

## C.4 CULTURAL RESOURCES

This section addresses the environmental setting and impacts related to the Proposed Project (Sections C.4.1 and C.4.2.). Impacts of each alternative are presented in Sections C.4.3 (Santa Fe Alternative), C.4.4 (Cherry Alternative), C.4.5 (Paramount Alternative), C.4.6 (Alondra Alternative), C.4.7 (Bellflower Rail Alternative), C.4.8 (Artesia Alternative), C.4.9 (Shoemaker Alternative), and C.4.10 (No Project Alternative).

### C.4.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

The data in this section is summarized from the PEA, Section 3.11, which was prepared by William Self Associates for Woodward-Clyde Consultants (SFPP, 1997 and Self, 1997). The methodology for data collection has been reviewed and verified, and it has been determined to be complete. The cultural resources study included a review of 10 cultural resource surveys conducted in the vicinity, and a field survey.

#### C.4.1.1 Environmental Setting

Cultural resources are defined as prehistoric and historic sites, structures, and districts, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. For analysis purposes, cultural resources may be categorized into three groups: archaeological resources, historic resources, and contemporary Native American resources.

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps occupied where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources are standing structures of historic or aesthetic significance. Architectural sites dating from the Spanish Period (1529-1822) through the early years of the Depression (1929-1930) are generally considered for protection if they are determined to be historically or architecturally significant. Post-depression sites may also be considered for protection if they could gain significance in the future. Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals

that contemporary Native Americans value and consider essential for the persistence of their traditional values (Aspen, 1996).

#### C.4.1.1.1 *Surveys Reviewed*

Ten cultural resource surveys have been conducted within a one-half mile radius of the proposed Carson to Norwalk Pipeline Project. A summary of these surveys follows.

- 1) Dixon (1974) conducted a pedestrian survey of thirty sites that had previously been recorded by Dixon and other archaeologists, in addition to rumored sites that had never been professionally evaluated. The purpose of the study was to "...summarize the nature and extent of the archaeological resources in the City of Long Beach and to recommend policies which may be followed by the City in order to protect the resources from further damage and destruction ..." (Dixon 1974a:1). One prehistoric site, CA-LAN-697, within one-half mile of the proposed project boundary was field checked during this survey. Dixon (1974a:26) notes that the site was originally discovered in 1957 when a homeowner was installing a fence. A newspaper article reported human skeletal remains but the whereabouts of the remains are unknown (Dixon 1974a:26). "A field check shows an Indian site with deposit at least four feet thick. It is very likely that a large part of the original site remains intact below the surface and should be very carefully preserved (Dixon 1974a:26). (Survey # L- 503).
- 2) Rosen (1975) conducted an archaeological survey, a portion of which was just northeast of the proposed project boundary. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 83).
- 3) Stickel (1976a) conducted a field survey of approximately 23 miles from the Whittier Narrows Flood Control Basin to the coast at Long Beach. A portion of the survey crosses the proposed project boundary at the approximate junction of Victoria Street and the Los Angeles River. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 358).
- 4) Stickel (1976b) conducted a field survey of which one portion (his Project Area B) abuts the proposed project boundary between Wilmington Avenue and Alameda Street, just north of Del Amo Boulevard. Another portion of the survey lies to the west of the proposed project area. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 359).
- 5) Singer (1978) conducted a reconnaissance of an undeveloped lot in the Compton-Dominguez Hills. The survey area is less than one-half mile west of the proposed project boundary. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 403).
- 6) Weil (1981) surveyed an area less than one-half mile to the west of the proposed project boundary. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 1099).
- 7) Wlodarski (1992) conducted a linear survey from Los Angeles to Wilmington, a portion of the survey runs parallel to the proposed project boundary, along Alameda Street. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 2644).
- 8) A 170+ mile linear survey was conducted by Peak & Associates (1992) from Gaviota in Santa Barbara to Long Beach. A portion of the survey route is within one-half mile of the proposed project boundary. No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L- 2950).
- 9) Stone and Sheets (1993) conducted two surveys in southern Santa Barbara County and the Los Angeles, Long Beach, and San Fernando areas. The first survey was an intensive archaeological survey of Pacific Pipeline reroutes, and the second survey, Ethnohistoric Village Placename Locations, was "...in response to a report

prepared by Dr. Chester King (1993) in which he suggested that certain areas along the pipeline route had a high potential for containing cultural resources based on their relationship to ethnohistoric village names” (Stone and Sheets 1993:1).

During the second survey, Sheets drove along the Southern Pacific Railroad to identify visible, natural ground surfaces. One of the areas he inspected is within the proposed project area: “... Amupunga (CA-LAN-389) is along Alameda Street from just south of Del Amo Blvd. to mid-way between Laurel Park Rd. and Third St.” (Stone and Sheets 1993:5). Sheets notes that “Approximately 80 percent of this stretch along the SPRR was covered with a scatter of rail bed gravels. Areas with any surface visibility were surveyed... No archaeological deposits were encountered” (Stone and Sheets 1993:5). (Survey # L- 2892).

- 10) Greenwood and Associates (1994) conducted a 20+ mile survey of the lands within the Los Angeles County Drainage Area (LACDA). Urban growth, such as roads and highways, transmission lines, and street grids within the survey area “...have [left] very little of either the prehistoric or historical heritage within LACDA” (Greenwood and Associates 1994:3.6.2). No prehistoric or historic resources were discovered or recorded during this field survey. (Survey # L-3102).

### ***Known Cultural Resources Within One-Half Mile of the Proposed Project Area***

Seven cultural resource sites have been recorded within one-half mile of the proposed project area:

- 3 prehistoric archaeological sites
- 1 California Historical Landmark
- 1 City of Long Beach Historical Landmark
- 1 Point of Historic Interest
- 1 National Register of Historic Places property.

Only one of these resources exists within the proposed project’s Area of Potential Effect (APE). The APE is defined as being within ½ mile of the proposed pipeline or alternative routes.

***Prehistoric Sites.*** The three archaeological sites within one-half mile of the proposed pipeline are:

- **Site CA-LAN-389 (the Amupunga site).** This site was originally recorded by Chartkoff and Gutman in 1969 and it’s location was described as “...overlooking Compton Creek (1000 feet to the east) and the Los Angeles River; 500 ft west of Alameda Street, 2500-3000 ft north of Del Amo Avenue; 4000 ft south of Del Amo Seminary” (Chartkoff and Gutman 1969a). The site was defined as “...a surface site which apparently once had depth and was probably a seasonal village or camp site.” They also note that many pieces of shell were scattered “...along the eastern bluffs overlooking the tidal marshes for 4000 ft; a century of ranching has destroyed almost all traces.” Commenting on the condition of the site, Chartkoff and Gutman state that it was “ already effectively destroyed” (Chartkoff and Gutman 1969a). An addendum to the original site record reads “Site reported destroyed in 1972 by Van Eggers (Phone call 1-19-76, M.D.R. [an employee of the South Central Coast Information Center, UCLA]).” As mentioned above, Stone and Sheets attempted to relocate the site in 1993 but found no trace of it (Stone and Sheets 1993:5). (Survey # L- 2892).
- **Site CA-LAN-390.** Originally recorded in 1969 by Chartkoff and Gutman, the location was given as “On south side of Dominguez Hills overlooking Long Beach Harbor. On northeast end of an arroyo, on top of bluffs, 1250 feet west of Alameda Blvd. and 1550 feet north of Del Amo Blvd.” (Chartkoff and Gutman 1969b). The site description is “a surface aboriginal site of historic period - may formerly have had depth and a prehistoric component.” Chartkoff and Gutman note that the “...[site] may be destroyed by Cal 47 Freeway... [and] probably a more substantial site was here but development of the Dominguez Ranch have effectively destroyed original

ground surfaces” (Chartkoff and Gutman 1969b). An addendum to the original site record reads “Site reported destroyed in 1971 or 1972 by Van Eggers (Phone call 1-19-76, M.D.R. [an employee of the South Central Coast Information Center, UCLA]).”

- **Site CA-LAN-697.** This site was originally recorded in 1974 by K. Dixon who describes the location as “...northwest Long Beach, between Del Amo and South Streets, west of Chestnut St., just east of Long Beach Blvd...” (Dixon 1974a). The site description is reported as “very dark sandy midden, rich in shell frags; espec. pectin. At level of river floodplain, north of Bixby Knolls”, and the condition is noted as “...much still preserved probably; minimal disturbance so far.” (Dixon 1974a, 1974b). Dixon (1974a, 1974b) remarks that the site was originally discovered in 1957 when a homeowner was digging holes during fence construction. A newspaper article reported the discovery of human skeletal remains, but the whereabouts of the remains are unknown.

**Historic Sites.** The 4 historic sites identified within ½ mile of the proposed pipeline route are the following:

- **California Historical Landmark** — Located approximately ½ mile north of the Watson tank farm area, historic landmark No. 718 is the site of the initial United States Air Meet. From January 10-20, 1910, the first air meet in the United States was held on Dominguez Hill in historic Rancho San Pedro. The region has evolved into one of world’s leading aviation-industrial centers (California Historical Landmark, South Central Coast Information Center, UCLA).
- **City of Long Beach Historical Landmark** — Located at 167 South Street, abutting the proposed project alignment, this standing structure was constructed in 1905 and was originally the Long Beach Dairy. The two-one-half story, red Victorian clapboard residence is reminiscent of the agricultural heritage of early Long Beach. South Street was originally the southern boundary of the California Cooperative Colony Tract, an agricultural area. It is not clear if the house stands where it was originally constructed; archival research suggests it was moved to its current location in the 1930s. It is representative of late Victorian architecture, with idiosyncratic elements. It possesses a steep gable roof, narrow clapboard siding and variegated shingling, a diamond-paned window and a Palladian-style window. It was recommended for Cultural Heritage Landmark designation in 1994 (City of Long Beach 1994).
- **Point of Historic Interest: Carpenter Dairy.** Located several blocks from the Alondra Blvd. alternative, the Carpenter House Museum is designated a California Point of Historic Interest. Built in 1928, the house was part of the Carpenter Dairy, the oldest dairy in Bellflower.
- **National Register of Historic Places: Dominguez Ranch Adobe.** Built in 1826, this structure is also designated California Historical Landmark No. 152. Located at 18127 Alameda Street, the property is approximately 1000 feet north of the proposed project alignment in the Del Amo Sr. Seminary.

#### C.4.1.1.2 *Field Survey*

**Methodology and Personnel.** The archaeological field survey of the proposed Carson to Norwalk Pipeline project area was conducted on January 9-10, 1997 by Carrie D. Wills, and January 29, 1997 by William Self, both of William Self Associates (WSA). The strategy was to conduct an intensive pedestrian survey of the proposed project areas that had visible (natural) ground surface, and a “windshield” survey of the paved portions of the alignment. In the former areas, a transect interval of 10 meters or less was walked in a zigzag pattern. The vast majority of the proposed project area was paved or had standing structures which completely obscured ground visibility. The proposed route was driven, and in places within the alignment where there was open ground, a survey was conducted on foot. The open areas were primarily on the western end of the proposed project alignment; the middle and eastern sections were predominately paved ground surfaces.

Special attention was given to bridge crossings and areas where bore pits were to be excavated. In the areas where there was open ground, the visibility was often fair to poor due to grass cover and other vegetation. Photographs of the alignment, bridges and structures were taken as determined necessary by the field investigator.

**Survey Results.** No previously unrecorded historic or prehistoric cultural remains were observed during the field survey. The general area of site LAN-389, although potentially within the project's Area of Potential Effect, is occupied with industrial buildings, streets and a railroad right-of-way. No natural ground surface was visible in the area. The original Long Beach Dairy Victorian structure (a City of Long Beach Historic Landmark) is situated more than 60 feet from the proposed pipeline trench (on the opposite side of South Street from the structure), and was not investigated beyond the information provided by the City of Long Beach and the cursory survey of the property from the project alignment. An updated Primary Record and Building, Structure, Object Record were prepared based on existing documents, for submittal to the California Historical Resources Information System at UCLA.

None of the proposed or alternate bore pit locations or creek/river crossings exhibited evidence of historic or prehistoric cultural resources. Two bridges over the San Gabriel River have been proposed as structures from which to hang the proposed pipeline. These bridges were also examined; neither possess outstanding architectural elements, all were typically cast-in-place concrete or similar industrial design. The Caltrans 1987 Bridge Inventory reviewed the structures and rated them Category 5 -not eligible for listing on the National Register of Historic Places (Cleave Govan, personal communication February 13, 1997).

#### **C.4.1.2 Applicable Laws, Regulations, and Standards**

The legal framework that mandates consideration of cultural resources in project planning is wide-ranging. Federal, State, and local governments have developed laws and regulations designed to protect cultural resources that may be affected by actions that they undertake or regulate. In this case, the most relevant guidelines are from the California Environmental Quality Act (CEQA).

For compliance with CEQA's Appendix K (Archaeological Resources), the following must be completed:

- (1) Identification of any cultural resource
- (2) Avoidance of all resources to the maximum degree feasible through project redesign
- (3) Significance assessment pursuant to specific criteria, if not feasible to avoid
- (4) Mitigation through data recovery if the resource is significant.

Cultural resources laws and regulations are summarized in the following sections.

##### **C.4.1.2.1 Federal Regulations**

**The National Historic Preservation Act of 1966** establishes the National Register of Historic Places (or "National Register") and defines the Section 106 process requiring Federal agencies to consider the effects of

an action on cultural resources in or eligible for listing in the National Register. Criteria for determining eligibility of cultural resources for listing in the National Register are provided in the Code of Federal Regulations (36 CFR Part 800). Even cultural resources that have not yet been discovered are subject to Section 106 review. The Section 106 review process is administered by the Advisory Council on Historic Preservation and is further defined in 36 Code of Federal Regulation 800 (36 CFR 800).

*American Indian Religious Freedom Act of 1978* protects and preserves the rights of Native Americans to practice traditional religions, access traditional ceremonial sites, and possess objects of sacred or ceremonial value. This act indirectly influences decision-making and consultations regarding archaeological resources. The Native American Graves Protection and Repatriation Act (NAGPRA) assigns ownership to Native Americans of human burials and associated grave goods that are excavated or discovered on Federal lands.

#### **C.4.1.2.2 State Regulations**

*California Environmental Quality Act (CEQA)* requires that a project proponent determine potential impacts on cultural resources and mitigate impacts on important cultural resources. The lead agency is required to determine that a project will result in a significant environmental impact if it will eliminate or has the potential to eliminate cultural resources that constitute an important example of major periods of California history or prehistory. CEQA provisions have been modified by Section 21083-2 of the Public Resources Code, commonly referred to as AB 952, which requires the project proponent to consider whether the project will cause a physical change that would affect important ethnic cultural values. Provisions of the act related to cultural resources are administered at the county level.

*California Senate Bill 297 (1982)* addresses the disposition of Native American human burials in archaeological sites. The code protects such remains from disturbance, vandalism, and inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding disposition of such remains. It is incorporated in CEQA Appendix K, Archaeological Resources.

### **C.4.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: PROPOSED PROJECT**

#### **C.4.2.1 Significance Criteria**

The importance of an archaeological and architectural resource is judged in accordance with the criteria defined in Appendix K of the California Environmental Quality Act (CEQA). Section III of Appendix K states that "... [an] important archaeological resource is one which":

- A. Is associated with an event or person of:
  - 1. Recognized significance in California or American history, or
  - 2. Recognized scientific importance in prehistory.

- B. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;
- C. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- D. Is at least 100 years old and possesses substantial stratigraphic integrity; or
- E. Involves important research questions that historical research has shown can be answered only with archaeological methods.

#### C.4.2.2 Applicant Proposed Measures

SFPP has proposed three measures to reduce potential impacts of pipeline construction. The analysis in this EIR assumes that these measures will become part of the project description in the analysis of project impacts for the proposed project as well as for alternative routes.

- 1 Site LAN-389. Trenching along Rancho Way/Laurel Park Drive between Del Amo Blvd. and Victoria Street should be coordinated with a qualified archaeologist (an individual meeting the criteria for Archaeologist with a prehistoric research emphasis under Title 36 CFR, Part 61) to ensure that the area near site LAN-389 is monitored during construction for the presence of cultural materials. Should significant materials be discovered, work in the immediate site vicinity should cease until such time the archaeologist can formulate an appropriate mitigation or data recovery plan and implement the plan as determined necessary.
- 2 Discoveries during Construction. Although no visible cultural resources were observed during the survey, sites and objects may be obscured by vegetation or buried by sediments. If cultural resources are encountered during project construction, construction should be halted or diverted to allow an archeologist an opportunity to assess the resource. Prehistoric archeological site indicators include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and darkened soil that contains aboriginal dietary debris such as bone fragments and shellfish remains. Historic site indicators include, but are not limited to, ceramic, glass, and metal remains.
- 3 Section 7050.5(b) of the California Health and Safety Code should be implemented in the event that human remains, or possible human remains are located. It states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for “protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction.” To achieve this goal, it is recommended the construction personnel on the project be instructed as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof.

#### **C.4.2.3 Impacts and Mitigation Measures for Pipeline Construction**

Ground-disturbing construction activities have the potential to directly impact cultural resources in the project area by disturbing both surface and subsurface soils. Such disturbance could result in the loss of integrity of cultural deposits, the loss of information and the alteration of a site setting. Construction activities also have the potential to affect the built environment, including buildings and structures. There is also the potential for inadvertent discoveries during construction.

Three types of activities are proposed during pipeline installation: shallow (7 foot deep) trenching with a backhoe, primarily through existing city streets, excavation of bore pits to facilitate boring beneath rivers or highways, and hanging the pipeline on bridge or overcrossing structures. Trenching impacts are very specific to the alignment itself and are conducted within disturbed soils to some extent. Roadways typically consist of an asphalt-concrete surface underlain by an engineered fill subgrade to a depth of perhaps 10-14 inches below street grade. Natural soils may exist below this depth, and it is within those soils that cultural materials, if any, would be located. Construction equipment and lay-down areas would be contained to the paved surface in most instances.

The bore pits are no larger than about 500 square feet in area, consisting of backhoe-excavated holes with sloping sides to permit boring and installation of the pipe. Construction and laydown areas would be adjacent to the bore pit. Hanging the pipeline from a bridge involves attaching or threading the pipe to the existing structure below street grade.

A thorough record and literature search and field survey of the proposed project and alternative indicates that only one previously recorded archaeological site (CA-LAN-389) may exist within the proposed alignment (previously reported as destroyed). A City of Long Beach Historical Landmark property also exists adjacent to the alignment. No National Register of Historic Places or other local, state, or federal properties are known to exist in the immediate area, nor were any previously unrecorded resources found during the survey of the project area.

It is possible that significant deposits associated with site LAN-389 exist beneath street grade along Laurel Park Drive (City of Compton) within the proposed project alignment. Although researchers during past surveys have reported the site to have been destroyed, this assumption was apparently based on the presence of the industrial building complex and Laurel Park Drive; no subsurface exploration was conducted as part of earlier evaluations. Construction of the proposed project would involve trenching which has the potential to

disturb intact deposits from the site. This would be a potentially significant impact (**Class II**), mitigable with application of Mitigation Measures C-1 through C-3 below.

In addition, there remains the possibility that previously unrecorded cultural resources could be discovered during construction. This is also a potentially significant impact (**Class II**), mitigable with application of Mitigation Measures C-1 through C-3 below.

### **Mitigation Measures for Urban Construction**

**Impact 1:** Construction of the proposed project would involve trenching which has the potential to disturb intact deposits from site LAN-389 (**Class II**).

**Impact 2:** Discovery of previously unrecorded cultural resources during trenching (e.g., at bore pits, Compton Creek crossing, or adjacent to historic sites identified above) (**Class II**).

**C-1** An environmental monitor approved by CPUC, shall monitor all trenching activities (including excavation of bore pits). A qualified archaeologist shall be on call (under contract to SFPP) at all times; if a potential cultural resource is found, the archaeologist shall be consulted and/or called to the site for a determination regarding significance. Any cultural resources identified shall be avoided to the maximum extent feasible. If not feasibly avoided, a Phase 2 significance assessment of the resource shall be conducted (see Mitigation Measure C-2 below) pursuant to Federal, State, and local regulations and guidelines. If significant resources are identified during the Phase 2 program, they shall be subject to Phase 3 data recovery mitigation (see Mitigation Measure C-4 below).

**C-2** If during excavation, a site is discovered that may be affected by the project, and the resources are not feasibly avoidable, Phase 2 archaeological testing shall be completed. The site's significance within the area of potential impact shall be assessed prior to continuation of excavation, pursuant to relevant cultural resource regulations and guidelines. Basic scientific data required for an evaluation of significance shall be obtained through test excavations designed to determine:

- The vertical and horizontal extent of the deposit
- The structure of the deposit in terms of cultural stratigraphy, features, burials, etc
- The density and diversity of artifacts and ecofacts in the deposit
- The nature and extent of previous disturbance
- Disturbance-related limitations of the data
- Research questions that may be addressed by analysis of the site
- Age of site occupation or occupations.

A testing program and site evaluation shall be conducted in accordance with the applicable Federal, State, and local archaeological guidelines and shall address the questions contained in local guidelines and the SHPO checklists. All excavated non-burial related artifacts and associated documentation shall be curated at a local facility meeting local, State, and Federal requirements and guidelines.

**C-3** If Phase 2 investigations determine that a significant archaeological site will be affected by the project and if avoiding or filling over the surface of the archaeological site is not possible, SFPP shall conduct Phase 3 archaeological data recovery investigations in accordance with applicable county, State, and Federal regulations. SFPP shall facilitate coordination and compliance with the CPUC, local agencies, the SHPO, the Advisory Council on Historic Preservation, and the U.S. Army Corps of Engineers. Coordination shall include review and approval of a site-specific mitigation plan by local, State, and Federal agencies before any archaeological mitigation or construction begins.

A data recovery plan, including a site-specific research design, shall be developed, reviewed, and approved by relevant jurisdictions. The plan shall be implemented before any archaeological work or construction work begins in the vicinity of the affected archaeological site. The research design shall describe the following for each affected site:

- The significance of the site, as defined by historic contexts based on local research questions
- Theoretical bases of the research that is planned; regional and site-specific research topics and questions to be addressed through implementation of the mitigation plan, with reference to relevant research questions
- Specific types of data required to address each research topic and question; the sample size required for each type of data; methods and techniques planned to obtain data in the field
- Laboratory and analytic procedures necessary to link raw data with the research questions; the logic to be used in interpreting the data
- How the data will be compared both qualitatively and quantitatively with data from previous studies addressing the same research issues.

All excavated artifacts and associated documentation shall be curated at a local facility meeting local, State, and Federal requirements and guidelines.

The mitigation plan shall describe a program and process for monitoring construction activities in the vicinity of known sites, if any, and for treating emergency discoveries of previously unknown cultural resources.

#### **C.4.2.4 Impacts and Mitigation Measures for Station Modifications**

Modifications to the Watson Station (in Carson), the Norwalk Station, and the Colton Terminal will occur within the boundaries of the existing stations. Therefore, no impacts are expected to occur at those locations.

The modifications at the Industry Station will include the trenching and installation of 300 feet of 16-inch pipe, bringing the existing pipeline across the railroad tracks and back to allow its connection to the new pumps. This construction will also require boring under the tracks, with four associated bore pits (an entrance pit and

an exit pit for each bore). Because of the trenching and excavation of bore pits required at the Industry Station, there is the possibility that previously unrecorded cultural resources could be discovered during these activities. Therefore, Mitigation Measures C-1, C-2, and C-3 shall also apply at this location, resulting in potentially significant impacts being reduced to a level below significance (**Class II**).

#### **C.4.2.5 Impacts and Mitigation Measures for Project Operation**

No impacts are expected to occur during routine pipeline maintenance and operations. However, impacts could occur as a result of pipeline leak or rupture, when repairs or clean-up is required. Oil spills and spill cleanup activity could include spill containment (often by grading), chemical dispersal, removal of contaminated soil, and burial of contaminated soil and vegetation, which has the potential to damage archaeological resources (**Class II**). Therefore, implementation of Mitigation Measure SS-16 is recommended.

**Impact:** Oil spill cleanup activity could impact archaeological resources (**Class II**).

Mitigation Measure C-4 from the Draft EIR has been incorporated into Mitigation Measure SS-16 (Section C.11) which addresses spill response.

#### **C.4.2.6 Secondary Impacts of Project Operation**

Operation of the proposed pipeline would result in increased throughput through the CalNev Pipeline system (to Las Vegas and other areas) and the Phoenix-West Pipeline (to southern Arizona), and increased trucking in the Inland Empire and other southern California areas. Routine operation of these pipelines and trucks would have no impact on cultural resources.

The truck accidents that would occur as a result of increased trucking is not expected to affect cultural resources because any resulting spills would likely be contained primarily within the streets on which the trucks would operate. A pipeline spill on the CalNev or Phoenix-West Pipelines would be expected to occur more frequently and could be larger than what would occur under current operation, due to the increased throughput resulting from the proposed project. The cleanup activities resulting from a large spill or leak could involve excavation and earth-moving activities that could affect cultural resources in the vicinity of the two pipelines. This is a potentially significant impact; however, it should be noted that the CPUC does not have the authority to implement measures on the CalNev pipeline or on existing portions of SFPP's pipeline system..

#### **C.4.2.7 Cumulative Impacts**

Implementation of Mitigation Measures C-1 through C-3 should prevent the destruction of cultural resources, so the construction of the Proposed Project would not contribute to regional loss of resources. The potential for the cumulative projects (Table B.10-1) to encounter intact cultural resources in the disturbed urban environment is low.

#### **C.4.2.8 Significant Unavoidable Impacts**

No significant unavoidable impacts on cultural resources have been identified.

#### **C.4.3 SANTA FE ALTERNATIVE SEGMENT**

The environmental setting for the Santa Fe Alternative segment is included in the area described in Section C.4.1 above. While this alternative would have a Compton Creek crossing in a different location than that for the proposed pipeline route, the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.4 CHERRY ALTERNATIVE SEGMENT**

The environmental setting for the Cherry Alternative segment is included in the area described in Section C.4.1 above. This alternative would include no waterway crossings, and the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.5 PARAMOUNT ALTERNATIVE SEGMENT**

The environmental setting for the Paramount Alternative segment is included in the area described in Section C.4.1 above. This alternative would include no waterway crossings, and the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.6 ALONDRA ALTERNATIVE SEGMENT**

The environmental setting for the Alondra Alternative segment is included in the area described in Section C.4.1 above. While this alternative would cross the San Gabriel River (on a pipe bridge) in a different location than that for the proposed pipeline route, the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.7 BELLFLOWER RAIL ALTERNATIVE SEGMENT**

The environmental setting for this alternative route segment is described in Section C.4.1 above. This alternative includes a bored crossing of the San Gabriel River, and construction in 2.4 miles of railroad ROW. Because the railroad ROW may be less disturbed than the streets used in the proposed route, this route may have a greater likelihood of encountering unrecorded cultural resources. However, implementation of Mitigation Measures C-1 through C-4 would reduce impacts to a non-significant level.

#### **C.4.8 ARTESIA ALTERNATIVE SEGMENT**

The environmental setting for the Artesia Alternative segment is included in the area described in Section C.4.1 above. This alternative would include no waterway crossings, and the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.9 SHOEMAKER ALTERNATIVE SEGMENT**

The environmental setting for the Shoemaker Alternative segment is included in the area described in Section C.4.1 above. This alternative would include no waterway crossings, and the impacts and mitigation measures would be the same as those identified in Section C.4.2 above.

#### **C.4.10 NO PROJECT ALTERNATIVE**

1. The No Project Scenario is described in Section B.9. Under this scenario, petroleum products would be transported by truck between Los Angeles refineries and various southern California destinations, and trucks would carry some products between Colton and the Las Vegas area. Pipeline throughput would increase in the Phoenix-West pipeline up to its capacity of 200,000 BPD. Routine operation of trucks and pipelines would not affect cultural resources. However, a pipeline spill on the Phoenix-West Pipeline would be larger than would be expected to occur under current operation, due to the increased throughput described under this scenario. The cleanup activities resulting from a large spill or leak could involve excavation and earth-moving activities that could affect cultural resources in the vicinity of the two pipelines. This is a potentially significant impact; however, it should be noted that the CPUC does not have the authority to implement measures on the CalNev pipeline or on existing portions of SFPP's pipeline system.

#### **C.4.11 MITIGATION MONITORING PROGRAM**

Table C.4-1 presents the Mitigation Monitoring Program for cultural resources.

**Table C.4-1 Mitigation Monitoring Plan**

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Trenching could disturb intact deposits from site LAN-389 (Class II).  Previously unrecorded cultural resources could be discovered during trenching or excavation (Class II).	<b>C-1</b> An environmental monitor shall monitor all trenching and excavation activities, and an archaeologist shall be on call. Cultural resources identified shall be avoided. If not feasibly avoided, a Phase 2 significance assessment of the resource shall be conducted (see Mitigation Measure C-2 below).	Throughout pipeline corridor	CPUC monitor to verify that SFPP archaeologist monitors trenching and excavation activities. Evaluate any unanticipated finds outside of sensitive areas.	Cultural resources are not destroyed during construction; discoveries are recorded properly.	CPUC, relevant jurisdictional agencies	During project construction
	<b>C-2</b> Complete Phase 2 archaeological testing if a site is found during excavation and resources are not feasibly avoidable. Assess site's significance prior to continuation of excavation. Design test excavations according to parameters in text. Curate all excavated non-burial related artifacts and associated documentation at qualified facility.					
	<b>C-3</b> Conduct Phase 3 data recovery investigations if Phase 2 investigations determine that a significant site will be affected. Coordinate with appropriate agencies. Design data recovery plan.					
Oil spill cleanup activity could impact archaeological resources (Class II).	C-4 is deleted: SS-16 (Section C.11) incorporates C-4 from the Draft EIR.	Throughout pipeline corridor	CPUC monitor to ensure that qualified archaeologist reviews Urban Spill Response Plan to ensure cultural resources avoided or minimized during containment and cleanup.	Spill containment and cleanup does not destroy cultural resources.	CPUC, relevant jurisdictional agencies	Prior to project operation.

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