

4.6 CULTURAL RESOURCES

Cultural resources include archaeological, historic and paleontological artifacts, fossils, remains, structures, and other evidence of previous anthropogenic, biologic, or other scientifically significant activity. The primary question regarding cultural resources, relative to the CEQA process, is whether or not the project has any direct effect on the physical environment through impacts on known or not-yet-discovered cultural resources. Information in this section is based on the City of Brea General Plan, a Historical/Archaeological Resources Survey Report (prepared by CRM TECH), and a Paleontological Resources Assessment Report (prepared by CRM TECH). The latter two reports are in Appendix D, which includes a field survey of the project site.

EXISTING CONDITIONS

The project area is situated in the Eastern Puente Hills, adjacent to Carbon Canyon Dam at elevations ranging from 420 feet to 525 feet above mean sea level. The northeastern segment of the proposed pipeline alignment is located within Carbon Canyon Regional Park and in an area that has been leveled in the past. This area is characterized by an operational oil well site and dense vegetation, and generally follows a natural bench that is at the bottom of a hillside. From there the alignment turns southwest and heads under the ridge. This segment of pipeline will be microtunneled. The final leg of the pipeline starts at the end of the micro tunnel segment on property owned by Aera Energy. This land is characterized by interim agricultural uses including a Christmas Tree farm and cultivated fields. Aera Energy has plans to develop this land into a single-family residential development tentatively known as Brea Central Development. This stretch of the pipeline alignment follows what the most recent development plans have identified as future streets. The pipeline alignment ultimately leaves Aera Energy property and the final 300 feet of pipeline follow an existing blacktop United States Army Corps of Engineers access road to the intersection of Rose Drive and Vesuvius Drive.

GEOLOGY

A 1965 geologic map prepared by the California Division of Mines and Geology mapped the onsite geology as Mu, Pml, Pu, and Qc. The map defines the Mu as Upper Miocene marine, the Pml as Middle and/or Lower Pliocene marine, the Pu as Upper Miocene marine, the Qc as Pleistocene non-marine. The rock material filling the valley in which the project area is located was latter mapped as Qal in 1964 by the USGS. Qal is defined as Quaternary (Recent) alluvium consisting of unconsolidated to poorly consolidated gravel, sand, and an earthy silt and a 1964 USGS professional paper describes this material as filling the bottoms of the canyons and having a lack of consolidation and a fresh, un-weathered appearance. The hills on both sides of the project area are mapped as Tpsc (Sycamore Canyon Member of the Upper Miocene age Puente Formation) on the northern end and Tfr (Repetto Formation of the Pliocene Age Fernando Group) through most of the exposed area down toward the dam. Some Tfu (unnamed series of the Repetto Formation of the Pliocene Age Fernando Group) is evident on the southernmost portion of the hill along the west side of the canyon only, down near the dam.

The area west of the dam, where the southwestern portion of the pipeline is to be run contains older alluvial deposits consisting of semi-consolidated sand, gravel, and rubble, dissected by the present

stream channels. While no dateable fossils are reported to have been found in these older alluvial deposits, the Southern Counties Petroleum and Drilling Corp. Well #1, within Section 22 of T2S R8W, did encounter tree logs within these alluvial sediments at a depth of 380 feet below the ground surface.

The project area contains a portion of the Brea-Olinda Oil Field, which was discovered about 1897 because of natural tar seepage along the faults. This portion of the oil field was nearly fully developed by the mid-1950s. One of the well pads is located directly within the path of proposed pipeline installation.

PROJECT AREA PALEONTOLOGICAL RESEARCH

CRM TECH consulted a number of research sources for paleontological information about the project area, including the Regional Paleontological Locality Inventory at the San Bernardino County Museum in Redlands and the Natural History Museum of Los Angeles County in Los Angeles. In addition, CRM TECH personnel undertook a field survey of the project area on November 13, 2002.

The paleontology records searches indicate that several paleontological localities have been previously reported within and outside of the one-mile radius of the project area that have produced fossils from sediment lithologies similar to those in the project site. However, no paleontological sites have been discovered within the boundaries of the project site, although such sites are known from areas within a couple of miles. Based on these previous discoveries, the San Bernardino County Museum assigns the project area "high paleontological sensitivity" and declares the proposed project to have a "high potential to impact significant nonrenewable fossil resources," for both invertebrate and vertebrate fossils.

A 1964 USGS professional paper about geology and oil resources of the Eastern Puente Hills area provides a listing of foraminiferal faunas recovered during past studies of the Sycamore Canyon Member of the Puente Formation and note that these fossils are scarce to absent in many outcrop exposures. They also give a listing of mega fossils found during studies of the Lower Member of the Fernando Formation and state that microfossils (mainly foraminifera) are also known to occur in abundance from some portion of these rocks as well. A 1967 summary of the Brea-Olinda Oil Field shows the foraminiferal zones used to differentiate the different formations during the development of the area. A 2002 letter report for the Natural History Museum of Los Angeles County reports on the findings of a rich marine vertebrate fauna from both the Late Miocene Sycamore Canyon Member of the Puente Formation and Lower Member of the Fernando Formation. This letter also reported the finding of horse and camel fossils from the uppermost portion of the Fernando Formation. A 2002 letter report prepared by the San Bernardino County Museum referred mainly to the abundance of marine invertebrate fossils recovered from these two formations, but does include the potential for plant and vertebrate fossils as well. Both 2002 letter reports emphasize the potential for finding terrestrial vertebrate remains within the older terrace deposits of Pleistocene through Holocene age.

During the field survey for the proposed project, CRM TECH found no paleontological resources were found; however, the rocks observed within the project area were found to match those mapped in 1959. The confirmation of the presence of the Upper Miocene Sycamore Canyon

Member of the Puente Formation, the Lower Member of the Pliocene Fernando Formation, and the presence of older terrace deposits in various locations along the proposed pipeline alignment supports the potential for subsurface fossil being present as described in the two 2002 letter reports.

PROJECT AREA HISTORICAL/ARCHAEOLOGICAL RESEARCH

According to the California Public Resources Code §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 Code of California Regulations §15064.5(a)(1)-(3)).

Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). According to PRC §5024.1(c), a resource may be listed in the California Register if it meets any of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c)).

CRM TECH consulted a number of research sources for historical information about the project area, including the South Central Coast Information Center (SCCIC) at the California State University, Fullerton; U.S. General Land Office's land survey plat maps dated 1868 and 1876; and the USGS topographical maps dated 1901, 1935, and 1942. In addition, CRM TECH personnel undertook a field survey of the project area on November 13, 2002.

SCCIC records indicate that the northeastern section of the project area in Carbon Canyon Regional Park was covered by previous cultural resources studies and identified one-historic-era site within its boundaries. The site, designated 30-120002, was described as a scatter of late-19th-century historic-era refuse, probably associated with the remains of the old townsite of Olinda. Outside the project boundaries, but within a one-mile radius, SCCIC records show over 15 previous cultural resources studies covering various tracts of land and linear features. Eight archaeological sites were recorded within the scope of the records search, including one prehistoric site (i.e., Native American) characterized by chipped stone and groundstone artifacts; one site that contained both prehistoric and historic-era components characterized by chipped stone and groundstone scatters along with shell fragments; and an early 20th-century refuse deposit associated with the

former town of Olinda. None of the eight archaeological sites is situated within or adjacent to the project boundaries and none needs further consideration.

Historic maps consulted by CRM TECH suggest that no development activities occurred along the proposed alignment between the 1850s and the 1870s. By 1894, a road was established traversing just east of the northeastern section of the proposed pipeline alignment, and a spur line of the Southern California Railroad (also located east of the project area) crossed through the northernmost tip of the subject property. The railroad line continued northwest of the project area approximately 1,500 feet, where it ended in the town of Olinda. A number of buildings appeared in east and north of the proposed pipeline alignment by the early 1930s, but most seem to have been removed by the late 1930s. Numerous oil wells were shown to be present north of the project area in 1939.

The November 13, 2002 field survey by CRM TECH personnel did not locate Site 30-120002, the previously recorded archaeological site identified in the northeastern portion of the project area. Remnants of the site may still be present but not visible due to the dense vegetation growth covering the ground surface. It is also possible that the site could have been disturbed by previous activities, including the installation of a sewer and petroleum pipeline along which the proposed alignment follows in this area.

No other potential "historical resources" were identified within or adjacent to the project area. However, since the presence or absence of Site 30-120002 could not be ascertained, it could not be determined whether a "historical resource" or potential "historical resource" is located within the project boundaries.

The Historic Resources section of City of Brea General Plan notes that the first real village in Brea was Olinda, which is now a portion of present day Carbon Canyon Regional Park. Developed in the late 19th century, Olinda consisted of a church, barbershop, livery stable, boarding house, dance hall, pump house, Santa Fe Freight Depot, school, and an oil storage tank. Surrounding the village were hundreds of oil wells, many of which are still operational to this day.

The *General Plan* includes a citywide Historic Resources Register, which lists 18 historic sites within the City of Brea. None of the listed sites are within or near the boundaries of the proposed project so none of the *General Plan* goals and policies apply to this project.

The original town site of Olinda is listed on the State Historical Landmarks No. 918 and is also listed on the California Register of Historical Resources. Most of the original structures were removed because of flooding from the Carbon Canyon headwaters, though a few still exist today. However, none of them are within the boundaries of the proposed project.

The National Register of Historic Places does not contain any listings that are within or near the boundaries of the proposed project.

IMPACTS

SIGNIFICANCE CRITERIA

According to Appendix G of the *CEQA Guidelines*, Initial Study Checklist, a project would typically have a significant impact on cultural resources if the project would cause one or more of the following to occur.

- Cause a substantial adverse change in the significance of a historical resource, as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 or result in the development in a sensitive archaeological area;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Disturb any human remains, including those interred outside of formal cemeteries feature.

IMPACT DISCUSSION

WOULD THE PROJECT:

- (a) *Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5? **No Impact.***

No structures exist within the proposed project site boundaries. As such, no impacts are anticipated in this regard.

- (b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5? **Less Than Significant Impact with Mitigation Incorporated.***

Because much of the proposed pipeline alignment traverses undisturbed areas, the project has the potential to impact archaeological resources. The present study was unable to ascertain the continued presence of Site 30-120002 within the northeastern area of the project site because of the dense ground cover. To properly identify and evaluate potential "historical resources" that may be affected by the proposed project, additional inspection would be necessary during or after the removal of ground cover.

The proposed Expanded Service Area Option would result in the same environmental impacts in regards to cultural resources. As the primary difference between the proposed project and this option would be an increase in pipeline size from 27 inches to a minimum of 30 inches, any increase in direct impacts would be nominal.

- (c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Less Than Significant Impact with Mitigation Incorporated.***

Because much of the proposed pipeline alignment traverses undisturbed areas, the project has the potential to impact paleontological resources. Based on the study results presented above, the proposed project's potential impact on paleontological resources on portions of the project area is determined to be high. Therefore, monitoring of earth-moving activities for paleontological

resources during excavation and grading of these areas and a program to mitigate impacts on the resources that might be exposed or unearthed during all such excavation is recommended.

- (d) *Disturb any human remains, including those interred outside of formal cemeteries? **Less Than Significant Impact with Mitigation Incorporated.***

There are no known formal or informal gravesites containing human remains within the limits of the subject site. Future construction activities within the project area could, however, potentially result in the discovery of unknown, as yet undiscovered human remains.

MITIGATION MEASURES

ARCHAEOLOGICAL RESOURCES

- CR-1:** Archaeological monitoring shall be required during any grading, grubbing, trenching, excavations, and/or other earth-moving activities in the northeastern portion of the project area.

PALEONTOLOGICAL RESOURCES

- CR-2a:** The excavation of areas identified as likely to contain paleontologic resources shall be monitored by a qualified paleontological monitor. Monitoring shall be done on all undisturbed subsurface areas with bedrock, older alluvium, and alluvium which might be present below the surface. The monitor shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The monitor shall also remove samples of sediments, which are likely to contain the remains of small fossil invertebrates and vertebrates. OCSD will halt or divert grading equipment to allow for removal of abundant or large specimens.
- CR-2b:** Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved.
- CR-2c:** Specimens shall be identified and curated and placed into a repository with permanent retrievable storage.
- CR-2d:** A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the Orange County Sanitation District, would signify completion of the program to mitigate impacts on paleontological resources.

HUMAN REMAINS

- CR-3:** If human remains are discovered during any activities that involve subsurface ground disturbance, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains until the Orange County Coroner has been informed and has determined that no investigation of the cause of death is required, and if the remains are of Native American origin, the Native American Heritage

Commission is contacted within 24 hours of the discovery, and the descendants from the deceased native Americans have made a recommendation to the landowner or the project proponent, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in California Public Resources Code Section 5097.98.

SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts have been identified.