

National Park Service
U.S. Department of the Interior

Joshua Tree National Park
California



Southern California Edison Utah 12 kV Relocation Project: Phase I and Phase II

February 2019



Background and Conclusion

The National Park Service (NPS) is considering issuance of a right-of-way (ROW) permit to Southern California Edison (SCE) to maintain and operate a buried 12 kilovolt (kV) distribution line (referred to by SCE as the Utah 12 kV distribution line) in Joshua Tree National Park (JTNP) as well as issue a Special Use Permit (SUP) to replace a 5.21 mile section of this 8.41 mile line. A Right-of-Way Permit (ROW permit) from the National Park Service (NPS) is a permit issued by the NPS to a third party to pass over, under, or through an NPS owned or controlled area, is discretionary and revocable, and does not convey or imply any interest in the land. NPS ROW permits may be issued to authorize operation and maintenance of most common utilities, such as telephone, fiber, water, and power lines, as well as cellular antennas and associated equipment, such as cell towers.

The existing distribution line was installed in the 1960s prior to establishment of the currently defined JTNP in a mostly natural landscape, not adjacent to any roads or other utility corridors. The line supplies power to federal and local users including JTNP, the Federal Aviation Administration (FAA), and county emergency services each of which maintain independent communication facilities. The existing line was authorized through a BLM grant; in 1994, a section of the line was transferred to NPS ownership through the California Desert Protection Act. The BLM grant expired in 2014 and SCE did not procure a new permit with the NPS; they are currently operating under an expired permit. The existing line is deteriorating with age, creating maintenance problems for SCE and increasing the potential for future outages; consequently, it must be replaced to ensure that a reliable power supply is available to the users. Moreover, because the existing line is within a natural area without road access, maintenance access is difficult. SCE is requesting permission to relocate the line from its existing alignment to one along the shoulder of Park Boulevard, and to decommission and abandon the existing line in place. The NPS's proposed action is to authorize an NPS ROW permit and to replace the line in a way that minimizes impacts on natural and cultural resources during construction and future operation of the line.

This environmental assessment examines two alternatives: the No-Action Alternative and the proposed action. The proposed action would establish a ten-year right of way permit (ROW) to operate and maintain the 12kV buried distribution line consisting of a 5' wide, 8.41 mile corridor. This action includes two construction phases: Phase 1 would entail installation of a new 12 kV underground electrical line, beginning at the north end of the park along Park Boulevard and continuing south to a point near the park's operations and maintenance facility near the corner of Park Boulevard and Pinto Basin Road. The line would be installed approximately 3 feet below grade in the road shoulder (approximately 1-2 feet from the edge of the pavement). In most locations, the road shoulder is previously disturbed and is wide enough to install the new line without removing or disturbing vegetation. Approximately 3,500 linear feet of the proposed route for the new line has little to no road shoulder and some vegetation would be removed or disturbed. No Joshua trees are located within the work area and therefore none would be removed. Phase 2 would entail the decommissioning and abandonment of the existing line. The existing line would be de-energized and capped at both ends, and several at-grade pull boxes currently visible on the surface would be removed to a depth of at least 12 inches, and the remainder of the boxes buried by backfilling with

surrounding soils. Resource protection measures are incorporated into the proposed action to reduce project-related impacts.

The proposed action would have no or negligible impacts on the following resource areas: geohazards/natural hazards, soundscapes, air quality, water quality/quantity, streamflow characteristics, floodplains, wetlands and riparian habitats, land use, ethnographic resources, museum objects/collections, historic structures, socioeconomics, environmental justice, Indian trust assets, and wilderness.

Implementing the proposed action would result in impacts on the following resource areas.

- **Geology—Soils:** localized (i.e., confined to the project area) impacts on soils would be short-term, minor, and adverse.
- **Vegetation:** localized (i.e., confined to the project area) impacts on vegetation would be short-term, moderate, and adverse.
- **Wildlife:** localized impacts on wildlife would be short-term, moderate, and adverse.
- **Special-Status Species:** NPS consulted with the U.S. Fish and Wildlife Service to obtain concurrence with a proposed “may affect, but not likely to adversely affect” determination for the Mojave population of desert tortoise (*Gopherus agassizii*) (federally listed as threatened). The proposed action would also result in short-term, negligible or minor, adverse impacts on special-status species.
- **Visitor Use/Experience and Visitor Safety:** impacts would be short-term, minor, and adverse.
- **Archaeological Resources:** localized impacts on archaeological resources would be short-term, minor, and adverse.
- **Cultural Landscape:** localized impacts would be short-term and long-term, minor, and both adverse and beneficial.
- **Park Management/Operations:** impacts would be short-term, moderate, and adverse.

Public Comment

If you wish to comment on the environmental assessment, you may mail comments to the name and address below or submit comments online at <http://parkplanning.nps.gov/jotr>, the website for the National Park Service’s Planning Environment and Public Comment (PEPC) system. This environmental assessment will be available for public review for 30 days. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we would be able to do so. We would make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Please submit comments using the PEPC system or address written comments to:

Superintendent
Attn: Utah 12kv Relocation Project Comments

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Contents

List of Tables and Figures	vii
List of Acronyms and Abbreviations	viii
Chapter 1 Introduction	1-1
Background.....	1-1
Purpose and Need for the Proposed Action.....	1-1
Purpose and Significance of the Park	1-3
Previous Planning.....	1-4
Scoping.....	1-5
Issues/Impact Topics	1-5
Impact Topics for Further Analysis	1-5
Impact Topics Dismissed from Further Analysis	1-6
Chapter 2 Alternatives	2-1
Alternatives Evaluated in this Document.....	2-1
Alternative A: No-Action Alternative	2-1
Alternative B: Proposed Action.....	2-1
Resource Protection Measures.....	2-8
General Construction Schedule	2-8
Alternatives Considered but Dismissed.....	2-8
Remove Existing Line and Bury New Line in the Same Footprint	2-8
Remove Existing Line and Relocate New Line to Adjacent to Park Boulevard	2-8
Abandon Existing Line in Place and Construct Renewable Energy Source	2-8
Comparison of Alternatives.....	2-9
Chapter 3 Affected Environment	3-1
Geological Resources—Soils.....	3-1
Vegetation	3-1
Native Vegetation	3-2
Nonnative Vegetation	3-2
Wildlife	3-4
Special-Status Species	3-6
Visitor Use/Experience and Visitor Safety.....	3-10
Archaeological Resources.....	3-10
Archaeological Setting	3-10
Archeological Surveys and Historical Studies	3-13
Cultural Landscapes.....	3-15

Park Management and Operations	3-17
Chapter 4 Environmental Consequences	4-1
Methodology	4-1
Type.....	4-1
Context.....	4-1
Intensity	4-1
Duration	4-1
Direct and Indirect Impacts.....	4-2
Cumulative Impacts.....	4-2
Impact Analysis.....	4-2
Geological Resources—Soils	4-2
Vegetation.....	4-5
Wildlife.....	4-7
Special-Status Species.....	4-10
Visitor Use/Experience, Visitor Safety	4-13
Archeological Resources	4-14
Cultural Landscapes	4-16
Park Management/ Operations	4-18
Chapter 5 Consultation and Coordination.....	5-1
Agency Consultation.....	5-1
Native American Consultation.....	5-1
Public Scoping.....	5-2
Environmental Assessment Review and List of Recipients	5-2
Chapter 6 List of Preparers.....	6-1
Joshua Tree National Park.....	6-1
ICF.....	6-1
Chapter 7 References.....	7-1
Appendix A Resource Protection Measures	
Appendix B Concurrence from USFWS	
Appendix C Concurrence from SHPO	
Appendix D Distribution List	

Tables and Figures

Table

1	Alternatives Comparison	2-9
2	Nonnative Plant Species Observed within the Project Area.....	3-4
3	Wildlife Species Observed in the Project Area during Surveys.....	3-4
4	Desert Tortoise Sightings and Sign Observed during 2015 Surveys	3-6
5	Impact Thresholds—Soils.....	4-3
6	Impact Thresholds—Vegetation	4-5
7	Impact Thresholds—Wildlife	4-8
8	Impact Thresholds—Special-Status Species	4-10
9	Impact Thresholds—Visitor Use/Experience and Visitor Safety.....	4-13
10	Impact Thresholds—Archeological Resources.....	4-15
11	Impact Thresholds—Cultural Landscapes.....	4-16
12	Impact Thresholds—Park Management/Operations.....	4-18

Figure

1	Project Area	1-2
2	Proposed Project Phase I and Phase II.....	2-2
3	Typical Structures and Components	2-4
4	Disturbance Areas.....	2-5
5	Representative Photographs of Existing Underground Pull Boxes.....	2-7
6	Vegetation Communities	3-3
7	Desert Tortoise Critical Habitat.....	3-7
8	Special-Status Plant Species.....	3-9

Acronyms and Abbreviations

amsl	above mean sea level
APE	area of potential effect
BLM	Bureau of Land Management
BMP	best management practice
BP	before present
CDFW	California Department of Fish and Wildlife
CDPA	California Desert Protection Act
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CRHT	California Riding and Hiking Trail
DO	Director's Order
EA	environmental assessment
Eagle Act	Bald and Golden Eagle Protection Act
EO	executive order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCR	field contact representative
GHG	greenhouse gas
HDD	horizontal directional drilling
HUC	hydrologic unit code
JTNP	Joshua Tree National Park
kV	kilovolt
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
ROW	right-of-way
SCE	Southern California Edison
SHPO	State Historic Preservation Officer
SWPPP	stormwater pollution prevention plan
USC	United States Code
USFWS	U.S. Fish and Wildlife Service

Background

The National Park Service (NPS) is considering issuance of a right-of-way (ROW) permit to Southern California Edison (SCE) to replace and relocate a buried 12 kilovolt (kV) distribution line in Joshua Tree National Park (JTNP) (Figure 1). The project is generally located on the northern edge of the park near the north entrance station at Park Boulevard. The project being considered is located entirely within the park.¹ The existing buried distribution line was installed in the 1960s in a mostly natural landscape, not adjacent to any roads or other utility corridors. The line supplies power to several users, including JTNP, and to Belle Mountain where the Federal Aviation Administration (FAA), county emergency services, and JTNP all maintain independent communication facilities. The existing line is deteriorating with age, creating maintenance problems for SCE and increasing the potential for future outages; consequently, it must be replaced. Because the existing line is in a natural area without road access, maintenance access is difficult. SCE is requesting permission to relocate the line from its existing alignment to one in the road shoulder of Park Boulevard. The NPS's federal action is to issue the ROW permit allowing SCE to relocate the line. SCE would be responsible for the installation and future maintenance costs of the new line.

Purpose and Need for the Proposed Action

The purpose of the federal action is for NPS to issue a ROW for operation and maintenance of a 12kV electrical distribution line and issue a Special Use Permit to replace 5.2 miles of the line with a new electrical distribution line in a new location adjacent to Park Boulevard. The proposed action is necessary in order to provide a reliable power supply for park, FAA, and county operations. The existing power supply is old and deteriorating and has become unreliable, resulting in potential outages. A Right-of-Way Permit (ROW permit) from the National Park Service (NPS) is a permit issued by the NPS to a third party to pass over, under, or through an NPS owned or controlled area, is discretionary and revocable, and does not convey or imply any interest in the land. NPS ROW permits may be issued to authorize operation and maintenance of most common utilities, such as telephone, fiber, water, and power lines, as well as cellular antennas and associated equipment, such as cell towers.

¹ SCE must also disconnect an existing line from an existing wooden pole on adjacent lands managed by the Bureau of Land Management (BLM); however, this activity is minor and is not a discretionary action. This activity is not subject to analysis in this EA and is not part of JTNP's decision process.

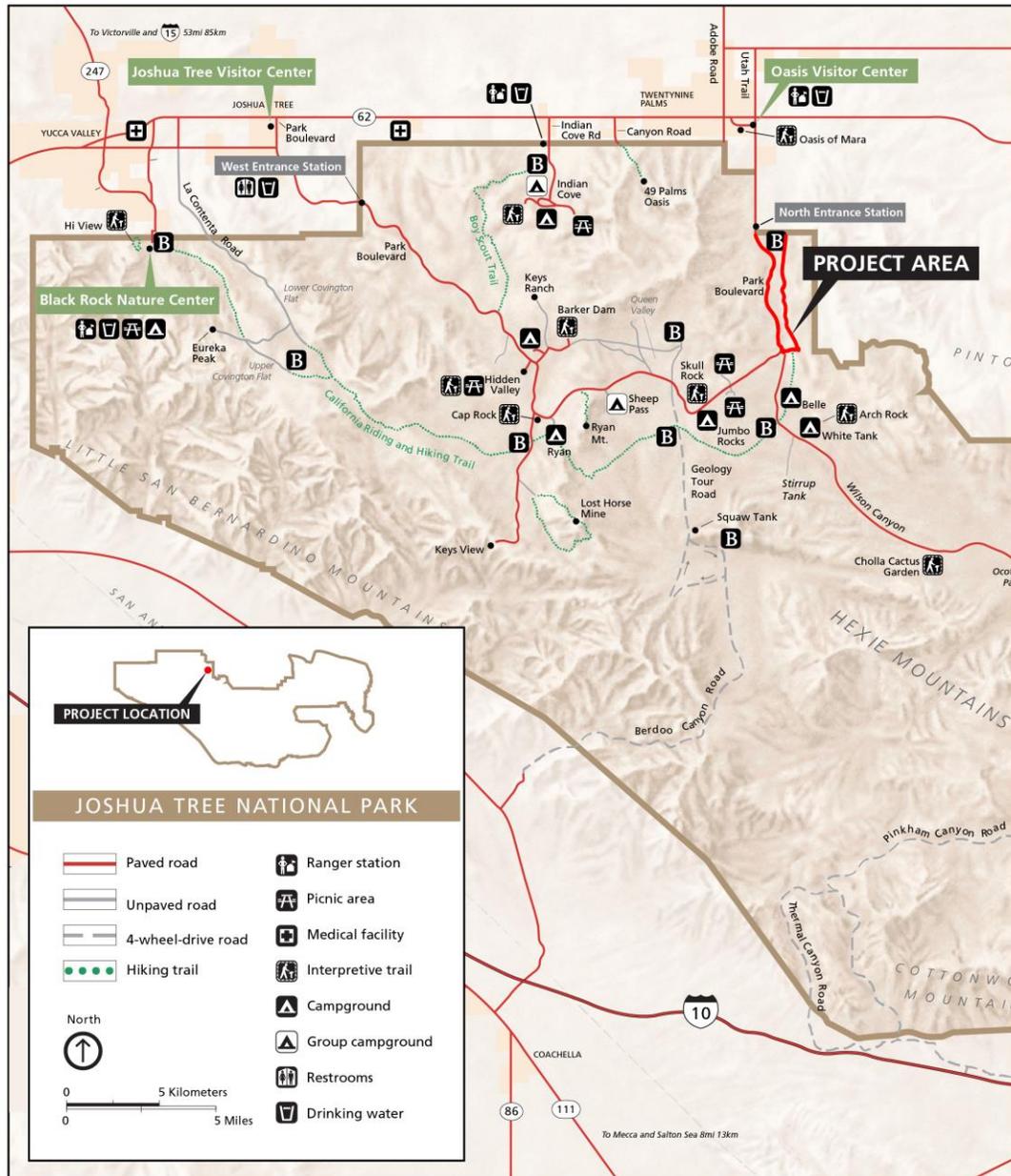


FIGURE 1 - Project Area

Joshua Tree National Park

United States Department of the Interior / National Park Service

Purpose and Significance of the Park

Park Purpose: Joshua Tree National Park preserves and protects the scenic, natural, and cultural resources representative of the Colorado and Mojave deserts' rich biological and geological diversity, cultural history, wilderness, recreational values, and outstanding opportunities for education and scientific study.

Joshua Tree National Park is significant in that it:

1. Preserves a world-renowned, undisturbed population of Joshua trees (*Yucca brevifolia*), an integral component of the Mojave Desert ecosystem.
2. Provides outstanding examples of Mojave and Colorado Desert landscapes that converge at Joshua Tree National Park create a biologically rich system of plant and animal life characterized by iconic Joshua tree woodlands, native palm oases, and vast expanses of creosote scrub that are uniquely adapted to desert conditions. The park also contributes significantly to the connectivity of open lands and large protected areas across the California desert.
3. Provides accessible and diverse opportunities in a remote desert to large and burgeoning urban populations.
4. Preserves a rich array of prehistoric, historic, and contemporary resources that demonstrate the integral connection between desert ecosystems, land use, and human cultures.
5. Lies along one of the world's most active earthquake faults, the San Andreas Fault. Geologic processes, including tectonic activity, have played and continue to play a major role in shaping the mountains, valleys, and basins of the park.
6. Offers unparalleled opportunities for research of arid land ecosystems and processes, adaptations of and to desert life, sustainability, and indications of climate change. The proximity of the park to urban regions of Southern California and Nevada enhances its value for scientific research and education.
7. Protects huge, eroded monzogranite boulder formations which are world-renowned natural features that provide unique aesthetic, educational, and recreational opportunities park visitors.
8. Demonstrates geologic, climatic, and ecological processes that create scenic landscapes unique to deserts and fundamental to the character of the park.

Under the authority of the 1906 Antiquities Act, Joshua Tree National Monument was established as a unit of the national park system by Presidential Proclamation No. 2193 on August 10, 1936 (50 Stat. 1760) because its "lands contain historic and prehistoric structures and have situated thereon various objects of historic and scientific interest . . . it appears that it would be in the public interest to reserve such lands as a national monument, to be known as the Joshua Tree National Monument." While the language in the presidential proclamation indicates a strong cultural resource emphasis, the legislative history reveals that another major reason for the establishment of the monument was the preservation of the natural resources of the Colorado and Mojave deserts. The natural resource preservation emphasis was so strong that the original name contemplated for the monument was Desert Plants National Park (National Park Service 1995).

In 1950, Public Law 81-837, 64 Stat. 1033 reduced the size of Joshua Tree National Monument from approximately 860,000 acres to 560,000 acres, revising the boundaries. Public Law 103-433 in 1994 added 234,000 acres to Joshua Tree National Monument and changed its status from national

monument to national park. The land that was added by the legislation comprises primarily backcountry and wilderness areas. In 1995, NPS adopted a general management plan to administer the developed zone of the former national monument.

Of the park's 794,000 acres, 593,490 acres are legislated wilderness—set aside for the preservation of natural, cultural, historic, and scenic resources. The compressed ecosystem transition zone between the Mojave and Colorado Deserts makes it possible to cross from one desert to the other in less than 65 miles. The park contains all or portions of numerous mountain ranges, including the San Bernardino, Cottonwood, Hexie, Pinto, Coxcomb, and Eagle ranges. The eastern portion averages 2,000 feet above sea level, while the western portion is mostly above 4,000 feet. Extremes in elevation range from 1,000 feet at Pinto Well to 5,900 feet at Quail Mountain. Major valleys include the Pinto Basin, Juniper Flats, Covington Flats, Pleasant, Queen, and Lost Horse.

Through the NPS Organic Act (1916), Congress set forth the purpose of the national park system, which is “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such manner and such means as will leave them unimpaired for the enjoyment of future generations” (16 United States Code [USC] Section 1). Management of the wilderness sections of the park must comply with the Wilderness Act of 1964 and NPS wilderness management policies. NPS management policies state that “Wherever a wilderness area is designated within a park, the preservation of wilderness character and resources becomes an additional statutory purpose of the park” (National Park Service 2006).

Previous Planning

Joshua Tree National Park General Management Plan. The *Joshua Tree National Park General Management Plan* was prepared in 1995 after the park was changed from a monument to a national park by Congressional Action (National Park Service 1995). A park's general management plan provides a vision and policy guidance for the preservation of park resources, visitor use and experience, the types and general intensities of development, visitor carrying capacities, and opportunities to address management issues internal and external to the park. It also identifies connections among various park programs and provides a policy framework for site-specific planning. Upgrades, replacement, or relocation of the Utah 12 kV distribution line or similar types of utility issues were not discussed in the 1995 General Management Plan (GMP). The 2000 *Backcountry and Wilderness Management Plan* addendum to the GMP establishes management zones, defines group size limits, identifies a trail system, provides guidance to manage fixed anchors associated with rock climbing, describes artificial water sources used for wildlife benefit, and allows for overnight parking at select lots for backpacking.

NPS Management Policies 2006. The proposed action is also being evaluated in accordance with NPS's *Management Policies 2006*, which provides guidance for management of all national park lands. ROWs for utilities are addressed in Chapter 8, Section 8.6.4.1, which states:

A right-of-way is a special park use allowing a utility to pass over, under, or through NPS property. It may be issued only pursuant to specific statutory authority, and generally only if there is no practicable alternative to such use of NPS lands. The criteria listed in section 8.2 must also be met. New roads may not be permitted with a right-of-way permit, but require specific statutory authority. Procedures for roads are addressed in section 8.6.4.4. Before a written application is submitted to the park, potential applicants for a right-of-way permit should meet with the staff to discuss the proposed project. Once an application for a right-of-way is submitted, a compliance analysis must be conducted according to NEPA, NHPA, and other statutory compliance requirements as appropriate.

Due to the potentially high costs and values associated with rights-of-way, special attention will be paid to charges and a fair market value for use of the land. Permits will be drafted by park staff and should include terms and conditions necessary to protect park resources and values. New right-of-way permits will be executed by the regional director; conversions from other authorizing documents, amendments, and renewals of existing permits may be signed by the superintendent. A right-of-way permit issued by the Park Service is considered a temporary document and does not convey an interest in the land. The permit is subject to termination for cause or at the discretion of the regional director.

Utilities are further addressed in Chapter 8, Section 8.6.4.2, which states:

Utility rights-of-way over lands administered by the Park Service are governed by statutory authorities in 16 USC 5 (electrical power transmission and distribution, radio and TV, and other forms of communication facilities) and 16 USC 79 (electrical power, telephone, and water conduits). If not incompatible with the public interest, rights-of-way issued under 16 USC 5 or 79 are discretionary and conditional upon a finding by the Service that the proposed use will not cause unacceptable impacts on park resources, values, or purposes.

Management Policies 2006 also provides direction for the protection of park resources from impacts on natural systems that could result from human disturbances to soils, vegetation, water, hydrologic patterns, accelerated erosion, and sedimentation, as well as the disruption of natural processes. In such cases the NPS will seek to return such disturbed areas to the natural conditions and processes characteristic of the ecological zone in which the damaged resources are situated using the best available technology.

Scoping

Internal scoping was conducted by an interdisciplinary team of professionals from JTNP and consultant specialists. Team members met multiple times in 2015, 2016, and 2017, including several field visits, with representatives from SCE, to discuss the proposed project. Various options for completing the proposed project, additional alternatives, and resource protection measures were discussed.

Issues/Impact Topics

Based on input from internal scoping, JTNP selected specific issues (also called *impact topics*) for further analysis and eliminated others from evaluation.

Impact Topics for Further Analysis

These impact topics were identified on the basis of federal laws, regulations, and executive orders (EOs); NPS's *Management Policies 2006*; and NPS knowledge of limited or easily affected resources. A brief rationale for the selection of each impact topic is given below.

Geological Resources—Soils

The proposed action would involve excavation, trenching, and horizontal directional drilling (HDD) activities that would disturb a maximum of 2 acres of land. While most areas are previously disturbed road shoulder, some areas of relatively undisturbed road shoulder and native soils would

be disturbed. These activities could substantially affect the soils' ability to sustain biota, water quality, and hydrology.

Vegetation

The proposed action would likely affect vegetation resources within and adjacent to the project area through vegetation removal. Such impacts could include damage to or loss of rare and unusual vegetation, as well as the potential spread of nonnative plant species; accordingly, vegetation is addressed as an impact topic in this EA.

Wildlife

The proposed action has the potential to affect wildlife or wildlife habitat within and adjacent to the project area through habitat-disturbing activities and incidental death or injury; accordingly, wildlife is addressed as an impact topic in this EA.

Special-Status Species

The Endangered Species Act (ESA) of 1973, as amended, requires an analysis of impacts on all federally listed threatened and endangered species. The proposed action may affect a federally listed species as well as species of special concern that could occur within and adjacent to the project area. In compliance with ESA Section 7, USFWS was consulted. One federally listed species is known to occur within the project area: desert tortoise (*Gopherus agassizii*; Mojave population). This species and its habitat, as well as species of special concern, could be affected by construction of the proposed action; therefore, federally listed species, critical habitat, and species of special concern are addressed as an impact topic in this EA.

Visitor Use/Experience, Visitor Safety

Visitor experience and recreation opportunities may be affected during the proposed action construction period; construction activities could affect parking pullouts, hiking, and wildlife viewing/bird-watching from the road. Traffic would be controlled to one lane at times, resulting in impacts on visitors. Accordingly, visitor use/experience and visitor safety are addressed as an impact topic in this EA.

Archaeological Resources

The proposed action has the potential to affect archaeological resources. Archaeological resources identified within areas surveyed for the proposed action include historic-period refuse in secondary deposition associated with the Anaconda Mine site, which has been determined to be eligible for inclusion in the National Register of Historic Places (NRHP). Accordingly, archaeological resources are addressed as an impact topic in this EA.

Cultural Landscapes

The proposed project has the potential to affect a built landscape feature: a segment of the California Riding and Hiking Trail (CRHT) through JTNP. Portions of the trail cross, parallel, or pass near the existing underground distribution line that would be abandoned as part of the proposed action. The trail is a historic-period landscape feature that could contribute to a larger historic district or cultural landscape. Accordingly, cultural landscapes are addressed as an impact topic in this EA.

Park Management/Operations

The proposed action would likely have an effect on park management/operations. Because construction activities would affect the roadway and wayside areas, and the presence of the new line would affect maintenance requirements along the roadway, park management/operations are addressed as an impact topic in this EA.

Impact Topics Dismissed from Further Analysis

The following issues have been considered but dismissed from detailed analysis. Issues dismissed from detailed analysis are not addressed further in this EA. A brief rationale for dismissing specific topics from further consideration is provided for each impact topic.

Geohazards/Natural Hazards

The high level of seismic activity in the park is a result of the many fault zones in the vicinity, including the San Andreas to the west; however, construction associated with the project, such as trenching for conduit placement, excavation for pull boxes, and HDD, would be surficial and minimal. Additionally, the proposed action does not feature any habitable structures that could expose people to geologic risks. Consequently, it is not expected that the proposed action would have an adverse effect on geologic conditions in the area nor increase the exposure of people or property to seismic hazards. Geohazards/natural hazards have therefore been dismissed as an impact topic in this EA.

Soundscapes

Under the proposed action, operation of noise-generating heavy equipment would be required to excavate a trench, deliver and install the line, and backfill the trench. After the new line is installed the existing line would be decommissioned and abandoned. This activity may involve the use of some noise-generating equipment to remove the boxes and regrade the area.

A portion of the CRHT runs along most of the existing line alignment. The trail crosses the new alignment near its southern end. For the remainder of the alignment, the distance between it and the trail varies between about 800 and 2,300 feet. Visitors using the trail could experience construction noise, particularly at the southern end of the new alignment where the trail crosses it. The sound of construction equipment would likely be audible from the trail, but visitors' exposure to noise would be of limited duration as they pass along the trail near the activity. During decommissioning of the existing line, visitors using the trails could pass near work related to removing the at-grade pull boxes. However, this exposure would also be of limited duration as the visitors pass the work area. Some visitors in other areas of the park may experience elevated noise as heavy equipment or materials are transported to the construction site. This exposure would be of very short duration.

The temporary nature of construction activity would not result in a chronic noise impact on the solitude and tranquility associated with the park. In addition, the potential exposure of visitors to noise would be limited to those visitors who happen to be using the trail when construction work is occurring; their exposure to noise would be limited to their passage near the activity. Construction activity would be conducted Monday through Friday during daylight hours only and would cease each day at dusk; no construction work would take place on weekends. Moreover, the proposed action would include implementation of resource protection measure NOI-1, which would require

that all construction motor vehicles and equipment have mufflers; limit idling of construction vehicles; prohibit the use of unmuffled compression brakes and air horns inside park boundaries; and prohibit construction work on weekends and holiday during high visitation. For these reasons, the effects of noise on visitors has been eliminated from further analysis in this EA.

Air Quality

The Clean Air Act of 1977 and NPS's *Management Policies 2006* require NPS to consider air quality impacts from projects. The park is designated as a Federal Class I Airshed under the Clean Air Act, granting special air quality protections from any new major stationary source or major modifications near the park. Within the park, very small amounts of air pollutants are generated—primarily from automobiles, diesel generators, and dust. Automobile exhaust and the emissions from diesel generators contribute only minor amounts of pollutants and greenhouse gas (GHG) emissions to the park's airshed. Pollutants and GHGs emitted from the project area would consist of truck and equipment exhaust, as well as some dust. Construction within the park associated with the proposed action would result in short-term, minor impacts on air quality, primarily from dust; however, the resource protection measures described in Appendix A would further reduce potential impacts to a negligible level. Therefore, air quality has been dismissed as an impact topic for further analysis in this EA.

Water Quality/Quantity

The project area is within the Forty-nine Palms Canyon–Shortz Lake watershed (hydrologic unit code [HUC]-10 ID 1810010021) (State Water Resources Control Board 2017a). There are no impaired waters in this watershed (State Water Resources Control Board 2017b). The proposed action would cross several unnamed washes; however, the existing drainage patterns associated with the unnamed drainages would not be altered. The proposed action would not entail any point-source discharge of water that would impair surrounding water bodies. The proposed action would not result in the generation of stormwater during operation; no post-construction best management practices (BMPs) are required. The proposed action would not increase the amount of impervious surfaces in the project area; accordingly, no long-term impacts on water quality would occur.

Impacts on water quality would be limited to potential stormwater discharges during construction activities, specifically from sediment, turbidity, and pollutants associated with sediment. Proposed site excavation and exposure and movement of soils could result in an increase in the amount of suspended sediments entering stormwater runoff during construction. Additionally, non-sediment contaminants that could affect water quality during construction activities could include oil, gasoline, petroleum products, and trash. However, commonly used construction BMPs such as those listed in resource protection measure GEO-1 as well as compliance with the Statewide Construction General Permit that requires implementation of a stormwater pollution prevention plan (SWPPP) (resource protection measure WQ-1) would be implemented to minimize any potential water quality impacts to the maximum extent practicable. The implementation of these measures during construction would substantially reduce the potential for contaminated surface water to wash into and pollute surface waters or groundwater. Further, BMP and SWPPP implementation would be routinely monitored and inspected throughout construction activities to ensure that BMPs are intact and effective. Implementation of construction BMPs and compliance with the Statewide Construction General Permit would minimize impacts on water quality. Accordingly, water quality was dismissed as an impact topic in this EA.

Most of the project alignment is adjacent to impervious area (i.e., the surface of Park Boulevard) and no addition of impervious cover is proposed; consequently, no impacts on groundwater recharge would occur. The water demand from construction of the proposed action would be minor and short-term and would be met through existing local municipal sources. Groundwater pumping is not proposed for construction or operation. Accordingly, groundwater and water quantity were dismissed as an impact topic in this EA.

Streamflow Characteristics

The new alignment would cross several washes; however, construction activities related to the proposed action would not affect streamflow characteristics. The relocated line would be buried or directionally drilled under low-water crossings. The surface of the low-water crossings would remain unchanged following construction activities. Construction activities would not result in a change to current streamflow characteristics or flow conveyance; accordingly, streamflow characteristics were dismissed as an impact topic in this EA.

Floodplains

EO 11988, Floodplain Management, requires all federal agencies to take action to reduce the risk of flood loss, to restore and preserve the natural beneficial values served by floodplains, and to minimize the impact of floods on human safety, health, and welfare. A portion of the project area is located within FEMA Flood Zone A (FIRM 06071C8935H) (Federal Emergency Management Agency 2017). There have been no low-water crossing issues related to the floodplain; low-water crossing issues have been related to current roadway structure. The proposed action would not realign the roadway or change low-water crossings found within the project area and would not result in a floodplain encroachment; accordingly, and with concurrence from the park hydrologist and the NPS Water Resources Division, floodplains were dismissed as an impact topic in this EA.

Wetlands and Riparian Habitats

Washes must be saturated with water or covered with water part of the year every year to meet the definition of wetlands. Because no wetlands occur within the project area, wetlands were dismissed as an impact topic in this EA.

Land Use

The project area is located near the northern boundary of JTNP more than 3.4 miles south of the park's headquarters in Twentynine Palms, and nearly all project features would be within the park boundaries, with the exception of the existing alignment's northernmost pole, which is on land under BLM jurisdiction. According to the park's *Backcountry and Wilderness Management Plan*, the park is divided into three management zones: the developed zone, the natural zone, and the cultural zone. The natural zone is further subdivided into two subzones: the wilderness subzone and the backcountry transition subzone (National Park Service 2000). The two roadways in the project area, Park Boulevard and Pinto Basin Road, are both designated as developed zone; the existing distribution line is in the backcountry transition subzone and the alignment for the proposed replacement line is in the developed zone. About a mile west of Park Boulevard is an area designated as wilderness subzone. Other land uses in the project vicinity include the CRHT, which roughly parallels the existing distribution line; and a trailhead for the Contact Mine Trail begins at a pullover parking area on the northwestern section of Park Boulevard, extending into the designated

wilderness area (National Park Service 2016). A day use area in the northwestern portion of the alignment that has been designated to protect sensitive wildlife populations is closed to visitors from dusk to dawn (National Park Service 2000).

According to the *Backcountry and Wilderness Management Plan*, allowable uses in the developed zone include the presence and maintenance of facilities to serve visitors; these consist exclusively of roads and parking areas. The backcountry transition subzone is zoned for the conservation of natural resources and processes, but is not legislatively designated as wilderness. The NPS's allowable uses in the backcountry transition subzone include the construction and operation of minor facilities such as patrol stations or toilets, operation of motor vehicles and aircraft, and engagement in other activities that are prohibited in wilderness. All proposed development in this subzone should be minor (National Park Service 2000).

Given the minor intensity of development proposed, the proposed action would not conflict with JTNP management goals, and neither the No-Action nor the proposed action would affect current or future park land use or surrounding land uses; accordingly, land use was dismissed as an impact topic in the EA.

Ethnographic Resources

Ethnographic resources are the cultural and natural features of a park that are of traditional significance to traditionally associated peoples. NPS defines *ethnographic resource* as a "site, substance, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (Director's Order [DO] 28). EO 13007 directs federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. Specifically, federal agencies are directed to (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites. According to DO 28 and EO 13007 on sacred sites, NPS should try to preserve and protect ethnographic resources. Because no known ethnographic resources were identified that would be affected by the proposed action, ethnographic resources were dismissed as an impact topic in this EA. Please refer to Chapter 5, *Consultation and Coordination*, of this EA regarding consultation on ethnographic resources.

Museum Collections

NPS requires the consideration of impacts on museum collections (historic artifacts, natural specimens, and archival and manuscript material), and provides further policy guidance, standards, and requirements for preserving, protecting, documenting, and providing access to and use of NPS museum collections. Impacts on museum collections would not occur as a result of the proposed action; accordingly, museum collections were dismissed as an impact topic in this EA.

Historic Structures

Historic structures are those structures dating to the historic or prehistoric period that have prehistorical, historical, or architectural significance. Ninety-five structures are present within JTNP. Eighty-seven of these structures are certified. Historic structures within the park contribute to six NRHP-listed sites related to ranching and mining history. There are no historic structures within or

adjacent to the project survey area. For the purposes of this EA, the CRHT segment through JTNP and within the proposed action's area of potential effect (APE) is treated as a cultural landscape feature rather than a structure. Accordingly, historic structures were dismissed as an impact topic in this EA.

Socioeconomics

Construction activities and costs associated with the proposed action would provide a temporary but small stimulus to the local and regional economy. Wages, overhead expenses, material costs, and profits would last only as long as the construction period, anticipated to be no more than 2 months; consequently, impacts on local communities and socioeconomic resources would be temporary. Travel delays for visitors to the park would be limited to a 30-minute maximum in one direction during construction, and would typically be much less. Impacts would be negligible; accordingly, socioeconomic was dismissed as an impact topic in this EA.

Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The proposed action would not result in changes in the socioeconomic environment of the area, and no impacts on minority or low-income populations or communities are anticipated. Environmental justice was therefore dismissed as an impact topic in this EA.

Indian Trust Assets

Indian trust assets are owned by Native Americans, but held in trust by the United States. Indian trust assets are not present within the park, and are consequently not evaluated further in this EA.

Wilderness

Construction activities associated with the proposed action would not take place within designated wilderness, which is present a minimum of 0.5 mile from the project area at its closest point. Wilderness designations do not lead to the creation of "buffer zones" around wilderness boundaries. Construction activities would not directly encroach upon any of the designated wilderness areas within the park. Sounds and noise from construction activities could be heard in adjacent wilderness; however, the sounds and noise would be temporary and negligible. Additionally, wilderness lands near the proposed action do not have significant use, in part because access points are limited. Consequently, wilderness was dismissed as an impact topic in this EA.

Alternatives Evaluated in this Document

Alternative A: No-Action Alternative

Under the No-Action Alternative, NPS would not issue an ROW permit to SCE nor a SUP to relocate the existing Utah 12 kV distribution line. SCE would not be authorized to continue to operate the existing line, providing power to Belle Mountain where the FAA, county emergency services, and JTNP all maintain independent communication facilities. No change to SCE's existing operations plan would occur, and SCE would continue to repair and maintain the existing line. Over time, it is likely that failure of the existing line would necessitate actions in the future.

The No-Action Alternative provides a basis for comparison with the proposed action and its associated environmental consequences. Should the No-Action Alternative be selected, NPS would respond to future needs and conditions without major actions or changes in the present course. Activities to repair the existing line, if needed in the future, would likely be done on an emergency basis or under another authorization to SCE.

Alternative B: Proposed Action

SCE would be granted a ROW (Figure 2) and SUP to construct the proposed action in two phases (Figure 2). NPS would monitor the work for quality control and to ensure that mitigation and resource protection measures are properly implemented at the correct time. Phase I would entail relocation of the existing line adjacent to Park Boulevard. Once the relocated line is in place, it would be tested, and then the circuit would be moved from the old line to the new line. Phase II would entail decommissioning the old line, cutting and capping both ends, abandoning the line buried in place, and removing above-ground components. Both phases are described in detail below.

Phase I: Relocation of the Distribution Line

Electrical Components and Structures

- The proposed action would include installation of the following components within a 5.21 mile corridor. Two precast concrete transformer pads—48 by 54 inches.
- Conductor sized 1/0—approximately 5.21 miles.
- 5-inch duct (PVC)—approximately 5.21 miles.
- Approximately 29 precast pull boxes—each 2 by 3 by 3 feet.

Structures and components would be installed in accordance with SCE's most recent *Electrical Service Requirements* (Southern California Edison 2017a) and *Underground Structures Standards* (Southern California Edison 2017b) to ensure that they are installed to industry standards and meet standard safety guidelines.



Trenching and Pull Box Installation

The majority of the new line would be direct-buried (i.e., buried in the existing soil without cement or other encasement). SCE would dig a trench immediately adjacent to Park Boulevard (generally within 2 feet of the edge of pavement) and would install conduit to house the electrical line, ensuring a minimum of 30 inches of cover (Figures 2 and 3). Standard backhoes and similar excavation equipment would be used to dig and backfill the trench. Open trenches would be refilled or covered with plates at the close of each day. Excavated soils would be placed at the edge of the trench (typically on the pavement) and used for backfilling after the installation of project components. Following installation of the conduit, the trench would be backfilled and compacted as necessary. Approximately 2 acres of disturbance may be necessary along the roadsides to complete the trenching and box installation. Of the total area of disturbance, 1.8 acres would be within previously disturbed road shoulder areas and 0.2 acre would be in areas where there is little to no road shoulder (Figure 4), necessitating some vegetation disturbance.

Pull boxes would be placed at semi-regular intervals to allow access to the conduit both for installation of the conductor (i.e., the electrical line) and for future maintenance access (Figures 2 and 3). The excavation to install the pull boxes would be approximately 4 by 5 feet and 4–5 feet deep. The area around the boxes would be backfilled and the pull boxes would be placed flush with the surface.

Horizontal Directional Drilling

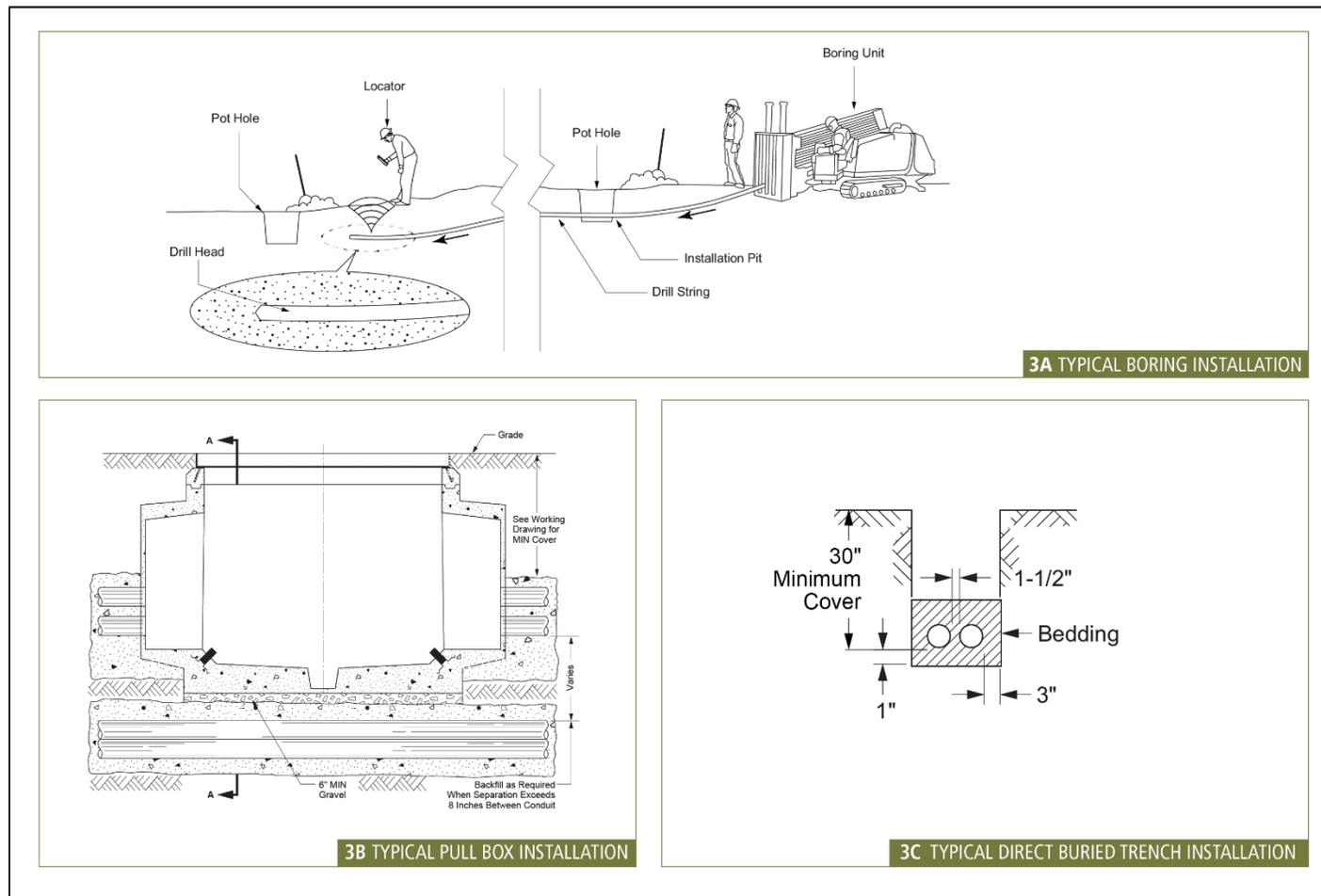
HDD would be used at four wash locations (low-water crossings) where buried rock gabions (placed by park staff for road stabilization) would make trenching difficult. HDD is a steerable trenchless method of installing underground pipe or conduit along a bore path by using a surface-launched drilling rig (illustrated in Figure 3). Overall, this method has low impact on the surrounding area and requires only small entrance and exit pits. HDD locations for low-water crossings are depicted in Figure 2. Additionally, SCE would install conduit under Park Boulevard and Pinto Basin Road using HDD to minimize impacts on the roadway. HDD locations for road crossings are also depicted in Figure 2.

Conductor Installation

Following installation of the conduit and pull boxes using trenching and HDD, SCE would install the conductor within the conduit using the pull boxes as access points. Generally, light trucks and a small group of workers are required to complete conductor installation.

Traffic Control and Access

Access to the project site would be from Park Boulevard and Pinto Basin Road. During trenching and HDD activities, SCE would implement traffic controls because equipment and soils would be present on the roadway. Depending on the length of the work zone and line of site, flaggers or a pilot car may be used to facilitate traffic passage. One lane of traffic would remain open at all times. Traffic controls would be coordinated with JTNP to minimize disruption to visitors to the extent possible.



SOURCE Southern California Edison Underground Structures Manual (October 28, 2016)

FIGURE 3 - Typical Structures and Components

Joshua Tree National Park
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-  Joshua Tree National Park
-  Designated Wilderness
-  Roads
-  Areas with road shoulder
-  Areas without road shoulder

FIGURE 4
Disturbance Areas

Joshua Tree National Park

United States Department of the Interior / National Park Service

Staging Area

An existing staging area located near the park's maintenance facility (Figure 2) would be used during construction to store equipment and materials. No other staging or equipment storage would be necessary for the proposed action. Tortoise exclusion fencing would be installed around the staging area to protect against tortoises entering the area during construction.

Operations and Maintenance

SCE would operate the new distribution line for the duration of the ROW permit term. Maintenance of the line would typically involve minor activities involving inspection and maintenance, cable testing and replacement, and emergency repairs as needed. Each of these activities is described further below.

Routine Inspection and Maintenance

SCE would conduct routine semiannual inspections of each vault for its structural integrity. The inspection crew would consist of at least two 2-man underground crews using van trucks. Each inspection may require temporary lane closures at the vault location for the safety of the inspection crew. Inspections would be scheduled to avoid peak visitor seasons. The inspections could result in the replacement of vault lids, structural shoring, and/or the replacement of the entire vault (within the footprint of the existing vault).

Routine Cable Testing and Replacement

SCE would also conduct routine semiannual inspections and testing of the underground cable and its components throughout its 30-year lifespan. The inspection crew would consist of at least two 2-man underground crews using van trucks. Each inspection may require temporary lane closures at some sections. Inspections would be scheduled at times to avoid peak visitor seasons. Depending on the results of the inspection and testing, sections of cable may need to be replaced from time to time. The replacing of cable would involve the use of support trucks, line trucks, and cable trailers. Upon the cable reaching its 30-year operational lifespan, SCE would need to replace the entire cable run.

Emergency Repairs

If there is a cable failure event, SCE would attempt to pull the failed cable from the nearest vault location and replace it. SCE would attempt to pull the cable first from each vault on each side of the faulted cable. However, depending on the severity of the fault, the cable may not be able to be pulled back and replaced, at which time the fault location would need to be identified using testing equipment. The duct bank would be dug up and exposed, the encasement would be chipped away, and conduit would be cut, exposing the cable. The cable would then be cut and either spliced or pulled back and replaced.

Phase II: Decommissioning the Existing Line

After the new underground line is installed and energized, the existing 5 miles of direct-buried oil-coated conductor would be decommissioned and abandoned in place. Because the existing cable was originally installed by the California Electric Power Company prior to SCE assuming operation and maintenance responsibility, the specific content of the cable cannot be confirmed until the circuit is de-energized and the contents are removed and tested. However, based on SCE's understanding of standard materials likely used during the time of installation, it is assumed the entire cable is

covered with a neoprene outer jacket with an oil-impregnated paper insulation. Neoprene-jacketed lead cable started using pure mineral oil around approximately 1925. Butene oil was also used in lead cables. Manufacturers used paper insulation that was saturated with oil (dielectric fluid), wrapped the conductor with multiple layers of it, and let it dry. The amount of oil saturated on the paper should be the same as when it was installed. For the existing underground line, SCE estimates approximately 8 gallons of oil per 1,000 feet, encased by the lead sheath. If the lead sheath covering were to be somehow removed, SCE estimates that approximately 4 gallons per 1,000 feet could potentially leech out. However, under the proposed action, the entire cable including the 75 mil (.075-inch) lead sheath and outer neoprene jacket would remain in place with the ends being sealed upon decommissioning and abandonment. Cracks in the lead covering allowing oil to leech out are very rare, and the risks are assumed to be low for oil leaking into the environment through abandonment of the lead cable in place.

The decommissioning work would include de-energizing the line, cutting and capping both ends, and removing the aboveground portions of approximately 11 pull boxes (Figure 2) as well as any line markers. Each of the existing pull boxes is approximately 3 by 5 feet with concrete walls and a metal lid, flush or slightly below the surface (Figure 5). The box lids would be removed and recycled and concrete in the boxes would be broken up and used as fill. Native soil from the immediately surrounding area would be raked over the area using hand tools to a depth of at least 12 inches. Work for Phase II would be completed by crews on foot and using hand tools.



FIGURE 5 - Representative Photographs of Existing Underground Pull Boxes

Joshua Tree National Park
United States Department of the Interior / National Park Service

Resource Protection Measures

Resource protection measures are specific actions that, when implemented, reduce impacts and protect park resources and visitors. The measures detailed in Appendix A would be implemented under the proposed action and are assumed in the analysis of effects. They would be included in the Right of Way Permit and/or Special Use Permit as park specific conditions.

General Construction Schedule

Construction for Phase 1 would last approximately 2 months. Work for Phase 1 is anticipated to commence in late 2018 and would be conducted Monday through Friday during daylight hours only. Phase II could be undertaken later and would likely be completed in late 2018 or early 2019. Phase II would require approximately 2 weeks to complete.

Alternatives Considered but Dismissed

Remove Existing Line and Bury New Line in the Same Footprint

NPS considered an alternative that would remove the existing line and replace it with a new line constructed with modern materials. This alternative was dismissed from further consideration because it would cause an unacceptable amount of disturbance and also would not be consistent with NPS guidelines that direct parks to co-locate roads and utilities within the same corridor.

Remove Existing Line and Relocate New Line to Adjacent to Park Boulevard

NPS considered an alternative that would require removal of the entire existing line along with relocation to adjacent to Park Boulevard. Park staff considered the materials in the existing cable and estimated the amount of disturbance that would be required to remove the existing line. The staff determined that materials in the existing cable would not pose a long-term contamination risk, and that removal of the existing line would cause an unacceptable amount of disturbance. Accordingly, this alternative was dismissed from further consideration.

Abandon Existing Line in Place and Construct Renewable Energy Source

NPS considered a renewable energy alternative that would entail abandoning the existing line in place, terminating the ROW agreement with SCE, and supplying power to the end users using a solar photovoltaic source (i.e., solar panels). The energy required under this alternative was determined to be approximately 612 kilowatt hours per month on average, requiring approximately 25 solar panels. Because SCE has no mandate or requirement to provide solar panels to each of the end users, each user would have to agree to install panels. Park staff investigated several locations, both on rooftops and on the ground, for a solar installation of this size and concluded that an installation would be feasible in several locations; however, this alternative was ultimately dismissed because a backup connection to the grid would still be needed to provide backup power to FAA, JTNP, and

County facilities, necessitating a new line and ROW agreement. Accordingly, this alternative was determined to be infeasible and was dismissed from further consideration.

Comparison of Alternatives

A comparison of the alternatives is presented in Table 1.

Table 1. Alternatives Comparison

No-Action Alternative	Proposed Action
Under the No-Action Alternative, NPS would deny the ROW permit to SCE, and the existing distribution line would not be relocated. The existing distribution line would continue to be used until it degrades and fails.	Under the proposed action, NPS would issue an ROW permit to SCE, and the existing distribution line would be relocated. The existing distribution line would be decommissioned and abandoned in place.
Geological Resources—Soils	
The No-Action Alternative could result in short- or long-term, minor to major, adverse impacts.	The proposed action would result in localized short-term, minor, and adverse impacts.
Vegetation Resources	
The No-Action Alternative would continue to have negligible, short-term impacts on vegetation resources from maintenance of the existing line.	The proposed action would have local long-term, moderate, adverse effects on vegetation resources from construction.
Wildlife Resources	
The No-Action Alternative would entail a continuation of existing conditions and would result in negligible, short-term impacts on wildlife.	The proposed action would have short-term, moderate, adverse impacts on a local scale to wildlife. Resource protection measures implemented as part of the proposed action would help to avoid and minimize effects to the extent possible.

No-Action Alternative	Proposed Action
<p>Special-Status Species</p> <p>The No-Action Alternative would have local short-term, negligible impacts on special-status species.</p>	<p>The proposed action would have short-term, negligible effects on desert tortoise during construction, but these effects would not likely result in incidental take. Implementing the proposed action will require consultation with USFWS; through this process an effects determination will be made and conservation measures will be identified to minimize the potential for incidental take from project activities. The proposed action would result in short-term, negligible, or minor adverse impacts on other special-status species. Resource protection measures implemented as part of the proposed action would help to avoid and minimize effects to the extent possible.</p>
<p>Visitor Use/Experience, Visitor Safety</p> <p>Under the No-Action Alternative, no impacts on visitor use/experience and visitor safety would occur.</p>	<p>Under the proposed action, construction of the new distribution line would result in short-term, minor, adverse effects on visit use/experience and visitor safety, primarily from traffic delays. Measures implemented as part of the proposed action (i.e., limiting construction to certain times of day and avoiding weekends and holidays, minimizing creation of de facto parking on road edges) would help to minimize these effects.</p>
<p>Archaeological Resources</p> <p>Under the No-Action Alternative, impacts on archaeological resources would not occur.</p>	<p>Under the proposed action, construction of the new distribution line could result in short-term, minor, adverse impacts on archaeological resources. Measures implemented as part of proposed action (i.e., avoiding known sites) would help to avoid these effects.</p>
<p>Cultural Landscape</p> <p>Impacts on the CRHT, a potential contributing resource to a historic district or cultural landscape district, would not occur under the No-Action Alternative.</p>	<p>Impacts on the CRHT, a potential contributing resource to a historic district or cultural landscape district, would be short-term, minor, and adverse and long-term, minor, and beneficial under the proposed action. Removal of existing electrical boxes along the CRHT would result in a small amount of disturbance; however, the removals would help to restore the landscape, an overall beneficial effect.</p>
<p>Park Management/Operations</p> <p>Under the No-Action Alternative, impacts on park management/operations would be short- or long-term, minor to moderate, and adverse.</p>	<p>Under the proposed action, impacts on park management/operations would be short-term, moderate, and adverse. Minor beneficial effects resulting from a more reliable power supply may also occur.</p>

This chapter provides a description of the resources potentially affected by the alternatives. It is organized by impact topics that were derived from internal park scoping. More detailed information on park resources may be found in the 1995 General Management Plan (National Park Service 1995).

Geological Resources—Soils

The project area lies within basin and range topography typical of the Mojave Desert. Elevations vary from approximately 2,750 feet above mean sea level (amsl) near the northern limits of the project area to approximately 3,800 feet amsl near the southern limits. Large alluvial fans, adjacent to the mountain fronts, slope toward the north where ephemeral streams flow and deposit alluvial materials into dry lakes and the Mojave River (BRC-Equals 3 2016a). According to the *Wetlands and Other Waters Jurisdictional Delineation Report* (BRC-Equals 3 2016b) prepared for the project, the following soil types are located within the project area.

- **Blackeagle–Rock Outcrop complex.** The soil parent material is colluvium over residium derived from gneiss. This soil type has a typical profile of 0 to 3 inches gravel, 3 to 4 inches extremely gravelly sandy loam, 4 to 14 inches very gravelly sandy loam, and 14 to 24 inches bedrock.
- **Ironped–Rock Outcrop–Hexie complex.** The soil parent material is colluvium derived from granitoid and/or residium weathered from granitoid. This soil type has a typical profile of 0 to 7 inches gravelly sand and 7 to 59 inches bedrock.
- **Morongo–Bluecut association.** This soil type is found in association with fan aprons. The soil parent material is alluvium derived from granitoid. This soil type has a typical profile of 0 to 1 inches loamy sand and 1 to 59 inches gravelly coarse sand.
- **Bluecut–Morongo–Yander association.** This soil type is found in association with fan aprons on fan remnants. The soil parent material is alluvium derived from granite and gneiss. This soil type has a typical profile of 0 to 4 inches loamy sand, 4 to 11 inches loam coarse sand, 11 to 21 inches sandy clay loam, 21 to 26 inches sandy loam, 26 to 49 inches very gravelly loamy coarse sand, and 49 to 79 inches loamy coarse sand.

Due to soil characteristics in the project area and lack of high-plasticity clays, expansion and shrinkage of onsite soils is considered unlikely.

Vegetation

JTNP supports a diversity of plant species, with nearly 800 plant species present in the park. Vegetation communities in the park are broadly divided into the Colorado Desert at elevations generally below 3,000 feet and the Mohave Desert above 3,000 feet. The Colorado Desert supports

creosote bush, mesquite, yucca, ocotillo, and numerous cactus species. The project area, at elevations of 2,750–3,800 feet, is in the slightly cooler and moister Mohave Desert.

Native Vegetation

Three vegetation communities were identified during surveys of the project area, according to the three dominant plant species within each alliance (BRC-Equals 3 2016a). The extent of each vegetation community within the project area is depicted in Figure 6. Descriptions of each vegetation community, following the California Native Plant Society's *Manual of California Vegetation* (Sawyer et al. 2009) are provided below.

Creosote Bush–White Bursage Scrub (*Larrea tridentata*–*Ambrosia dumosa* Shrubland Alliance)

Creosote bush (*Larrea tridentata*) is dominant or co-dominant in the shrub canopy with white bursage (*Ambrosia dumosa*), cheesebush (*A. salsola*), Nevada ephedra (*Ephedra nevadensis*), and Anderson thornbush (*Lycium andersonii*). Emergent trees may be present at low cover, including Joshua tree (*Yucca brevifolia*). Creosote Bush–White Bursage Scrub is generally associated with alluvial fans, bajadas, upland slopes, and minor intermittent washes. Soils in this vegetation community are well drained, sometimes with desert pavement. Within the survey area, this vegetation community occurs in the northern portion of the project area and in scattered pockets on slopes in the southern portion of the project area (Figure 6).

Joshua Tree Woodland (*Yucca brevifolia* Woodland Alliance)

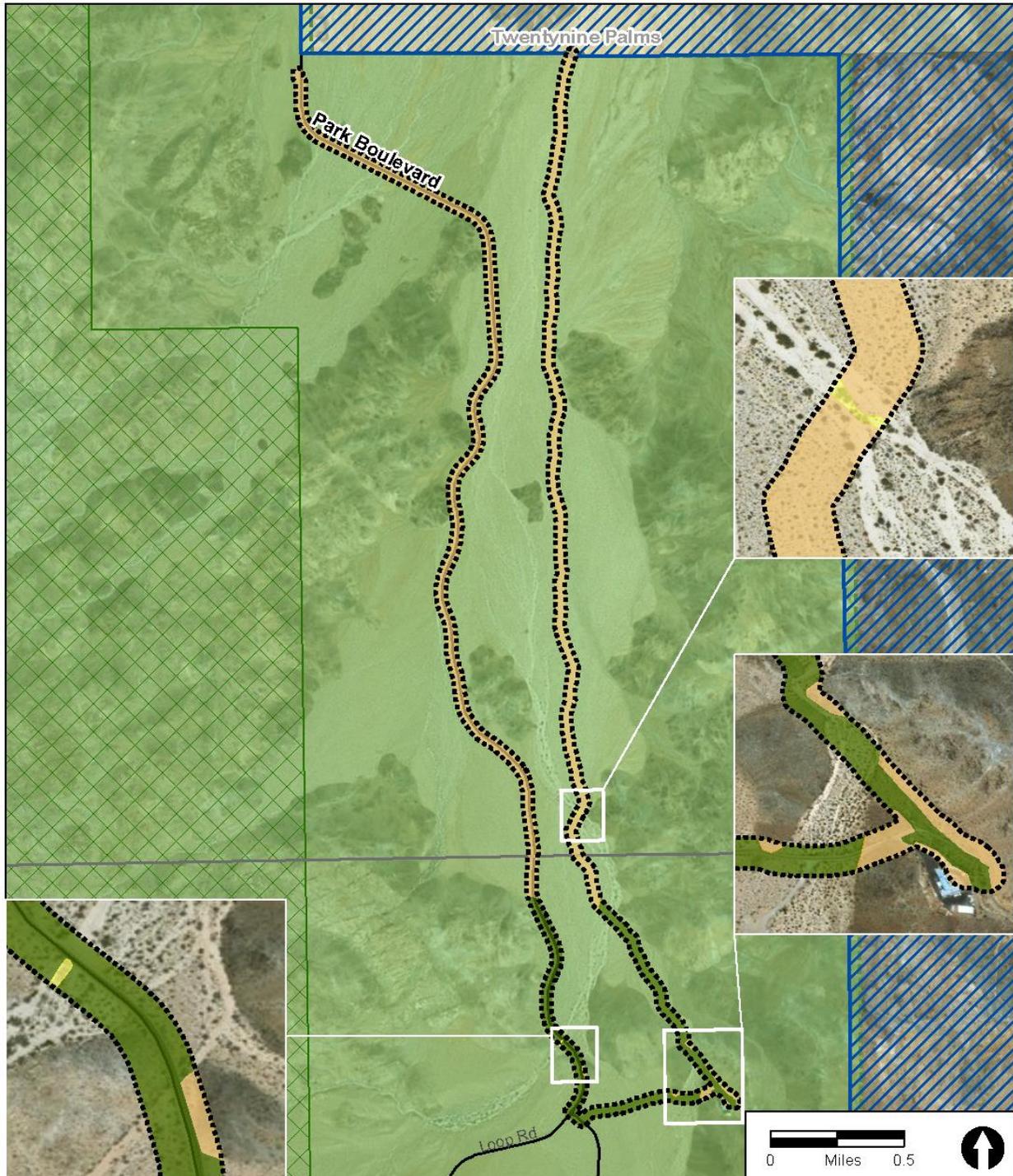
Joshua tree is an emergent small tree over a shrub or grass layer with white bursage, burrobrush, black brush (*Coleogyne ramosissima*), Nevada ephedra, California buckwheat (*Eriogonum fasciculatum*), matchweed (*Gutierrezia microcephala*), creosote bush, Anderson thornbush, and Mohave yucca (*Yucca schidigera*). Other trees may be present at low cover. Joshua Tree Woodland occurs on gentle alluvial fans, ridges, and gentle to moderate slopes. Soils are coarse sands, very fine silts, gravel, or sandy loams. Many sites have bimodal soils with both coarse sands and fine silts. This vegetation community occurs in the southern portions of the project area (Figure 6).

Desert Willow Woodland (*Chilopsis linearis* Woodland Alliance)

Desert willow (*Chilopsis linearis*) is dominant or co-dominant in the tree or tall shrub canopy with Joshua tree. Shrubs may include burrobrush, California buckwheat, Mohave yucca, and creosote bush. Desert Willow Woodland occurs in washes, intermittent channels, canyon bottoms, arroyos, along floodplains, and wash terraces where flooding is infrequent but where subterranean water is available. Soils are well-drained sands and gravels that are moderately acidic to slightly alkaline. This vegetation community is restricted to isolated pockets in large washes in the southern third of the project area (Figure 6).

Nonnative Vegetation

Five nonnative plant species were observed within the Project area during surveys (Table 2). Four species are included on the Mojave Weed Management Area Problem Weed list and are listed by CalIPC (CalIPC 2014).



- | | |
|---|---|
|  Joshua Tree National Park | Vegetation Community |
|  Survey Area |  Creosote bush - white burr sage scrub |
|  Designated Wilderness |  Desert willow woodland |
|  Roads |  Joshua tree woodland |

FIGURE 6
Vegetation Communities

Joshua Tree National Park

United States Department of the Interior / National Park Service

September 2018

Table 2. Nonnative Plant Species Observed within the Project Area

Scientific Name	Common Name	Presence in the Project Area
<i>Brassica tournefortii</i>	Saharan mustard	Observed along Park Boulevard but not along the existing distribution line
<i>Bromus madritensis</i> <i>ssp. rubens</i>	red brome	Observed in one location along park Boulevard but not along the existing distribution line
<i>Erodium cicutarium</i>	redstem filaree	Common throughout the project area
<i>Schismus</i> <i>barbatus/arbicus*</i>	common Mediterranean grass	Common throughout the project area except within washes
<i>Sisymbrium irio*</i>	London rocket	Observed along Park Boulevard but not along the existing distribution line

Source: BRC-Equals 3 2016a
* Species not distinguished as part of weed mapping

Wildlife

JTNP is in a transition zone between two major biotic communities—the Mojave Desert and Colorado Desert regions. The diverse vegetation communities in JTNP support a variety of wildlife species. NPS-managed lands provide havens for wildlife because they are more protected and generally less developed than privately owned lands. Approximately 350 vertebrate species inhabit the park. The desert tortoise, a species federally listed as threatened, is one of these and is discussed in *Special-Status Species* below. Invertebrates such as butterflies, scorpions, tarantulas, centipedes, ants, beetles, bees, and wasps occur throughout the region.

Surveys within the project area identified 48 wildlife species based on direct observation or observation of their sign (e.g., calls, scat, tracks) (BRC-Equals 3 2016a). Table 3 lists the species recorded during surveys of the project area.

Table 3. Wildlife Species Observed in the Project Area during Surveys

Scientific Name	Common Name
Invertebrates	
<i>Apis mellifera</i>	Honey bee
<i>Asphondylia auripila</i>	Creosote gall midge
<i>Chlosyne californica</i>	California patch
<i>Malacosoma californicum</i>	Western tent caterpillar
<i>Nathalis iole Boisduval</i>	Dainty sulphur
<i>Papilio polyxenes</i>	Black swallowtail
<i>Pontia beckerii</i>	Becker's white
<i>Strymon melinus</i>	Gray hairstreak
<i>Trimerotropis pallidipennis</i>	Pallid-winged grasshopper
<i>Vanessa virginiensis</i>	American lady
Reptiles	
<i>Aspidoscelis tigris tigris</i>	Great Basin whiptail

Scientific Name	Common Name
<i>Callisaurus draconoides rhodostictus</i>	Western zebratail
<i>Dipsosaurus dorsalis dorsalis</i>	Northern desert iguana
<i>Gopherus agassizii agassizii</i>	Mojave Desert tortoise
<i>Pituophis catenifer deserticola</i>	Great Basin gopher snake
<i>Sauromalus ater obesus</i>	Western chuckwalla
<i>Uta stansburiana stejnegeri</i>	Desert side-blotched lizard
<i>Urosaurus graciosus graciosus</i>	Western brush lizard
Birds	
<i>Amphispiza bilineata</i>	Black-throated sparrow
<i>Auriparus flaviceps</i>	Verdin
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte costae</i>	Costa's hummingbird
<i>Campylorhynchus brunneicapillus</i>	Cactus wren
<i>Carpodacus mexicanus</i>	House finch
<i>Colaptes auratus</i>	Northern flicker
<i>Corvus corax</i>	Common raven
<i>Falco mexicanus</i>	Prairie falcon
<i>Geococcyx californianus</i>	Greater roadrunner
<i>Lanius ludovicianus</i>	Loggerhead shrike
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Oreoscoptes montanus</i>	Sage thrasher
<i>Phainopepla nitens</i>	Phainopepla
<i>Picoides scalaris</i>	Ladder-backed woodpecker
<i>Polioptila melanura</i>	Black-tailed gnatcatcher
<i>Salpinctes obsoletus</i>	Rock wren
<i>Sayornis saya</i>	Say's phoebe
<i>Toxostoma lecontei</i>	Le Conte's thrasher
<i>Zenaida macroura</i>	Mourning dove
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Mammals	
<i>Ammospermophilus leucurus leucurus</i>	White-tailed antelope squirrel
<i>Canis latrans mearns</i>	Desert coyote
<i>Dipodomys sp.</i>	Kangaroo rat
<i>Lepus californicus deserticola</i>	Black-tailed jackrabbit
<i>Neotoma lepida lepida</i>	Desert woodrat
<i>Odocoileus hermionus fuliginatus</i>	Southern mule deer
<i>Ovis canadensis nelsoni</i>	Desert bighorn sheep
<i>Sylvilagus audubonii arizonae</i>	Southern desert cottontail
<i>Vulpes macrotis arsipus</i>	Desert kit fox

Special-Status Species

Special-status species comprise plants and animals listed as threatened or endangered or identified as candidates for listing under the ESA; species considered sensitive by the park; and species listed as threatened or endangered or designated as species of special concern by the California Department of Fish and Wildlife (CDFW). Additionally, many bird species are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (Eagle Act).

Six federally listed species are known to occur within the park (U.S. Fish and Wildlife Service 2017): the Mojave population of desert tortoise, least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), Parish's daisy (*Erigeron parishii*), triple-ribbed milk-vetch (*Astragalus tricarinatus*), and Coachella Valley milk-vetch (*Astragalus lentiginosus coachellae*). Only the desert tortoise is known to occur within the project area. The other five federally listed species are not expected to occur within the project area due to lack of suitable habitat, and none of the five was identified during surveys (BRC-Equals 3 2016a, 2016c).

Two surveys for desert tortoise were conducted along the existing and proposed alignments in 2015 and 2016 (Gonzales 2015; BRC-Equals 3 2016a). During the 2015 survey, Gonzales documented desert tortoise sightings and sign along both the existing and proposed alignments (Table 4). The Gonzales survey area included a 30-meter buffer around the existing and proposed alignments as well as a zone of influence survey at 200, 400, and 600 meters from the project alignments.

Table 4. Desert Tortoise Sightings and Sign Observed during 2015 Surveys

Project Alignment	Observation Type	Number of Occurrences
Existing	Live desert tortoise	4
	Desert tortoise burrow	18
	Desert tortoise carcass	4
	Desert tortoise scat	1
Proposed	Live desert tortoise	0
	Desert tortoise burrow	13
	Desert tortoise carcass	5
	Desert tortoise scat	2

Source: Gonzales 2015

BRC-Equals 3 conducted additional surveys in 2016 in a more focused area within 30 meters of the existing and proposed alignments (BRC-Equals 3 2016a). The surveyors observed four desert tortoise burrows, a disarticulated tortoise carcass, and scat, as well as an incidental sighting of one adult female tortoise near the existing alignment. Because sign was observed along both alignments, the park assumes that the entire project area could be used by desert tortoise.

Critical habitat has been designated for the desert tortoise within the park. Designated critical habitat for this species occurs at the northern extent of the project area on adjacent BLM lands, but does not occur within the project area (Figure 7).



-  Joshua Tree National Park
-  Designated Wilderness
-  Mojave Desert Tortoise Critical Habitat
-  Roads
-  Phase 1
-  Phase 2

FIGURE 7
Desert Tortoise Critical Habitat

Joshua Tree National Park
United States Department of the Interior / National Park Service
September 2018

Six special-status wildlife species—those considered sensitive by the park or by CDFW—were observed within the project area at the time of the survey, or their sign was observed: desert tortoise, prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), Le Conte's thrasher (*Toxostoma lecontei*), and desert bighorn sheep (*Ovis canadensis nelsoni*). Three other species were identified as potentially occurring in the project area on the basis of the presence of suitable habitat: burrowing owl (*Athene cunicularia*), golden eagle (*Aquila chrysaetos*), and Bendire's thrasher (*Toxostoma bendirei*) (BRC-Equals 3 2016a).

Two special-status plant species—considered sensitive by CDFW—were observed within the project area: Alverson's foxtail cactus (*Coryphantha alversonii*) and Mojave menodora (*Menodora spinescens* var. *mohavensis*) (BRC-Equals 3 2016c) (Figure 8). Each of these species was observed in numerous locations along both alignments, primarily in the southern portion of each.

The MBTA (16 USC 703-712) protects migratory birds and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, and export, and take. For purposes of the Migratory Bird Treaty Act, *take* is defined as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect” (50 CFR Section 10.12). It is a strict liability statute wherein proof of intent is not an element of a taking violation. The Migratory Bird Treaty Act applies to migratory birds that are identified in 50 CFR Section 10.13 (defined hereafter as migratory birds). Generally speaking, the Migratory Bird Treaty Act protects all birds occurring in the United States except for house (English) sparrows (*Passer domesticus*), European starlings (*Sturnus vulgaris*), rock doves (pigeons—*Columba livia*), any recently listed unprotected species in the Federal Register, and nonmigratory upland game birds. Many migratory birds, including raptor species, are sensitive to disturbance when nesting and roosting. Should disturbance result in the wounding or killing of adult birds, chicks, or eggs, including abandonment of a nest with eggs or young, the activity causing the disturbance would violate the Migratory Bird Treaty Act, thus necessitating that additional measures be incorporated into the activities in question to avoid take.

Under the authority of the Eagle Act (16 USC 668-668d), bald and golden eagles are afforded additional legal protection. *Take* under this statute is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or disturb” (50 CFR Section 22.3). *Disturb* is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior.” If a proposed project or action would occur in areas where nesting, feeding, or roosting eagles occur, then project proponents may need to incorporate additional conservation measures into projects to achieve compliance with the Eagle Act.



- | | |
|---------------------------|-------------------------------------|
| Joshua Tree National Park | Special-Status Plant Species |
| Survey Area | Alverson's foxtail cactus |
| Designated Wilderness | Mojave mendora |
| Roads | |

FIGURE 8
Special-Status Plant Species

Joshua Tree National Park

United States Department of the Interior / National Park Service

September 2018

Visitor Use/Experience and Visitor Safety

In 2016, JTNP hosted more than 2.5 million visitors (National Park Service 2017). The majority of visitors travel to the park for the purpose of sightseeing, including visiting the visitor centers and enjoying day hikes. Other visitors come to the park for camping, bouldering, technical climbing, stargazing, visiting archeological sites, attending educational programs, bicycling, and backpacking overnight (National Park Service 2010). People visit the park year-round, but the majority of visitors come in the cooler spring and fall months, while summer visitors consist mostly of international travelers. The most frequently visited areas are concentrated in the northwestern portion of the park. The majority of visitors come from urban areas in Riverside, San Bernardino, Ventura, Orange, and Los Angeles Counties. Approximately 23% of visitors use the north entrance station on Park Boulevard. In the project area, most visitors are those entering the park and traveling to various destinations within the park, or those using the CRHT.

Archaeological Resources

The archaeological resources study area is in the western Mojave Desert ecosystem of JTNP.

Archaeological Setting

Numerous cultural chronologies have been developed for this region (Bettinger and Taylor 1974; Warren 1980; Warren and Crabtree 1986). This setting discussion summarizes information from these chronologies into an overview of regional cultural trends over time. This discussion divides the pre-contact cultural sequence into three periods, which are analytical constructs that do not necessarily reflect Native American views.

Paleo-Indian Period

Scholarly theory suggests that the earliest human occupants of North America were highly mobile terrestrial hunters. Paleo-Indian cultures (e.g. Clovis, Folsom, Llano) dating to this period are often marked by archaeological assemblages of bone and stone technology. Over the last few decades, several North American archaeological sites and sets of human remains have been documented in various contexts that date to this Paleo-Indian Period (e.g., Erlandson et al. 2007). These discoveries have required researchers to reconsider the migratory and land-use strategies of early human occupants in the Americas. In California, Paleo-Indian assemblages are characterized by a wide but sparse distribution of isolated tools and caches dated to between 12,000 and 10,000 years before present (BP) (Dillon 2002).

In the eastern deserts of California, several sites have been identified with Paleo-Indian components (Dillon 2002). At least eight archaeological inventories for sites located in the Colorado and Mojave Deserts, south and north of JTNP, respectively, have reported the presence of large fluted projectile points (e.g., Campbell et al. 1937; Rogers 1939; Davis et al. 1980). To date, only one fluted point has been recovered from the Pinto Basin within the park's boundaries (Campbell and Campbell 1935; Campbell et al. 1937; Dillon 2002). Most recently, a Clovis style biface was identified between terminal Pleistocene geological strata at the Marine Corps Air Ground Combat Center in Twentynine Palms (Byerly and Roberson 2016). Although no other Paleo-Indian sites have been documented in

the study area, the absence of sites does not negate the presence of human occupants during this period.

Archaic Period

Evidence of long-term human occupation of the Mojave and Colorado Deserts begins to appear at around 11,000 BP in the form of lithic assemblages consisting of scrapers, scraper planes, cobble choppers, large blades, and projectile points (Rogers 1939; Jenkins 1987; Warren 2002). These items are attributed to a cultural complex referred to as the Lake Mojave Culture. Based on the range of artifact types, artifacts frequency, and distribution of archaeological sites, the people of this culture are thought to have used a generalized terrestrial hunting and gathering land-use strategy focused around seasonal patterns (Warren 2002). Between 8,000 and 4,000 BP, a new cultural complex identified as the Pinto Culture also begins to appear in the archaeological record (Campbell and Campbell 1935; Campbell 1936; Warren 2002). The Pinto complex, named for its distinctive triangular notched stone projectile points, is thought to have developed out of a similar cultural tradition as the Lake Mojave complex (Jenkins 1987; Basgall and Hall 1992; Warren 2002). The Pinto complex marks the end of the Lake Mojave complex, although both are congruently practiced for an undetermined overlap of time.

Little evidence exists to link the Pinto Culture to those of the Archaic Period who developed more diversified strategies for hunting and gathering. This may be attributed in part to a decrease in available water sources; researchers postulate that as the inland Pleistocene lakes began to dry out, Paleo-Indian people migrated away from these basins—many into coastal areas (e.g., Moratto 2004).

Late Prehistoric Period

Starting at around 1,500 BP, the archaeological record reflects the emergence of three cultural traditions in the study area. The range and spatial distribution of site types as well as site constituents for both traditions is thought to reflect the ethnographically observed lifeways of the Cahuilla, Chemehuevi, and Serrano peoples (Bean and Vane 2002; Dilsaver 2015). All three appear to have developed land-use patterns around the intensive exploitation of a range of local resources and established semipermanent camps and villages. All groups also adopted the use of small projectile points, pottery, basketry, and cache storage (Dilsaver 2015).

Archaeological sites attributed to the Serrano and Cahuilla are both characterized by a range of artifact types, including mortars and pestles, manos and metates, flaked stone tools, ceramics, basketry and other woven textiles, and cremations (Bean and Smith 1978). Archaeological sites attributed to the Chemehuevi are also found with a similar range of artifact types but with fewer ceramics and basketry with painted rather than woven designs (Kroeber 1925).

Ethnohistory

The cultural resources study area is in a region that is known to have been inhabited by four distinct cultural groups: the Cahuilla, Chemehuevi, Mojave, and Serrano. The Chemehuevi, Cahuilla, and Serrano spoke dialects of the Uto-Aztecan language family, while the Mojave spoke a dialect of the Yuman language family (Mithun 2001). The people of the region relied on seasonal subsistence systems and, consequently, would have made use of temporary or seasonal campsites as well as permanent village and preparation sites. Common plant and animal resources used by these groups included mesquite beans, seeds, palms, and cactus as well as wild game such as antelopes, rabbits,

squirrels, quails, ducks, and geese, among others (Bean and Saubel 1972; King 1975; Bean and Vane 2002).

Cahuilla traditional territory is thought to have centered in the Salton Basin and would have extended into the southern and possibly eastern areas of modern JTNP (Strong 1929; King 1975; Bean and Vane 2002). Both the Chemehuevi and Mojave territories were centered east of the region along the Colorado River. Their use of the resources here was likely seasonal and transitory, although the Chemehuevi did migrate into the study area around the 1860s (King 1975; Bean and Vane 2002). No permanent settlements of these three cultural groups have been confirmed in or near the study area.

The study area falls directly in the traditional territory of the Serrano, with one well-known village occupied into the late twentieth century at the oasis called Mara (Maara'), now known as Twentynine Palms (Kroeber 1925; Strong 1929; Campbell and Campbell 1935; CSRI 2002). At the time of historic occupation, Mara was inhabited by the Maringa (or Mariña) Serrano band (Ramon and Elliott 2000:7–9; Bean and Vane 2002). Mara would have played a crucial role in trade. As the location of a natural open-air spring, the site is named in the oral traditions of the Serrano, Chemehuevi, and Cahuilla, along with other sources of water from the Pacific Ocean to the Colorado River (Bean and Vane 2002; Kennedy 2008). Mara was abandoned by the Serrano in the early part of the twentieth century, possibly following the smallpox outbreak of the early 1860s, which affected many Native American groups in Southern California. Another possibility for abandonment may have arisen from conflict with the arrival of white settlers (Bean and Vane 2002; Lech 2012). The village continued to be occupied by several Chemehuevi families until an influx of EuroAmerican homesteaders and miners in the region placed tension on the resources and territory available to support traditional lifestyles.

Historic Period

Spanish occupation of California began at San Diego in 1769 and lasted approximately 50 years. During that period, Franciscan missionaries, colonial soldiers, and settlers created a chain of missions, presidios, pueblos, and smaller mission outposts, most of which were concentrated along California's coast and coastal valleys. The two Spanish outposts established closest to the project area were the Santa Ysabel Asistencia and the San Gabriel Mission's Guachama rancho and chapel, located approximately 70 miles southwest and 70 miles west of the project area, respectively. During the decade following 1821, when Mexico won independence from Spain, most Spanish laws and practices continued. The systematic dismantling of the mission system began with the Secularization Proclamation of 1834. Mission lands reserved for Christianized Native Americans under Spanish law were carved up and increasingly granted along with other productive land to politically connected civilians. No ranchos were granted in the vicinity of JTNP (Dilsaver 2015).

No written accounts of travel through the JTNP boundaries during the Spanish and Mexican periods have been identified. However, during a 1772 expedition in pursuit of Native Americans who had fled the San Diego Mission, Pedro Fages and his men became the first EuroAmericans to observe and document a Joshua tree. During the mid-1770s, two expeditions led by Juan Bautista de Anza established a route from Sonora to the Southern California missions that passed south and southwest of today's JTNP. Additionally, José Romero led an expedition recorded by diarist José María Estudillo in search of the reported Native American Cocomaricopa trail that ostensibly promised faster and safer travel from the Colorado River to San Gorgonio Pass. The failed Romero-

Estudillo expedition traveled as far as the area just southeast of JTNP before turning back (Greene 1983; Dilsaver 2015).

Two years after the 1848 Treaty of Guadalupe Hidalgo, California became the Union's thirty-first state, and over the next two decades miners began exploring the mountain and desert regions of Southern California. Beginning in the 1860s and 70s, miners successfully exploited gold and silver prospects in the deserts of eastern San Bernardino and Riverside Counties, including prospects within today's JTNP. Mining activity during the first decades of statehood boosted travel through the desert and increased demand for freight hauling services. Trails evolved into roads frequented by teamsters hauling freight to desert mining camps as far east as Arizona. Typically traveling east to Arizona through the Coachella Valley, some teamsters and cattle drivers began to explore more northerly return routes near the project area. Beginning in the 1870s, cattle raisers and rustlers began to settle in the vicinity of today's JTNP. Grazing activity would continue into the World War II years (King 1954; Greene 1983; Henley 2013).

The movement for creation of the desert preserve that became JTNP began in the 1920s, when real estate speculation, health resorts, and growing interest in desert recreation brought an increasing number of people to the desert. Headed by Minerva Hamilton Hoyt, the Deserts Conservation League led a campaign to preserve portions of the desert landscape, which visitors increasingly stripped of vegetation. President Franklin D. Roosevelt proclaimed the 825,340-acre Joshua Tree National Monument on August 10, 1936. Mining interests fought to maintain access to mineral resources within the monument until the 1950s (Greene 1983; Dilsaver 2015).

Beginning in 1957, NPS invested in new infrastructure to accommodate the growing number of visitors to JTNP. This undertaking was part of NPS's Mission 66, a nationwide initiative spearheaded by NPS Director Conrad Wirth. In JTNP, the Mission 66 program resulted in construction of the visitor center, residences, ranger stations, restrooms, comfort stations, and campground facilities, as well as trail development and road improvements, including creation of the CRHT feeder segment through JTNP and realignment of the Pinto Wye (Dilsaver 2016). NPS developed the CRHT segment through JTNP in coordination with California's CRHT program. Launched in 1945, that program had initially sought to create a 3,000-mile statewide master-loop trail aligned mainly through the Coast and Sierra Nevada ranges. A variety of problems, however, eventually forced the CRHT program to abandon the master-loop trail plan and instead focus on developing trails nearer California's dramatically growing urban centers. The CRHT segment through JTNP was among the trails developed as part of this shift in the CRHT program's goals. A more in-depth history of recreational trails in the United States, the CRHT program, and the CRHT feeder trail through JTNP is provided in the Cultural Resources Evaluation Report for the proposed project (ICF International 2016).

President Bill Clinton signed the California Desert Protection Act (CDPA) on October 31, 1994. The CDPA established Mojave National Preserve, raised Joshua Tree and Death Valley National Monuments to national park status, and dramatically expanded the acreage of both parks. With the CDPA, JTNP became a nearly 790,000-acre national park (Dilsaver 2015).

Archeological Surveys and Historical Studies

Records Search and Survey

In November, 2015, ICF staff conducted a cultural resources records search pursuant to Section 106 (16 USC 470) at the Eastern Information Center at University of California, Riverside, and the South

Central Coastal Information Center at California State University, Fullerton. An APE was established as a 25-meter-wide corridor on either side of the centerline of the 12kV line and the CRHT and 25 meters along the west and south of existing roads. Based on this records search, a total of 18 cultural resource studies have been conducted within a half-mile radius of the APE. Of these, 14 have occurred within at least a portion of the APE. Twenty-one previously recorded cultural resources have been documented within a half-mile radius of the APE. Of these, one (P-36-004208) encompasses a portion of the APE and one (P-33-01939) is located directly adjacent to the APE.

The pedestrian survey relocated P-36-004208 and expanded its boundary, identified 13 previously undocumented archaeological isolates (8 prehistoric, 5 historic-era), and documented the portions of the CRHT and associated features located within the APE. The pedestrian survey also determined that the entirety of P-33-01939 is outside the APE.

Types of Sites

Survey efforts identified a total of 13 new prehistoric and historic era isolates, including six unmodified flakes, one flake exhibiting possible use wear, and one edge modified flake. Historic isolates consist of crimped-seam solder-dot cans opened with icepicks and knives identified in ephemeral drainages and two Government Land Office survey markers dated 1933. A portion of known site P-36-004208, Anaconda Mine, was relocated. Additional historic-era church key–opened beverage cans, a multi-serve style rotary opened can, and two glass fragments were identified just outside the previously recorded boundary of P-36-004208 and within the project area. The site boundary was expanded to include these newly identified site components. The portion of the CRHT and associated infrastructure (mileposts, crosswalks, and turnouts) within the study area were also documented. In addition to the resources described above, the survey identified, but did not record, several modern and nondiagnostic can and bottle fragments within the study area.

National Register Status

The proposed action is an undertaking as defined in 36 CFR 800.16 [y]. Section 106 of the NHPA (36 CFR 60.4) requires that federal agencies take into account the effects of their undertakings on historic properties. Separate documentation has been prepared to comply with Section 106 and 36 CFR Part 800. Section 106 requires that federal agencies identify cultural resources within the proposed project's APE; assess impacts on resources listed in, or eligible for listing in, the NRHP; and mitigate adverse effects on such resources.

For a property to be considered for inclusion in the NRHP, it must be at least 50 years old and meet the criteria for evaluation set forth in 36 CFR 60.4, which states that the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of design, setting, materials, workmanship, feeling, and association and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history.

Eligibility for listing in the NRHP requires that a resource not only meet one of the A–D significance criteria but also possess integrity. Integrity for properties that meet Criteria A, B, and C is the ability of a property to convey its significance to the average citizen without expertise in archaeology, history, or architectural history. If a property has been subject to material alteration, removal of material elements, or vandalism such that it can no longer convey its significance to the ordinary citizen, the property lacks integrity. Most archaeological sites eligible for NRHP listing meet Criterion D, research potential. For such resources to retain integrity, their deposits need to remain intact and sufficiently undisturbed to provide a meaningful data contribution to relevant archaeological research issues. Although archaeological testing and evaluation is usually required to determine eligibility, it is possible to make provisional recommendations informed by observation of site attributes at the surface during survey efforts.

No new archaeological sites were encountered during the 2016 cultural resources survey, and one previously recorded site (P-36-004208) was updated to include newly identified artifacts. P-36-004208, the Anaconda Mine, was previously determined to be eligible for listing in the NRHP under Criteria A, B, and D.

Cultural isolates are not usually considered significant, because they generally lack qualities that would qualify them for listing in the NRHP. Eleven of the 13 isolates identified during the survey are not considered eligible for listing in the NRHP due partially to their secondary context. The two remaining isolates (1933 survey markers), while not eligible for listing in the NRHP, should be treated as potentially significant and should be avoided and protected.

Cultural Landscapes

The CRHT segment within JTNP is a 37-mile recreational trail developed during 1957–1958. While the trail includes some structures (e.g., mile posts, crossing rails) it is best analyzed as a landscape circulation feature with constructed elements that forms a potential cultural landscape, or a contributing element of a potentially significant cultural landscape or historic district composed of the trail and other associated historic-period resources. A cultural landscape typically encompasses elements of the built and natural environments, and reflect human use of and adaptation to a particular natural environment. Cultural landscapes can express land use, organization, and division, historic circulation systems, settlement patterns, and the types of construction undertaken historically in association with human use of the landscape. Cultural landscapes also integrate elements of the natural environment itself, such as landforms, vegetation, and soils.

An approximately 3.3 mile portion of the larger 37-mile CRHT segment through JTNP was recorded during the 2016 cultural resources survey conducted for the proposed undertaking. The portion of the trail within the APE is situated on a gently sloping alluvial fan with surrounding flora consisting of desert scrub moving into Joshua trees—typically creosote, Mormon tea, cholla, and small desert flowers. The recorded portion of the trail has a minimal imprint on and is well integrated into the natural landscape. It affords an unobstructed view of hills, mountains, washes, and other natural landscape features in its vicinity. The trail itself and associated posts and fence elements, along with a crossing at a paved access road, are the only constructed features in the immediate vicinity of the trail within the APE. As a landscape property type, the trail's defining characteristic is its minimal imprint on the natural high-desert environment in the APE vicinity.

The portion of the CRHT segment within the APE was formally evaluated for NRHP eligibility in 2016 (ICF International 2016). Under evaluation, the CRHT segment within the APE was found not to qualify for individual NRHP listing for the following reasons.

- **Criterion A:** The trail did not evolve as a historically significant exploration or migration route. The trail is not directly associated with the development of the first national parks beginning in the late nineteenth century, the early conservation movement, early hiking and outdoor recreation culture, or early-twentieth-century national park history. The CRHT within JTNP is not significant for its association with the CRHT program; it is not part of the original CRHT Master Loop plan but was instead created in association with the program's abandonment of the Master Loop plan in favor of less ambitious feeder-trail development near urban areas. The trail is an example of the type of resource that could qualify for NRHP listing as a contributor to a larger potentially NRHP-eligible cultural landscape or historic district formed of Mission 66 resources within JTNP, but it does not have sufficient significance in its own right within the historical context of NPS's Mission 66 program to qualify it for individual NRHP listing. The CRHT's potential to qualify for NRHP listing as a contributor to a larger cultural landscape or historic district is addressed in more detail below.
- **Criterion B:** The trail is not associated with a significant explorer or migrant, or with a miner or rancher considered significant for activities in the JTNP area. Research efforts yielded no evidence that the subject trail is directly associated with any equestrian enthusiast or equestrian organization leader, any hiking enthusiast or hiking organization leader, or any conservationist or naturalist whose achievements would confer significance on the resource.
- **Criterion C:** Research efforts yielded no evidence that the CRHT through JTNP was designed by a historically significant landscape architect, trail designer, or team of such individuals employed as NPS staff or contracted by NPS to plan and design the trail. Within the study area, the trail does not provide any physical evidence indicating that it could be an important example of the work of noteworthy landscape architects or trail designers. As a landscape property type, a property type that can sometimes qualify as a cultural landscape, the trail's defining characteristics within the study area are its simplicity and its minimal imprint on the natural landscape.
- **Criterion D:** The trail's physical characteristics do not indicate that it has potential to yield information important to our understanding of trail design, construction, or history.

Although the CRHT through JTNP does not appear individually eligible for NRHP listing, it was not possible to rule out the possibility that the trail could be a contributor to a larger cultural landscape or historic district. The 37-mile CRHT was the first long-distance trail completed within Joshua Tree National Monument. Its development marked the first of multiple infrastructure improvements within the monument that would be undertaken as part of NPS's nationwide Mission 66 program. No comprehensive survey of Mission 66 resources within JTNP has been conducted. It is possible that the CRHT within JTNP could qualify as a contributor to a historic district or cultural landscape district composed of recreational and possibly related interpretive resources developed at the park as part of the NPS's Mission 66 program. It is also possible (though probably less so) that the trail could contribute to a cultural landscape or historic district formed of recreational and possibly related interpretive resources dating from the early years of the monument in the 1930s through the Mission 66 period. Therefore, in the absence of a comprehensive survey and evaluation of Mission 66 or more broadly conceived mid-twentieth-century JTNP cultural resources, for the

purposes of this EA the CRHT within JTNP is assumed eligible for listing in the NRHP as a contributor to significance cultural landscape or district.

Park Management and Operations

Park management and operations include activities required to manage and operate the park's infrastructure on a daily basis. Buildings, roads, trails, utilities, and campgrounds require a range of operational activities from basic sanitation to snow plowing to water testing. The quality and effectiveness of the infrastructure, and the ability to maintain the infrastructure used in the operation of the park protects and preserves vital resources necessary to provide for a positive visitor experience. Park Boulevard, within the project area, requires regular maintenance to repair cracks, potholes, roadway edges, and soft shoulders. The project area also includes low-water crossings that require maintenance (sand and debris removal from the roadway, repair of crossing edges), particularly after rain events. The park has installed buried gabions, K rails, and large boulders at several of these low-water crossings to help mitigate flow events to protect the roadway. Other parking areas and wayside attractions within the project area include the north entrance to the park, the CRHT, Contact Mine Trailhead, and a designated day-use area. With the exception of the entrance, these attractions are unpaved and require occasional maintenance.

Chapter 4

Environmental Consequences

This chapter presents the analysis of the potential environmental consequences that would occur as a result of either Alternative A: No-Action Alternative or Alternative B: Proposed Action. This chapter also describes the framework for the impact analysis, including key assumptions, parameters or measures of impact, and analytical techniques or approaches.

Methodology

NPS generally based the impact analyses and conclusions on reviews of existing literature and park studies, information provided by experts within the park and other agencies, professional judgment, park staff insights, consultation with the SHPO and interested local tribes, and public input. Potential impacts are described in terms of type, context, intensity, and duration; additionally, impacts can be both direct and indirect. CEQ also requires analysis of cumulative impacts. General definitions of these terms are provided below: resource-specific impact thresholds are provided at the beginning of each resource section.

Type

Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions; adverse impacts would deplete or negatively alter resources.

Context

Context describes the environment within which an impact may occur, such as local, parkwide, regional, or global; affected interests; society as a whole; or any combination of these. Context is variable and depends on the circumstances involved with each impact topic. The CEQ requires that impact analyses include discussions of context.

Intensity

Intensity reflects the degree to which a resource would be beneficially or adversely affected. The criteria that were used to rate the intensity of the impacts for each resource topic are presented in the relevant sections.

Duration

The *duration* of an impact is the time period for which the impact is evident and is expressed as short or long term. A short-term impact would be of temporary duration and would be associated with road construction activities. Depending on the resource, impacts may last as long as construction takes place, a single year, a growing season, or longer.

Direct and Indirect Impacts

Both direct and indirect impacts are analyzed, consistent with CEQ regulations (40 CFR 1502.16) and DO-12. The following definitions of direct and indirect impacts are considered but not specifically identified in the environmental analysis.

- **Direct:** an effect that is caused by an action and occurs at the same time and place.
- **Indirect:** an effect that is caused by an action but is later in time or farther removed in distance, but still reasonably foreseeable.

Cumulative Impacts

The CEQ regulations implementing NEPA require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions” (40 CFR 1508.7). Cumulative impacts are considered for both Alternative A and Alternative B.

Cumulative impacts were determined by combining the impacts of each alternative with other past, present, and reasonably foreseeable future actions. To this end, the following actions were identified for the purpose of conducting the cumulative effects analysis.

- **Past Actions**—Rehabilitation and chip seal of other park roads, including Park Boulevard within the current action area.
- **Present Actions**—Maintenance of visitor facilities (e.g., wayside signs, restrooms, parking areas and pullouts).
- **Future Actions**—Installation of new wayside exhibits.

Private and public lands adjacent to the park are currently and will likely continue to be subjected to increased development and urbanization.

Impact Analysis

Geological Resources—Soils

The analysis of the potential intensity of impacts on soils was derived from the available soils information and park staff’s observations of the effects of both visitor use and construction activities, and professional judgment. The impact thresholds for the soils analysis are defined in Table 5.

Table 5. Impact Thresholds—Soils

Threshold	Description
Negligible	Impacts that are at the lowest levels of detection and cause very little or no physical disturbance/removal, compaction, or unnatural erosion when compared with current conditions are negligible impacts. Alteration to soils would be so slight that it would not affect the soils' ability to sustain biota, water quality, or hydrology. Soil conditions would be consistent with historical or baseline conditions.
Minor	Impacts that are slight but detectable in some areas, with few perceptible effects of physical disturbance/removal, compaction, or unnatural erosion of soils are minor impacts. Alteration to soils would affect their ability to sustain biota, water quality, or hydrology. Slight alterations to soils would be consistent with historical or baseline conditions. Mitigation measures, if needed to offset adverse impacts, would be simple and successful.
Moderate	Impacts that are readily apparent in some areas and have measurable effects of physical disturbance/removal, compaction, or unnatural erosion of soils are moderate impacts. Alteration to soils would affect their ability to sustain biota, water quality, or hydrology. Mitigation measures, if needed to offset adverse impacts, could be extensive but would likely be successful.
Major	Impacts that are readily apparent in several areas and have severe effects of physical disturbance/removal, compaction, or unnatural erosion of soils are major impacts. Alteration to soils would have a lasting impact on their ability to sustain biota, water quality, or hydrology. Extensive mitigation measures would be needed to offset any adverse impacts and their success could not be guaranteed.
Short-term	Short-term impacts recover in less than 3 years.
Long-term	Long-term impacts take 3 or more years to recover.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

Under the No-Action Alternative, SCE would continue to operate the existing line that provides power to JTNP and Bell Mountain (where FAA, County emergency services, and JTNP all maintain independent communication facilities). The existing underground line is located in a mostly natural landscape within the park, not adjacent to any roads or other utility corridors. Dry climate and high evaporation in the area could result in erosion rates exceeding soil formation; thus surface soils would continue to erode at current rates. Impacts on soils may result if repairs are required on the existing line, potentially causing disturbance and compaction of soils if repairs are extensive. These impacts could range from slightly detectable to readily apparent and from negligible to major depending on the severity of the issue. Accordingly, the No-Action Alternative could result in short- or long-term, minor to major, and adverse impacts.

Cumulative Impacts

As the existing line is located in mostly natural landscape in a rural location, future development is unlikely to occur in the area and would not be expected to contribute significantly to soil erosion. Past, present, and reasonably foreseeable future actions with the potential to affect soil resources could include past roadway improvement projects and ongoing road maintenance activities along nearby streets. These activities include rehabilitation and reconstruction of roadways, pothole

repair, chip sealing, shoulder grading, and shoulder edge repair. Reconstruction, rehabilitation, and maintenance actions have the potential to affect soil resources through disturbance, compaction, and increased erosion. These impacts may also result in the inability of disturbed soils to sustain biota. Thus, overall cumulative impacts on soils from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be short-term, minor to major, and adverse.

Conclusion

Under the No-Action Alternative, continued operation of the existing line could result in short- or long-term, minor to major, and adverse impacts on soils in the area. Cumulative impacts, including the No-Action Alternative, would be short-term, minor to major, and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

Under the proposed action, the proposed action would result in approximately 2 acres of disturbance. As mentioned in Chapter 2, *Alternatives*, the majority of the new line would be direct-buried. A trench would be excavated within 15 feet of the edge of Park Boulevard to accommodate placement of the conduit. Following installation of the conduit, the trench would be backfilled and compacted. Installation of pull boxes would also entail soil disturbance associated with excavations approximately 4 by 5 feet and 4–5 feet deep. HDD is not expected to disturb a substantial amount of soil. Furthermore, an existing staging area located near the park's maintenance facility would be used during construction to store equipment and materials. No previously undisturbed areas would be used for staging during construction.

These impacts would be readily detectable in the disturbed areas, would have measurable effects on physical disturbance and removal of soils, and could result in soil erosion and compaction. However, these alterations would not result in the soils' inability to sustain biota in the disturbed areas and could naturally revegetate following construction. Areas of temporarily disturbed land would be restored to existing topography following construction to minimize impacts. Existing Joshua trees would be avoided during construction, and native shrubs that cannot be avoided would be removed and replanted. Moreover, resource protection measures GEO-1 and WQ-1 would prevent or reduce nonpoint-source pollution and minimize soil loss and sedimentation in drainage areas as well as reduce the proposed action's potential to affect water quality during construction. Thus, the proposed action would result in localized short-term, minor, and adverse impacts.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect soil resources would include past roadway improvement projects and ongoing road maintenance activities along nearby roadways. These activities include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, and shoulder edge repair. Reconstruction, rehabilitation and maintenance actions have the potential to affect soil resources through disturbance, compaction, and increased erosion. These impacts may also result in the inability of disturbed soils to sustain biota. However, with implementation of resource protection measures, the proposed action is unlikely to contribute substantially to cumulative effects from nearby reconstruction, rehabilitation, and maintenance activities. The overall cumulative impacts on soils of past, present, and reasonably

foreseeable future projects in combination with the proposed action would be short-term, minor, adverse, and local.

Conclusion

Under the proposed action, impacts on soils would be detectable in excavated areas, would have measurable effects on physical disturbance and removal of soils, and could result in soil erosion and compaction. However, these alterations would not result in the soils' inability to sustain biota in the disturbed areas as these areas could naturally revegetate following construction. Additionally, resource protection measures GEO-1 and WQ-1 would reduce impacts and protect park resources. Thus, the proposed action would result in localized impacts that would be short-term, minor, and adverse. Cumulative impacts, including those of the proposed action, would be short-term, minor, adverse, and local.

Vegetation

Predictions about impacts were based on the expected disturbance to vegetation communities and professional judgement. The thresholds of change for the intensity of impacts on vegetation are defined in Table 6.

Table 6. Impact Thresholds—Vegetation

Threshold	Description
Negligible	No native vegetation would be affected, or some individual native plants could be affected as a result of the alternative, but there would be no effect on populations of native species.
Minor	Some individual native plants could be subject to direct effects. The alternative would affect a relatively small portion of the species' population; result in short-term changes in plant species composition or community structure consistent with successional pathways of the community expected to result from a natural disturbance event; or result in an increase in invasive species in limited locations. Mitigation to offset adverse effects could be required and would be effective.
Moderate	Some individual native plants as well as a sizable segment of the species population would be subject to direct effects. The alternative would result in changes in plant species composition or community structure consistent with successional pathways of the community expected to result from a natural disturbance event. Increases in invasive species would occur but would not jeopardize the overall native plant communities. Mitigation required to offset adverse effects could be extensive, but it would likely be successful.
Major	The alternative would result in considerable direct effects on native plant populations, would affect populations inside and outside the park, or would result in widespread increase in invasive species, jeopardizing native plant communities. Mitigation measures required to offset the adverse effects would be extensive, and success of the measures would not be guaranteed.
Short-term	Short-term impacts recover in less than 3 years.
Long-term	Long-term impacts take 3 or more years to recover.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

No new impacts on vegetation would occur under the No-Action Alternative. SCE would continue to operate the existing distribution line under routine maintenance procedures, which would continue to affect vegetation along the existing line; however, such impacts would occur infrequently and would be distributed across the landscape. No substantial change in vegetation conditions would be likely under the No-Action Alternative. Accordingly, the No-Action Alternative would have negligible, short-term impacts on vegetation resources.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect vegetation resources include past roadway improvement projects and ongoing road maintenance activities. These activities include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, shoulder edge repair, and recreational development (such as kiosks, trailheads, visitor centers, and waysides), including roadway work within the proposed action area. These roadway maintenance and recreational development activities would continue and may increase due to continued deterioration of the roadway and ongoing visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect vegetation resources through disturbance and removal of individual plants. Past, present, and reasonably foreseeable future projects within the park and the surrounding region would contribute to vegetation disturbance, affecting the abundance and diversity of some species, and introducing disturbance regimes and nonnative species. The overall cumulative impacts on vegetation resources from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be long-term, minor, adverse, and at both the local and regional scale.

Conclusion

The No Action Alternative would continue to have negligible, short-term impacts on vegetation resources. Cumulative effects would be regional, local, long-term, and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

Construction activities would result in approximately 0.2 acre of vegetation disturbance. Initial vegetation surveys in the area determined that cacti, Mojave yucca, and Joshua trees are present in or near the disturbance areas. Some native vegetation, primarily creosote bush and desert tea, would be removed or trimmed during trenching activities to install the new distribution line. Subsequent surveys conducted by SCE and Park staff indicate that all Joshua trees can be avoided, and 12 yuccas and cacti are within the disturbance areas (1 beavertail prickly pear, 6 golden cholla, and 5 Mojave yucca). Construction activities would be confined to the smallest area necessary to complete the work, and areas of temporarily disturbed land would be restored to existing topography following construction to minimize impacts. Native shrubs that cannot be avoided would be removed and replanted to provide vertical mulch and cover for animals. Succulents, as discussed above, that cannot be avoided will be salvaged, transplanted, and watered to ensure

survival. Potential effects on special-status plant species are discussed in *Special-Status Species* below.

Impacts under the proposed action would be apparent and outside the natural range of variability; however, key ecosystem processes and community structure would be retained at the regional level. The proposed action would have local short-term, moderate, and adverse effects on vegetation resulting from activities associated with installation of the distribution line.

Cumulative Impacts

The past, present, and reasonably foreseeable future projects within or adjacent to the park are the same as those outlined above for the No-Action Alternative. Ground disturbance associated with construction activities such as roadway reconstruction and recreational development would have localized effects, including effects in the vicinity of the proposed action, but vegetation communities would not change regionally. The overall cumulative impacts on vegetation resources from past, present, and reasonably foreseeable future projects in combination with the proposed action would be long-term, moderate, and adverse.

Conclusion

The proposed action would have local long-term, moderate, and adverse effects on vegetation resources from construction. Weed establishment in areas of disturbed soil is possible, but would be minimized with weed-control BMPs. Areas of new weed establishment would be along the roadside and would be easily detected and targeted for control. Cumulative effects on vegetation would be long-term, moderate, and adverse.

Wildlife

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. According to NPS's *Management Policies 2006*, the restoration of native species is a high priority (Section 4.1). Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems including natural abundance, diversity, and the ecological integrity of plants and animals. Information on Joshua Tree wildlife was taken from park documents and records, Joshua Tree natural resource management staff, and surveys of the project area. The thresholds of change for the intensity of impacts on wildlife are defined in Table 7.

Table 7. Impact Thresholds—Wildlife

Threshold	Description
Negligible	Impacts on native species, their habitats, or the natural processes sustaining them would not be observable or would be barely perceptible. Impacts would be within natural fluctuations.
Minor	Impacts would be detectable and would not be expected to be outside the natural range of variability of native species' populations, their habitats, or the natural processes sustaining them. Ecosystem processes and community structure would be retained at the local level.
Moderate	Impacts would be readily apparent and outside the natural range of variability. Breeding animals of concern would be present, animals would be present during vulnerable life stages, and mortality or interference with activities necessary for survival would be expected on an occasional basis but would not be expected to threaten the continued existence of the species in the park. Key ecosystem processes and community structure would be retained at the landscape (regional) level.
Major	Impacts on native species, their habitats, or the natural processes sustaining them would be severely adverse or exceptionally beneficial and would be expected to be outside the natural range of variability. Key ecosystem processes and community structure might be disrupted. Loss of habitat might affect the viability of at least some native species. Habitat for native species may be rendered nonfunctional at the landscape level.
Short-term	Recovers in less than 1 year or within one breeding season.
Long-term	Recovers in more than 1 year or more than one breeding season.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

No new impacts on wildlife or wildlife habitat would occur under the No-Action Alternative. SCE would continue to operate the existing line under routine maintenance procedures, which would continue to affect wildlife and wildlife habitats along the existing distribution line; however, such impacts would occur infrequently and would be distributed across the landscape. No substantial change in wildlife habitat or use would be likely under the No-Action Alternative. Accordingly, the No-Action Alternative would have negligible, short-term impacts on wildlife.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect wildlife resources include past roadway improvement projects and ongoing road maintenance activities. These activities include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, shoulder edge repair, and recreational development (such as kiosks, trailheads, visitor centers, and waysides), including roadway work within the proposed action area. These roadway maintenance and recreational development activities would continue and may increase due to continued deterioration of the roadway and ongoing visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect wildlife resources by disturbance and mortality of individuals. Past, present, and reasonably foreseeable future projects within the park and the surrounding region would contribute to habitat loss affecting the

abundance and diversity of some wildlife species by changing the capacity of habitat to provide necessary food, shelter, and reproduction sites. The overall cumulative impacts on wildlife resources from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be short- and long-term, minor, adverse, and local.

Conclusion

Under the No-Action Alternative, the continuation of existing conditions would constitute a negligible, short-term impact on wildlife. Overall cumulative impacts from past, present, and reasonably foreseeable future actions, in conjunction with the No-Action Alternative, would be short- and long-term, minor, and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

Construction activities would result in approximately 0.2 acre of disturbance to vegetation that provides habitat for birds, small mammals, and reptiles. However, because the habitat is located along a roadside, it provides relatively low-quality habitat for wildlife species. Impacts may include harm during trenching activities and disruption of behavior during construction activities. Human presence and construction noise would temporarily disturb and may displace resident wildlife; however, the duration of the disturbance is likely to be very short. Construction activities could also result in incidental death of unseen wildlife along roads, such as beneath crushed vegetation, in undetected burrows, or by entrapment of wildlife in pits or trenches. Construction activities would be confined to the smallest area necessary to complete the work, and areas of temporarily disturbed land would be restored to existing topography following construction to minimize impacts. Existing Joshua trees would be avoided during construction. Native shrubs that cannot be avoided would be removed and replanted to serve as vertical mulch and cover for animals. Potential effects on special-status wildlife species are discussed in *Special-Status Species* below.

Impacts under the proposed action would be apparent and outside the natural range of variability; however, key ecosystem processes and community structure would be retained at the regional level. The proposed action would have local short-term, moderate, and adverse effects on wildlife from activities associated with the installation of the distribution line and general noise and disturbance above the levels currently present.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects in or adjacent to the park are the same as those outlined above for the No-Action Alternative. Ground disturbance associated with construction activities such as roadway reconstruction and recreational development would have localized effects, including localized effects in the same area as the proposed action, but regional wildlife populations would not change. The overall cumulative impacts on wildlife resources from past, present, and reasonably foreseeable future projects in combination with those of the proposed action would be short- and long-term, moderate, and adverse.

Conclusion

The proposed action would result in approximately 2 acres of disturbance; however, the disturbance would take place along an already disturbed roadside. Under the proposed action, impacts on

wildlife would result in local short-term, moderate, and adverse impacts. Cumulative impacts would be short- and long-term, moderate, and adverse.

Special-Status Species

Section 7 of the ESA mandates all federal agencies to determine how to use their existing authorities to further the purposes of the ESA to aid in recovering listed species and to address existing and potential conservation issues. Section 7(a)(2) states that each federal agency shall, in consultation with the Secretary of the Interior, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. NPS's *Management Policies 2006* states that potential effects of agency actions would also be considered for state- or locally listed species (i.e., special-status species). The impact thresholds for special-status species are summarized in Table 8.

Table 8. Impact Thresholds—Special-Status Species

Threshold	Description
Negligible	The action would result in a change to a population or individuals of a species, but the change would be of barely perceptible consequence and would be well within natural variability. In the case of federally listed species, this impact intensity equates to a USFWS determination of “may affect, not likely to adversely affect,” where insignificant and discountable or completely beneficial effects may occur but would not result in the take of individuals.
Minor	The action would result in a change to a population or individuals of special-status species. The change could be measurable, but it would be small and localized and not outside the range of natural variability. Mitigation measures, if needed, would be simple and successful. In the case of federally listed species, this impact intensity would equate to a USFWS determination of “may affect, not likely to adversely affect.”
Moderate	Impacts on special-status species, their habitats, or the natural processes sustaining them would be detectable and occur over a large area. Breeding individuals would be present, and animals would be present during vulnerable life stages. Mortality or interference with activities necessary for survival would be expected on an occasional basis but would not be expected to threaten the continued existence of the species in the park. Mitigation measures would be extensive and likely successful. In the case of federally listed species, this impact intensity would equate to a USFWS determination of “may affect, likely to adversely affect.”
Major	The action would result in noticeable effects on the viability of the population or individuals of a species. Impacts on special-status species or the natural processes sustaining them would be detectable, both inside and outside the park. Loss of habitat might affect the viability of at least some special-status species. Extensive mitigation measures would be needed to offset any adverse effects, and their success could not be guaranteed. In the case of federally listed species, the impact intensity would equate to a USFWS determination of “may affect, likely to jeopardize the continued existence of a species.”
Short-term	Recovers in less than 1 year or within one breeding season.
Long-term	Recovers in more than 1 year or more than one breeding season.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

No new impacts on special-status species or their habitats would occur under the No-Action Alternative. SCE would continue to operate the existing line under routine maintenance procedures, which would continue to affect special-status wildlife along the existing distribution line; however, impacts would occur infrequently and would be distributed across the landscape. No substantial change in special-status species presence or use would be likely under the No-Action Alternative. Consequently, the No-Action Alternative would have negligible, short-term impacts on wildlife.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect special-status species include past roadway improvement projects and ongoing road maintenance activities. These activities include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, shoulder edge repair, and recreational development (such as kiosks, trailheads, visitor centers, and waysides), including roadway work within the current action area. These roadway maintenance and recreational development activities would continue and may increase due to continued deterioration of the roadway and ongoing visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect special-status species through disturbance and mortality of individuals. Past, present, and reasonably foreseeable future projects within the park and the surrounding region would contribute to habitat loss affecting the abundance and diversity of some wildlife species by changing the capacity of habitat to provide necessary food, shelter, and reproduction sites. The overall cumulative impacts on special-status species from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be short- and long-term, minor, adverse, and at both the local and regional scale.

Conclusion

The No-Action Alternative would have local short-term but negligible impacts on special-status species. Cumulative effects would be local and regional, short- and long-term, minor, and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

Construction activities would result in approximately 0.2 acre of disturbance to vegetation that provides habitat for special-status species. However, because the habitat is located along a roadside, it provides relatively low-quality habitat for special-status species. Desert tortoise was not observed within the disturbance areas during surveys, but could occur in the area at the time of construction. Direct impacts on desert tortoise could result from incidental death through crushing of tortoises by vehicles if they walk into the construction area, or through entrapment in trenches or pits. Resource protection measures to require construction contractors to check under vehicles and to let tortoises move away on their own if present would help to avoid potential vehicle hazards. Other measures to inspect and cover or backfill trenches each day would prevent entrapment. Indirect effects could include behavioral changes in response to noise, vibration, dust, and exhaust as well as additional

human activity during construction. Other potential indirect effects include inadvertent spread of nonnative, invasive plant species that may result in a reduction of native food sources for desert tortoises, and the attraction of predators such as ravens. Resource protection measures to reduce the potential spread of noxious weeds and measures to reduce the attraction of predators would help address these potential impacts. Considering these impacts and the resource protection measures to be implemented, the proposed action may affect but is not likely to adversely affect desert tortoise. NPS has prepared a request for concurrence with this finding that includes a list of conservation measures that would be implemented to reduce potential impacts on desert tortoise. Consequently, the proposed action is not expected to incidentally take desert tortoise individuals and would have negligible, short-term impacts that are not adverse.

Under the proposed action, impacts on six bird species of concern—Bendire’s thrasher, Le Conte’s thrasher, loggerhead shrike, black-tailed gnatcatcher, golden eagle, burrowing owl—are possible as a result of vegetation disturbances and displacement during construction. The proposed action would not result in impacts on any known breeding sites for any of these species; however, they may avoid foraging near the project area during construction. This avoidance would be a local short-term minor adverse impact on these species, but there would be no long-term impacts.

Bighorn sheep sign was observed in the region during surveys; however, the project area is not known to be an important area for this species and impacts are likely to be negligible, primarily from avoidance of the area, as the sheep are highly mobile.

Two special-status plant species, Alverson’s foxtail cactus and Mojave menodora, occur in small areas of the project area; however, most individual plants are located outside the proposed work area and would not be affected during construction activities. Individual plants of both species would be avoided to the extent possible, and any disturbed individual plants would be replanted or used as vertical mulch following construction. The proposed action would not restrict the species’ distribution or significantly reduce their numbers within the park, and effects would be negligible.

Overall, the proposed action would have local short-term, negligible, minor adverse impacts on special-status species.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects in or adjacent to the park are the same as those outlined above for the No-Action Alternative. Ground disturbance associated with construction activities such as roadway reconstruction and recreational development would have localized effects, including localized effects in the same area as the proposed action, but regional populations of special-status species would not change. The overall cumulative impacts on special-status species from past, present, and reasonably foreseeable future projects in combination with those of the proposed action would be regional and local, short- and long-term, moderate, and adverse.

Conclusion

The proposed action would have short-term negligible effects during construction on desert tortoise, federally listed as threatened, but these effects would not likely result in incidental take. Implementing the proposed action may result in a USFWS concurrence with the NPS proposed determination of “may affect, not likely to adversely affect” for the desert tortoise depending on the results of the Section 7 consultation process. The proposed action would result in short-term,

negligible, or minor adverse impacts on other special-status species. Cumulative effects would be regional and local, short- and long-term, moderate, and adverse.

Visitor Use/Experience, Visitor Safety

The impact thresholds for the analysis of visitor use/experience and visitor safety are identified in Table 9.

Table 9. Impact Thresholds—Visitor Use/Experience and Visitor Safety

Threshold	Description
Negligible	Visitors would not be affected or changes in visitor use or experience would be below or at the level of detection under the alternative. The visitor would not likely be aware of the effects associated with the alternative.
Minor	The alternative would result in the displacement of recreationists or closure of trails and recreation areas during off-peak recreation use, alteration of a vista, or presence of equipment. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.
Moderate	The alternative would result in direct changes in visitor use or experience that would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely express an opinion about the changes.
Major	The alternative would result in closure of trails and recreation areas, conflict with peak recreation use, or change the scenic integrity of a vista during peak recreation use. The visitor would be aware of the effects association with the alternative and would likely express a strong opinion about the changes.
Short-term	Impacts would occur only during the construction period.
Long-term	Impacts would occur during and after the construction period.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

Selection of the No-Action Alternative would represent a continuation of current conditions. The No-Action Alternative would not result in any impacts on visitor use/experience or on the safety of visitors driving on Park Boulevard.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect visitor use/experience and visitor safety include past roadway improvement projects and ongoing road maintenance activities. These activities include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, shoulder edge repair, and recreational development (such as kiosks, trailheads, visitor centers, and waysides). These roadway maintenance and recreational development activities would continue and could increase due to continued deterioration of the roadway and increased visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park, including Park Boulevard. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect visitor use/experience and visitor safety by potentially displacing visitors during high seasonal use periods. The visitor could detect deteriorated roadway conditions, and visitors could be exposed to

limited hazards caused by current roadway conditions. Past, present, and reasonably foreseeable future projects within the park would likely contribute to changes in visitor use and safety hazards. The overall cumulative effects of these past, present, and reasonably foreseeable future actions, in conjunction with the No-Action Alternative, would be short-term, minor to moderate, and adverse.

Conclusion

Under the No-Action Alternative, no impacts on visitor use/experience and visitor safety would occur. The overall cumulative effects of past, present, and reasonably foreseeable future actions would be short-term, minor to moderate, and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

During the construction period, visitors would experience delays from traffic controls. Traffic controls would require minor delays to visitors; however, they would ensure that visitors are guided in a safe and orderly manner around construction sites. Work would not take place on weekends or holidays, helping to minimize effects during peak park use periods. Park management would notify visitors (bulletins, notices at visitor's centers, and roadway signs) of construction activities, wayside closures, and roadway closures or delays. The proposed action would likely result in direct changes in visitor use or experience that would be readily apparent. The short-term effects on visitor use experience would be related to construction noise, the presence of construction equipment, and construction-related traffic delays. Increasing the disturbed road edge has the potential for long-term effects through creating de facto parking along roadways. The proposed action would result in short-term, minor, adverse effects on visitor use/experience and visitor safety.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects in or adjacent to the park are the same as those outlined above for the No-Action Alternative. Cumulative projects would be distributed throughout the park and would generally not take place concurrently, thus would not be readily noticeable to some visitors. These activities would have short-term, moderate, adverse impacts on visitor experience for the duration of construction activities.

Conclusion

Under the proposed action, construction of the new distribution line would result in short-term, minor, adverse effects on visit use/experience and visitor safety, primarily from traffic delays. The cumulative effects on visit use/experience and visitor safety in conjunction with the proposed action would be short-term, moderate, and adverse for the duration of construction activities.

Archeological Resources

The impact thresholds for archeological resources are defined in Table 10.

Table 10. Impact Thresholds—Archeological Resources

Threshold	Description
Negligible	Impacts are at the lowest levels of detection. There are no perceptible consequences to an archeological site's potential to yield important information.
Minor	Impacts on an archeological site are identifiable and measurable, but would result in little loss of important information potential. The NRHP status of the site would be unaffected.
Moderate	Impacts on an archeological site are apparent and measurable but would not result in a loss of most or all of the site and its potential to yield important information. The site would remain eligible to be listed in the NRHP.
Major	Impacts on an archeological site are substantial and would result in the loss of most or all of the site and its potential to yield important information. The site would no longer be eligible for listing in the NRHP.
Long-term	Because most archeological resources are non-renewable, any effects would be long term.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

Selection of the No-Action Alternative would represent a continuation of current conditions. As no action would be taken under this alternative, construction would not occur. Impacts on archeological resources under the No-Action Alternative would not occur.

Cumulative Impacts

Archeological resources are subject to damage from a variety of natural events and human activities. Development, park maintenance, vandalism, theft, traditional visitor use, and natural processes all pose a threat to resources. Past development in the surrounding region has likely damaged archeological resources. Past, present, and reasonably foreseeable future projects with the potential to affect archeological resources include past roadway improvement projects and ongoing road maintenance activities. These activities include rehabilitation and reconstruction of roadways, shoulder grading, shoulder edge repair, and recreational development (such as kiosks, trailheads, visitor centers, and waysides). Roadway maintenance and recreational development activities would continue and could increase due to continued deterioration of the roadway and increased visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park.

Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect archeological sites. Ground disturbance associated with construction activities would generally occur in previously disturbed areas. Greater impacts would be mitigated through BMPs, project design, and consultation as applicable. Visitors may inadvertently disturb archeological sites near the road and in other areas of the park through trampling, artifact collection, and other recreational activities. The overall cumulative impacts on archeological resources from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be minor and adverse.

Conclusion

Impacts on archaeological resources would not occur under the No-Action Alternative. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with the No-Action Alternative would be minor and adverse.

Alternative B: Proposed Action

Direct and Indirect Impacts

Under the proposed action, Phases I and II of the project would be implemented. Resource protection measures include features to avoid and minimize impacts on NRHP-eligible cultural sites, including the eligible Anaconda Mine site identified in the project area. Phase II would involve the removal of 11 existing pull boxes; however, pedestrian surveys of the area did not identify potentially eligible cultural resources. The structures would be removed by crews using hand tools and backfilled using immediately adjacent soils. Overall, disturbance would be localized within the project area and BMPs and resource protection measures would be conducted to avoid impacts on the archaeological resources. Impacts under the proposed action would be short-term, minor, and adverse.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects within or adjacent to the park are the same as those outlined above for the No-Action Alternative. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with those of the proposed action would be minor and adverse.

Conclusion

Impacts on archeological sites under the proposed action would be short-term, minor, and adverse. The overall cumulative impacts on archaeological sites from past, present, and reasonably foreseeable future projects in combination with the proposed action would be minor and adverse.

Cultural Landscapes

Impact thresholds for the analysis of cultural landscapes are defined in Table 11.

Table 11. Impact Thresholds—Cultural Landscapes

Threshold	Description
Negligible	Impacts are at the lowest levels of detection—barely measurable with no perceptible change.
Minor	Alteration of patterns or features of the landscape would not diminish the overall integrity of the landscape.
Moderate	Alteration of patterns or features of the landscape would diminish the overall integrity of the landscape.
Major	Alteration of patterns or features of the landscape would severely diminish the overall integrity of the landscape.
Long-term	Because most resources related to cultural landscapes are nonrenewable, any effects would be long-term.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

Selection of the No-Action Alternative would represent a continuation of current conditions. As no action would be taken under this alternative, construction would not occur. Impacts on the cultural landscape under the No-Action Alternative would not occur.

Cumulative Impact

Cultural landscapes are subject to damage from a variety of natural events and human activities. Development, park maintenance, vandalism, theft, traditional visitor use, and natural processes all pose a threat to landscape features. Past, present, and reasonably foreseeable future projects with the potential to affect the CRHT include recreation activities, past roadway improvement projects, and ongoing road maintenance. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with those of the No-Action Alternative would be negligible.

Conclusion

Impacts on the CRHT—a potential contributing resource to a historic district or cultural landscape district—would not occur under the No-Action Alternative. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with those of the No-Action Alternative would be negligible.

Alternative B: Proposed Action

Direct and Indirect Impacts

Under the proposed action, Phases I and II of the project would be implemented. Disturbance to the CRHT would be limited to a single roadside location during Phase I, where a trench would be dug perpendicular to the trail. Impacts from this activity would be short-term and negligible. Phase II would involve the removal of 11 existing structures, many of which occur on or adjacent to the CRHT. The structures would be removed by crews using hand tools and backfilled using immediately adjacent soils. Overall, disturbance would be localized within the project area and BMPs and resource protection measures would be implemented to avoid impacts on the cultural landscape. Implementation of this alternative would remove some currently visible boxes along the existing distribution line and would restore the landscape along the trail to a more natural condition, resulting in a beneficial effect. Impacts under the proposed action would be short-term, minor, and adverse and long-term, minor, and beneficial.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects in or adjacent to the park are the same as those outlined above for the No-Action Alternative. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with the proposed action would be negligible.

Conclusion

Impacts on the CRHT—a potential contributing resource to a historic district or cultural landscape district—would be short-term, minor, and adverse and long-term, minor, and beneficial under the proposed action. The overall cumulative impacts on the cultural landscape from past, present, and reasonably foreseeable future projects in combination with those of the proposed action would be negligible.

Park Management/ Operations

Impact thresholds for the analysis of park management/operations are defined in Table 12.

Table 12. Impact Thresholds—Park Management/Operations

Threshold	Description
Negligible	Park management / operations would not be affected or the effect would be at or below the lower levels of detection, and would not have an appreciable effect on park management /operations.
Minor	The alternative results in direct and indirect effects that would be detectable, but would be of a magnitude that would not have an appreciable effect on park management/operations, suspension of non-critical park management/operations, or impact to park buildings and structures. If mitigation measures were needed to offset adverse effects, it would be relatively simple and likely successful.
Moderate	The alternative would result in effects that would be readily apparent, and would result in a substantial change in park management/operations in a manner noticeable to staff and the public; suspension of all park operations (1-2 days); or detectable impacts on park buildings and structures. Mitigation measures would probably be necessary to offset adverse effects and would likely be successful.
Major	The alternative would result in effects that would be readily apparent, would result in a substantial change in park management/operations in a manner noticeable to staff and the public and be markedly different from existing operations; suspension of all park operations; or substantial impacts on park buildings and structures. Mitigation measures to offset effects would be needed, would be extensive, and their success could not be guaranteed.
Short-term	Impacts are effects lasting for the duration of the construction period.
Long-term	Impacts are effects lasting longer than the duration of the construction period.

Alternative A: No-Action Alternative

Direct and Indirect Impacts

Selection of the No-Action Alternative would represent a continuation of current conditions. SCE would continue to operate the existing underground line until failures occurred, at which point repair of the existing line would be required to continue to provide power to the park and other users. Although the type and extent of repairs that would be required are difficult to predict, it is likely that most of the existing line would need replacement or service on an emergency basis. Depending on the severity of the issue, impacts could be short- or long-term, minor to moderate, and adverse.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions with the potential to affect park management/operations include rehabilitation and reconstruction of roadways, pothole repair, chip sealing, shoulder grading, shoulder edge repair, implementation of park management plans, and recreational development (such as kiosks, trailheads, visitor centers, and waysides). Roadway maintenance and recreational development activities would continue into the foreseeable future and could increase due to continued deterioration of the roadway and increased visitor use. Future activities would also likely include rehabilitation and reconstruction of other roadways within the park. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect park management/operations by potentially resulting in increased maintenance costs or causing a change in management and operations. Improved roadways and recreational facilities would reduce maintenance needs and costs, resulting in long-term, minor beneficial effects on park management/operations. The overall cumulative effects of these past, present, and reasonably foreseeable future actions, in conjunction with those of the No-Action Alternative, would have long-term, minor, adverse impacts and long-term, minor, beneficial effects on park management/operations.

Conclusion

Under the No-Action Alternative, impacts on park management/operations would be short- or long-term, minor to moderate, and adverse. The overall cumulative effects of past, present, and reasonably foreseeable future actions on park management/operations, in conjunction with those of the No-Action Alternative, would be long-term, minor, and both adverse and beneficial.

Alternative B: Proposed Action

Direct and Indirect Impacts

During the construction period, park management would notify visitors (bulletins, notices at visitor's centers, and roadway signs) of construction activities, wayside closures, and roadway closures or delays. During trenching and HDD activities, traffic controls would be implemented because equipment and soils would be present on the roadway. Depending on the length of the work zone and line of sight, flaggers or a pilot car may be used to facilitate traffic movement. However, one lane of traffic would remain open at all times. Additionally, implementation of GM-8 would ensure that traffic delays resulting from construction activities would be limited to a 30-minute maximum in one direction through the project area. All traffic controls would be coordinated with JTNP to minimize disruption to visitors to the extent possible. Furthermore, implementation of OPS-1 would require the construction contractor to coordinate with park staff to locate buried gabions, K rail, or boulders at low-water crossings along Park Boulevard prior to construction to minimize adverse impacts on these structures. Once construction is completed, park staff planning would need to consider the buried line when planning and conducting future roadway repairs and maintenance work along Park Boulevard. The new distribution line would be a more reliable source of power in the long term and would result in fewer outages. Phase II of the proposed action would last approximately 2 weeks and would not require closure of any roads or trails and thus would not result in a substantial adverse effect on park management/operations.

The proposed action would result in effects that would be detectable during construction but that would be of a magnitude that would not have an appreciable effect on park

management/operations. Traffic delays would likely be detectable during the construction period. However, this alternative would not likely result in suspension of non-critical park management/operations, and would not affect park buildings or structures. Impacts are anticipated to be short-term, moderate, and adverse. Increasing the disturbed road edge has the potential for long-term effects through creating de facto parking along roadways. Minor long-term beneficial effects are anticipated as a consequence of a reduction in future outages.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects in or adjacent to the park are the same as those outlined above for the No-Action Alternative. Development of facilities, maintenance and reconstruction of roadways, and increases in recreational opportunities would have effects on the overall management/operation of the park. Improved roadways and facilities would result in reduced maintenance and operational costs. Increases in recreational use would result in increased management/operations requirements. Reconstruction, rehabilitation, development, and maintenance actions have the potential to affect park management/operations by resulting in increased maintenance costs or causing a change in management and operations. Improved roadways and recreational facilities would reduce maintenance needs and costs, resulting in long-term, minor beneficial effects on park management operations. The overall cumulative effects of these past, present, and reasonably foreseeable future actions on park management/operations, in conjunction with those of the proposed action, would be long-term, minor, and both adverse and beneficial.

Conclusion

Under the proposed action, impacts on park management/operations would short-term, moderate, and adverse. Minor long-term beneficial effects may also occur. The overall cumulative effects of these past, present, and reasonably foreseeable future actions on park management/operations, in conjunction with those of the proposed action, would be long-term, minor, and both adverse and beneficial.

Agency Consultation

In accordance with the ESA, JTNP requested concurrence with USFWS on April 23, 2018, regarding our conclusion that the proposed action was not likely to adversely affect federally listed species. The USFWS responded on August 20, 2018, concurring that the Proposed Action, with implementation of the conservation measures, is not likely to incidentally take or otherwise adversely affect desert tortoise (Appendix B).

In accordance with Section 106 of the NHPA, JTNP staff has initiated consultation with the SHPO. The park first contacted SHPO on June 25, 2015, to inform them of the action being considered. At that time, the park and SCE were considering a complete removal of the existing line, as well as the relocation of the line to Park Boulevard, and notified SHPO that SCE's contractor would be conducting identification efforts for historic properties, archeological surveys, and ethnographic research. The park contacted SHPO again on December 28, 2016, to describe the identification efforts completed for the undertaking and to seek concurrence on identification of historic properties, assuming eligibility of the CRHT, and resolution of potentially adverse effects on the CRHT. The park received concurrence from SHPO on February 28, 2017, on the proposal to assume that the newly identified locus of the Anaconda Mine site and the segment of the CRHT within the APE are eligible for the purposes of the undertaking.

The Park and SCE have subsequently determined that removal of the existing line would represent a large and unnecessary impact (see *Alternatives Considered but Dismissed*), and accordingly have revised the proposed action to include decommissioning and abandonment of the existing line instead of full removal. The revised proposed action, as described in Chapter 2, would have short-term, negligible effects. The park contacted SHPO on May 3, 2018, to seek concurrence of our finding of no adverse effect on historic properties, archaeological resources, and cultural landscapes under the proposed action. The park received concurrence from SHPO on July 13, 2018 (Appendix C).

Tribal Consultation

The park contacted the 15 traditionally associated American Indian tribes on July 22, 2015, informing them of the proposed project and to determine if any historic properties or other resources were in the project area and to inquire whether the tribes wanted to be involved in the environmental compliance process. The tribes did not identify or have knowledge of ethnographic resources or other potential historic properties, nor did they express other concerns within the project area. The park received requests from the Agua Caliente Band of Mission Indians and the Morongo Band of Mission Indians that one or more tribal monitors be present during ground-disturbing activities during construction of the proposed project. The park has informed SCE of this request and both the park and SCE will accommodate these requests. The park will continue to consult with all traditionally associated tribal communities throughout the NEPA and Section 106 processes.

Public Scoping

No public scoping was conducted for this project.

Environmental Assessment Review and List of Recipients

To inform the public of the availability of the EA, NPS published and distributed a letter or press release to the various agencies, tribes, and members of the public on the park's mailing list (Appendix D) and placed an ad in the local newspaper. Copies of this EA will be provided to interested individuals upon request. Copies of the document are also available for review at the park's visitor center and on the Internet.

The EA is subject to a 30-day public comment period. During this time, the public is encouraged to submit their written comments to the NPS address provided at the beginning of this document. All public comments will be reviewed and analyzed following the close of the comment period and prior to the release of a decision document. NPS will issue responses to substantive comments received during the public comment period and will make appropriate changes to the EA as needed.

Joshua Tree National Park

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General Measures

GM-1: The NPS project manager would ensure that the project construction remains confined within the parameters established in the compliance documents and that mitigation measures are properly implemented.

GM-2: All protection measures would be clearly stated in the construction specifications. Workers would be instructed to avoid conducting activities beyond the construction zone, as defined by the construction zone fencing. This does not include necessary temporary structures such as erosion control fencing, which may be most effective when installed outside the construction zone.

GM-3: All tools, equipment, barricades, fencing, signs, and surplus materials would be removed from the work area upon completion. Construction debris would be hauled from the park to an appropriate disposal location. Any asphalt surfaces damaged due to work on the project would be repaired to original condition. All demolition debris would be removed from the project site, including all visible concrete and metal pieces.

GM-4: Contractors would be required to properly maintain construction equipment (e.g., mufflers to minimize noise).

GM-5: A hazardous spill plan would be in place, stating what actions would be taken in the event of a spill and describing preventive measures to be implemented, such as placement of refueling facilities, storage, and handling of hazardous materials.

GM-6: All equipment on the project site would be maintained in a clean and well-functioning condition to avoid or minimize contamination from mechanical fluids. All equipment would be checked daily.

GM-7: Material stockpiling, machinery storage, and vehicle parking would be permitted only in designated areas.

GM-8: Traffic delays that result from construction activities would be limited to a 30-minute maximum in one direction through the project area.

GM-9: No lane closures would occur on the weekends from Friday 6:00 p.m. through Monday 6:00 a.m. No work would occur on recognized federal holidays.

GM-10: Work hours would be from dawn to dusk to avoid the increased potential for accidents after dark.

GM-11: Week-day lane closures using one-way traffic with pilot cars and/or flaggers and 30-minute maximum delays would allow the work to continue with minimal traffic safety concerns.

GM-12: Any project-related vehicle or equipment operating on unpaved roads would not exceed a speed limit of 25 miles per hour.

GM-13: Cross-country (off-road) travel would not be authorized, except under life-threatening or emergency situations.

Air Quality

AQ-1: Construction activities would be coupled with water sprinkling to reduce fugitive dust emissions. Water sprinkling would be conducted as necessary on active work areas where soil or fine particles are exposed.

AQ-2: Idling of construction vehicles would be limited to reduce construction equipment emissions. Unnecessary idling of all construction vehicles would be avoided throughout the construction period.

Water Quality

WQ-1: JTNP would prepare and implement a SWPPP to address all construction-related activities, equipment, and materials that have the potential to affect water quality during construction. The SWPPP would identify the sources of pollutants that may affect the quality of stormwater and include BMPs—such as sediment control, erosion control, construction materials, and waste management—to control the pollutants, as well as other non-stormwater BMPs. All construction site BMPs must be designed to control and minimize the effects of construction and construction-related activities, material, and pollutants on the watershed.

Geological Resources—Soils

GEO-1: Best management practices for drainage and sediment control, as identified and used by NPS, would be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas. Use of best management practices in the project area for drainage protection would include all or some of the following actions, depending on site-specific requirements.

- Keep disturbed areas as small as practical to minimize exposed soil and the potential for erosion.
- Locate waste and excess excavated materials outside drainages to avoid sedimentation.
- Install silt fences, temporary earthen berms, temporary water bars, sediment traps, stone check dams, or other equivalent measures (including installing erosion-control measures around the perimeter of stockpiled fill material) prior to construction.
- Conduct regular site inspections during the construction period to ensure that erosion control measures were properly installed and are functioning effectively.
- Store, use, and dispose of chemicals, fuels, and other toxic materials in an appropriate manner.
- In areas of native soil and native vegetation removal (areas without a road shoulder), the top 15 centimeters of soil would be salvaged before trenching, stored separately, and replaced once activities are complete.
- Revegetate disturbed areas as soon as possible after construction is completed.

Noise

NOI-1: The following measures would be employed to reduce noise from construction activity.

- Require all motor vehicles and equipment to have mufflers conforming to original manufacturer specifications that are in good working order and are in constant operation to prevent excessive or unusual noise.
- Limit idling of construction vehicle engines to the minimum amount of time necessary to complete the work.
- Prohibit the use of unmuffled compression brakes inside park boundaries.
- Prohibit the use of air horns inside park boundaries except for safety or emergencies.
- Prohibit work on weekends/holidays during high visitation.

Vegetation—Native and Nonnative

VEG-1: Removal of Joshua trees and other succulents would not be permitted without prior approval. In the event removal would be necessary, Joshua trees and other succulents would be salvaged and replanted within the zone of disturbance.

VEG-2: To prevent the introduction of and minimize the spread of nonnative vegetation and noxious weeds, the following measures would be implemented during construction.

- Soil disturbance would be minimized to the extent possible.
- In areas of native soil and native vegetation removal (areas without a road shoulder), the top 15 centimeters of soil would be salvaged before trenching, stored separately, and replaced once activities are complete.
- All construction equipment would be pressure washed or steam cleaned before entering the park to ensure that all equipment, machinery, rocks, gravel, and other materials are clean and weed free.
- Fill material from outside the park would not be used without prior approval. Any necessary fill, rock, or additional topsoil would be obtained from stockpiles from previous projects or excess material from this project, if possible; if not possible, then weed-free fill, rock, or additional topsoil would be obtained from sources outside the park. NPS personnel would certify that the source is weed free.
- Vehicle and equipment parking would be limited to within construction limits or within the approved staging area.
- Monitoring and follow-up treatment of nonnative vegetation would be conducted after project activities are completed.

VEG-3: Individual shrubs removed during construction would be planted (i.e., installed in the soil) following construction to serve as *vertical mulch* (placement of materials upright in the soil as a beneficial erosion control measure and to facilitate the establishment of new vegetation).

VEG-4: Plants overhanging into the construction zone would be pruned back rather than fully removed using the park vegetation management pruning guidelines.

Special-Status Species

BIO-1: An individual would be designated as the field contact representative (FCR) to oversee project compliance and coordination. The FCR would be either the qualified biologist or a desert tortoise monitor approved by the qualified biologist. The FCR would coordinate with USFWS and would be authorized to halt any activity that may endanger a desert tortoise. The FCR would be present during all monitoring/survey efforts and construction activities that may affect desert tortoises or desert tortoise habitat. Any incident occurring during project activities that is considered by the qualified biologist to be in noncompliance with the avoidance and minimization measures would be documented immediately by the qualified biologist and reported to the FCR, who would ensure that appropriate corrective action is taken. Corrective actions would be documented by the FCR.

BIO-2: Prior to the onset of construction activities, the FCR would present a desert tortoise education program to all personnel who would be present on the work areas. Following the onset of construction, any new employee would be required to formally complete the tortoise education program prior to working onsite. At a minimum, the tortoise education program would cover the following topics.

- A detailed description of the desert tortoise, including color photographs.
- The distribution and general behavior of the desert tortoise.
- Sensitivity of the species to human activities.
- The protection the desert tortoise receives under the ESA, including prohibitions and penalties incurred for violation of the ESA.
- The protective measures being implemented to conserve the desert tortoise during construction activities.
- Procedures and a point of contact if a desert tortoise is observed onsite.

BIO-3: No pets or firearms would be allowed within the project area at any time.

BIO-4: All trash and food items generated by construction activities would be promptly contained in raven- and coyote-proof containers provided by the contractor. To avoid attracting wildlife (such as ravens and coyotes) into the construction zone, containers would be transported daily from park lands for appropriate disposal. The FCR would be responsible for ensuring that trash is removed regularly from the site such that containers do not overflow, and that the trash containers are kept securely closed when not in use. Construction workers would be instructed to dispose properly of food scraps and not to feed or approach wildlife.

BIO-5: Vehicle use will adhere to the following.

- **Speed Limits.** Any project-related vehicle or equipment would not exceed a speed limit of 25 miles per hour. Workers would be made aware of this limit.
- **Off-road travel.** Off-road, cross-country travel would not be authorized, except in life-threatening or emergency situations.
- **Tortoises under vehicles.** Vehicles parked in the construction area would be inspected immediately prior to being moved. If a tortoise is found beneath a vehicle, the vehicle would not be moved until the desert tortoise leaves of its own accord.

- **Tortoises on roads.** If a tortoise is observed on or near the road, vehicular traffic would stop and the tortoise would be allowed to move off the road on its own, unless it would be moved regardless of construction activities in accordance with the park's permit for handling in association with research activities under Section 10(a)(a)(A) of the ESA.

BIO-6: No handling of desert tortoise or burrow excavation is allowed as part of the proposed action. If a tortoise is observed, construction would stop and tortoise would be allowed to move out of the area on its own. The FCR would maintain a complete record of all encounters with desert tortoise or its sign. The record would include location, date, time, life stage, general condition, identification numbers, and action taken. Within 90 days following the completion of the project, a report of all sightings and related FCR actions would be submitted to USFWS.

BIO-7: Clearance surveys would be conducted within 1 week prior to commencement of any construction activities. All potential desert tortoise burrows within 100 feet of construction or staging activities would be examined for occupancy. Any inactive burrow found within 5 feet of the proposed construction limit would be clearly fenced and construction crew members instructed on how to minimize disturbance to it. At the end of construction activities, all materials used to identify tortoise burrows would be promptly removed. If an active burrow is found within 5 feet of the proposed construction limit, all construction activities within 50 feet in any direction of that burrow would stop immediately, and USFWS would be contacted for direction on how to proceed.

BIO-8: Preconstruction surveys for nesting birds would be conducted during the nesting season (February 1 to August 31 and as early as January 1 for raptors). Preconstruction nesting bird surveys would be conducted by a qualified avian biologist prior to the initiation of construction. Nesting bird surveys would be conducted within 7 days prior to construction. Appropriate no-activity buffers would be established by a qualified biologist around active nests (generally 250 feet for passerines and 500 feet for most raptors) until it has been determined by a qualified biologist that the young have fledged or the nest has failed.

Recreation Resources

REC-1: Visitors and bus drivers would be advised in park announcements, programs, and publications that there would be temporary inconveniences from construction work on the road.

REC-2: In all cases, traffic control and safety would be maintained.

REC-3: The construction contractor would include proposed daytime work protocols in its Safety Plan to show how traffic monitoring and controls would be implemented.

REC-4: The area of disturbance would be minimized to the greatest extent to minimize the likelihood of devegetated road edges becoming unsafe parking areas for park visitors.

Archaeological Resources and Cultural Landscapes

CUL-1: The historic period refuse scatter within the project area and associated with the NRHP-eligible Anaconda Mine site would be avoided during construction through staking and flagging around the artifact scatter so that construction personnel and equipment do not disturb the artifacts. Staking and flagging would be removed after construction is completed.

CUL-2: If any buried cultural resources are inadvertently discovered during project-related ground disturbance, work would be temporarily halted within 100 feet of the discovery. The site would be secured and park personnel would be consulted according to 36 CFR 800.13 and 43 CFR 10.

CUL-3: If human remains are inadvertently discovered during project construction, the employee in charge would immediately notify JTNP cultural resources staff by telephone and provide written confirmation of the discovery to JTNP. Work would cease in the area of the discovery and all reasonable efforts would be made to protect the remains and any other cultural items associated with the human remains. Work would not resume until JTNP provides notification that work may proceed.

CUL-4: If an inadvertent discovery of human remains or funerary or sacred objects occurs during construction, work would be halted immediately. In compliance with the Native American Graves Protection and Repatriation Act of 1990, NPS would notify and consult concerned American Indian Tribal representatives for the proper treatment of any remains and potentially associated cultural materials discovered.

Park Management/Operations

OPS-1: To the extent possible, and to guide HDD operations, the construction contractor would locate buried traffic counters, utilities, gabions, K rail, or boulders at low-water crossings along Park Boulevard prior to construction by consulting with park maintenance staff or potholing to determine the locations of these structures.

OPS-2: The area of disturbance would be minimized to the greatest extent to minimize the likelihood of devegetated road edges becoming de facto parking for park visitors.

Appendix B
Concurrence from USFWS



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262



In Reply Refer To:
FWS-SB-15B0230-18I1535

August 20, 2018
Sent by email

Memorandum

To: Superintendent, Joshua Tree National Park, National Park Service,
Twentynine Palms, California

From: Assistant Field Supervisor, Palm Springs Fish and Wildlife Office ^{for}
Palm Springs, California
JENNESS MCBRIDE Digitally signed by JENNESS
MCBRIDE
Date: 2018.08.20 17:14:38 -0700

Subject: Request for Informal Section 7 Consultation for the Utah 12-kilovolt Electrical
Distribution Line Project, San Bernardino County, California

The U.S. Fish and Wildlife Service (Service) has reviewed your letter dated April 25, 2018, requesting our concurrence that the issuance of a right-of-way permit to Southern California Edison (Edison) for decommissioning an existing electrical distribution line (line) and installing a new 12-kilovolt (kV) electrical distribution line (Project) may affect; but is not likely to adversely affect the federally threatened Mojave desert tortoise (*Gopherus agassizii*). Your request and our response are made pursuant to section 7(a)(2) of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*)

The Project would consist of two phases. The first phase would install a new 12-kV underground line along an existing road, Park Boulevard, and the corner of Park Boulevard and Pinto Basin Road. Edison would install the line in the road shoulder, which is about 1.8 acres (ac) and mostly disturbed habitat. However, the Project would still disturb approximately 0.2 ac of desert tortoise habitat, which the National Park Service (Park Service) determined as low quality habitat. Then, in the second phase, Edison would de-energize and cap both ends of the existing line, remove at-grade pull boxes, and bury the remaining pull boxes.

To determine presence of desert tortoise and critical habitat, Edison contracted surveys in the existing and proposed line areas in 2015 and 2016. In 2015, Gonzales Environmental Consulting surveyed the existing and proposed line alignments, documenting 4 desert tortoises, 21 burrows, 9 carcasses, and 3 scats. In 2016, BRC-Equals 3 located one desert tortoise, four burrows, one carcass, and one scat in the Project area. Therefore, the Park Service assumed presence of desert tortoise and determined that designated critical habitat does not occur within the Project area.

In addition, the Park Service will ensure the implementation of the following conservation measures (CM) to avoid and minimize effects to desert tortoise, which were provided in your request letter as well as through subsequent discussions between our respective staffs:

- CM 1. The Park Service will require a field contact representative (FCR) to oversee project compliance and coordination. The FCR will be either a qualified biologist or an approved desert tortoise monitor as determined by the Park Service. The FCR will coordinate with the Service and will halt any activity that may endanger a desert tortoise. The FCR will be present during all monitoring and survey efforts and construction activities that may affect desert tortoises or habitat. The qualified biologist will also immediately document noncompliance incidents occurring during project activities and report to the FCR. Then, the FCR will notify the Park Service and Service regarding the noncompliance incidents.
- CM 2. Prior to the onset of construction activities, the FCR will present a desert tortoise education program (program) to all personnel who would be present on the work areas. The FCR will require any new employee to formally complete the program prior to working onsite. At a minimum, the program will cover the following topics:
- a. A detailed description of the desert tortoise, including color photographs.
 - b. The distribution and general behavior of the desert tortoise.
 - c. Sensitivity of the species to human activities.
 - d. The protection of the desert tortoise receives under the Act, including prohibitions and penalties incurred for violation of the Act.
 - e. The protective measures being implemented to conserve the desert tortoise during construction activities.
 - f. Procedures and a point of contact if a desert tortoise is observed onsite.
- CM 3. Pets or firearms will not be within the Project area at any time.
- CM 4. The Park Service will require that all trash and food items generated by construction activities will be promptly contained in raven- and coyote-proof containers provided by the contractor. To avoid attracting wildlife (i.e., ravens and coyotes) into the construction zone, the contractor will transport containers daily from Park Service lands for appropriate disposal. The FCR will ensure that trash is removed regularly from work sites such that containers do not overflow, and that trash containers are kept securely closed. The FCR will instruct workers to dispose of food scraps and not to feed or approach wildlife.
- CM 5. The Park Service will ensure the following for vehicles use:
- a. **Speed Limits.** Any project-related vehicle or equipment will not exceed a speed limit of 25 miles per hour. Workers will be aware of this speed limit.

- b. **Off-road travel.** The Park Service will not authorize off-road, cross country travel, except in life-threatening or emergency situation.
 - c. **Tortoise under vehicles.** Workers will inspect vehicles parked in the construction areas prior to operation. If a worker discovers a tortoise beneath a vehicle, the vehicle will not move until the desert tortoise leaves of its own accord.
 - d. **Tortoises on roads.** If a worker observes a tortoise on or near the road, vehicular traffic will stop and the tortoise will be allowed to move off the road on its own.
- CM 6. The Park Service will not allow handling of desert tortoise or burrow excavation for the Project. If a tortoise is observed, construction will stop and the tortoise will be allowed to move out of the area on its own. The FCR will maintain a complete record of all encounters with desert tortoise or its sign. The record will include location, date, time, life stage, general condition, identification numbers, and action taken. Within 90 days following the completion of the project, the FCR will submit a report of all sightings and related FCR actions to the Service.
- CM 7. A qualified biologist, as determined by the Park Service, will conduct clearance surveys within 1 week prior to commencement of any construction activities. The biologist will examine all potential desert tortoise burrows within 100 feet of construction or staging activities for occupancy. The biologist will also clearly fence any inactive burrows found within 5 feet of the proposed construction area and instruct construction crew members on how to minimize disturbance to the burrow. The FCR will ensure at the end of construction activities the removal of all materials used to identify tortoise burrows. If an active burrow is found within 5 feet of the proposed construction limit, the FCR will immediately stop all construction activities within 50 feet in any direction of that burrow and contact the Service for direction on how to proceed.

Based on the information provided and the agreed upon conservation measures, we concur that the proposed project is not likely to incidentally take or otherwise adversely affect desert tortoise. Should the project description change, if a desert tortoise is injured or killed on-site, or if additional information on the species becomes available, this determination may be reconsidered and formal consultation may be required.

If you have any questions, please contact Vincent James of my office vincent_james@fws.gov; or 760-322-2070, extension 415.

Appendix C
Concurrence from SHPO

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



February 28, 2017

In reply refer to: NPS_2015_0803_004

David Smith, Superintendent
National Park Service
Joshua Tree National Park
74485 National Park Drive
Twentynine Palms, CA 92277-3597

Re: Utah Trail 12kV Utility Line Replacement, Joshua Tree National Park

Dear Mr. Smith:

Thank you for your letter dated December 28, 2016, continuing consultation with regard to the proposed undertaking at Joshua Tree National Park. The National Park Service (NPS) is consulting with the State Historic Preservation Officer (SHPO) in order to comply with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. §306108), as amended, and its implementing regulations at 36 CFR Part 800. Along with the consultation letter, NPS provided two Cultural Resources Inventory Reports dated July and August 2016.

Through consultation with 15 traditionally associated Native American communities, NPS received requests for Native American monitoring during implementation of the undertaking. NPS intends to accommodate this request and will continue to consult with these groups throughout the Section 106 process.

As previously described, the proposed undertaking involves replacement by Southern California Edison (SCE) of an oil-filled 12kV electrical utility line currently buried within the Park's boundaries with a new 12kV line in a new location that will not contain environmental contaminants. NPS identified an Area of Potential Effect (APE) that includes a 25-meter corridor containing the existing buried electrical line, a 10-meter wide buffer around the access route to the existing line, and a corridor around the existing park road with a buffer extending 10 meters from the edge of the pavement.

SCE contracted with ICF International to conduct identification efforts for the undertaking. ICF reviewed existing information and conducted intensive field investigations. These efforts resulted in the identification of 14 previously unrecorded resources, including five historic-period archaeological isolates, eight prehistoric isolates, and a segment of the California Riding and Hiking Trail. The survey also

David Smith
February 28, 2017
Page 2

NPS_2015_0803_004

expanded the boundary of site P-36-004208, the Anaconda Mine Site. NPS finds none of the isolates to be eligible for listing in the National Register of Historic Places (NRHP). The Anaconda Mine Site was previously determined eligible for listing, and NPS proposes to assume eligibility for the newly identified locus and boundary expansion.

ICF evaluated the portion of the California Riding and Hiking Trail (CRHT) within the APE and found it individually ineligible for listing in the NRHP. However, NPS disagrees with this evaluation and recommends that the CRHT should be evaluated in its entirety rather than only the segment within the APE. Because the CRHT may have local significance as a trail and is associated with Mission 66 program construction within Joshua Tree National Park, NPS proposes to assume the CRHT segment within the APE is eligible for listing in the NRHP as a contributor to a historic district or cultural landscape district.

NPS requests SHPO concurrence with these determinations of eligibility and, based upon these evaluations, proposes to continue consultation with the assessment of effects in a future consultation submission.

After reviewing the information submitted, the SHPO concurs with the determinations of eligibility for the isolates and the proposal to assume the newly identified locus of the Anaconda Mine site and the segment of the CRHT within the APE are eligible for the purposes of this undertaking. The plan to continue consultation with the assessment of effects is also acceptable.

Thank you for seeking the SHPO's comments and considering historic properties as part of your planning. If you have any questions or concerns, please contact Mark Beason, State historian, at (916) 445-7047 or mark.beason@parks.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Julianne Polanco', with a long horizontal flourish extending to the right.

Julianne Polanco
State Historic Preservation Officer