

E.3.7 Cultural and Paleontological Resources

Although Section E.3.7 refers to both Cultural and Paleontological Resources, Sections E.3.1 through E.3.3 address only to Cultural Resources and Section E.3.5 through E.3.8 address only to Paleontological Resources.

Cultural Resources

E.3.7.1 Environmental Setting

The Route D Alternative is generally located within the Cleveland National Forest on the west slopes of the San Diego Mountains. Evidence of the prehistoric use of this region is best associated with the bedrock milling features that indicate the processing of acorns and other food resources. Such milling sites are often located adjacent to water sources, with large habitation sites exhibiting hundreds of bedrock mortars. During the historic period, these same valleys were used for cattle ranching with individual ranches occupying large acreage. Historic period resources in this area typically include houses, ranch fences and other structures, and water conveyance and storage systems such as wells, ditches, and dams. A full prehistoric and historic setting is provided in Appendix 9A.

The Route D Alternative is 17.27 miles long and a cultural resources records search was conducted for its entire length using a 0.5-mile search radius around the alternative, except on Native American reservation lands, for which permission was not granted by the tribes. Archaeologists from EIR/EIS consultants Applied EarthWorks, Inc. (AE) and SWCA Environmental Consultants (SWCA) completed intensive cultural resources survey for 30 percent (5.18 miles) of the Route D Alternative on behalf of the CPUC and BLM. Eight (8) cultural resources have been identified within the 300-foot-wide corridor for the Route D Alternative (see Table Ap.9B-99 in Appendix 9B).

- Prehistoric sites identified within the Route D Alternative include one bedrock milling site, one bedrock milling site with a ceramic scatter, and one bedrock milling site with a lithic scatter. One lithic artifact scatter and one prehistoric isolated artifact were also identified. As noted above, bedrock milling is indicative of grinding activities and the lithic artifact scatter includes evidence of past activities such as tool making and sharpening.
- One historical road bed segment was identified within the Route D Alternative. This resource is more of an archaeological than a built environment resource in nature due to the heavily deteriorated condition of the resource through erosion and vegetation growth.
- Four historical rock cairn sites were identified within the Route D Alternative.
- Two of the resources were identified during previous cultural resources surveys, while the remaining six resources were identified during surveys conducted by SWCA and AE for this alternative.

There are eight known cultural resources located within the 300-foot-wide survey corridor for the Route D Alternative (see Table Ap.9B-99 in Appendix 9B). As currently proposed, four of the sites identified within the Route D Alternative are located in areas of direct impact: One multi-component site would be impacted by an access road and impact area, one temporary camp would be impacted by two access roads, one bedrock milling would be impacted by an access road, and one historical rock cairn is located in an impact area. One of the known resources is an isolate, typically defined as three or fewer artifacts not associated with a defined, discrete archaeological site, and therefore not eligible for NRHP

or CRHR inclusion. Impacts to these five isolates would not be significant (adverse). There is also the potential to encounter undiscovered cultural resources during additional survey or project construction. Due to the dense chaparral vegetation present within the Route D Alternative, ground visibility was very poor. This increases the likelihood that additional resources would be identified during ground disturbing activities such as brushing.

E.3.7.2 Environmental Impacts and Mitigation Measures

Table E.3.7-1 summarizes the impacts of the Route D Alternative for cultural and paleontological resources.

Table E.3.7-1. Impacts Identified – Route D Alternative – Cultural Resources

Impact No.	Description	Impact Significance
Route D Alternative		
C-1	Construction of the project would cause an adverse change to known historic properties	Class II
C-3	Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	Class I or II
C-4	Construction of the project would cause an adverse change to Traditional Cultural Properties	Class I or II
C-5	Operation and long-term presence of the project would cause an adverse change to known historic properties	Class II
Central South Substation		
C-1	Construction of the project would cause an adverse change to known historic properties	Class II
C-3	Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	Class I or II
C-4	Construction of the project would cause an adverse change to Traditional Cultural Properties	Class I or II
C-5	Operation and long-term presence of the project would cause an adverse change to known historic properties	Class II

Impact C-1: Construction of the project would cause an adverse change to known historic properties (Class II)

Seven cultural resources located within the Route D Alternative are potentially eligible for listing on the NRHP and CRHR. Formal eligibility determinations would be made by the BLM prior to construction for any resources that would be affected if the Route D Alternative is selected and built. Based on known site densities along this Route D Alternative, as many as 18 additional cultural resources, including isolates, may be encountered during additional surveys before project construction. These additional resources would likely include prehistoric bedrock milling sites, lithic and ceramic artifact scatters, and historical refuse scatters associated with settlement and ranching. As discussed in Section D.7.9, potentially adverse construction impacts would be mitigated to a level less than significant (Class II) by implementing Mitigation Measures C-1a, C-1b, C-1c, C-1d, C-1e, and C-1f.

Mitigation Measures for Impact C-1: Construction of the project would cause an adverse change to known historic properties

- C-1a** **Inventory and evaluate cultural resources in Final APE.**
- C-1b** **Avoid and protect potentially significant resources.**
- C-1c** **Develop and implement Historic Properties Treatment Plan.**
- C-1d** **Conduct data recovery to reduce adverse effects.**
- C-1e** **Monitor construction.**

C-1f Train construction personnel.

Impact C-3: Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains (Class I or II)

Types of subsurface features that could be encountered along the Route D Alternative include prehistoric resources such as buried living surfaces, refuse deposits, hearths, and cremations. Historical resources that could be unearthed during project construction include refuse pits and privies. Buried archaeological resources may be encountered during vegetation removal at tower and pull site locations, grading of access roads, or excavation associated with tower construction. Impacts to most unknown significant prehistoric and historic archaeological sites would be significant, but mitigated to a less than significant level (Class II) by implementing Mitigation Measures C-1c, C-1d, C-1f, C-2a and C-3a. However, effects related to Native American human remains would be significant (Class I) even with mitigation.

Mitigation Measures for Impact C-3: Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains

- C-1c Develop and implement Historic Properties Treatment Plan.**
- C-1d Conduct data recovery to reduce adverse effects.**
- C-1f Train construction personnel.**
- C-2a Properly treat human remains.**
- C-3a Monitor construction in areas of high sensitivity for buried resources.**

Impact C-4: Construction of the project would cause an adverse change to Traditional Cultural Properties (Class I or II)

~~To date, no TCPs have been identified within the Route D Alternative. However, t~~The Sacred Lands File search conducted for the alternatives noted that lands sacred to Native Americans are present in the vicinity of the alternatives, in undisclosed locations. To date, no TCPs have been identified within the Route D Alternative. However, the Viejas Tribal Council (Viejas Band of Kumeyaay Indians) has indicated that the D Alternative would adversely impact the viewshed of Viejas Mountain, sacred to the Kumeyaay, and Chiquito and Poser Peaks, important to the Kumeyaay. The BLM, as the Federal Lead Agency under NEPA and Section 106 of the NHPA, has initiated government-to-government consultation with appropriate Native American groups and notification to other public groups regarding project effects on traditional cultural values. Further, that consultation will determine whether these important mountains qualify as TCPs and whether there are other TCPs that could be affected within this segment. Though impacts to TCPs are often Class I, mitigation, as defined by NEPA (in King, 2003), can include “minimizing impacts by limiting the degree or magnitude of the action...,” rectifying or reducing the impact, and/or “compensating for the impact by replacing or providing substitute resources or environments,” which when properly coordinated with Native Americans or other traditional groups can potentially reduce the impact to Class II. Implementation of Mitigation Measure C-4a (Complete Consultation with Native Americans and other Traditional Groups) would potentially reduce impacts to TCPs to less than significant levels (Class II), but in some cases impacts would remain significant (Class I).

Mitigation Measure for Impact C-4: Construction of the project would cause an adverse change to Traditional Cultural Properties

- C-4a Complete consultation with Native American and other Traditional Groups.**

Impact C-5: Operation and long-term presence of the project would cause an adverse change to known historic properties (Class II)

Direct and indirect impacts would occur to historic properties such as archaeological resources within and in the vicinity of the project area during operation and long-term presence of the project. Direct impacts could result from maintenance or repair activities, while increased erosion and access could result in indirect project impacts. These impacts are significant, but would be mitigated to less than significant levels (Class II) by implementing site protection measures and monitoring procedures, as detailed in Mitigation Measure C-5a (Protect and monitor NRHP and/or CRHR-eligible properties), as well as implementation of Mitigation Measures C-3a (Consult agencies and Native Americans) and C-4a (Complete Consultation with Native Americans and other Traditional Groups).

Mitigation Measures for Impact C-5: Project operation and maintenance would cause an adverse change to known historic properties

- C-1b** **Avoid and protect potentially significant resources.**
- C-1c** **Develop and implement Historic Properties Treatment Plan.**
- C-2a** **Properly treat human remains.**
- C-4a** **Complete consultation with Native American and other Traditional Groups.**
- C-5a** **Protect and monitor NRHP and/or CRHR-eligible properties.**

E.3.7.3 Central South Substation Alternative

The Central South Substation would occupy approximately 40 acres in the southern Santa Ysabel Valley with a total impact area of approximately 95.5 acres. A cultural resources records search was conducted for 100 percent of the substation using a 0.5-mile search radius. Archaeologists from EIR/EIS consultants Applied EarthWorks, Inc. (AE) and SWCA Environmental Consultants (SWCA) completed intensive cultural resources survey for 100 percent (40 acres) of the substation on behalf of the CPUC and BLM. When combined with previous survey conducted by consultants to SDG&E, a total of 46.60 percent (44.5 acres) of the total impact area has been adequately surveyed. Two cultural resources that are potentially eligible for the NRHP or CRHR inclusion have been identified within the 95.5-acre impact area for the Central South Substation.

- CA-SDI-17957 is a multicomponent site that includes historic rock walls and a prehistoric habitation component. This site was identified by ASM Affiliates during survey conducted for SDG&E.
- JC-4 (temporary number) is a prehistoric bedrock milling site.

Environmental Impacts and Mitigation Measures

There are two known cultural resources located within the 95.5-acre impact area for the Central South Substation (see Table Ap.9B-100 in Appendix 9B). There is also the potential to encounter undiscovered cultural resources during additional survey or project construction. Because known cultural resources that are potentially eligible for the NRHP or CRHR exist within the substation, as well as the potential for encountering undiscovered cultural resources, the following impacts would occur during project construction or operation.

Impact C-1: Construction of the project would cause an adverse change to known historic properties (Class II)

Two cultural resources located within the Central South Substation are potentially eligible for listing on the NRHP and CRHR (see Table Ap.9B-100 in Appendix 9B). Formal eligibility determinations would be made by the BLM prior to construction for any resources that would be affected if the Central South Substation is selected and built. Based on known site densities within the vicinity of the Central South Substation, as many as two additional cultural resources may be encountered during additional surveys before project construction. These additional resources would likely include prehistoric bedrock milling sites or historical structures or refuse scatters associated with settlement and ranching. As discussed in Section D.7.9, potentially adverse construction impacts would be mitigated to a level less than significant (Class II) by implementing Mitigation Measures C-1a, C-1b, C-1c, C-1d, C-1e, and C-1f.

Mitigation Measures for Impact C-1: Construction of the project would cause an adverse change to known historic properties

- C-1a** **Inventory and evaluate cultural resources in Final APE.**
- C-1b** **Avoid and protect potentially significant resources.**
- C-1c** **Develop and implement Historic Properties Treatment Plan.**
- C-1d** **Conduct data recovery to reduce adverse effects.**
- C-1e** **Monitor construction.**
- C-1f** **Train construction personnel.**

Impact C-3: Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains (Class I or II)

Types of subsurface features that could be encountered within the Central South Substation include prehistoric resources such as buried living surfaces, refuse deposits, hearths, and cremations. Historical resources that could be unearthed during project construction include refuse pits and privies. Buried archaeological resources may be encountered during vegetation removal, grading of access roads or pads, or excavation associated with substation construction. Impacts to most unknown significant prehistoric and historic archaeological sites would be significant but would be mitigated to a less than significant level (Class II) by implementing Mitigation Measures C-1c, C-1d, C-1f, C-2a and C-3a. However, effects related to Native American human remains would be significant (Class I) even with mitigation.

Mitigation Measures for Impact C-3: Construction of the project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains

- C-1c** **Develop and implement Historic Properties Treatment Plan.**
- C-1d** **Conduct data recovery to reduce adverse effects.**
- C-1f** **Train construction personnel.**
- C-2a** **Properly treat human remains.**
- C-3a** **Monitor construction in areas of high sensitivity for buried resources.**

Impact C-4: Construction of the project would cause an adverse change to Traditional Cultural Properties (Class I or II)

To date, no TCPs have been identified within the Central South Substation. However, the Sacred Lands File search conducted for the alternatives noted that lands sacred to Native Americans are present in the vicinity of the alternatives, in undisclosed locations. The BLM, as the Federal Lead Agency under NEPA and Section 106 of the NHPA, has initiated government-to-government consultation with appropriate Native American groups and notification to other public groups regarding project effects on traditional cultural values. That consultation will determine whether there are TCPs that could be affected within this segment. Though impacts to TCPs are often Class I, mitigation, as defined by NEPA (in King, 2003), can include “minimizing impacts by limiting the degree or magnitude of the action...,” rectifying or reducing the impact, and/or “compensating for the impact by replacing or providing substitute resources or environments,” which when properly coordinated with Native Americans or other traditional groups can potentially reduce the impact to Class II. Implementation of Mitigation Measure C-4a (Complete Consultation with Native Americans and other Traditional Groups) would potentially reduce impacts to TCPs to a less than significant level (Class II), but in some cases impacts would remain significant (Class I).

Mitigation Measure for Impact C-4: Construction of the project would cause an adverse change to Traditional Cultural Properties

C-4a Complete consultation with Native American and other Traditional Groups.

Impact C-5: Operation and long-term presence of the project would cause an adverse change to known historic properties (Class II)

Direct and indirect impacts would occur to historic properties such as archaeological resources within and in the vicinity of the project area during operation and long-term presence of the project. Direct impacts could result from maintenance or repair activities, while increased erosion and access could result in indirect project impacts. These impacts are significant, but would be mitigated to a less than significant level (Class II) by implementing site protection measures and monitoring procedures, as detailed in Mitigation Measure C-5a (Protect and monitor NRHP and/or CRHR-eligible properties), as well as implementation of Mitigation Measures C-3a (Consult agencies and Native Americans) and C-4a (Complete Consultation with Native Americans and other Traditional Groups).

Mitigation Measures for Impact C-5: Project operation and maintenance would cause an adverse change to known historic properties

- C-1b Avoid and protect potentially significant resources.**
- C-1c Develop and implement Historic Properties Treatment Plan.**
- C-2a Properly treat human remains.**
- C-4a Complete consultation with Native American and other Traditional Groups.**
- C-5a Protect and monitor NRHP and/or CRHR-eligible properties.**

E.3.7.4 Future Transmission System Expansion

For the Proposed Project and route alternatives along the Proposed Project route, Section B.2.7 identifies Future Transmission System Expansion routes for both 230 kV and 500 kV future transmission lines. These routes are identified, and impacts are analyzed in Section D of this EIR/EIS, because SDG&E has indicated that transmission system expansion is foreseeable, possibly within the next 10 years. For

the SWPL alternatives, 500 kV and 230 kV expansions would also be possible. The potential expansion routes for the Route D Alternative are described in the following paragraphs.

230 and 500 kV Future Transmission System Expansion

The Route D Alternative would begin at approximately MP I8-70 and would head northward until it reached the Central South Substation Alternative at approximately MP 114.5 of the Proposed Project. The Route D Alternative would convert to 230 kV at the Central South Substation and a double-circuit 230 kV line would be constructed southwest from that substation to the Sycamore Canyon Substation. The Central South Substation would accommodate up to six 230 kV circuits and an additional 500 kV circuit. Only two 230 kV circuits are proposed at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Central South Substation may be required in the future. There are two routes that are most likely for these future lines; each is addressed below. Figure E.1.1-6 illustrates the potential routes of the future transmission lines.

Additional 230 and 500 kV circuits could follow the Proposed Project corridor starting at MP 114.5. The routes could either: (1) follow the Proposed Project corridor southwest to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion System (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northeast to the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7). See Sections D.7.4, D.7.5, and D.7.6 for the Cultural Resources setting, and see Sections D.7.11, D.7.12 and D.7.13 for the Cultural Resources impacts, and mitigation measures for the Central, Inland Valley, and Coastal Links of the Proposed Project. See Section D.7.15 for the Cultural Resources setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.

Paleontological Resources

E.3.7.5 Environmental Setting

The Route D Alternative is underlain by the following geologic units:

- **Granitic Rocks.** Granitic rocks are composed of quartz diorite (tonalite) with minor amounts of granodiorite and granite and are Cretaceous in age. Since granitic rocks are plutonic in origin, this geologic unit is determined to have no potential for paleontological resources.
- **Gabbroic rocks.** Gabbroic rocks in this region of San Diego County include the San Marcos and Cuyamaca gabbros, as well as unnamed bodies. They are composed of mostly gabbros with proportions of norite and diorite. Since granitic rocks are plutonic in origin, this geologic unit is determined to have no potential for paleontological resources.
- **Hybrid Gneiss.** This rock unit is composed gneiss, granodiorite and quartz diorite of Cretaceous age. Hybrid gneiss has no potential for paleontological resources, and is assigned a zero sensitivity level.

Museum paleontological collections records maintained by SDNHM indicate that no previously recorded fossil localities exist within this alternative or a half-mile radius and the geologic units underlying the project area are determined to have a zero paleontological resource potential.

E.3.7.6 Environmental Impacts and Mitigation Measures

The construction of the Route D Alternative would not negatively impact paleontological resources because the underlying geologic formations have been determined to have no paleontological sensitivity (Table E.3.7-2). Therefore, no impacts would be expected to occur.

Table E.3.7-2. Paleontological Sensitivity –
Route D Alternative

Mileposts	Rock Units	Sensitivity	Fossil Localities
0-1.4	Granitic Rocks	Zero	None
1.4-2.8	Gabbroic Rocks	Zero	None
2.8-7.8	Granitic Rocks	Zero	None
7.8-17.3	Hybrid Gneiss	Zero	None

E.3.7.7 Central South Substation Alternative

Environmental Setting

The Central South Substation Alternative is entirely underlain by hybrid gneiss, which has no paleontological resource sensitivity.

Environmental Impacts and Mitigation Measures

There is no potential to discover paleontological resources during the construction and operation of the Central South Substation Alternative because it is underlain by metamorphic rocks that have no paleontological resource potential. Therefore, no impacts would be expected to occur.

E.3.7.8 Future Transmission System Expansion

For the Proposed Project and route alternatives along the Proposed Project route, Section B.2.7 identifies Future Transmission System Expansion routes for both 230 kV and 500 kV future transmission lines. These routes are identified, and impacts are analyzed in Section D of this EIR/EIS, because SDG&E has indicated that transmission system expansion is foreseeable, possibly within the next 10 years. For the SWPL alternatives, 500 kV and 230 kV expansions would also be possible. The potential expansion routes for the Route D Alternative are described in the following paragraphs.

230 and 500 kV Future Transmission System Expansion

The Route D Alternative would begin at approximately MP 18-70 and would head northward until it reached the Central South Substation Alternative at approximately MP 114.5 of the Proposed Project. The Route D Alternative would convert to 230 kV at the Central South Substation and a double-circuit 230 kV line would be constructed southwest from that substation to the Sycamore Canyon Substation. The Central South Substation would accommodate up to six 230 kV circuits and an additional 500 kV circuit. Only two 230 kV circuits are proposed at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Central South Substation may be required in the future. There are two routes that are most likely for these future lines; each is addressed below. Figure E.1.1-6 illustrates the potential routes of the future transmission lines.

Additional 230 and 500 kV circuits could follow the Proposed Project corridor starting at MP 114.5. The routes could either: (1) follow the Proposed Project corridor southwest to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion System (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northeast to

the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7). See Section D.7.25, D.7.30, D.7.31, and D.7.32 for the Paleontological Resources setting, impacts, and mitigation measures for the Central, Inland Valley, and Coastal Links of the Proposed Project. See Section D.7.34 for the Paleontological Resources setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.