rana sierrae	Sierra Nevada yellow- legged frog	FE/ CT / USFS S	Occurs in the central and northern Sierra Nevada. The Sierra Nevada yellow-legged frog is highly aquatic and is always encountered within a few feet of water.	The Sierra Nevada yellow-legged frog does not occur within the CSP Project alignment; the alignment is outside of the range of the species.	CNDDB occurrences are located in the Sierra Nevada. There are no CNDDB records in the vicinity of the CSP Project alignment ¹ .
Reptiles					
Elgaria panamintina	Panamint alligator lizard	- / CSC / BLM S, USFS S	The Panamint alligator lizard occurs in areas near permanent water, in canyons, damp gullies, and rocky areas near dense vegetation within riparian scrub habitat. It is found in the White and Inyo Mountains to the north and west, and the Panamint Mountains to the south and east at elevations ranging from 2,800 - 6,900 ft amsl.	The Panamint alligator lizard is likely to occur within the CSP Project alignment. Suitable habitat is present within Silver and Wyman Canyons.	A CNDDB record reported in 2015 (Occurrence #13) occurs within the CSP Project alignment in Silver Canyon ¹ .
Birds					
Accipiter gentilis	northern goshawk	- / CSC / BLM S, USFS S	The species is generally found within, and in vicinity of, coniferous forest. The northern goshawk usually nests on north facing slopes, often near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Likely to occur within the CSP Project alignment; the northern goshawk is a year-round resident of the White Mountains. Potentially suitable nesting habitat includes coniferous forests and aspen groves in the White Mountains, where the northern goshawk is unlikely to nest within the CSP Project alignment based on lack of nesting records in this area.	There are no CNDDB records for this species in the vicinity of the CSP Project area ¹ .
Aquila chrysaetos	golden eagle	- / FP / BLM S	The golden eagle commonly occurs in cliff-walled canyons that provide nesting habitat in most parts of its range; also, large trees in open areas within foothills, mountain areas, sage- juniper flats, and desert terrain.	The golden eagle is likely to occur within the CSP Project alignment and may nest in suitable habitat near vertical canyon walls.	CNDDB Occurrence #38 is reported from Fish Slough north of Bishop and is more than 25 years old ¹ .
Asio otus	long-eared owl	- / CSC / -	Occurs in riparian bottomlands grown to tall willows and cottonwoods; also, belts of live	The long-eared owl is likely to occur within the CSP Project alignment; however, the absence of CNDDB ¹ or	A 1954 CNDDB record (Occurrence #38) occurs 6.9 miles north of the alignment ¹ . eBird records occur within Owens Valley, Wyman

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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution oak paralleling stream courses. They require adjacent open land, productive of mice and the presence of old nests of crows,	Determination of Occurrence within CSP Project alignment other nesting records for this species from the CSP Project area suggests there is no suitable nesting habitat for this species within the alignment.	Records of Observations or Documentation of Species within or near the CSP Project alignment Canyon, Deep Springs, and Oasis, but none are nesting records (eBird 2019).
Athene cunicularia	burrowing owl	-/CSC/ BLM S	hawks, or magpies for breeding. This species is found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	The burrowing owl is likely to occur within the CSP Project alignment near the Owens River, in the Deep Springs Valley, and in the Fish Lake Valley, but is unlikely to nest within the alignment based on the absence of recent nesting records in the CSP Project vicinity.	A 1916 CNDDB ¹ record (Occurrence #566) overlaps the alignment in the community of Laws and is a nesting record for this species. Non-nesting occurrences include a 1994 record (Occurrence #311) 1.5 miles southwest of the Deep Springs Substation and a 2017 record (Occurrence # 2039) about 0.6 miles north of the Rudolph Road Junction with California Highway 6, east southeast of Fish Slough and approximately 0.6 miles east of the alignment ¹ . eBird records exist in the vicinity of the CSP Project alignment north of Bishop, near Deep Springs Substation, and Oasis but none of these were considered nesting records (eBird 2019).
Centrocercus urophasianus	greater sage-grouse	- / CSC / BLM S, USFS S	Potentially suitable habitat is present within the alignment primarily where Big Sagebrush Scrub or Rabbitbrush Scrub is present in Silver and Wyman Canyons and to a lesser extent where these vegetation communities, including Greasewood Scrub, occur west and north of Bishop within the alignment.	The greater sage-grouse is unlikely to occur within the CSP Project alignment based on the absence of CNDDB records in the CSP Project vicinity and the limited number of eBird sightings in the vicinity of the alignment ¹ . There are no nesting records within the CSP Project alignment.	The nearest CNDDB ¹ occurrences are from Mono County and are all more than 20 miles north of the CSP Project alignment.
Charadrius alexandrinus nivosus	western snowy plover	FT / CSC / -	The western snowy plover is found near sandy beaches, salt pond levees and shores of large alkali lakes. They require sandy, gravelly or friable soils for nesting.	The western snowy plover is likely to occur within the CSP Project alignment in one location, north of the Owens River near Jean Blanc Road and Five Bridges Road. There is no suitable nesting habitat for this species within the CSP Project alignment.	A 1989 CNDDB ¹ nesting western snowy plover observation (Occurrence #101) was recorded at Deep Springs Lake more than 6 miles south of the Deep Springs Substation. There are few eBird records along the CSP Project alignment for the western snowy plover, including a 1979 observation at "Deep Springs College" that is near or overlaps the alignment; a 1992 observation south of the alignment in Deep Springs Valley (non-specific location); and a 2014 observation near Jean
		Regulatory Status (Federal/ California/		Determination of Occurrence	Records of Observations or Documentation of Species within
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Scientific Name	Common Name	BLM, USFS)	Habitat and Distribution	within CSP Project alignment	or near the CSP Project alignment
					Blanc Road and Five Bridges Road north of Bishop (eBird 2019). None of these observations included nesting records.
Circus hudsonius	northern harrier	- / CSC / -	Occurs near coastal salt and freshwater marsh habitats, in grasslands, from salt grass in desert sink to mountain ciénagas. They commonly nest on the ground in shrubby vegetation.	The northern harrier is likely to forage within the CSP Project alignment. The absence of recent CNDDB ¹ or other nesting records for this species from the CSP Project area suggests there is no suitable nesting habitat for this species within the CSP Project alignment. The northern harrier is unlikely to nest within the CSP Project alignment.	Numerous eBird records are located in the Owens Valley and near Deep Springs and Oasis, but none are nesting records (eBird 2019). There are no CNDDB records in the vicinity of the CSP Project alignment ¹ .
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT / CE / BLM S, USFS S	This species is a riparian forest nester, and is found along the broad, lower flood-bottoms of larger river systems. It typically nests in riparian of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	The western yellow-billed cuckoo is unlikely to occur within the CSP Project alignment. There are no nesting records for this species that overlaps the CSP Project alignment, nor are there sizable stands of dense undisturbed riparian forests with diverse native understories within the alignment. The western yellow-billed cuckoo is unlikely to nest along the CSP Project alignment, due to the absence of large stands of undisturbed, mature riparian forest in lowland valleys below 4,600 ft amsl.	There are no CNDDB ¹ records in the vicinity of the CSP Project area. There is a confirmed 2002 eBird record from Bishop and a 2017 eBird observation approximately 13 miles northwest of Bishop near Swall Meadows.
Empidonax traillii extimus	southwestern willow flycatcher	FE / CE / -	The southwestern willow flycatcher is found in riparian woodlands with current or evidence of recent water flow and scouring. Preferred riparian corridors for this species are typically at least 33 feet wide, have a closed canopy, relatively dense understory, and open mid- story.	The southwestern willow flycatcher is likely to forage on an occasional basis within the CSP Project alignment. There are no large stands of undisturbed, mature riparian forest along the Owens River where the southwestern willow flycatcher is most likely to nest within the alignment, and there are no nesting records for this species anywhere in the region. The southwestern willow flycatcher is unlikely to nest within the CSP Project alignment.	A 2003 CNDDB ¹ record (Occurrence #52) describes an observation of a pair of southwestern willow flycatchers in riparian habitat along the Owens River approximately 2.2 miles northwest of the CSP Project alignment.

Table 5.4-7: Special-statu	s Wildlife Species Not	Observed within the	e CSP Project Alignment
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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Haliaeetus leucocephalus	bald eagle	- / CE, FP / BLM S, USFS S	Occur along ocean shores, lake margins, and rivers that are often bordered by forests and woodlands supporting large trees.	The bald eagle is likely to occur within the CSP Project alignment while foraging or loitering in the Bishop area but is unlikely to nest in the vicinity of the CSP alignment.	There are no CNDDB records near the CSP alignment ¹ .
Icteria virens	yellow-breasted chat	- / CSC / -	The yellow-breasted chat is typically found in valley foothill riparian, and desert riparian habitats. This species favors riparian thickets of willow and other brushy tangles near watercourses for cover.	The yellow-breasted chat is likely to forage within the CSP Project alignment near the Owens River, in the Deep Springs Valley, and in the Fish Springs Valley on an occasional basis. The absence of recent CNDDB ¹ or other nesting records for this species from the CSP Project area suggests there is no suitable nesting habitat within the alignment. The yellow- breasted chat is unlikely to nest within the alignment.	A CNDDB record from the 1980s (Occurrence #74) is from 6,000 ft amsl in Wyman Canyon within the CSP Project alignment ¹ . It is regarded as a rare and summer migrant in the White Mountains.
Piranga rubra	summer tanager	- / CSC / -	The species occurs in mature, desert riparian communities dominated by cottonwoods and willows, especially older, dense stands along rivers and streams that provide nesting locations, feeding opportunities, and cover.	The summer tanager is likely to forage within the CSP Project alignment near the Owens River, in the Deep Springs Valley, and in the Fish Springs Valley on an occasional basis. The absence of recent CNDDB or other nesting records for this species from the CSP Project area suggests there is no suitable nesting habitat for this species within the alignment. The summer tanager is unlikely to nest within the CSP Project alignment.	There are no CNDDB occurrences in the vicinity of the CSP Project alignment ¹ .
Pyrocephalus rubinus	vermillion flycatcher	- / CSC / -	The vermillion flycatcher nests in cottonwood, willow, mesquite, and other large desert riparian trees within marsh and swamp, riparian forest, riparian scrub, riparian woodland, and wetland habitats. In California, its breeding range is south of the CSP Project alignment, with	The vermillion flycatcher is likely to forage within the CSP Project alignment near the Owens River, in the Deep Springs Valley, and in the Fish Springs Valley on an occasional basis. The vermillion flycatcher does not nest within the CSP Project alignment.	A 1976 CNDDB ¹ record (Occurrence #31) is located 1.1 miles south of Deep Springs Substation. There are a few eBird sightings along the CSP Project alignment, but none indicate nesting.

Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
			scarce nesting records in southeastern Inyo County.		
Riparia riparia	bank swallow	- / CT / BLM S	The bank swallow is a colonial nester; it nests primarily in riparian and other lowland habitats west of the desert.	The bank swallow is likely to forage within the CSP Project alignment. Suitable nesting habitat is present just north of the Owens River, between Five Bridges Road and Fish Slough Road and near a gravel quarry, about 4 miles north of Bishop and at the north end of the Bishop Airport. Although suitable nesting habitat is unlikely to be present in work areas within the CSP Project alignment, it may occur nearby and foraging nesting bank swallows may be encountered along the CSP Project alignment north of the Owens River by the quarry near Five Bridges Road and south of the Owens River, where there are steeply cut banks near water, along with other discrete potential locations where suitable habitat may occur.	A 2013 CNDDB ¹ record (Occurrence #293) is 230 feet west of the CSP Project alignment. The nest site described is in a quarry at the confluence of Fish Slough and South McNally Canal. A 1999 record (Occurrence #189) is from a gravel quarry at the north end of the Bishop Airport, approximately 1 mile south of the alignment. Numerous eBird sightings occur in meadows of west Bishop, Deep Springs College, and the Oasis area.
Strix nebulosa	great gray owl	- / CE / USFS S	Suitable nesting habitat consists of mixed deciduous or evergreen forests and associated montane meadows below 7,500 ft amsl. Most reports for this species occur in the Sierra Nevada and northern California.	The great gray owl does not occur within the CSP Project alignment, based upon the absence of CNDDB ¹ occurrences in Inyo County and the lack of records in the White Mountains. CSP Project alignment.	There are no CNDDB records in the vicinity of the CSP Project alignment and detailed eBird locations have been suppressed to protect this species from disturbance ¹ . Inyo County records all occur in the Sierra Nevada.
Strix occidentalis occidentalis	California spotted owl	- / CSC / BLM S, USFS S	It typically frequents dense stands of large-diameter trees accompanied by a multi-layered understory.	The California spotted owl does not occur within the CSP Project alignment; there are no records from the CSP Project area and habitat requirements are largely absent from the CSP Project alignment.	There are no CNDDB records from the CSP project area and detailed eBird locations have been suppressed to protect this species from disturbance ¹ .
Mammals					
Antrozous pallidus	pallid bat	- / CSC / BLM S, USFS S	The pallid bat is found in open, dry habitats with rocky areas for roosting including desert, grassland, shrubland, woodland	The pallid bat is likely to forage within the CSP Project alignment but is unlikely to roost within the alignment. Known roosting locations include	Two 1996 CNDDB ¹ records (Occurrences #119 and #29) occur near Deep Springs Substation; there is another 1996 record (Occurrence #30) from Cottonwood Creek, 1

Table 5.4-7: Special-status Wildlife Species Not Observed within the CSP Project Alignment

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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
			very sensitive to disturbance of its roosting sites.	which would not be disturbed by Project activities.	and a 1997 record (Occurrence #120) approximately 0.5 miles north of the CSP Project alignment at the foothills of the Owens Valley near Silver Canyon Rd.
Brachylagus idahoensis	pygmy rabbit	- / CSC / BLM S, USFS S	Occurs in Sagebrush, bitterbrush, & pinyon-juniper habitats in Modoc, Lassen, and Mono counties ¹ .	The pygmy rabbit does not occur within the CSP Project alignment based upon the absence of records and the fact that the alignment occurs in the extreme southwestern portion of the species known range.	There are no CNDDB ¹ records in the CSP Project vicinity. Potentially suitable habitat is present in the Chalfant Valley and White Mountains where Rabbitbrush, Greasewood, and Sagebrush Scrub occur along the CSP Project alignment.
Corynorhinus townsendii	Townsend's big-eared bat	- / CSC / BLM S, USFS S	The Townsend's big-eared bat occurs in sandy herbaceous areas, with rocks or course gravel. It is found in coastal scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland habitats. It typically roosts in the open, hanging from walls and ceilings. This bat species is extremely sensitive to human disturbance.	The Townsend's big-eared bat is likely to forage within the CSP Project alignment but is unlikely to roost within the alignment. Known roosting locations include buildings at Deep Springs College, which would not be disturbed by Project activities. Steep and rocky canyon walls occurring adjacent to the alignment, especially in lower Silver Canyon, can provide suitable roosting habitat for the Townsend's big-eared bat. Suitable foraging and roosting habitat are present within the White Mountain portion of the CSP Project alignment through Silver and Wyman Canyons.	There is a 1991 CNDDB ¹ record (Occurrence #67) from Deep Springs Substation, a 1992 record (Occurrence #142) from Cottonwood Creek 1 mile north of the CSP Project alignment, a 1992 record (Occurrence #376) from Silver Canyon, a 2014 record (Occurrence #546) from west of the CSP Project alignment on HWY 168 near Oasis, and a 2014 record (Occurrence #554) less than 1 mile south of Wyman Creek in Wilkerson Mine.
Euderma maculatum	spotted bat	-/CSC/BLMS	Occurs in various habitats, including open ponderosa pine forests, pinyon/juniper woodlands, canyon bottoms, and agriculture land. It commonly forages over water and along washes. This bat preys almost entirely on moths. It uses rock crevices in cliffs or caves for roosting.	The spotted bat is likely to forage within the CSP Project alignment. Known roosting locations include buildings at Deep Springs College, which would not be disturbed by Project activities. The scarcity of specific conditions required by this species for roosting (i.e., crevices in cliff and canyon walls, abandoned mines, natural caves) and records within the CSP Project alignment suggest it is unlikely to roost within the CSP Project alignment.	A 1996 CNDDB ¹ record (Occurrence #21) is located at the Deep Springs Substation, and a 1997 record (Occurrence #20) is from Cottonwood Creek approximately 1 mile north of the CSP Project alignment.

Table 3.7-7. Special-status Whunte Species Net Observed whinn the CST Tropect Anginne	Table 5.4	4-7: Spe	ecial-status	Wildlife	Species Not	Observed	within	the CSP	Project	Alignmen
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Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
Gulo gulo	California wolverine	(proposed) FT / CT, FP / USFS S	This species is found in the north coast mountains and the Sierra Nevada. It has been found in a wide variety of high elevation habitats.	Based on the absence of recent sightings, the California wolverine does not occur within the CSP Project alignment.	There are no CNDDB ¹ occurrences in the vicinity of the CSP Project alignment. A 1937 CNDDB record (Occurrence #75) is located 11 miles north of the CSP Project alignment in the White Mountains.
Lepus townsendii townsendii	western white-tailed jackrabbit	- / CSC / -	This rabbit species is found in open areas with scattered shrubs and exposed flat-topped hills with open stands of trees, brush, and herbaceous understories. It occurs in Great Basin scrub and grassland, sagebrush, pinyon and juniper woodland, subalpine coniferous forest, and alpine dwarf scrub habitats.	Based on the absence of recent sightings, the white-tailed jackrabbit does not occur within the CSP Project alignment.	There is a CNDDB ¹ record from 1916 (Occurrence #3) that is approximately 1 mile south of the alignment near SR 6 and the North Fork of Bishop Creek.
Microtus californicus vallicola	Owens Valley vole	-/CSC/BLMS	This species is found in wetlands and lush grassy ground in the Owens Valley. It requires friable soil for burrowing.	The Owens Valley vole is unlikely to occur within the CSP Project alignment. Potentially suitable habitat is present within the wetland areas, riparian scrub, and ungrazed pasture located along the Owens River and the North Fork of Bishop Creek near the CSP Project alignment but there are no recent records.	A 1917 CNDDB ¹ record (Occurrence #3) occurs on the CSP Project alignment at the Owens River and SR 6. A 1957 record (Occurrence #5) is from the mouth of Silver Canyon.
Myotis ciliolabrum	western small-footed myotis	- / - / BLM S	The western small-footed myotis is found in a wide range of habitats but commonly in arid wooded and brush uplands near water. Roost locations include caves, buildings, mines and crevices.	The western small-footed myotis is likely to forage within the CSP Project alignment in Silver Canyon in the White Mountains and in the Deep Springs Valley, but is unlikely to occur roosting within the CSP Project alignment in the White Mountains.	There is a 1996 CNDDB ¹ record (Occurrence #11) within the alignment near Deep Springs Substation and two records from 1996 and 1997 (Occurrences #12 and #13) from riparian habitat in Silver Canyon. These reports are more than 20 years old.
Myotis evotis	long-eared myotis	- / - / BLM S	This species prefers coniferous woodlands and forests. Nursery colonies can be found in buildings, crevices, spaces under bark, and snags. Caves are used primarily as night roosts.	The long-eared myotis is likely to forage within the CSP Project alignment, but based on the absence of recent records, it is unlikely to roost within the alignment.	A 1992 CNDDB ¹ record (Occurrence #21) overlaps the alignment in the vicinity of the Deep Springs Substation at Deep Springs College beside a storage building ¹ .
Myotis thysanodes	fringed myotis	- / - / BLM S, USFS S	Occurs in oak, pinyon pine, and juniper woodlands as well as	The fringed myotis is likely to forage throughout wooded portions of the CSP	There are no CNDDB records in the vicinity of the CSP Project alignment ¹ .

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		Regulatory Status			
		(Federal/			Records of Observations
		California/		Determination of Occurrence	or Documentation of Species within
Scientific Name	Common Name	BLM, USFS)	Habitat and Distribution	within CSP Project alignment	or near the CSP Project alignment
			desert scrub. Roosts are found in caves, mines, buildings, and other protected locations.	Project alignment associated with Silver Canyon and Wyman Canyon in the White Mountains; however, based upon the absence of CNDDB ¹ records in the area, the fringed myotis is unlikely to roost within the alignment.	
Pekania pennant	fisher	- / CT, CSC / BLM S, USFS S	Occur in dense old growth coniferous and mixed coniferous- hardwood forest.	The fisher does not occur within the CSP Project alignment, based upon the absence of CNDDB ¹ records in the area and absence of suitable habitat.	There are no CNDDB records in the vicinity of the CSP Project alignment ¹ .
Taxidea taxus	American badger	- / CSC / -	Badgers are most abundant in drier open stages of most shrub, forest, and herbaceous communities, with friable soils.	The American badger is unlikely to occur within the CSP Project alignment. Potentially suitable habitat for the American badger is found within the CSP Project alignment in dry friable soils in open shrub, forest, and herbaceous communities. However, the American badger is unlikely to occur within the CSP Project alignment based upon the absence of recent sightings in the CSP Project area.	A single CNDDB ¹ occurrence is located near the headwaters of Silver Canyon, within the CSP Project alignment in Rubber Rabbitbrush Scrub and Big Sagebrush Scrub
Vulpes vulpes necator	Sierra Nevada red fox	FC / CT / USFS S	Sierra Nevada red fox use dense vegetation and rocky areas for cover and den sites. They prefer forests interspersed with meadows or alpine fell-fields.	This species does not occur within the CSP Project alignment; the CSP Project is located outside of the range of this species.	There are no CNDDB ¹ records in the vicinity of the CSP Project alignment.
Invertebrates		•	•	•	
Anodonta californiensis	California floater	- / S2? / USFS S	Occurs in shallow water in freshwater lakes and along slow- moving streams and rivers.	The California floater is likely to occur within the CSP Project alignment north of Bishop where the Bishop Creek Canal crosses the alignment. However, no work would be done within the canal and the California floater is unlikely to be affected by Project activities.	There is a CNDDB ¹ record for the California floater that overlaps the alignment (Occurrence #2) where fewer than 100 adults were mapped in 1999 and 2000 in the "Owens River at Bishop Creek Canal and Bishop Creek Canal from the Owens River to Dixon Lane north of Bishop." There are no other CNDDB records from the CSP Project area ¹ .
Bombus morrisoni	Morrison bumble bee	-/S1S2/-	Occurs in open dry scrub and nests underground. Habitat requirements include pollen from	The Morrison bumblebee is unlikely to occur within the CSP Project alignment in Wyman Canyon and the Fish Lake	A 1968 CNDDB ¹ record (Occurrence #44) overlaps the CSP Project alignment near the mouth of Wyman Canyon. A 1960 record

Table 5.4-7: Special-status Wildlife Species Not Observed within the CSP Project Alignment

Scientific Name	Common Name	Regulatory Status (Federal/ California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	Records of Observations or Documentation of Species within or near the CSP Project alignment
			select plant genera, including thistle (Cirsium), bee plant (Peritoma), lupine (Lupinus), and rabbitbrush (Ericameria) (USDA 2012).	Valley; all records were documented more than 50 years ago.	(Occurrence #37) overlaps the CSP Project alignment in Fish Lake Valley near the California-Nevada border. A 1940 record (Occurrence #40) was mapped generally at Bishop south of the CSP Project alignment. A 1964 record (Occurrence #43) occurs at Schulman Grove in the White Mountains, approximately 2 miles southeast of the CSP Project alignment.
Euphydryas editha monoensis	Mono checkerspot butterfly	- / S1S2 / USFS S	Occurs on the east slope of the Sierra Nevada in the Yosemite region from Rush Creek north to Mill Creek, Slinkard Creek and the Little Walker Creek area. It favors areas recovering from wildfires.	The Mono checkerspot butterfly does not occur within the CSP Project alignment. The alignment is outside of the recognized range of this checkerspot butterfly subspecies.	There is one 1988 CNDDB ¹ record for this species in the Sierra Nevada in Alpine County. The Mono checkerspot butterfly is unlikely to occur within the CSP Project alignment, as the alignment is outside of the recognized range of this checkerspot butterfly subspecies.
Fontelicella species	Deep Springs fontelicella	- / S1 / -	The Deep Springs fontelicella is only found on rocks and submerged vegetation within flowing and standing water in Buckhorn Springs in Deep Springs Valley.	This species does not occur within the CSP Project alignment; the alignment is outside of the known range of the species.	The species is known only from Buckhorn Springs in Deep Springs Valley, Inyo County.
Hesperia miriamae longaevicola	White Mountains skipper	- / S1 / -	Occurs on scree slopes and grassy saddles above timberline on high ridges and summits.	The White Mountains skipper does not occur within the CSP Project alignment. No suitable habitat for this species occurs within the CSP Project alignment. The CSP Project alignment is outside of the elevational range of the species.	The two closest CNDDB ¹ occurrences are located approximately 6.7 miles north of the CSP Project alignment.
Miloderes nelsoni	Nelson's miloderes weevil	- / S2 / -	The species is known from dry dunes in the Mojave Desert in Inyo and San Bernardino counties.	There is no suitable dune habitat within the CSP Project alignment. The Nelson's miloderes weevil does not occur with the CSP Project alignment.	Only two CNDDB ¹ occurrences have been recorded for this species in California. The closest CNDDB record to the CSP Project area is over 16 miles south of the alignment in the Eureka Valley ¹ .
Plebejus icarioides albihalos	White Mountains icarioides blue butterfly	- / \$2? / -	Occurs in the White Mountains within alpine grassland and herbaceous habitats ¹ .	This species does not occur within the CSP Project alignment; suitable habitat for this species is absent within the CSP Project area.	No CNDDB records occur along the CSP Project alignment. The closest and most recent CNDDB occurrence, a 1987 record, is located 5.1 miles north of the CSP Project area ¹ .
Pyrgulopsis perturbata	Fish Slough springsnail	- / S1 / -	The Fish Slough springsnail occurs in small vestiges of rheocrene habitat at small orifices	This species does not occur within the CSP Project alignment; no suitable habitat is present within the CSP Project	Three 1998 CNDDB records occur within 1.6 to 2.3 miles of the CSP Project area ¹ .

Table 5.4-7: Special-status Wildlife Species Not Observed within the CSP Project	t Alignment
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Control-Silver Peak Project Proponent's Environmental Assessment

		Regulatory Status (Federal/			Records of Observations
Scientific Name	Common Name	California/ BLM, USFS)	Habitat and Distribution	Determination of Occurrence within CSP Project alignment	or Documentation of Species within or near the CSP Project alignment
			in springs and at the start of the outflow of springs in Fish Slough.	area. The CSP Project is located outside of Fish Slough. The Fish Slough complex does not occur near or adjacent to the CSP Project area.	
Pyrgulopsis owensensis	Owens Valley springsnail	- / S1S2 / USFS S	Occurs in small springs and seeps, where snails occur on watercress (Nasturtium officinale) and bits of travertine and stone. Distribution confined to the east side of the Owens River between Chalfant Valley and Inyo Mountains and slopes east of Tinemaha Reservoir.	The Owens Valley springsnail does not occur within the CSP Project alignment; the CSP Project alignment located west of the creek where the nearest known location of Owens Valley springsnail occurs.	One 1987 CNDDB ¹ record (Occurrence #7) is located approximately 1.5 miles east of the CSP Project alignment in a canyon above the Chalfant Valley 'near Piute Creek' and two 1998 CNDDB records are located further east of the CSP Project alignment in the same general location ¹ .
Pyrgulopsis wongi	Wong's springsnail	- / S2 / USFS S	Occurs in seeps and small to moderate size spring-fed streams on the east side of the Owens Valley from Pine Creek to Little Lake, and along the west side from French Spring to Marble Creek. Common in watercress and/or on small bits of travertine and stone ¹ .	The Wong's springsnail does not occur within the CSP Project alignment; there is no potentially suitable habitat present within the CSP Project alignment.	The nearest CNDDB occurrence (Occurrence #2) is located 6 miles south of the CSP Project area at a fenced spring with watercress, willow and sedges ¹ .
Speyeria nokomis apacheana	Apache silverspot butterfly	- / - / USFS S	Occurs in wetland habitats near flowing water (i.e., springs, seeps, wet meadows) where there is an abundance of their larval foodplant (LeConte violet [Viola nephrophylla]) as well as nearby areas that support adult nectar sources (mostly members of the sunflower family such as Cirsium) during the adult flight.	The Apache silverspot butterfly does not occur within the CSP Project alignment; there is no potentially suitable habitat or larval host plants within the CSP Project alignment.	There are no CNDDB ¹ occurrences for this species. The closest records for Apache silverspot are reported in Mono County, but not within 10 miles of the CSP Project alignment.

Table 5.4-7: Special-status Wildlife Species Not Observed within the CSP Project Alignment

Notes:

CDFW (CNDDB). 2020. California Natural Diversity Database. RareFind Version 5. Sacramento, California 1

Status Codes United States Fish and Wildlife Service (USFWS) California Department of Fish and Wildlife (CDFW) FE Federal Endangered FT Federal Threatened FC Federal Candidate for Listing

CE California Endangered CT California Threatened FP CDFW Fully Protected CSC CDFW Species of Special Concern United States Forest Service (USFS) USFS S U.S. Forest Service Sensitive Species

Bureau of Land Management (BLM) BLM S BLM Sensitive Species

Avian species typical of grasslands, shrublands, and woodlands include the California Endangered and CDFW Fully Protected bald eagle (*Haliaeetus leucocephalus*) and the CDFW Fully Protected golden eagle (*Aquila chrysaetos*). Potential suitable habitat for the bald eagle includes large perennial water bodies that support sufficient numbers of accessible prey species such as large fish and waterfowl. The Owens River, while a large perennial water body, does not currently support large riparian forests and adjacent woodlands with mature trees for nesting where it overlaps the CSP Project alignment; nor does it contain adequate food sources that might sustain bald eagles and their young in the nest. Potentially suitable nesting habitat for the golden eagle occurs in the White Mountains in Segment 3, particularly where vertical rocky canyon walls rise above the alignment in Silver Canyon and Wyman Canyon. Transmission towers can provide suitable nesting structures for golden eagles, but golden eagles are less likely to nest on wooden poles such as those present within the CSP Project alignment through Silver and Wyman canyons. There is a low to moderate potential for the golden eagle to nest in suitable habitat where vertical canyon walls and rocky outcrops occur.

The Federally Threatened and California Endangered western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) was not observed during wildlife surveys but it has been reported near Bishop and in the Fish Lake Valley (eBird 2019). Potentially suitable nesting habitat for the western yellow-billed cuckoo includes sizable dense riparian forests with diverse native understories near the Owens River in Segments 3 and 4 below 4,600 ft amsl. There are no nesting records for the yellow-billed cuckoo that overlap the CSP Project alignment, nor are there sizable stands of dense undisturbed riparian forests with diverse native understories within the alignment; historical nesting locations in the Owens Valley occurred at a maximum elevation of 4,600 ft amsl near Big Pine (Laymon 1998). The western yellow-billed cuckoo is unlikely to nest within the CSP Project alignment.

The Federally and California Endangered southwestern willow flycatcher (*Empidonax traillii extimus*) was not observed during wildlife surveys but it has been reported near the Owens River (CNDDB 2020). The southwestern willow flycatcher generally nests in lowland native riparian vegetation, including willows, and cottonwood; they also use thickets dominated by non-native tamarisk and Russian-olive (*Eleagnus*). There are no nesting records for this species anywhere in the region. The southwestern willow flycatcher is unlikely to nest within the CSP Project alignment.

The Federally Threatened western snowy plover has been observed in the Deep Springs Valley, including a nesting record at Deep Springs Lake more than 6 miles south of the Deep Springs Substation (CNDDB 2020). There is also a non-nesting report of the western snowy plover near Jean Blanc Road and Five Bridges Road north of Bishop in Segment 4 (Cornell 2019). Suitable nesting habitat for the interior population of western snowy plover encompasses lakeshore nesting sites; there are no broad sandy or alkaline lake margins with nesting records for this species that overlap the CSP Project alignment, and suitable nesting habitat for this species is lacking within the alignment.

The California Threatened bank swallow was not observed within the CSP Project area during the surveys, but a 2013 CNDDB nesting record overlaps the CSP Project alignment north of the Owens River at a gravel quarry near the intersection of Fish Slough Road and Five Bridges Road in Segment 4 (CNDDB 2020). Suitable nesting habitat for the bank swallow is present just north of the Owens River in Segment 4 within the CSP Project alignment, where there are steeply cut banks near water, along with other potential locations near the Owens River where suitable habitat may occur, but it is unlikely to nest elsewhere within the alignment.

No burrowing owls were observed within the CSP Project area during the special-status wildlife surveys. Burrowing owls are a California CSC and occur in a variety of habitat types throughout California, including annual and perennial grasslands, fallow agricultural fields, deserts, and scrublands characterized by low-growing vegetation where canopy cover is less than 30 percent of the ground surface (California Burrowing Owl Consortium 1997). A 1916 CNDDB nesting record for the burrowing owl overlaps the alignment in the community of Laws in Segment 3. Non-nesting CNDDB occurrences include a 1994 record reported 1.5 miles southwest of the Deep Springs Substation near Segment 5 and a 2017 record approximately 0.6 miles east of the alignment and east-southeast of Fish Slough near Segment 4 (CNDDB 2020). Potentially suitable nesting habitat with relatively flat topography and sparse, low growing scrub vegetation is present within the alignment in the Owens Valley, Chalfant Valley, Deep Springs Valley, and Fish Lake Valley in Segments 1-5; however, the burrowing owl has a low likelihood of nesting within the alignment based upon the scarcity of nesting records over the past 100 years.

Three non-listed species on the CDFW WL were also observed (prairie falcon, Virginia's warbler, and black-tailed gnatcatcher [*Polioptila melanura*]), along with seven species included on the USFWS Birds of Conservation Concern list (Swainson's hawk, olive-sided flycatcher, prairie falcon, loggerhead shrike, Virginia's warbler, yellow warbler, and Brewer's sparrow [*Spizella breweri*]). Potential nesting and foraging habitat are also present for several avian species that were not observed, including species protected under the MBTA and CFGC sections 3500 et. seq. (see Figureset 5.4-5).

5.4.1.5.2.5 Mammals

Desert bighorn sheep, a CDFW Fully Protected species, and their tracks were observed along the CSP Project alignment in two locations in Silver Canyon in Segment 3 near Silver Canyon Creek in July 2018; one observation of five adult desert bighorn sheep and one juvenile occurred near Arroyo Willow Thickets at approximately 5,500 ft amsl and the other observation of nine adult desert bighorn sheep occurred near Arroyo Willow Thickets at 6,500 ft amsl. One 1986 CNDDB record encompasses a large area in the White Mountains between Montgomery Creek in the north and Cottonwood Creek in the south, with concentrations of desert bighorn sheep reported near White Mountain Peak approximately 7 miles north of the alignment. Another herd was reported in 1988 approximately 2 miles south of the Deep Springs Substation south of Soldier Pass; this herd was described as "recently" extirpated in 1988. The desert bighorn sheep is likely to occur within the alignment in Silver Canyon (CNDDB 2020).

The Federally Proposed Threatened and California Threatened North American (California) wolverine (*Gulo gulo*) does not occur within the CSP Project alignment. Currently, breeding populations of wolverines are found in the North Cascade Range in Washington and the Northern Rocky Mountains in Idaho, Montana, Oregon (Wallowa Range), and Wyoming. Individual wolverines have also moved into high elevation habitat in the North Coast Ranges and Sierra Nevada in California and in the southern Rocky Mountains in Colorado, but wolverines have not established breeding populations in these areas (USFWS 2016). The closest CNDDB occurrence for the wolverine is a 1937 record in the White Mountains in Mono County 11 miles north of the alignment at 14,000 ft amsl (CNDDB 2020).

Other special-status terrestrial wildlife species, such as the CDFW CSC Owens Valley vole (*Microtus californicus vallicola*), American badger (*Taxidea taxus*), and western white-tailed jackrabbit (*Lepus townsendii townsendii*) were not observed during the surveys and are unlikely to occur within the CSP Project alignment. Potentially suitable habitat for the Owens Valley vole occurs within rush, sedge, and other meadow vegetation, as well as pastureland and riparian scrub bordering the Owens River and the mouth of Silver Canyon in Segments 3 and 5. Although there are CNDDB records from these locations, the Owens River observation is over 100 years old and the Silver Canyon record is over 60 years old (CNDDB 2020).

The American badger occurs in drier open stages of shrub, forest, and herbaceous communities, with friable soils and open, uncultivated ground. A single CNDDB badger occurrence from 1917 was reported

near the headwaters of Silver Canyon, but there are no other records within the CSP Project alignment in the past 100 years; it is unlikely to occur within the alignment (CNDDB 2020).

The western white-tailed jackrabbit occurs in open areas with scattered shrubs in sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland, as well as wet meadows and early successional stages of various coniferous forest habitats on exposed flat-topped ridges above 8,500 ft amsl. There are two CNDDB records for this species in the vicinity of the alignment, a 1916 record north of Bishop and approximately 1 mile south of the alignment, and a 1954 record from the University of California White Mountains Research Station more than 5 miles north of the alignment (CNDDB 2020). The absence of additional observations of this conspicuous species suggests that it does not occur within the CSP Project alignment.

In addition, special-status bats—pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), and fringed myotis (*Myotis thysanodes*)—may also occur in the CSP Project area. Potential bat roosting sites include abandoned mines, crevices in rocky hillsides and canyon walls, and cliff faces near the CSP Project alignment in Segment 3 in the White Mountains; in mines west of Gilbert Pass that overlap the alignment; within 1 mile south of Wyman Creek associated with the Wilkerson Mine complex; in the Fish Lake Valley, where mine shafts are located within 0.5 miles of a 1996 CNDDB observation and 1 mile north of the CSP Project alignment; as well as in Segment 5 in buildings and mines in the Deep Springs Valley (Horton and San Juan 2019, CNDDB 2020).

Mammals reported from the CSP Project region with no observation records within the CSP Project alignment include the Federally Endangered and California Threatened Sierra Nevada red fox (*Vulpes vulpes necator*); the California Threatened fisher (*Pekania pennant*); the CDFW CSC pygmy rabbit (*Brachylagus idahoensis*); and the USFS Sensitive Pacific marten (*Martes caurina*).

5.4.1.5.2.6 Invertebrates

No special-status invertebrates were observed along the CSP Project alignment. Eleven species of invertebrates with CDFW State Rankings of S1, S1S2, and S2 and/or that are a USFS Sensitive species have CNDDB records in the region: California floater (*Anodonta californiensis*), Morrison bumblebee (*Bombus morrisoni*), Mono checkerspot butterfly (*Euphydryas editha monoensis*), Deep Springs fontelicella (*Fontelicella* species), White Mountains skipper (*Hesperia miriamae longaevicola*), Nelson's miloderes weevil (*Miloderes nelsoni*), White Mountains icarioides blue butterfly (*Plebejus icarioides albihalos*), Fish Slough springsnail (*Pyrgulopsis perturbata*), Owens Valley springsnail (*Pyrgulopsis owensensis*), Wong's springsnail (*Pyrgulopsis wongi*), and Apache silverspot butterfly (*Speyeria nokomis apacheana*). Records for most of these species do not overlap the CSP Project alignment, and many records are decades old.

Five of these invertebrates are freshwater mollusks that occur only in aquatic habitats: the California floater, Deep Springs fontelicella, Fish Slough springsnail, Owens Valley springsnail, and Wong's springsnail. The known ranges of the Deep Springs fontelicella, Fish Slough springsnail, Owens Valley springsnail, and Wong's springsnail occur outside of the CSP Project alignment. The California floater occurs along slow-moving streams and rivers as well as in lakes. A single CNDDB record of fewer than 100 adult California floaters was reported in 1999 and 2000 in the "Owens River at Bishop Creek Canal and Bishop Creek Canal from the Owens River to Dixon Lane north of Bishop;" this area overlaps the CSP Project alignment; there are no other CNDDB records for this species from the CSP Project region (CNDDB 2020). The California floater has a low to moderate potential to occur within the CSP Project alignment in Segment 3 north of Bishop where the Bishop Creek Canal crosses the alignment.

The Morrison bumblebee occurs in open dry scrub supporting specific pollen-bearing plants, and nests underground. There are four CNDDB observations overlapping or near the CSP Project alignment in Segment 3, including a 1968 record near the mouth of Wyman Canyon, a 1960 record in Fish Lake Valley, a 1940 record in Bishop south of the alignment, and a 1964 record at Schulman Grove in the White Mountains 2 miles southeast of the alignment (CNDDB 2020). The Morrison bumblebee has a low potential to occur within the CSP Project alignment in Wyman Canyon and the Fish Lake Valley; all records were documented more than 50 years ago.

Three of the four butterfly species reported from the region have known distributions outside of the CSP Project alignment (Mono checkerspot butterfly and Apache silverspot butterfly) or more than 5 miles from the CSP Project alignment (White Mountains skipper). The White Mountains icarioides blue butterfly occurs in alpine grassland and herbaceous meadows and the closest and most recent CNDDB occurrence, a 1987 record, is located 5.1 miles north of the CSP Project alignment in Segment 3 at 10,560 ft amsl, above the highest elevation of the alignment (CNDDB 2020). There are no alpine grassland or herbaceous meadows within the CSP Project alignment, and the White Mountains icarioides blue butterfly does not occur within the alignment.

The known distribution of the Nelson's miloderes weevil lies outside the CSP Project alignment.

Only one invertebrate species has CNDDB records reported in the past 20 years within the CSP Project alignment, the California floater. The only other invertebrate species that has a potential to occur within the alignment is the Morrison's bumblebee, which hasn't been observed in over 50 years.

5.4.1.6 Critical Habitat

Under the FESA, the USFWS is required to designate critical habitat for specific geographic area(s) that contains features essential to the survival and recovery of threatened or endangered species (16 U.S.C. § 1533 [a][3]). Designated critical habitat includes occupied and unoccupied sites for feeding, roosting, cover, shelter, breeding and rearing, and movement or migration and must be managed to protect existing environmental resources tied to the survival and recovery of the listed species.

Critical habitat for one species, Fish Slough milk-vetch (*Astragalus lentiginosus* var. *piscinensis*), overlaps the CSP Project alignment north of the Owens River in Segment 4 (Figureset 5.4-6). In total, approximately 8 acres of critical habitat for the Fish Slough milk-vetch are present. There are no work areas proposed within Fish Slough milk-vetch critical habitat. No other critical habitat is located within 5 miles of the CSP Project alignment.

5.4.1.7 Native Wildlife Corridors and Nursery Sites

5.4.1.7.1 Wildlife Corridors

Native wildlife corridors that provide habitat connectivity across a broader geographic area are critical to survival and reproduction for many plant and wildlife species. Similar terrain, vegetation types, water courses, mountain tops and ridgelines, and other natural features provide suitable contiguous habitat for passage from one area to another for food, water, and reproduction. CEQA guidelines require disclosure of proposed modifications to wildlife corridors and associated mitigation for significant impacts to this important biological resource.

The CSP Project alignment traverses 60.5 miles of varied terrain and crosses the Owens River and several streams, including Bishop Creek (a tributary to the Owens River), Silver Canyon Creek, Wyman Creek, as well as many minor drainages and dry washes. Segment 1 extends to the northeast from the Control

Substation located in the eastern foothills of the Sierra Nevada next to Bishop Creek, with its headwaters high in the eastern Sierra Nevada. Bishop Creek and nearby slopes provide potential contiguous habitat for wildlife species that migrate between the Owens Valley and the Sierra Nevada. The White Mountains in Segment 3 form a major north-south trending wildlife migration corridor, connecting the Excelsior Range and other mountains and valleys to the north with the Inyo Mountains to the south, providing mostly unimpeded localized wildlife corridors between areas supporting undisturbed shrubland, woodland and forest vegetation on mountain slopes, peaks, and ridges. The north-south length of the White and Inyo mountains outside of the CSP Project alignment spans more than 120 miles, with peaks and alpine valleys above 8,000 ft amsl found along three-quarters of that length. Within the CSP Project alignment, a total of 9.2 miles occurs above 8,000 ft amsl, supporting Singleleaf Pinyon Woodland, Limber Pine Woodland, Bristlecone Pine Woodland, Aspen Groves, and shrubland vegetation, along with a suite of high elevation wildlife and plant species that utilize these unique regional resources located above arid vegetation below. The low levels of traffic on existing roads in the White Mountains create only temporary impediments to wildlife movement.

The CSP Project alignment is located in the Pacific Flyway, which links avian breeding and foraging grounds in Alaska with warmer wintering areas to the south in Mexico, Central America, and northern South America. The surrounding mountain ranges serve as a funnel for migratory birds that fly parallel to these ranges within the Owens Valley and other valleys during migration. Migratory birds often stop along streams, rivers and lakes, as well as at wetlands during migration, such as those along the Owens River. Many migratory avian species will use the north-south corridor provided by the Owens Valley, rather than moving over the high altitude of the surrounding north-south trending Sierra Nevada, White Mountains, and Inyo Mountains, whereas raptors may utilize updrafts to traverse from one side of a mountain range to the other.

Contiguous riparian, wetland, and salt-tolerant vegetation extends along the margins of the Owens River in Segments 3 and 4, with the Owens River and Owens Valley providing a north-south migration corridor that spans 75 miles from the north end of Round Valley south to Owens Lake, where the Owens River terminates. Moreover, the Owens Valley serves as winter habitat for some species that return to highlands in the summer. In addition to special-status species, a diverse array of wildlife species utilize the rich habitat diversity in the Owens Valley and surrounding mountains, including but not limited to tule elk (*Cervus elaphus nannodes*) and the Round Valley herd of mule deer (*Odocoileus hemionus*). Riparian vegetation continues up the stream margins in Silver Canyon and down the stream margins in Wyman Canyon. Upland shrublands, woodlands, and forests provide cover and foraging habitat for a range of wildlife species, as supported by a review of Figuresets 5.4-1 through 5.4-5, which repeatedly indicate a north-south distribution for several natural communities and special-status species along Segment 3.

The CSP Project alignment intersects desert bighorn sheep migration corridors in Segment 3 in the White Mountains, where desert bighorn sheep were observed during field surveys. Mountain ranges such as the White and Inyo mountains provide contiguous habitat linkages for White Mountain desert bighorn sheep with habitat and herds in other desert mountain ranges in the region.

5.4.1.7.2 Nursery Sites

No regional or local native wildlife nursery sites are known to exist within 5 miles of locations where work would be performed in Segments 1, 2, 4, or 5. Sage grouse nesting locations are known to occur east of White Mountain Substation north and south of the CSP Project alignment as shown in Figure 5.4-7.

5.4.1.8 Biological Resource Management Areas

There is no adopted habitat conservation plan (HCP) or natural community conservation plan (NCCP) within the CSP Project alignment, and no known approved local, regional, or state habitat conservation

plans covering the CSP Project alignment.

5.4.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the CSP Project.

5.4.2.1 Regulatory Setting

5.4.2.1.1 Federal

5.4.2.1.1.1 Endangered Species Act (16 U.S.C. § 1531 et seq.)

The Endangered Species Act of 1973 (FESA) provides for the protection of plant and animal species listed by the federal government as "Endangered" or "Threatened", and "the ecosystems upon which they depend." An "Endangered" species is one that is "in danger of extinction" throughout all or a significant portion of its range. A "Threatened" species is one that is "likely to become endangered" within the foreseeable future.

Pursuant to Section 9 of the FESA, it is unlawful for any person to "take" a federally listed species. "Take," as defined by the FESA, "means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." This can also include the modification of a species' habitat. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on nonfederal land in knowing violation of state law (16 U.S.C. § 1538(c)).

5.4.2.1.1.2 Migratory Bird Treaty Act (16 U.S.C. §§ 703 – 712)

The Migratory Bird Treaty Act of 1918 (MBTA) protects species of native, non-game, migratory birds. Specific provisions in the statute include a federal prohibition, except as allowed under specific conditions, to: "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird." (16 U.S.C. § 703)

5.4.2.1.1.3 Bald and Golden Eagle Protection Act (16 U.S.C § 668)

The Bald and Golden Eagle Protection Act of 1940 (BGEPA) provides for the protection of bald and golden eagles. The BGEPA establishes criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

5.4.2.1.1.4 California Desert Conservation Area Plan

The California Desert Conservation Area (CDCA) Plan is a comprehensive, long-range plan for the management, use, development, and protection of lands within the CDCA, and it is required as part of the FLPMA and implemented by the BLM. The CDCA Plan defines rare, threatened, and endangered plants as those listed as endangered by the FESA; endangered or rare by CESA; or candidates for endangered or threatened listing by the USFWS. Rare, threatened, and endangered species are managed in accordance with applicable laws and regulations. These plants are also protected through consideration in all BLM site-specific environmental impact analysis to ensure that any action authorized by the BLM does not jeopardize listed plants or habitats supporting listed plants. The CDCA Plan stabilizes and improves populations of listed plants through management and recovery plans developed and implemented

cooperatively with the USFWS and CDFW. The CDCA Plan also prohibits the harvesting of plants that are listed as rare, threatened, or endangered. As part of Phase I of the DRECP, the BLM adopted an amendment to the CDCA Plan in September 2016—the LUPA to the CDCA Plan and Bishop Resource Management Plan, which is discussed further below.

5.4.2.1.1.5 Desert Renewable Energy Conservation Plan

The DRECP is a collaborative effort between the CEC, CDFW, BLM, and USFWS to advance federal and state natural resource conservation goals and other federal land management goals; meet the requirements of the FESA, CESA, Natural Community Conservation Planning Act, and FLPMA; and facilitate the timely and streamlined permitting of renewable energy projects in the Mojave and Colorado/Sonoran desert regions of Southern California. The DRECP covers approximately 22.5 million acres in the desert regions of Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties. The DRECP is being prepared in two phases. Phase I consisted of the BLM LUPA to the CDCA Plan and Bishop Resource Management Plan. Phase II will consist of adopting a General Conservation Plan for approximately 5.5 million acres of non-federal land and a Conceptual Plan-Wide Natural Community Conservation Plan (NCCP) that encompasses the entire DRECP plan area.

5.4.2.1.1.6 Bureau of Land Management Land Use Plan Amendment

The BLM LUPA establishes management direction for the permitting of renewable energy and transmission development on approximately 10 million acres of BLM-managed lands in the DRECP area. The BLM LUPA amends the CDCA Plan and the Bishop Resource Management Plans. The purpose of the LUPA is to conserve biological, environmental, cultural, recreation, scenic, and visual resources; respond to federal renewable energy goals and policies, including state-level renewable energy targets; and comply with the FLPMA. The BLM LUPA prescribes conservation management actions (CMAs).

5.4.2.1.1.7 Clean Water Act of 1972

Enacted in 1972, the federal Clean Water Act of 1972 (CWA; 33 U.S.C. § 1251 et seq.) and subsequent amendments outline the basic protocol for regulating discharges of pollutants to waters of the U.S. It is the primary federal law applicable to water quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. Enforced by the USEPA, it was enacted "... to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA authorizes States to adopt water quality standards and includes programs addressing both point and non-point pollution sources.

The CWA also established the established the National Pollutant Discharge Elimination System (NPDES) and provides the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry and water quality standards for surface waters (see below for a discussion of the NPDES program). In California, programs and regulatory authority under the CWA have been delegated by USEPA to the State Water Resources Control Board (SWRCB) and its nine RWQCBs.

Under Section 402 of the CWA, a discharge of pollutants to navigable waters is prohibited unless the discharge complies with an NPDES permit. The SWRCB and RWQCBs have also developed numeric and narrative water quality criteria to protect beneficial uses of state waters and waterways. Beneficial uses in the CSP Project Area include water supply, groundwater recharge, aquatic habitat, wildlife habitat, and recreation.

5.4.2.1.1.8 Section 401 – Water Quality Certification

Section 401 of the CWA specifies that, for any activity that may result in a discharge into waters of the U.S., the SWRCB or applicable RWQCB must certify that the discharge will comply with state water quality standards,

including beneficial uses (23 CCR § 3830, et seq). Under California's policy of no net loss of wetlands, the SWRCB and RWQCBs require mitigation for dredge and fill impacts to wetlands and waterways.

Dredge and fill activities in wetlands and waterways that impact waters of the U.S. would require a Federal Section 404 permit from the USACE. These permits trigger the requirement to obtain a Section 401 certification, which must be obtained prior to issuance of a Section 404 permit.

5.4.2.1.1.9 Section 404 – Permitting for Dredge and Fill Activities in Wetlands and Waters of the U.S.

The USACE is responsible for issuing permits under CWA Section 404 for placement of fill or dredged material in waters of the U.S. and jurisdictional wetlands. Waters of the U.S. refers to oceans, bays, rivers, streams (including non-perennial streams with a defined bed and bank), lakes, ponds, and seasonal and perennial wetlands.

Project proponents must obtain a permit from the USACE for all discharges of fill or dredged material before proceeding with a proposed activity. The USACE may issue either an individual permit or a general permit. General permits are preauthorized at the regional or national level and are issued to cover activities expected to result in only minimal adverse environmental effects (e.g., LA District Regional General Permit No. 63 for Repair and Protection Activities in Emergency Situations). Nationwide Permits (NWPs) are a type of general permit issued to cover activities that the USACE has determined to have minimal adverse effects, such as routine maintenance (e.g., Nationwide Permit 3) or utility line activities (e.g., Nationwide Permit 12). Each NWP specifies particular conditions that must implemented by the permittee.

5.4.2.1.1.10 Omnibus Public Land Management Act of 2009 - Title I: Additions to the National Wilderness Preservation System

Subtitle K: Eastern Sierra and Northern San Gabriel Wilderness, California – Section 1808 designates certain public lands in California as the Ancient Bristlecone Pine Forest and sets forth requirements for the management of the Forest and specifies the uses of the Forest.

The Ancient Bristlecone Pine Forest National Protection Area was designated to

"conserve and protect the Ancient Bristlecone Pines by maintaining near-natural conditions and to ensure the survival of the Pines for the purposes of public enjoyment and scientific study, the approximately 31,700 acres of public land in the State, as generally depicted on the map entitled `Ancient Bristlecone Pine Forest—Proposed' and dated July 16, 2008, is designated as the `Ancient Bristlecone Pine Forest'...

The Secretary shall administer the Forest in a manner that-

(i) protects the resources and values of the area in accordance with the purposes for which the Forest is established, as described in subsection (a); and (ii) promotes the objectives of the applicable management plan (as in effect on the date of enactment of this Act), including objectives relating to—

(I) the protection of bristlecone pines for public enjoyment and scientific study;

(II) the recognition of the botanical, scenic, and historical values of the area; and

(III) the maintenance of near-natural conditions by ensuring that all activities are subordinate to the needs of protecting and preserving bristlecone pines and wood remnants

•••

(2) USES-(A) IN GENERAL-

The Secretary shall allow only such uses of the Forest as the Secretary determines would further the purposes for which the Forest is established, as described in subsection (a).

5.4.2.1.1.11 Land Management Plan for Inyo National Forest

The INF encompasses 2 million acres and includes the White Mountains and Mount Whitney Districts in the South Zone. The Land Management Plan for INF (USFS 2018) provides objectives, goals, standards, desired conditions, and potential management approaches for watersheds, terrestrial ecosystems and vegetation, animal and plant species, and invasive species. The Land Management Plan includes specific desired conditions, standards, and potential management approaches for activities occurring within the 28,978-acre Ancient Bristlecone Pine Forest National Protection Area. The Plan notes that "new public utility rights-of-way are considered unsuitable within the Ancient Bristlecone Pine Forest National Protection Area boundaries (DA-ABPF-SUIT)".

5.4.2.1.2 State

5.4.2.1.2.1 California Fish and Game Code §§ 1600-1617, Lake and Streambed Alteration Agreement

If a project includes alteration of the bed, banks, or channel of a stream, or the adjacent riparian vegetation, then a Lake and Streambed Alteration Agreement (LSAA) may be required from CDFW. CFGC Sections 1600-1616 regulate activities that could alter the flow, bed, banks, channel, or associated riparian areas of a river, stream, or lake—all considered "waters of the state." The law requires any person, state, or local governmental agency or public utility to notify CDFW before beginning an activity that would substantially modify a river, stream, or lake.

5.4.2.1.2.2 California Endangered Species Act (CFGC § 2050-2100)

The CESA generally parallels the provisions of the FESA, and states that "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved." The CDFW administers the CESA and has committed itself to work with all interested persons, agencies, and organizations to protect and preserve such special-status resources and their habitats.

Under the CESA, "Endangered" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range;" and "Threatened" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts." "Take" is defined as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" an individual of a species, but the definition does not include "harm" or "harass," as the FESA does.

Consistent with the CESA, CDFW has established lists of endangered, threatened, and candidate species that may or may not also be included on a FESA list. Pursuant to CFGC Section 2080.1, CESA allows for incidental take permits to otherwise lawful development projects that could result in the take of a state-listed Threatened or Endangered species. The application for an incidental take permit under Section 2080.1(b) has a number of requirements including identification of minimization measures to reduce the potential for take and how take of listed species will be mitigated. CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species.

5.4.2.1.2.3 Native Plant Protection Act (CFGC §§ 1900-1913, 2062 and 2067)

The Native Plant Protection Act (NPPA) identifies the types of plant species eligible for state listing. Eligible species include those identified with CRPR of 1A, 1B, and 2, which meet the definitions of Sections 1901, Chapter 10 (NPPA) or Sections 2062 and 2067 (CESA) of the CFGC.

Section 1913(b) of the NPPA states "the performance by a public agency or publicly or privately owned public utility of its obligation to provide service to the public, shall not be restricted by this chapter because of the presence of rare or endangered plants."

5.4.2.1.2.4 California Fish and Game Code §§ 3503, 3503.5, 3513, and 3800

CFGC Section 3513 furthers the intent of the MBTA by prohibiting any take or possession of birds in California designated by the MBTA as migratory nongame birds, except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, CFGC Sections 3503, 3503.5, 3511, and 3800 further protect nesting birds and their parts, including passerine birds, raptors, and state "fully protected" birds. These regulations protect almost all native nesting birds, not just special-status status birds.

5.4.2.1.2.5 California Fish and Game Code §§ 3511, 4700, 5050, and 5515

CFGC Sections 3511, 4700, 5050, and 5515 govern the protection of bird, mammal, reptile, amphibian, and fish species identified as "fully protected." Fully protected animals may not be harmed, taken, or possessed and CDFW may not issue take authorization for fully protected species. The classification of "Fully Protected" was the state's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the FESA and/or CESA; white-tailed kite (*Elanus leucurus*), golden eagle, trumpeter swan (*Cygnus buccinator*), northern elephant seal (*Mirounga angustirostris*), and ring-tailed cat (*Bassariscus astutus*) are the exceptions. The white-tailed kite and the golden eagle are tracked in the CNDDB; the trumpeter swan, northern elephant seal, and ring-tailed cat are not.

5.4.2.1.2.6 California Public Resources Code §§ 4292 and 4293

Section 4292 directs the owner, controller, operator, or maintainer of electrical transmission lines in mountainous land, forest-covered land, brush-covered land, or grass-covered land to maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole; a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower; and Section 4293 requires the same to maintain a clearance of 4 feet from any line which is operating at 2,400 or more volts, but less than 72,000 volts.

5.4.2.1.2.7 California Public Utilities Commission, GO 95, Rule 35, Vegetation Management

Rule 35 mandates that certain vegetation management activities be performed in order to establish necessary and reasonable clearances, and establishes minimum clearances between line conductors and vegetation that under normal conditions shall be maintained. These requirements apply to all overhead electrical supply and communication facilities covered by this GO, including facilities on lands owned and maintained by California State and local agencies.

5.4.2.1.2.8 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967 (California Water Code § 13000 et seq.) requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect waters of the State. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and

implementation procedures. Individual water quality control plans are prepared for each RWQCB. These plans set implementation policies, goals, and water management practices in accordance with the Porter-Cologne Water Quality Control Act. Waste discharge requirements and waivers are mechanisms used by the RWQCBs/SWRCB to control discharges and protect water quality.

The SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

The final rules and policy were approved by the Office of Administrative Law on August 28, 2019 and will become effective May 28, 2020. Therefore, although the features on the site may be federally non-jurisdictional, the SWRCB, through the San Francisco Bay RWQCB will likely require permitting for fill to waters of the State.

5.4.2.1.2.9 California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprising information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California.

Sensitive species that occur or potentially could occur within the Project Area are based on one or more of the following: (1) the direct observation of the species during one of the biological surveys; (2) a record reported in the CNDDB; and (3) the Project Area is within known distribution of a species and contains appropriate habitat.

5.4.2.1.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the CSP Project. Pursuant to GO 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties' and cities' regulations are not applicable as the counties and cities do not have jurisdiction over the CSP Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.4.2.1.3.1 Inyo County General Plan

The Conservation and Open Space Element contains the following goals and policies:

Goal BIO-1: Maintain and enhance biological diversity and healthy ecosystems throughout the County.

Policy BIO-1.1: Regulatory Compliance. The County shall review development proposals to determine impacts to sensitive natural communities, of both local and regional concern, and special-status species. Appropriate mitigation measures will be incorporated into each project, as necessary.

Policy BIO-1.2: Preservation of Riparian Habitat and Wetlands. Important riparian areas and wetlands, as identified by the County, shall be preserved and protected for biological resource value.

Policy BIO-1.3: Restoration of Biodiversity. Encourage the restoration of degraded biological communities.

Policy BIO-1.4: Limitations for Environmental Resource Areas (ERA). The County shall discourage development in ERAs.

Policy BIO-1.5: Develop Outside of Habitat Areas. Work with regulatory agencies and private developers to direct development into less significant habitat areas. Discourage urban development in areas containing sensitive natural communities or known to contain special-status species.

Policy BIO-1.6: Wildlife Corridors. The County shall work to preserve and protect existing wildlife corridors where appropriate.

Policy BIO-1.7: Noxious Weeds. Avoid activities that will promote the spread of noxious weeds in the County

Policy BIO-1.8: Owens River Restoration. The County will work with the LADWP and regulatory agencies to complete the restoration of habitat values along the historic Owens River channel as mitigation for degradation done with water export activities. This policy shall apply to the portion of the Owens River identified as the Lower Owens River Project.

Goal BIO-2: Provide a balanced approach to resource protection and recreational use of the natural environment.

Policy BIO-2.1: Coordination on Management of Adjacent Lands. Work with other government land management agencies to preserve and protect biological resources while maintaining the ability to utilize and enjoy the natural resources in the County.

5.4.2.1.3.2 Inyo County Code

The Inyo County Code does not contain any biological resources protection-related ordinances relevant to the CSP Project.

5.4.2.1.3.3 Mono County General Plan

The Mono County General Plan Conservation/Open Space Element addresses the availability and quality of biological resources and contains the following goals and policies:

Objective 2.A: Maintain and restore botanical, aquatic and wildlife habitats in Mono County.

Policy 2.A.1: Future development projects shall avoid potential significant impacts to animal or plant habitats or mitigate impacts to a level of non-significance, unless a statement of overriding considerations is made through the EIR process.

Action 2.A.1.a. Future development projects with the potential to significantly impact animal or plant habitats shall assess site-specific resource values and potential impacts prior to project approval.

Action 2.A.1.b. Project design should first seek to avoid impacts. Unavoidable impacts should next be minimized, and finally mitigated.

Action 2.A.1.c. Consult with and honor the permitting and regulatory authority of state and federal agencies, including the USACE, the USFWS, CDFW, and the State Water Resources Control Board, with regard to wetlands and waterways.

Action 2.A.1.f. For non-native plant removal, mechanical controls should be considered over chemical controls, where possible.

Action 2.A.1.g. Projects outside community areas within identified deer and sage grouse habitat areas, (see the Biological Resources Section of the Master Environmental Assessment), which may have a significant effect on deer or sage grouse resources shall submit a site-specific study performed by a recognized and experienced biologist in accordance with Action 1.1.

Action 2.A.1.h. Projects with features that have the potential to be attractive nuisances to wildlife shall include an assessment of the potential impacts from those features in the CSP Project analysis and proposed mitigation measures.

Policy 2.A.2. Protect and restore threatened and endangered plant and animal species and their habitats.

Policy 2.A.3. Protect and restore sensitive plants, wildlife and their habitat, and those species of exceptional scientific, ecological, or scenic value.

Policy 2.A.5. Prohibit construction activities such as grading in sensitive habitats prior to environmental review in compliance with CEQA and the Mono County Grading Ordinance.

Policy 2.A.6. During construction, utilize soil conservation practices and management techniques to conserve naturally occurring soils.

5.4.2.1.3.4 Mono County Code

The Mono County Code does not contain any biological resources protection-related ordinances relevant to the CSP Project.

5.4.2.2 Habitat Conservation Plan

There is no Habitat Conservation Plan relevant to the CSP Project.

5.4.3 Impact Questions

5.4.3.1 Impact Questions

- The significant criteria for assessing the impacts to biological resources come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

• Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

5.4.3.2 Additional CEQA Impact Question

The CPUC has identified one additional CEQA impact question:

• Would the project create a substantial collision or electrocution risk for birds or bats?

5.4.4 Impact Analysis

5.4.4.1 Impact Analysis

5.4.4.1.1 Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

5.4.4.1.1.1 Construction

Less than Significant Impact with Mitigation. Potential impacts on special-status plant and wildlife species may include temporary loss of habitat associated with ground-disturbing activities and may also include other direct and indirect impacts.

The following subsections summarize the impact analyses for special-status plant and wildlife species and critical habitat. SCE would implement APMs that would reduce impacts to special-status species. Details on APMs are provided in Section 3.11.

Special-status Plant Species. A total of nine special-status plant species were observed within the CSP Project alignment. Of these, three species were observed in proposed work areas: Bailey's greasewood in Segment 4; coyote gilia (*Aliciella triodon*) in Segments 3, 4, and 5; and desert shredding primrose (*Eremothera boothii* subsp. *intermedia*) in Segment 3 (see Table 5.4-4 and Figureset 5.4-2).

Bristlecone pine trees occur in 153 work areas in Segment 3, including 125 work areas within the Ancient Bristlecone Pine Forest National Protection Area, and would be avoided to the greatest extent practicable. Bristlecone pine trees have a CRPR of 4.3 and mostly occur within Bristlecone Pine Woodland, a sensitive natural community with a CDFW Sensitivity Rank of S2, Imperiled. No listed plant species were observed or are likely to occur within the CSP Project alignment.

Construction activities, including grading, vegetation clearing and grubbing, earth-moving, and vehicle traffic may result in the direct crushing or burial of individual plants, and may cause erosion and/or sedimentation that may alter the existing habitat for these species. In addition, loss of mature bristlecone pine trees and other native trees may result from construction activities. Construction-related traffic may create dust that adheres to leaves and interferes with photosynthesis and plant reproduction. Topsoil impacted from grading may contain seeds, bulbs, nutrients, and mycorrhizae that special-status plant species may utilize for survival and for maintaining sustainable colonies in an area. Incidental introductions of invasive non-native weeds as a result of construction activities have the potential to reduce habitat quality in the immediate area and beyond through direct competition and occupation of prime germination sites. Higher non-native plant cover, especially invasive grasses, may also facilitate fires in the area.

The vast majority (94 percent) of the observed special-status plant individuals (excluding bristlecone pine trees) are annuals or herbaceous perennials that pass the dry season as seeds or as dormant plants with no above-ground green foliage and underground storage organs. Soil-disturbance activities may disturb the existing seed bank of special-status and other native plants, along with bulbs, corms, rhizomes, and other

soil storage organs. To avoid and minimize potential impacts to special-status herbaceous plants, individuals and colonies of these species would be flagged and avoided, when feasible and APM BIO-BOT-01: Special-status Herbaceous Plants would be implemented. To avoid and minimize potential impacts to special-status plant species from construction activities such as native vegetation clearing and grubbing, grading, and earth-moving, SCE would implement APM BIO-GEN-1: Pre-construction Biological Clearance Survey and Monitoring, which includes pre-construction biological surveys and flagging boundaries of areas supporting native vegetation and special-status native species for avoidance, when feasible. SCE would also implement APM WEAP: Worker's Environmental Awareness Training, to ensure contractor understanding and implementation of these protective measures. SCE would also implement APM BIO-BOT-02: Special-status Tree/Shrubs/Cactus, which contains measures such as preconstruction surveys, and flagging and marking for avoidance to avoid or minimize potential impacts to special-status herbaceous species, shrubs, trees, and cacti. To reduce competition from noxious and invasive weeds, which may crowd out special-status plant species, SCE would develop and implement an Invasive Plant Management Plan (IPMP) as described in APM BIO-RES-2: Develop Invasive Plant Management Plan. If populations or individuals of special-status plants cannot be avoided, SCE would implement restoration activities as described in APM BIO-RES-1: Develop Habitat Restoration and Revegetation Plan (HRRP). The HRRP would include provisions to restore special-status species removed during CSP Project construction activities, along with suitable habitat for the species.

With the implementation of these APMs, impacts to all special-status plants would be less than significant.

Special-status Wildlife Species. A total of seven special-status wildlife species were observed along the CSP Project alignment, and thus have the potential to occur in construction work areas (see Table 5.4-6 and Figureset 5.4-4); these include observations of the desert bighorn sheep in Segment 3, nesting Swainson's hawk in Segment 4, loggerhead shrike in Segments 1 and 4, northern sagebrush lizard in Segments 1 and 3, olive-sided flycatcher in Segment 3, yellow-headed blackbird in Segment 4, and yellow warbler in Segment 3.

Potential impacts on special-status wildlife species could occur during grading, vegetation clearing and grubbing, and earth-moving, and vehicle traffic may result in the direct crushing or burial of grounddwelling wildlife and their burrows and habitat. Increased noise, artificial light, and increased human presence may restrict individuals from accessing foraging areas or may alter site conditions and reduce the overall quality of habitat available.

Fish. Owens pupfish, Owens tui chub, Owens sucker, and Owens speckled dace have historical ranges in the Owens River and its tributaries and associated drainages, canals, and streams that occur along the CSP Project alignment in Segment 3 between Bishop and Laws, as well as in the Owens River near Five Bridges Road, based on observations reported in CNDDB (2019) and PISCES (Santos et al. 2014). However, populations of the Owens pupfish and Owens tui chub are considered extirpated, and the Owens sucker and Owens speckled dace have not been observed in the CSP Project vicinity in over 30 years; therefore, the likelihood of their occurrence in CSP Project construction work areas is low to none. Further, no in-water work is included in the CSP Project. Therefore, no impacts to special-status fish are anticipated. If present, potential impacts to special-status fish could result from accidental sedimentation of aquatic habitat unless mitigation measures to prevent sedimentation are employed. Where CSP construction work areas are located in or proximate to suitable habitat for special-status fish species, SCE would implement APM WET-1: Avoid and/or Minimize Impacts to Waters and Wetlands, to ensure minimization of impacts to special-status fish species.

Amphibians. No special-status amphibian species were observed during the special-status wildlife surveys. One special-status amphibian species (northern leopard frog) has the potential to occur along the CSP Project alignment in Segments 3 and 4 in freshwater marsh and areas of flowing or standing water and adjacent moist upland areas surrounding the Owens River and its tributaries (CNDDB 2020).

The northern leopard frog is unlikely to occur within the CSP Project alignment and is likely extirpated from the region. If present, potential impacts to the northern leopard frog are likely to be negligible because CSP Project construction work sites in these areas are generally in upland areas that are not suitable habitat for the northern leopard frog. If present, potential impacts to the northern leopard frog could result from vehicle or equipment strikes, from individuals falling into excavation areas, and accidental sedimentation of aquatic habitat. Where construction work areas are located in or near suitable habitat for northern leopard frog and other sensitive amphibian species that might occur within work areas, SCE would implement APM BIO-GEN-1: Pre-Construction Biological Clearance Survey and Monitoring, and APM WEAP: Worker's Environmental Awareness Training.

These APMs contain measures, including pre-construction surveys, construction monitoring, flagging, and avoidance measures, to protect sensitive amphibians. Implementation of APM WET-1: Avoid and/or Minimize Impacts to Waters and Wetlands, would ensure minimization of impacts to wetlands and riparian areas, and thus would serve to reduce potential direct and indirect impacts to the habitat of special-status amphibian species.

To avoid potential impacts to other special-status amphibian species, SCE would implement APM BIO-GEN-1: Pre-Construction Biological Clearance Survey and Monitoring and APM WEAP: Worker's Environmental Awareness Training. These APMs contain measures, including pre-construction surveys, construction monitoring, flagging, and spill prevention and vehicle travel measures to protect special-status sensitive amphibians. With the implementation of these avoidance measures and APMs, impacts to specialstatus amphibians would be less than significant.

Reptiles. One special-status reptile was observed within Segments 1 and 3 of the CSP Project alignment: the northern sagebrush lizard, which occurred in Black Brush Scrub and Mountain Big Sagebrush Scrub within 250 feet of a stream or tributary (Figureset 5.4-4). Although not observed, the Panamint alligator lizard is expected to occur in canyons, gullies, and rocky slopes near permanent water supporting dense vegetation such as riparian scrub habitat in Segment 3 (Figureset 5.4-5). The Panamint alligator lizard has been reported to be present in the CSP Project region, including a CNDDB observation in Silver Canyon (CNDDB 2020).

Potential impacts to special-status reptile species may result from ground disturbing activities that can include vehicle or equipment strikes, individuals falling into excavation areas, and by the reduction of refugia habitats as well as accidental crushing or burying of active burrows by construction vehicles and activities. Ground-disturbing activities have the potential to increase colonization of weed species and reduce native vegetation. Incidental introductions of invasive non-native weeds have the potential to reduce habitat quality in the immediate area and beyond through direct competition and occupation of prime germination sites of prime forage species. Human activities and food waste may also pose threats to special-status reptile species by attracting opportunistic predators such as ravens, coyotes and feral dogs to construction work areas. The watering of access roads and construction work areas for dust mitigation can result in ponding, attracting reptiles into areas where they may be more susceptible to direct impacts.

Potential impacts to special-status reptile species during construction would be temporary and intermittent in nature (lasting only as long as construction work at a given site) and would be limited in their potential geographic scope.

To avoid and minimize potential impacts to reptiles from CSP Project construction activities such as native vegetation clearing and grubbing, grading, and earth-moving, SCE would implement APM BIO-GEN-1: Pre-construction Biological Clearance Survey and Monitoring, which includes pre-construction biological surveys and flagging boundaries of areas supporting native vegetation and special-status reptiles for avoidance, when feasible. SCE would also implement APM WEAP: Worker's Environmental Awareness Training, to ensure contractor understanding and implementation of these protective measures. To reduce impacts to suitable habitat for sensitive reptile species resulting from introduction of noxious and invasive weeds, which may reduce habitat quality for sensitive reptile species, SCE would develop and implement an IPMP as described in APM BIO-RES-2: Develop Invasive Plant Management Plan. If impacts to sensitive reptile habitat cannot be avoided, SCE would implement restoration activities as described in APM BIO-RES-1: Develop Habitat for special-status reptile species if such habitat is removed during CSP Project construction activities. The measures outlined in these APMs would serve to avoid and minimize potential impacts to the northern sagebrush lizard and Panamint alligator lizard. With the implementation of these avoidance measures and APMs, impacts to special-status reptiles would be less than significant.

Birds. Nine special-status bird species were observed along the CSP Project alignment during the wildlife surveys. The California Threatened Swainson's hawk was observed nesting within 85 feet of the CSP Project alignment southwest of the town of Chalfant Valley in Segment 4; this location is more than 6,300 feet north of the nearest construction work area in Segment 5. Based on CNDDB nesting records, Swainson's hawks have a moderate to high potential to nest in large trees or on nearby cliffs or on structures in limited locations along the CSP Project alignment in the Chalfant Valley in Segment 4, along the Owens River in Segments 2, 3 and 4, at the Deep Springs Substation in Deep Springs Valley in Segment 5, and in the Fish Lake Valley in Segment 3 (CNDDB 2020). The CDFW CSC yellow warbler and yellow-headed blackbird were observed during the special-status surveys within the CSP Project alignment in association with rivers, streams, and wetlands and have the potential to nest in these areas in Segments 3 and 4 (CNDDB 2020).

The Federally Threatened and California Endangered western yellow-billed cuckoo was not observed during the special-status wildlife surveys, but marginal suitable breeding and foraging habitat occurs along the CSP Project alignment near the Owens River in Segments 3 and 5. None of the locations where the Owens River and Segments 3 and 4 overlap provide suitable high-quality riparian forest nesting habitat for the western yellow-billed cuckoo, and no nesting birds have been reported along the CSP Project alignment (Figureset 5.4-5).

The CDFW CSC olive-sided flycatcher and loggerhead shrike were both observed within the CSP Project alignment and both nest in upland dense wooded habitats, but there are no nesting records for either species within the alignment or nearby. The olive-sided flycatcher may nest in limber pine and Great Basin bristlecone pine forest at upper elevations in the White Mountains in Segment 3, and the loggerhead shrike may nest in suitable habitat in dense shrublands in all Segments.

The California Endangered and CDFW Fully Protected bald eagle and the CDFW Fully Protected golden eagle were not observed within the CSP Project alignment; there is a potential for eagles to nest in trees and on nearby cliffs or on structures within the alignment, especially in Segment 3. Potential nesting habitat for the California Threatened bank swallow, which was also not observed, occurs in one location where a 2013 CNDDB nesting record overlaps the CSP Project alignment north of the Owens River in Segment 4 (CNDDB 2020); this location is more than two miles from the nearest construction work area in Segment 5.

No burrowing owls or their sign were observed along the CSP Project alignment during the special-status wildlife surveys. Suitable nesting habitat includes grasslands, fallow agricultural fields, and open shrublands

with low-growing vegetation and topography that allows the burrowing owl to see over the vegetation. There is a nesting record near Laws that is more than 100 years old, but only occasional non-nesting observations have been reported since then. This species is not expected to nest within the CSP Project alignment.

Potential nesting and foraging habitat is also present for several avian species that were not observed, including the northern goshawk (*Accipiter gentilis*), northern harrier (*Circus hudsonius*), yellow-breasted chat (*Icteria virens*), and other species protected under the MBTA and CFGC Section 3503.5.

CSP Project construction work activities may potentially impact special-status birds, their nests, and foraging habitats, but no nests of listed avian species were observed during the surveys. Potential impacts to special-status bird species may result from vegetation clearing and ground disturbance within nesting habitat, as well as accidental crushing or burying of ground nests or active burrows by construction vehicles. An increase in vehicle traffic, helicopter noise at work sites as well as along helicopter flight routes, and human presence could result in an interruption of normal bird nesting behaviors or nest abandonment. CSP Project construction work activities may potentially impact the quality of foraging habitat for raptors, passerines, and other special-status bird species that use habitats within the CSP Project area.

Potential impacts to nesting and special-status bird species during construction would be temporary and intermittent in nature (lasting only as long as construction work at a given site) and would be limited in their potential geographic scope.

SCE complies with the MBTA and CFGC Section 3503.5. To ensure compliance and to avoid and minimize potential impacts to special-status avian species from construction activities such as native vegetation clearing and grubbing, grading, and earth-moving, SCE would implement APM BIO-GEN-1: Pre-construction Biological Clearance Survey and Monitoring, which includes pre-construction biological surveys and flagging boundaries of areas supporting native vegetation and special-status bird habitat for avoidance, when feasible, as well as APM WEAP: Worker's Environmental Awareness Training, to ensure contractor understanding and implementation of these protective measures. SCE would develop a Nesting Bird Management Plan per APM BIO-AVI-1; the survey, avoidance, and adaptive management measures in the Plan would reduce impacts to nesting birds along the CSP Project alignment. Avoidance and minimization measures for potential impacts to listed birds in riparian areas are outlined in APM BIO-AVI-2: Listed Riparian Birds. Avoidance and minimization measures for the golden eagle are specifically outlined in APM BIO-AVI-3: Golden Eagle, including survey and nest buffer requirements. Avoidance and minimization measures for the Swainson's hawk are specifically outlined in APM BIO-AVI-4: Swainson's Hawk, including survey and nest buffer requirements. Avoidance and minimization measures for the burrowing owl are provided in APM BIO-AVI-5: Burrowing Owl. In addition, mitigation strategies such as restoration of suitable avian habitat are addressed in APM BIO-RES-1: Develop Habitat Restoration and Revegetation Plan, and reduction of weed competition with important plant species in APM BIO-RES-2: Develop Invasive Plant Management Plan.

With the implementation of these APMs, impacts to special-status birds would be less than significant.

Mammals. Desert bighorn sheep were observed within the CSP Project alignment in two locations within Silver Canyon in Segment 3 in the White Mountains, where known herds occur.

Suitable habitat for the Owens Valley vole—groundwater dependent marshes—is restricted to Segments 3 and 5. Suitable habitat for the American badger could be present along all Segments, although no sign was observed for this species and there are no recent records of this species within the CSP Project alignment area. In addition, special-status bats may also occur along the CSP Project alignment. No potential roosting habitat for bats was observed during surveys, and none would be directly impacted by

work activities. Minimal suitable bat foraging habitat is located along the CSP Project alignment, and the area of suitable foraging habitat that would be disturbed during construction is negligible in comparison to the available habitat in the surrounding area.

Potential impacts to special-status mammal species may result from ground disturbing activities that can include vehicle or equipment strikes, individuals falling into excavation areas, and by the reduction of refugia habitats as well as accidental crushing or burying of active burrows by construction vehicles and activities. Bighorn sheep require habitat connectivity within their home range to move uninhibited to foraging areas and water sources, and construction activities may interfere with their seasonal movement. Increased human presence within habitat, helicopter noise at work sites as well as along helicopter flight routes, and construction during migratory periods could result in disruption of migratory behaviors of bighorn sheep. Ground-disturbing activities have the potential to increase colonization of weed species and reduce native vegetation. Incidental introductions of invasive non-native weeds have the potential to reduce habitat quality in the immediate area and beyond through direct competition and occupation of prime germination sites of prime forage species.

Potential impacts to special-status mammal species during construction of the CSP Project would be temporary and intermittent in nature (lasting only as long as construction work at a given site) and would be limited in their potential geographic scope.

To generally avoid and minimize potential impacts to special-status mammal species during construction, SCE would implement APM BIO-GEN-1: Pre-construction Biological Clearance Survey and Monitoring, which includes pre-construction biological surveys and flagging boundaries of areas supporting native vegetation and special-status mammal burrows, watering holes, and other habitat for avoidance, when feasible, as well as APM WEAP: Worker's Environmental Awareness Training, to ensure contractor understanding and implementation of these protective measures. In addition, mitigation strategies such as restoration of native habitat and forage species—which would reduce indirect impacts by restoring native habitat and reducing weed competition with important habitat and forage plant species upon which mammalian species rely—are addressed in APM BIO-RES-1: Develop Habitat Restoration and Revegetation Plan and APM BIO-RES-2: Develop Invasive Plant Management Plan. Implementation of these APMs would serve to reduce direct and indirect impacts to all mammals.

To minimize impacts to desert bighorn sheep, SCE would implement measures contained in APM BIO-MAM-1 Bighorn Sheep (Nelson's/Desert). These measures are designed to avoid and minimize impacts to desert bighorn sheep, including performing pre-construction surveys to identify the presence of desert bighorn sheep, monitoring for sheep during construction, seasonal restrictions on work in certain areas, prescribing helicopter use and travel routes, and other measures.

To avoid and minimize potential impacts to bat species, SCE would perform the pre-construction surveys and construction monitoring detailed in APM BIO-MAM-2: Bats, Common and Sensitive Species. This APM would be implemented in areas where special-status bats are identified.

Implementation of APM WET-1: Avoid and/or Minimize Impacts to Waters and Wetlands, would ensure minimization of impacts to wetlands and riparian areas, and thus would serve to reduce potential direct and indirect impacts to the Owens Valley vole.

With the implementation of these APMs, impacts to special-status mammals would be less than significant.

Invertebrates. No special-status invertebrate species were observed during the special-status wildlife surveys. One special-status invertebrate species (California floater) has the potential to occur along the

CSP Project alignment in Segments 3 and 4 in areas of flowing or standing water in the Owens River and its tributaries. It was observed in 2000 in the "Owens River at Bishop Creek Canal and Bishop Creek Canal from the Owens River to Dixon Lane north of Bishop;" this area overlaps the CSP Project alignment (CNDDB 2020). Only one other special-status invertebrate, the Morrison bumble bee, has observation records that overlap the CSP Project alignment, but records are all over 50 years old and this species is not expected to occur.

Potential impacts to the California floater are likely to be negligible because no in-water work is included in the CSP Project. Therefore, no impacts to special-status aquatic mollusks are anticipated. If present, potential impacts to the California floater could result from accidental sedimentation of aquatic habitat. Where CSP construction work areas are located in or proximate to suitable habitat for the California floater, SCE would implement APM WET-1: Avoid and/or Minimize Impacts to Waters and Wetlands, to ensure minimization of impacts to wetlands and riparian areas, and thus would serve to reduce potential direct and indirect impacts to the California floater.

To avoid potential impacts to other special-status invertebrate species, SCE would implement the APM BIO-GEN-1: Pre-Construction Biological Clearance Survey and Monitoring and APM WEAP: Worker's Environmental Awareness Training. In addition, restoring native habitat and reducing weed competition with important native plant species upon which some special-status invertebrate species rely—are addressed in APM BIO-RES-1: Develop and Implement Habitat Restoration and Revegetation Plan (HRRP) and APM BIO-RES-2: Develop Invasive Plant Management Plan. Implementation of these APMs would serve to reduce direct and indirect impacts to native invertebrates. These APMs contain measures, including pre-construction surveys, construction monitoring, flagging and avoidance measures, to protect special-status amphibians. With the implementation of these APMs, impacts to special-status invertebrates would be less than significant.

5.4.4.1.1.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines included in the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project. Impacts to species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS are not anticipated to occur due to O&M activities, and therefore no impacts would be realized under this criterion during O&M.

5.4.4.1.2 Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

5.4.4.1.2.1 Construction

Less Than Significant Impact with Mitigation. Thirty-six vegetation alliances and 55 associations were observed within the CSP Project alignment, including 26 sensitive natural communities covering 302.4 acres. Twenty-two of these sensitive natural communities occur in construction work areas, and anticipated impacts to sensitive vegetation as a result of construction activities total approximately 118.1 acres, as shown in Table 5.4-8.

	Vacatotian Association	Total Area Mapped	Area Mapped within	California	
Vegetation Alliance	(if present)	on CSP Project	Anticipated work A reas (acres) ¹	State Karity Ranking	
Woodland and Forest Vegetat	tion	angiment (acres)	Areas (acres)	Naiikiiig	
Bristlecone pine woodland	Pinus longaeva Association	22.9	15.4	<u>\$2</u>	
Aspen groves	Populus tremuloides - Pinus longaeva Provisional Association	5.6	3.4	S3	
Limber pine woodland	Pinus flexilis - Pinus longaeva Provisional Association	2.3	1.8	S 3	
Red willow thickets	Salix laevigata Association	0.3	0.2	S 3	
	Total Acres Woodland Vegetation	30.2	19.7		
Shrubland Vegetation					
Small-leaf mountain mahogany scrub	Cercocarpus intricatus Association	3.8	2.7	S2	
Water birch thicket	Betula occidentalis / Salix spp. Association	1.6	1.3	S2	
Bitter brush scrub	Purshia tridentata var. glandulosa - Artemisia tridentata ssp. vaseyana Association	19.4	11.8	S 3	
	Psorothamnus arborescens - Sarcobatus baileyi Provisional Association	10.9	0.0	Yes ²	
Fremont's and Nevada	<i>Psorothamnus arborescens</i> Provisional Association	107.2	19.2		
Smokedush Scrud	Psorothamnus polydenius - Atriplex confertifolia Provisional Association	2.7	0.0		
	<i>Psorothamnus polydenius</i> Provisional Association	7.6	0.1		
Utah serviceberry - alderleaf mountain-mahogany - littleleaf mountain-mahogany scrub	Philadelphus microphyllus var. microphyllus Provisional Association	2.0	0.7	S3 2	
Winterfat scrubland	Krascheninnikovia lanata Association	3.2	1.1	S 3	
Interior rose thickets	Rosa woodsii Provisional Association	2.4	1.8	S 3	
	Menodora spinescens Association	6.3	1.0	S3	
Spiny menodora scrub	Menodora spinescens - (Ephedra nevadensis) Association	1.9	1.7	S 3	
Shadscale Scrub	Atriplex confertifolia – Krascheninnikovia lanata Association	17.8	10.9	Yes ²	
Shadscale Scrub	Atriplex confertifolia - Psorothamnus arborescens Provisional Association	12.6	2.6	Yes ²	
	Salix lasiolepis Association	53.8	35.4	Yes ²	
Arroyo willow thickets	Salix lasiolepis / Rosa woodsii / mixed herbs Association	0.5	0.4	Yes ²	
Fourwing saltbush scrub	Atriplex canescens - Psorothamnus arborescens Provisional Association	0.6	0.4	Yes ²	
Greasewood scrub	Sarcobatus vermiculatus - Atriplex confertifolia Association	5.2	0.0	Yes ²	
	Total Acres Shrubland Vegetation	259.6	91.2		
Herbaceous					
Alkali sacaton - scratchgrass - alkali cordgrass alkaline wet meadow	Muhlenbergia asperifolia - Distichlis spicata Provisional Association	6.1	3.1	S2	

Vegetation Alliance	Vegetation Association (if present)	Total Area Mapped on CSP Project alignment (acres)	Area Mapped within Anticipated Work Areas (acres) ¹	California State Rarity Ranking
Yerba mansa - Nuttall's sunflower - Nevada goldenrod alkaline wet meadows	Anemopsis californica Association	0.1	0.0	S2
Ashy ryegrass – creeping ryegrass turfs	Leymus triticoides Association	6.2	5.0	S 3
Hardstem and California bulrush marshes	Schoenoplectus acutus Association	0.2	0.1	S3S4, Yes ²
	Total Acres Herbaceous Vegetation	12.6	7.2	
	Total Acres Sensitive Native Vegetation	302.4	118.1	

 Table 5.4-8: Potential Impacts to Sensitive Natural Communities

Notes:

1 As of April 2019

2 Alliance is not sensitive, but the association is sensitive on the 2019 CDFW Sensitive Natural Communities list

The CSP Project is anticipated to result in impacts to sensitive natural communities. These impacts would result from rehabilitating/upgrading existing access roads to meet current construction and O&M standards, from the installation of replacement structures, and from the removal of existing structures.

Construction activities, including grading, vegetation clearing and grubbing, earth-moving, rehabilitation of existing access roads, establishment of pull sites and laydown areas, and vehicle traffic may result in the direct crushing or burial of individual plants, along with erosion and/or sedimentation that may alter the existing habitat. Construction-related traffic may create dust that adheres to leaves and interferes with photosynthesis and plant reproduction. Topsoil impacted from grading may contain seeds, bulbs, nutrients, and mycorrhizae that plant species may utilize for survival and for maintaining sustainable colonies in an area. Incidental introductions of invasive non-native weeds as a result of construction activities have the potential to reduce habitat quality in the immediate area and beyond through direct competition and occupation of prime germination sites. Higher non-native plant cover, especially invasive grasses, may also facilitate fires in the area.

To avoid and minimize potential impacts to special-status natural communities from construction activities such as native vegetation clearing and grubbing, grading, and earth-moving, SCE would implement APM BIO-GEN-1: Pre-construction Biological Clearance Survey and Monitoring, which includes pre-construction biological surveys and flagging boundaries of areas supporting native vegetation and sensitive natural communities for avoidance, when feasible, as well as APM WEAP: Worker's Environmental Awareness Training, to ensure contractor understanding and implementation of these protective measures. SCE would also implement two measures that focus on avoiding and minimizing potential impacts to special-status herbaceous species, shrubs, trees, and cacti, which may be important components of natural communities in project work areas: APM BIO-BOT-01: Special-status Herbaceous Plants and APM BIO-BOT-02: Special-status Tree/Shrubs/Cactus. In addition, mitigation strategies such as special-status plant species restoration are addressed in APM BIO-RES-1: Develop Habitat Restoration and Revegetation Plan and reduction of weed competition with special-status plant species in APM BIO-RES-2: Develop Invasive Plant Management Plan. Implementation of APM WET-1: Avoid and/or Minimize Impacts to Waters and Wetlands, would ensure minimization of impacts to special-status natural communities occurring in wetlands and riparian areas.

With the implementation of these APMs, impacts to sensitive natural communities would be less than significant.

5.4.4.1.2.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines included in the CSP Project. No material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project. Modifications of or impacts to sensitive natural communities beyond those that may currently be realized are not anticipated as a result of the CSP Project, and therefore no impacts would be realized under this criterion during O&M.

5.4.4.1.3 Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means?

5.4.4.1.3.1 Construction

Less Than Significant Impact with Mitigation. During the initial design of the CSP Project, SCE has sited structures and located and oriented construction work areas to avoid state and federal jurisdictional waters and wetlands to the extent feasible.

However, construction of the CSP Project would result in temporary and permanent impacts on state and federal jurisdictional wetlands and waters. Temporary impacts would occur during the removal of existing subtransmission structures that are located in jurisdictional wetlands and waters (see Appendix C), during installation of replacement structures (if such features cannot be avoided), and during the establishment of temporary construction areas such as pulling and tensioning sites. Permanent impacts on jurisdictional wetlands and waters would occur from rehabilitation/upgrading of existing access and spur roads that are routed through jurisdictional waters (which may include widening the existing access and spur roads to meet SCE's access road standards for construction), and from the unavoidable installation of replacement subtransmission structures in wetlands and waters. Approximately 0.05 acres of wetlands would be impacted by the rehabilitation/upgrading of existing access and spur roads to road rehabilitation/upgrading would be sited in jurisdictional features. Approximately 68 poles would be removed from jurisdictional wetlands and waters, and 41 similarly-sized poles would be installed, resulting in a net reduction of 27 poles and a net reduction of approximately 81 square feet of impacts to jurisdictional waters and wetlands.

Temporary impacts within vegetated jurisdictional features include overland travel, equipment staging, material laydown, foot traffic, structure replacement, etc. Temporarily disturbed areas would be restored in-place to pre-project contours, topsoil salvage and replacement (which allows natural recruitment reseeding), and where necessary, revegetation, as described in APM BIO-RES-1: Develop Habitat Restoration and Revegetation Plan. Recontouring would restore preexisting hydrological function to the system. Revegetation of temporarily disturbed overland travel routes would be unnecessary because overland travel methods would preserve the root mass of existing woody vegetation to allow crown resprouting to occur.

Temporary impacts on riparian vegetation under the jurisdiction of CDFW would occur during the removal of existing subtransmission structures that are located in CDFW jurisdictional waters, during installation of replacement structures (if such features cannot be avoided), and during the establishment of temporary construction areas such as pulling and tensioning sites. Permanent impacts on riparian vegetation under the jurisdiction of CDFW would occur during rehabilitation/upgrading of existing access and spur roads that are currently routed through CDFW jurisdictional waters (which may include widening the existing access and spur roads to meet SCEs standards for construction), and from the unavoidable installation of replacement subtransmission structures in CDFW jurisdictional waters.

The extent of temporary and permanent impacts to jurisdictional areas is presented in Table 5.4-9.

Feature	Temporary Impacts (acres)	Permanent Impacts (acres)
404 wetlands	6.7	0.03
404 other waters	12.3	0.2
CDFW 1602	58.2	0.8
Total	77.2	1.03

SCE would obtain all necessary permits and authorizations, including those from the USACE, RWQCB, and CDFW prior to construction. SCE would comply with all conditions of approval identified in permits and authorizations. Further, SCE would develop and implement one or more project-specific SWPPP(s) that would include BMPs to prevent erosion and sedimentation into wetlands and streams and that would protect water quality during construction. Compliance with such typical conditions is reflected in the measures contained in APM WET-1; through implementation of this APM, SCE would avoid or minimize impacts to all state and federally jurisdictional waters, wetlands, and riparian habit by siting activities outside these areas, implementing appropriate BMPs, mitigating for permanent impacts, and performing restoration for temporary impacts. With the implementation of APM WET-1, implementation of the CSP Project-specific SWPPP, and compliance with permits and authorizations issued for the CSP Project, impacts on jurisdictional waters would be less than significant.

5.4.4.1.3.2 Operations

Less Than Significant Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines included in the CSP Project; no material changes in O&M activities or the locations of these activities are anticipated with implementation of the CSP Project.

Operation and maintenance activities typically do not impact water quality nor result in discharges to waters as ground-disturbing activities are not usually required for O&M. However, if ground disturbance would be necessary, BMPs would be implemented to protect resources from any discharges, and affected areas would be restored to pre-disturbance conditions. With the implementation of BMPs and the restoration of affected areas to pre-disturbance conditions, O&M activities are not expected to result in the impact of federally protected waters and drainages. In addition, if it is necessary to conduct any work within a channel or to remove riparian vegetation, the work would require approval from the USACE, RWQCB or CDFW as well as adherence to any permit conditions associated with that approval. Therefore, impacts would be less than significant.

5.4.4.1.4 Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites?

5.4.4.1.4.1 Construction

Less Than Significant Impact. No in-water work is included in the CSP Project; therefore, no specialstatus fish or other aquatic species would be affected by Project activities.

Desert bighorn sheep were observed along the CSP Project alignment in two locations in Silver Canyon in Segment 3 in the White Mountains, where known herds occur. Bighorn sheep require habitat connectivity within their home range to move uninhibited to foraging areas and water sources, and construction activities may interfere with their seasonal movement. Increased human presence within habitat and removal of vegetation during migratory periods could result in disruption of migratory behaviors of bighorn sheep. Ground-disturbing activities have the potential to increase colonization of weed species and reduce native vegetation. Incidental introductions of invasive non-native weeds have the potential to reduce habitat quality in the immediate area and beyond through direct competition and occupation of prime germination sites of prime forage species.

SCE would implement APM BIO-MAM-1: Bighorn Sheep (Nelson's/Desert), which includes specific measures to avoid and minimize impacts to desert bighorn sheep, including pre-construction surveys, construction monitoring, seasonal work restrictions, helicopter use restrictions, and other measures.

Replacement subtransmission structures would be installed proximate to existing subtransmission structures, or in new alignments immediately adjacent to the existing subtransmission line alignments. Due to their small cross-sections, replacement structures themselves would not interfere with the movement of any species or corridor, and no structures are located on a known native wildlife nursery site. Construction activities would be temporary and would affect only small, geographically-dispersed areas at any one time; these construction activities would not interfere substantially with the movement of any wildlife species, although construction activities may interfere with the movement of individual animals.

With the implementation of these avoidance measures and APMs, impacts to bighorn sheep would be less than significant.

5.4.4.1.4.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines included in the CSP Project. Given the periodic but infrequent nature of these continuing operations, no impacts would occur under this criterion.

5.4.4.1.5 Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

5.4.4.1.5.1 Construction

Less than Significant Impact. As presented in Section 5.4.2.1.3 above, the Inyo County General Plan and Mono County General Plan both contain policies intended to protect biological resources, including sensitive natural communities, special status species, riparian habitat and wetlands, and wildlife corridors and to protect against the spread or introduction of noxious weed species. Implementation of the APMs described in Sections 5.4.4.1.1 through 5.4.4.1.4 above would ensure the protection of the resources identified in the Inyo County and Mono County General Plans or the minimization of impacts to said resources, and thus less than significant impacts would be realized under this criterion.

5.4.4.1.5.2 Operations

No Impact. As presented in Chapter 3, SCE is currently performing O&M activities, including inspections, along the subtransmission lines included in the CSP Project. Given the periodic but infrequent nature of these continuing operations, no new impacts would occur under this criterion.

5.4.4.1.6 Would the Project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

5.4.4.1.6.1 Construction

No Impact. There are no adopted HCPs or NCCPs within the CSP Project alignment, and no known approved local, regional, or state habitat conservation plans covering the CSP Project alignment. Therefore, there would be no impacts under this criterion.

5.4.4.1.6.2 Operations

No Impact. There are no adopted HCPs or NCCPs within the CSP Project alignment, and no known approved local, regional, or state habitat conservation plans covering the CSP Project alignment. Therefore, there would be no impacts under this criterion.

5.4.4.1.7 Would the project create a substantial collision or electrocution risk for birds or bats?

5.4.4.1.7.1 Construction

Less than Significant Impact. The CSP Project will introduce into the environment, temporarily, construction equipment that, by its presence and use, could present a collision risk for birds or bats; such equipment would not create any electrocution risk. Because construction equipment is large, solid, generally non-static, and highly visible, the collision risk for birds or bats is anticipated to be very low; therefore, a less than significant impact would occur under this criterion.

5.4.4.1.7.2 Operations

Less than Significant Impact. Following construction, 858 fewer poles will be present along the CSP Project alignment; the removal of these poles will reduce the collision risk for birds and bats. Further, no new lengths of conductor will be installed under the CSP Project; the numbers and lengths of existing conductor will be replaced with the same numbers and lengths of conductor. The new conductor will have a larger diameter than the existing conductor, which will reduce the collision risk for birds and bats.

The OHGW to be installed under the CSP Project will be of a diameter roughly equivalent to that of the existing conductor; the OHGW represents new overhead wire along the CSP Project alignment, as OHGW is not currently installed. While the OHGW will be new feature in the environment, it is not anticipated to present a substantial collision risk for birds or bats. Therefore, the CSP Project is not anticipated to present a substantial collision or electrocution risk for birds or bats.

Further, as presented in APM BIO-AVI-6, all transmission and substation facilities for the project will be designed to be avian-safe, following the intent of Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (APLIC 2006). All transmission facilities will be evaluated for potential collision risk and, where determined to be high risk, lines will be marked with collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012).

5.4.4.2 Quantify Habitat Impacts

Habitat impacts are quantified in the impact analysis above.

5.4.4.3 Special-Status Species Impacts

Impacts to special-status species are addressed in the impact analysis above.

5.4.4.4 Wetland Impacts

Impacts to wetlands are addressed in the impact analysis above.

5.4.4.5 Avian Impacts

Impacts to avian species are addressed in the impact analysis above.

5.4.5 CPUC Draft Environmental Measures

The CPUC has not identified any biological resources-related draft environmental measures.

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LEGEND

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- SUBSTATION LOCATION
- ACCESS ROADS

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100 FOOT RADIUS TOWER BUFFER

SURVEY AREA

Notes:

- * Sensitive Alliance
- ** Sensitive Association within Non-sensitive Alliance

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HABITAT DESIGNATIONS

PEAK PROJECT











CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

ARCADIS Design & Consul for natural and built assets FIGURESET: **5.4-1**



Vegetation Alliance and Associations

(18)

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Alkali Sacaton - Scratchgrass -Alkali Cordgrass Alkaline Wet Meadow (Sporobolus airoides -Muhlenbergia asperifolia - Spartina

gracilis Herbaceous Alliance), Muhlenbergia asperifolia - Distichlis spicata Provisional Association*

Jam Blane Rd

- Allscale Scrub (Atriplex polycarpa Shrubland Alliance), Atriplex polycarpa Association
- Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance), Salix lasiolepis Association**
- Ashy Ryegrass Creeping Ryegrass Turfs (Leymus cinereus -Leymus triticoides Herbaceous Alliance), Leymus triticoides

Association*

13a

Baltic and Mexican Rush Marshes (Juncus arcticus [var. balticus, mexicanus] Herbaceous Alliance), Juncus arcticus var. balticus – (var. mexicanus) Association

Cattail Marshes (Typha [angustifolia, domingensis, latifolia] Herbaceous Alliance), Phragmites australis ssp. americanus Provisional Association

Cattail Marshes (Typha [angustifolia, domingensis, latifolia] Herbaceous Alliance), Typha (latifolia, angustifolia) Association

Cheesebush - Sweetbush Scrub (Ambrosia salsola - Bebbia juncea Shrubland Alliance), Ambrosia salsola Association

Disturbed Habitat (Ruderal Vegetation)

34 21 ¹³ ^{13a}

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26 18a

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Fourwing SaltbushScrub (Atriplex canescens Shrubland Alliance), 18a Atriplex canescens - Psorothamnus arborescens Provisional Association**

Fourwing SaltbushScrub (Atriplex canescens Shrubland Alliance), Atriplex canescens Association

Fremont's and Nevada Smokebush Scrub (Psorothamnus fremontii -Psorothamnus polydenius Provisional Shrubland Alliance), Psorothamnus polvdenius Provisional Association**

Fremont's and Nevada Smokebush 19

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Scrub (Psorothamnus fremontii -Psorothamnus polydenius Provisional Shrubland Alliance), Psorothamnus arborescens Provisional Association*

19

Greasewood Scrub (Sarcobatus vermiculatus Shrubland Alliance), Sarcobatus vermiculatus Association

Hardstem and California Bulrush Marshes (Schoenoplectus [acutus, californicus] Herbaceous Alliance), Schoenoplectus acutus Association*

Interior RoseThickets (Rosa woodsii Shrubland Alliance), Rosa woodsii **Provisional Association***

Nevada Joint Fir – Anderson's Boxthorn – Spiny Hop Sage Scrub (Ephedra nevadensis – Lycium andersonii – Grayia spinosa Shrubland Alliance), Ephedra nevadensis Association



28 Ornamental/Landscaped

Quailbush Scrub (Atriplex lentiformis Shrubland Alliance), 29 Atriplex lentiformis Association

(3)

Rubber Rabbitbrush Scrub (Ericameria nauseosa Shrubland 32 Alliance), Ericameria nauseosa Association

Salt Grass Flats (Distichlis spicata Herbaceous Alliance), Distichlis 33a spicata - annual grasses Association

Salt Grass Flats (Distichlis spicata Herbaceous Alliance), Distichlis 33 spicata Association

Sandbar Willow Thickets (Salix exigua Shrubland Alliance), Salix 342 exigua - (Salix gooddingii) Provisional Association

Sandbar Willow Thickets (Salix exigua Shrubland Alliance), Salix exigua Association

Yerba Mansa - Nuttall's Sunflower -Nevada Goldenrod Alkaline Wet Meadows (Anemopsis californica -Helianthus nuttallii - Solidago spectabilis Herbaceous Alliance), Anemopsis californica Association*



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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

FIGURESET:

5.4-1

ARCADIS Design & Consul for natural and built assets







HABITAT DESIGNATIONS

FIGURESET:

5.4-1

ARCADIS Design & Consul for natural and built assets





Vegetation Alliance and Associations



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Arroyo Willow Thickets (*Salix lasiolepis* Shrubland Alliance), *Salix lasiolepis* Association**

Baltic and Mexican Rush Marshes (*Juncus arcticus [var. balticus, mexicanus*] Herbaceous Alliance), *Juncus arcticus var. balticus – (var. mexicanus)* Association

Bristlecone Pine Woodland (*Pinus longaeva* Woodland Alliance), *Pinus longaeva* Association*

Curl Leaf Mountain Mahogany Scrub (Cercocarpus ledifolius
15 Shrubland Alliance), Cercocarpus ledifolius – Artemisia tridentata subsp. vaseyana Association

Interior RoseThickets (Rosa woodsii Shrubland Alliance),
 Rosa woodsii Provisional Association*



- Vaseyana Association Sandbar Willow Thickets (Salix
- 4 *exigua* Shrubland Alliance), *Salix exigua* Association

Singleleaf Pinyon – Utah Juniper Woodlands (*Pinus monophylla –* [Juniperus osteosperma] Woodland Alliance), *Pinus*

36 monophylla – (Juniperus osteosperma) / Artemisia tridentata ssp. Vaseyana Association

> Utah Serviceberry - Alderleaf Mountain-mahogany - Littleleaf Mountain-mahogany (Amelanchier utahensis -

40 Cercocarpus montanus -Cercocarpus intricatus Provisional Shrubland Alliance), Philadelphus microphyllus Provisional Association*

16 Developed





<u>LEGEND</u>

- STRUCTURE LOCATION
- SUBSTATION LOCATION
- ACCESS ROADS

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100 FOOT RADIUS TOWER BUFFER

SURVEY AREA

Notes:

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- * Sensitive Alliance
- ** Sensitive Association within Non-sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

FIGURESET:







- STRUCTURE LOCATION
- SUBSTATION LOCATION
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SURVEY AREA

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* Sensitive Alliance

** Sensitive Association within Non-sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

FIGURESET:















- STRUCTURE LOCATION
- SUBSTATION LOCATION
- ACCESS ROADS



100 FOOT RADIUS TOWER BUFFER

SURVEY AREA

Notes:

* Sensitive Alliance

** Sensitive Association within Non-sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS



FIGURESET: **5.4-1**



32

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(19) (19)

Vegetation Alliance and Associations



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 Fourwing SaltbushScrub (Atriplex
 canescens Shrubland Alliance), Atriplex canescens Association
 Fremont's and Nevada Smokebush Scrub (Psorothamnus fremontii Psorothamnus polydenius

Provisional Shrubland Alliance), Provisional Shrubland Alliance), Psorothamnus arborescens Provisional Association**

Greasewood Scrub *(Sarcobatus vermiculatus* Shrubland Alliance), *Sarcobatus vermiculatus* Association

Mountain Big Sagebrush (Artemisia tridentata ssp. vaseyana Shrubland Alliance), Artemisia tridentata ssp. Vaseyana Association



Quailbush Scrub (*Atriplex* 29 *lentiformis* Shrubland Alliance), *Atriplex lentiformis* Association

Rubber Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance), *Ericameria nauseosa* Association

Shadscale Scrub (Atriplex
 confertifolia Shrubland Alliance),
 Atriplex confertifolia Great Basin
 Association

16 Developed



<u>LEGEND</u>

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- ACCESS ROADS

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* Sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

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- STRUCTURE LOCATION
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SURVEY AREA

Notes:

* Sensitive Alliance

** Sensitive Association within Non-sensitive Alliance







CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

FIGURESET:







- STRUCTURE LOCATION
- SUBSTATION LOCATION
- ACCESS ROADS



100 FOOT RADIUS TOWER BUFFER

SURVEY AREA

Notes:

* Sensitive Alliance

** Sensitive Association within Non-sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS

FIGURESET:







- STRUCTURE LOCATION
- SUBSTATION LOCATION
- ACCESS ROADS

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100 FOOT RADIUS TOWER BUFFER

SURVEY AREA

Notes:

* Sensitive Alliance

** Sensitive Association within Non-sensitive Alliance

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CONTROL-SILVER PEAK PROJECT

HABITAT DESIGNATIONS









