

3.1.7 Paleontological Resources

This section discusses potential impacts to paleontological resources resulting from implementation of the Campo Wind Project with Boulder Brush Facilities (Project). The analysis is based on a review of existing paleontological resources; technical data; and applicable laws, regulations, and guidelines.

No comments were received in response to the Notice of Preparation regarding paleontological resources. A copy of the Notice of Preparation and comment letters received in response to it are included in Appendix A of this Environmental Impact Report.

3.1.7.1 Existing Conditions

Paleontological resources are the remains and traces of prehistoric life, exclusive of human remains, and include the sedimentary rock formations where fossils are located. The defining character of fossils is their geologic age. Fossils and fossil deposits are generally regarded as older than 10,000 years, the generally accepted temporal boundary marking the end of the last Late Pleistocene glacial event and the beginning of the current period of climatic amelioration of the Holocene (County of San Diego 2011).

A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria (County of San Diego 2009):

- Is the best example of its kind locally or regionally.
- Illustrates a paleontological or evolutionary principle (e.g., faunal succession, plant or animal relationships).
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental, or biochronological data).
- Encompasses any part of a “type locality” of a fossil or formation.
- Contains a unique or particularly unusual assemblage of fossils.
- Occupies a unique position stratigraphically within a formation.
- Occupies a unique position, proximally, distally or laterally within a formation’s extent or distribution.

Geologic Setting

The Project Site is located in the coastal foothill section of the Peninsular Ranges of the Geomorphic Province, which covers most of San Diego County between the foothills of Cowles

Mountain and Bernardo Mountain on the west and the steep escarpments of In-Ko-Pah Gorge and Palomar Mountain on the east. The province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles, and generally consists of rugged mountains underlain by Jurassic metavolcanic and metasedimentary rocks, and Cretaceous igneous rocks of the Southern California batholith.

Based on a review of published geological maps and site reconnaissance, surficial soil at the Project Site consists of fill, alluvium, and granitic rock in various states of weathering. The Project Site consists of fill soils that were observed along the unpaved roads, as well as in graded slopes. These fills are anticipated to be relatively shallow and composed of locally derived, reworked decomposed granitic rock. Additionally, alluvium is anticipated in areas of drainages, creeks, and springs. Granitic rock at the Project Site consists solely of the Cretaceous Plutonic geologic unit (specifically the Tonalite of La Posta).

Paleontological Resource Potential

Based on the rock type and location of previously recorded fossils, areas within San Diego County have been assigned to the following categories for paleontological resource potential and sensitivity: High, Moderate, Low, Marginal, and No Potential. The County of San Diego (County) guidelines for paleontological resources use these categories to guide the significance determinations for projects under discretionary review. Most of San Diego County is underlain by geologic formations with No Potential, Low, or Marginal potential for paleontological resources (County of San Diego 2009).

As shown on the County's Paleontological Resources Maps (County of San Diego 2009, 2011), the Project Site is located within areas rated as "No Potential" for paleontological resources.

3.1.7.2 Regulatory Setting

Federal Regulations

There are no federal regulations related to paleontological resources applicable to the Project.

State Regulations

State regulations are applicable to the Boulder Brush Boundary, which is on private land subject to County land use jurisdiction. State regulations are not applicable to the Campo Band of Diegueño Mission Indians Reservation (Reservation).

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires lead agencies to consider the potential effects of a project on unique paleontological resources. CEQA requires an assessment of impacts associated with the direct or indirect destruction of unique paleontological resources or sites that are of value to the region or the state.

Local Regulations

Local regulations are applicable to the Boulder Brush Boundary, which is on private land subject to County land use jurisdiction. Local regulations are not applicable to the Reservation.

County of San Diego Grading Ordinance

The County's Grading Ordinance requires that projects involving grading, clearing, and/or removal of natural vegetation to obtain a grading permit, unless the project meets one or more of the exemptions listed in Section 87.202 of the Grading Ordinance. A grading permit is discretionary and requires compliance with CEQA. Section 87.430 of the Grading Ordinance provides that the County official (e.g., permit compliance coordinator) may require a paleontological monitor during all or selected grading operations to monitor for the presence of paleontological resources. If fossils greater than 12 inches in any dimension are encountered, then all grading operations in the area of discovery must be suspended immediately and not resumed until authorized by the County official. The Grading Ordinance also requires immediate notification of the County official regarding the discovery. The County official would determine the appropriate resource recovery operation, which the permittee must carry out prior to the County official's authorization to resume normal grading operations (County of San Diego 2012).

County of San Diego General Plan Conservation and Open Space Element

The Conservation and Open Space Element of the County General Plan provides policies for the protection of natural resources. In addition, Appendix G of the Conservation and Open Space Element lists "Unique Geologic Features" for conservation, many of which are fossiliferous formations. The following policies are related to paleontological resources (County of San Diego 2011):

- ***Policy COS-9.1: Preservation.*** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.
- ***Policy COS-9.2: Impacts of Development.*** Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.

3.1.7.3 Analysis of Project Effects and Determination as to Significance

Methodology

The analysis of potential impacts to paleontological resources resulting from implementation of the Project is based on a review of the County's Paleontological Resources Maps (County of San Diego 2009, 2011) and the underlying geologic unit at the Project Site.

Although the County as Lead Agency is analyzing the Project as a whole, the County's land use jurisdiction is limited to the Boulder Brush Facilities. The Bureau of Indian Affairs has jurisdiction over the Campo Wind Facilities and has prepared an Environmental Impact Statement (EIS) to evaluate Project effects under the National Environmental Policy Act (NEPA). This CEQA analysis hereby adopts and incorporates by reference the EIS. In addition, this section provides an analysis of Project impacts, both on the Reservation and on private lands, pursuant to the requirements of CEQA and consistent with the County's guidelines.

Guidelines for the Determination of Significance

For the purposes of this analysis, the following would be a significant impact to paleontological resources (County of San Diego 2009):

Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. A significant impact to paleontological resources may occur as a result of the project, if project-related grading or excavation will disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County, as shown on the San Diego County Paleontological Resources Potential and Sensitivity Map.

This guideline is derived from CEQA (Appendix G). It requires the evaluation of paleontological resources to determine whether or not a proposed action will have a significant effect on paleontological resources (County of San Diego 2009).

Impacts to paleontological resources can occur through the destruction or alteration of a paleontological resource or site by grading, excavating, trenching, boring, tunneling, or other activity that disturbs the subsurface geologic formation. Excavation operations are the most common ways for paleontological resources to be adversely impacted and can result in the permanent loss of resources (and, therefore, valuable information). The most extensive excavation impacts are usually associated with mass grading, where earthmovers are used in combination with bulldozers to rip and transport soil and bedrock. Front-end loaders, track hoes, and trucks can also be used in mass excavation operations. Smaller amounts of earth are moved during boring, trenching, and tunneling, and the impacts are typically less extensive than those associated with mass grading (County of San Diego 2009).

Analysis

Project

Development of the Project would disturb approximately 930 acres during construction-related grading activities. In addition to grading, construction activities that would disturb the subsurface would include construction of temporary and permanent access roads; installation of the temporary concrete batch plant and laydown yard; construction of turbines, gen-tie line poles, and permanent meteorological tower foundations; trenching for underground utilities and the electrical collection and communications system; and construction of the collector substation, operations and maintenance facility, high-voltage substation, and 500-kilovolt switchyard. Construction activities would rely on existing roads to the extent possible, and any new roads would be constructed in a way that minimizes excessive grading and impacts to road embankments, ditches, and drainages. Clearing and grubbing activities are unlikely to disturb paleontological resources, if present, because they would affect surface soil horizons only, which are unlikely to contain significant paleontological resources.

The land within the Project Site is designated as Cretaceous Plutonic, which has no potential for the presence of paleontological resources. Because of the Project Site's location in an area mapped to have no paleontological resource potential or sensitivity, **no impact** would occur.

Boulder Brush Facilities

Development of the Boulder Brush Facilities would disturb approximately 130 acres during construction-related grading activities. In addition to grading, activities that would disturb the subsurface include construction of temporary access roads; construction of permanent access roads, including an up to 30-foot-wide paved road; construction of Off-Reservation gen-tie line pole foundations; and construction of the high-voltage substation and the 500-kilovolt switchyard. Clearing and grubbing activities are unlikely to disturb paleontological resources because the Boulder Brush Facilities would be located on lands designated as Cretaceous Plutonic that has no potential for paleontological resources. As such, there would be **no impact** within the Boulder Brush Facilities.

Campo Wind Facilities

The Bureau of Indian Affairs has jurisdiction over the Campo Wind Facilities and has prepared an EIS to evaluate Project effects under NEPA. Generally, the EIS analysis finds that the Project would not damage paleontological resources and no adverse effects would occur. The analysis and conclusions contained in the EIS are hereby incorporated by reference in this analysis.

Development of the Campo Wind Facilities would disturb approximately 800 acres during construction-related grading activities. In addition to grading, construction activities that would

disturb the subsurface include construction of temporary and permanent access roads; installation of the temporary concrete batch plant and laydown yard; construction of turbine, On-Reservation gen-tie line pole, and permanent meteorological tower foundations; trenching for underground utilities and the electrical collection system; and construction of the collector substation and operations and maintenance facility. Construction as part of the Campo Wind Facilities would rely on existing roads to the extent possible, and any new roads would be constructed in a way that minimizes excessive grading and impacts to road embankments, ditches, and drainages. Clearing and grubbing activities are unlikely to disturb paleontological resources because they would affect surface soil horizons only, which do not contain significant paleontological resources.

The land within the Campo Corridor is designated as Cretaceous Plutonic; as such, it is located in an area mapped to have no potential or sensitivity for paleontological resources. Therefore, **no impact** would occur.

3.1.7.4 Cumulative Impact Analysis

Cumulative projects listed in Table 1-4, Cumulative – Reasonably Foreseeable, Approved, and Pending Projects, in Chapter 1, Project Description, Location, and Environmental Setting, would have the potential to result in a cumulative impact associated with paleontological resources from extensive grading, excavating, or other ground-disturbing activities that occur in an area of high or moderate sensitivity (unlike the Project Site, which is located in an area with no paleontological resource potential or sensitivity). Cumulative projects on state or public lands would be required to comply with California Public Resources Code Sections 5097–5097.6 pertaining to impacts to paleontological resources. Other cumulative projects would be regulated by state and local regulations, including CEQA and the County Grading Ordinance.

As discussed in Section 3.1.7.1, Existing Conditions, the Project Site is located in an area that has no potential for the presence of paleontological resources. Therefore, due to the absence of resource potential at the Project Site, the Project **would not contribute to a cumulatively considerable impact** to paleontological resources.

3.1.7.5 Significance of Impacts Prior to Mitigation

The Project Site is underlain by a geologic unit mapped as having no potential for paleontological resources or paleontological sensitivity; therefore, **no impact** would occur. As such, no mitigation is required.

3.1.7.6 Conclusion

The Project Site is underlain by a geologic unit classified as no potential for paleontological resources or paleontological sensitivity; therefore, **no impact** would occur.