

D.4 Cultural Resources

This section addresses the Proposed Project and alternatives as they would affect cultural resources. Section D.4.1 provides a description of the existing cultural resources setting and the applicable cultural resource ordinances and limitations are introduced in Section D.4.2. An analysis of Proposed Project impacts is provided in Section D.4.3, and cultural and historical resource impacts related to the project's alternatives are described in Section D.4.4. Section D.4.5 provides mitigation monitoring, compliance, and reporting information. Section D.4.6 lists the references cited in this section.

D.4.1 Cultural Resources Setting for the Proposed Project

Information for the proposed Sacramento Natural Gas Storage (SNGS) Facility and proposed alternatives compiled in the following section was gathered from a review of SNGS, LLC's Proponent's Environmental Assessment (PEA) (2007a), the cultural resources technical report prepared for SNGS, LLC by EIP Associates (2007b), and Native American consultations conducted by SNGS, LLC. Cultural resource inventories were conducted by Tremaine and Associates (2008) for the City of Sacramento elements of the project. The data collection methods included the following:

- The records search was conducted at the North Central Information Center (NCIC) of the California Historic Resource Information System (CHRIS) at Sacramento State University. The records search consisted of reviews of archaeological site records and other cultural technical reports prepared for projects that overlap portions of the Proposed Project.
- Various maps, including project maps provided by SNGS, LLC in addition to United States Geological Survey (USGS) quadrangle maps, were consulted and used to identify cultural resources that have been previously recorded in the project area.
- Information gathered from archival research including historic maps was also used to assess the potential for encountering previously unrecorded resources in the project area.
- A field survey was conducted by Tremaine and Associates for the City of Sacramento portion of the project (2008).
- Native American consultation letters were sent to the Native American Heritage Commission (NAHC) on December 18, 2006, as well as to various Native American representatives on January 5, 2007, requesting information on any sacred lands or sites within the Proposed Project study area. No additional information on sacred sites was gathered as a result of this consultation.

D.4.1.1 Natural Setting

The project study area is located in the southern end of the Sacramento Valley of California, near the confluence of the American and Sacramento rivers. The Sacramento Valley is a wide, flat valley, which, together with the San Joaquin Valley, forms what is commonly referred to as the Great or Central Valley. The province is bounded on the east by the central Sierra Nevada Mountains and on the west by the Coast Range and Delta provinces. The landscape in the region is characterized by the wide valley floor plain.

The project study area traverses virtually flat topography within Sacramento and crosses one creek (Morrison Creek) and several water bodies, including Lake Washington. Depot Park and the nearby Avondale/Glen Elder neighborhood are largely devoid of native vegetation, steep slopes, or wetlands due to their developed nature.

Natural habitats in the project's vicinity have undergone significant alteration as a result of modern encroachment. Industrial and multifamily residential development in the project area has disturbed large natural areas.

D.4.1.2 Ethnographic Background

The project area is located in the central portion of Sacramento County and south of the American River on the border of the historical territory of the Nisenan people, and the northern territory of the Plains (Eastern) Miwok people. The Nisenan people are from the Penutian language family and their territory extended from between the American and Cosumnes rivers northward to Marysville and were bounded by the Sacramento and Feather rivers on the west to the Sierra crest on the east. The Plains Miwok people have a different language group, the Utian, and their territory extended south from Sacramento towards the Delta and the Cosumnes River, and eastward towards the upper foothills of the Sierra Nevada.

On the basis of archaeological evidence, it has been suggested that the people arrived in this part of California sometime around 11,500 B.C. Archaeological evidence suggests that a unique valley adaptation occurred here around 2,550 B.C., based on the analysis of dietary and technological material remains.

Traditionally, the Plains (Eastern) Miwok were divided into smaller groups called tribelets, which were politically distinguished and exhibited cultural and linguistic variation from other tribelets within the larger Miwok culture. Each tribelet was led by a chief, which was a hereditary position that passed down the male lineage. On occasion, when there was no male heir, the position of chief would pass to the daughter of the former chief. Or, when the new chief was too young, the duties would pass to the former chief's widow.

The Nisenan lived in stable permanent villages along the American, Sacramento, Feather, Bear, and Yuba rivers. Each village was led by a headman and it is unclear which of the villages exercised the greatest influence, although it is reported that the village of Pusune, located at the mouth of the American River, was dominant in the project area. The closest village to the project site was the village of Sama. The larger villages, with populations of up to 500, politically controlled the smaller surrounding villages. Villages were constructed on rises near rivers or streams and varied in size from 3 to 50 homes and typically contained a dance house and acorn granary. Their houses were dome shaped, 10 to 15 feet in width, and covered with earth or marsh plants called tule.

Local subsistence for both groups included animal sources and seasonally available plant sources. Typical fauna hunted or collected by the Miwok and Nisenan included deer, mussels, fish, rabbit, and fowl. After contact with Spanish settlers, the consumption of horse meat began to dominate the Miwok diet. Some examples of plant resources were the all-important acorn; nuts such as hazelnut, buckeye, and pine; seeds; roots; mushrooms; and plants used as greens, such as columbine and milkweed. Bear also played an important dietary and ceremonial function on the Nisenan way of life.

Contact between the Nisenan, Miwok, and Europeans began in 1772. A major malaria epidemic that raged in the Central Valley decimated large portions of the native population in 1833. The Nisenan and Miwok cultures were severely impacted by Spanish colonization and their socio-political structure was drastically disrupted during the Mission period and later. Individuals living closest to the Sonoma Mission were hit hardest by European civilization, whereas groups living in the Sierra Mountains were less traumatized by cultural interaction and were able to preserve their culture for a longer period.

By the end of the nineteenth century, most Nisenan and Miwok had been disenfranchised from their lands and were relegated either to reservations or, for those who remained living in mainstream Euro-American society, to rural areas or the edges of small towns on less-desirable land. Employment opportunities were few. Most were poorly paid and labored in mines, on ranches, or in towns, although some still supplemented their income with traditional subsistence agriculture. Both the Nisenan and Miwok are now politically active and their tribal governments are working to preserve elements of their traditional society and culture.

D.4.1.3 Prehistoric Setting

Sacramento County and the surrounding Central Valley contain archaeological evidence of human use and occupation that spans the known periods of prehistory. The earliest sites are from the Paleo-Indian period (approximately 11,550 B.C. to 8,550 B.C.). The archaeological remains of this period consist of well-defined fluted points, which were used for hunting and processing

large game animals as well as for seed grinding. Most of the evidence for the earliest occupation is far to the south in the San Joaquin Valley, although one fluted projectile “Clovis” point has been recovered in the Sacramento Valley near Thomes Creek.

The Lower Archaic (8,550 B.C. to 5,550 B.C.), Middle Archaic (5,550 B.C. to 550 B.C.), and Upper Archaic (550 B.C. to 1,100 A.D.) periods followed the Paleo-Indian period. Archaic sites are recognized by mortars, metates, manos, and pestles associated with seed grinding. In addition, Archaic artifacts include projectile (atlatl) points, large bifaces, and core tools. Archaic sites are typically homogenous and indicate a subsistence economy focused on hunting and gathering. The beginnings of a unique Central Valley adaptation occurred during the Middle Archaic period.

During late prehistory in central California, the Emergent Occupation period (1,000 A.D. to the 1770s) was a time of technological development. Groups migrating west from eastern desert areas to California introduced technological advances including ceramics, bows and arrows, projectile points, and the cremation of remains. This period saw the introduction of the bow and arrow, population growth, more complex settlement and political traditions, and the development of much larger permanent villages.

D.4.1.4 Historical Setting

The mid-sixteenth century saw the first European contact with indigenous groups throughout Southern California, and additional explorers had moved northward into the Sacramento region by 1772. Spanish missionaries and military personnel began to arrive in what was then called Alta California during the late eighteenth century. The missions closest to the project area that were established in Northern California included the Mission San Francisco de Asis (Mission Dolores), Mission San Jose, Mission San Rafael Arcangel, and the Mission San Francisco Solano (or Sonoma Mission). Between the founding of the Mission San Francisco de Asis (Mission Dolores) in 1776 and the last mission, the Sonoma Mission in 1834, native tribes in the region dwindled as Spain’s influence throughout the region spread due to military and religious presence. California was officially annexed by Mexico in 1821, which ended the Spanish expansion period in the region as Spanish settlers were forced from the region by the Mexican military and missions were secularized.

During the Mexican period, large tracts of land were granted to Mexican individuals and rancho systems were established. The local region around downtown Sacramento is rich in historic features, including the old New Helvetia Land grant deeded to John Sutter in 1841. Nearby resources include Sutter’s Fort, travel routes, canneries, and various houses. Throughout this time period, cattle ranching superseded agricultural enterprises, restricting native tribal groups’ access to traditional hunting and gathering areas. The Mexican period was officially ended at the

conclusion of the Mexican-American War in 1848. European and American immigrants began to arrive in the region in 1849 as a result of the gold rush. After California became part of the Union in 1850, ranching, farming, and dairy activities became the economic driving force in California. The area around Sutter's Fort and along the waterfront of the Sacramento River was quickly built up and urbanized in 1850 and beyond due to the gold rush. Sacramento eventually became the seat of state government in 1854 and has merged with older towns and expanded through the years.

Most of the project area is located on the former Sacramento Army Depot (containing the Sacramento Advanced Communications Zone Depot, Sacramento Signal Depot, and Reed Army Air Field) that was established in 1945 and was primarily responsible for the receipt, storage, issuance, maintenance, and disposal of electronics supplies. It closed in 1995 and is now a business park.

D.4.1.5 Identified Cultural Resources

Record Search Results

On November 30, 2006, a letter was sent to the NCIC requesting the preparation of a records search of CHRIS for the project area. The records search was completed by the NCIC on December 6, 2006, and a total of 12 cultural resource sites were identified within a one-quarter-mile search radius of the site. None are within the project area itself.

The record search at the NCIC of CHRIS that was conducted in December of 2006 did not show any known cultural resources within the project area. The records search included an examination of the official records and maps for archaeological sites and surveys in Sacramento, as well as a review of the National Register of Historic Places, the California Register of Historical Resources (CRHR), the California Inventory of Historic Resources, California State Landmarks, California Points of Historical Interest, the Directory of Properties in the Historical Resources Inventory (California Department of Parks and Recreation 2005), Caltrans Local Bridge Surveys, and secondary sources pertaining to state and local prehistory and history. An additional records check was conducted by Tremaine and Associates in 2008 with similar results.

In all, 15 cultural resources have been recorded adjacent to the proposed SNGS Facility (see Table D.4-1). All of the recorded sites are historical-period built environmental resources and only one qualifies as eligible for the CRHR. According to CEQA Guidelines, cultural resources that qualify as eligible for the CRHR are considered historically or culturally significant. No Native American sacred sites are known to exist in the project area.

Table D.4-1
Cultural Resources Identified in Proximity to the SNGS Facility

Site No.	Temporal Association	Site Description	Site Status/CRHR Eligibility Status	Reference
<i>SNGS Facility Site</i>				
Unknown	Historic	Sacramento Army Depot	6Z; Found ineligible	U.S. Army Corps of Engineers (ACOE) (1993)
CA-SAC-464H	Historic	Western Pacific Railroad	Unknown	Little vestige of the original railway exists.
Unknown	Historic	Central California Traction Railway	Unknown	Same alignment as the Western Pacific Railway above.
Unknown	Historic	Southern Pacific Railway	Unknown	Same alignment as the Western Pacific Railway above.
CA-SAC-556H	Historic	"Cartopassi Place," Craftsman-style cottage, ca. 1912	3S; Appears eligible for national or California register.	Maniery and Kelly (1995)
CA-SAC-557H	Historic	Rectangular storage shed, ca. 1925.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-558H	Historic	One-story duplex, ca. 1920s.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-559H	Historic	Single-family home, ca. 1920s.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-560H	Historic	Craftsman-style cottage, ca. 1915	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-561H	Historic	Vernacular-style single-family home, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-562H	Historic	Vernacular-style single-family home, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-563H	Historic	Craftsman-style single-family home, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-564H	Historic	Craftsman-style storage shed, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-565H	Historic	Craftsman-style cottage, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)
CA-SAC-566H	Historic	Vernacular-style cottage, ca. 1915.	6Z; Found ineligible	Maniery and Kelly (1995)

Notes:

3S = Appears eligible for national or California register through survey evaluation.

6Z = Found ineligible for national register, California register, or local Designation through survey evaluation.

There were no cultural resources found within the project wellhead site or connecting pipelines in the vicinity of the former Sacramento Army Depot. Areas adjacent to the project site included 15 historic sites, which are further described below. These include the former Sacramento Army Depot, Central California Traction Railway, Southern Pacific Railway, CA-SAC-464H, and CA-SAC-556H through CA-SAC-566H (listed in Table D.4-1).

The Sacramento Army Depot itself has been evaluated in the past for its significance by the U.S. Army Corps of Engineers (ACOE) (1993). At the time, the base structures had not reached 50

years of age and were not deemed of exceptional importance. Many of these structures have been renovated and altered from their historic condition. In its letter in 1993, the State Historic Preservation Office (SHPO) determined that none of the inventoried structures in the analysis had any association with significant events or persons nor are they outstanding examples of their architectural types (SHPO 1993). Therefore, these structures did not warrant inclusion under the National Register of Historic Places under the criteria established by 36 CFR 60.4. Subsequent to this determination, many of the structures have been modified by the re-use of the facility.

CA-SAC-464H is a historic cultural site and consists of the historic Western Pacific (now Union Pacific) rail line. Built between ca. 1893 and 1911, the rail line extends from the American River through the Western Pacific Railroad (WPRR) rail yards near Hughes Stadium to Stockton and Oakland. The alignment of this railroad remains approximately the same as the current Union Pacific rail line. The original rail ties, rails, and other features have been replaced. The spur track going into the former Army Depot seems to be more recent as historical aerial photos do not show the track between the 1860s and 1940s.

The Central California Traction Railway (unknown site number) is a historic cultural site and consists of the historic Central California Traction rail line. Built between ca. 1905 and 1910, the rail line extends from Sacramento to Stockton. The electric pantographs that powered the trains were all removed by 1947, when all operations were converted to diesel. The line is now jointly owned by the Burlington Northern Santa Fe and the Union Pacific railways. The segment is within one-quarter mile of the project area and has not been evaluated for its significance. It appears that the alignment of this railway follows the same alignment as the Western Pacific Railroad and no vestiges of the railway are apparent.

CA-SAC-556H is a historic craftsman-style cottage built ca. 1912. The structure has been evaluated for its significance and found to be eligible for listing on the national and California register of historic places. It is an excellent example of the craftsman style found in southern Sacramento and retains much of its historic integrity.

CA-SAC-557H is a historic storage shed built ca. 1925. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-558H is a historic one-story duplex built ca. 1920s. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-559H is a historic one-story single-family home built ca. 1920s. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-560H is a historic craftsman-style cottage built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-561H is a historic vernacular-style single-family home built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-562H is a historic vernacular-style single-family home built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-563H is a historic craftsman-style single-family home built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-564H is a historic craftsman-style storage shed built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-565H is a historic craftsman-style cottage built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

CA-SAC-566H is a historic vernacular-style cottage built ca. 1915. The structure has been evaluated for its significance and found to be ineligible for listing on the national and California register of historic places.

Results of Cultural Resource Surveys

A field survey covering 100% of the project area including the pipeline alignments, compressor station site, and wellhead site was conducted by Tremaine and Associates (2008). The area has been impacted through urban development and no cultural resources were found during the survey. The study area is around the likely prehistoric meanderings of Morrison Creek; therefore, there is a potential for buried prehistoric resources.

D.4.2 Applicable Regulations, Plans, and Standards

The California Environmental Quality Act (CEQA) Guidelines recognize that historical resources are part of the environment and that a project that “may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (Section 21084.1). Because historic properties designated under any municipal or county ordinance and determined significant by the State Historical Resources Commission may be eligible for the CRHR (California Public Resources Code (PRC) 5024.1(e)(5)), portions of the Proposed Project are subject to the Historical Resources Guidelines of the City of Sacramento Municipal Code and the Sacramento County ordinance regarding cultural resources.

CEQA also requires that the lead agency determine whether the project will have a significant effect on unique archaeological resources that are not eligible for listing in the CRHR, and to avoid unique archaeological resources when feasible or mitigate any effects to less-than-significant levels (PRC 21083.2).

The following State Public Resource Code sections and CEQA regulations apply:

- **CEQA: Public Resources Code Sections 21083.2, 21084.1, et seq.** require analysis of potential environmental impacts of proposed projects and application of feasible mitigation measures.
- **Title 14, Public Resources Code, Section 5020.1** defines several terms, including the following: (f) “DPR Form 523” means the Department of Parks and Recreation Historic Resources Inventory Form; (i) “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California; (j) “local register of historical resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution; (l) “National Register of Historic Places” means the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture as authorized by the National Historic Preservation Act of 1966 (16 U.S.C. §470); and (q) “substantial adverse change” means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.
- **Title 14, Public Resources Code, Section 5024.1** establishes a California Register of Historical Resources, sets forth criteria to determine significance, defines eligible properties, and lists nomination procedures.

- **Title 14, Public Resources Code, Section 21083.2** defines “unique and non-unique archaeological resources” and states that the lead agency determines whether a project may have a significant effect on unique archaeological resources. If a potential for damage to unique archaeological resources can be demonstrated, such resources must be avoided. If avoidance is not feasible, mitigation measures shall be required. This section deals with a number of related cultural resource issues, including excavation as mitigation, mitigation costs, time frames for excavation, and mitigation of unexpected resources.
- **Title 14, Public Resources Code, Section 21084.1** defines “historical resource” and states that a project may have a significant effect on the environment if it causes a substantial change in the significance of a historical resource.
- **Title 14, Public Resources Code, Section 5097.5** states that any unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, “public lands” means land owned by, or under the jurisdiction of the state, or any city, county, district, authority, or public corporation, or any agency thereof.
- **Title 14, Public Resources Code, Section 5097.98** prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn and sets penalties.
- **Guidelines for the Implementation of CEQA, Section 15064.5** defines “historical resource” and addresses effects on historic and prehistoric archaeological resources.
- **Guidelines for the Implementation of CEQA, Section 15126.4** discusses mitigation measures to minimize significant effects to cultural resources. Mitigation measures related to impacts on historical resources include data recovery through excavation when it is the only feasible mitigation available.
- **Title 14, Penal Code, Section 622.5** asserts that anyone who damages an item of archaeological or historic interest is guilty of a misdemeanor.
- **CEQA Guidelines: California Code of Regulations, Sections 15000 et seq., Appendix G (j)** defines a potentially significant environmental effect as occurring when the Proposed Project will “disrupt or adversely affect . . . an archaeological site, except as part of a scientific study.”

The following Sacramento City Code sections and regulations apply:

- **Sacramento City Code, Section 17.134.010** declares that significant aspects of the city’s rich and diverse historic resources deserve recognition and preservation to foster an understanding of our heritage, and to promote the public health and safety and the economic and general welfare of the people of the city. The preservation and continued use of historic resources are effective tools to sustain and revitalize neighborhoods and business

districts within the city, enhance the city's economic, cultural, and aesthetic standing, its identity and its livability, marketability, and urban character.

- **Sacramento City Code, Section 17.134.170** defines the criteria and requirements for listing on, and deletion from, the Sacramento register.

The following County of Sacramento code sections and regulations apply:

- **Sacramento County Code 2.23.080** designates the Sacramento Commission of History and Science as responsible for designation of sites and landmarks of historic and scientific importance throughout the incorporated and the unincorporated areas of the County of Sacramento.
- **Sacramento County General Plan—Conservation Element, Section VI** sets the goal and implementation measures to promote the inventory, protection, and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts, and/or areas of ethnic historical, religious, or socioeconomic importance (County of Sacramento 1993). Policies CO-155 through CO-162 have been adopted to protect archaeological resources. Policies CO-163 through CO-166 have been adopted to protect historic structures.

D.4.3 Environmental Impacts and Mitigation Measures for the Proposed Project

D.4.3.1 Definition and Use of Significance Criteria

CEQA states that a project that may cause a substantial adverse change in the significance of a historical resource or that may have a significant effect on a unique archaeological resource may have a significant effect on the environment. The lead agency is required to determine whether a Proposed Project may adversely affect historical resources or unique archaeological resources. CEQA Section 15064.5 states that generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (AEP 2008). Unique archaeological resources are defined as artifacts, objects, or sites that contain information that can answer an important scientific research question, has a special and particular quality, or is directly associated with an important prehistoric or historic event or person (PRC 21083.2(g)).

Under CEQA, the project would have a significant effect on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource by demolishing or materially altering the characteristics of a historical resource that justify its eligibility for inclusion in the CRHR (CCR 15064.5)

- Cause a substantial adverse change in the significance of a unique archaeological resource by damaging the resource (CCR 15064.5; PRC 21083.2).

Significant effects on historical resources or unique archaeological resources can be eliminated by pursuing an alternative course of action or mitigated to less-than-significant levels. Preservation in place is the preferred manner for mitigating impacts to archaeological resources (CCR 15126.4(b)(3)(A)). If preservation in place is not feasible, data recovery excavation is an acceptable alternative pursuant to the provisions of CCR 15126.4(b)(3)(C).

D.4.3.2 Applicant Proposed Measures

There are no specific applicant proposed measures (APMs) proposed by SNGS, LLC related to impacts to cultural resources.

D.4.3.3 Cultural Resources Impact Analysis

Impact C-1: Construction Could Affect Known Cultural Resources

Wellhead Site, Compressor Station, and Pipeline Segments 1 and 2

The project components were surveyed for cultural resources. No sites were found; therefore, no impact to known cultural resources would occur.

The compressor station site is located within the former Sacramento Army Depot. Development of the proposed compressor station would not impact any structures and therefore, would not impact any historical features of the former Army Depot.

The pipeline would align through portions of the former Sacramento Army Depot. The potentially historic UPRR alignment (also both the Southern Pacific and Western Pacific alignments) parallel this alignment. It would be crossed through horizontal directional drilling (HDD) and will not be significantly impacted (Class III). The spur line into the former Army Depot will be crossed; however, this is not considered historic. No impact to any structures of the former Army Depot would occur.

Impact C-2: Construction Could Affect Undiscovered Cultural Resources

Wellhead Site, Compressor Station, and Pipeline Segments 1 and 2

The cultural resources report indicated that there is a low potential for undiscovered prehistoric resources at the wellhead site and compressor station. Although the likelihood to affect undiscovered cultural resources is low, the potential to impact undiscovered cultural resources during construction remains; therefore, this impact is considered significant. Implementation of

Mitigation Measures C-2a and C-2b would reduce this impact to less than significant (Class II). Refer to Section D.1 for classification of impact significance.

The cultural resources report indicated that there is a potential for undiscovered prehistoric resources along the pipeline alignment. The highest potential for these resources is in the historic flow pattern of Morrison Creek. This impact is considered significant. Implementation of Mitigation Measures C-2a and C-2b would reduce this impact to less than significant (Class II).

Mitigation Measures for Impact C-2: Construction Could Affect Undiscovered Cultural Resources

C-2a Prepare Cultural Resources Treatment Plan. SNGS, LLC shall develop a Cultural Resources Treatment Plan (CRTP). The CRTP shall include procedures for protection and avoidance of Environmentally Sensitive Areas (ESAs) and archaeological high-probability areas, evaluation and treatment of the unexpected discovery of cultural resources including Native American burials, detailed reporting requirements by the project archaeologist, curation of any cultural materials collected during the project, and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualification Standards mandated by the California Office of Historic Preservation.

Specific protective measures such as avoidance shall be defined in the CRTP to reduce potential adverse impacts on any presently undetected cultural resources to less-than-significant levels. The CRTP shall be submitted to the CPUC for review and approval at least 30 days before the start of construction. The CRTP shall define construction procedures for areas near known/recorded cultural sites.

C-2b Conduct Construction Monitoring. Archaeological monitoring shall be conducted by a qualified archaeologist (see Mitigation Measure C-2a) familiar with the types of historic and prehistoric resources that could be encountered within the proposed pipeline alignment. A Native American monitor may also be required at the discretion of the project archaeologist.

Cultural resources discovered during monitoring shall be evaluated to determine if they are significant historical resources. The effect of the project on significant historical resources shall be determined. If the finding is determined to be a significant historical resource, and if avoidance of the resource is not feasible, then a data recovery program shall be performed pursuant to the CRTP (see Mitigation Measure C-2a). Any resultant archaeological collections and their records shall be curated at an appropriate institution.

If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains

until the project applicant has immediately notified the county coroner and otherwise complied with the provisions of State CEQA Guidelines Section 15064.5(e) (AEP 2008). If the remains are found to be Native American, the county coroner shall notify the NAHC within 24 hours. The most likely descendant of the deceased Native American shall be notified by the NAHC and given the opportunity to make proper disposition of human remains. If the NAHC is unable to identify the most likely descendant, or if no recommendations are made within 24 hours, remains may be reinterred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the NAHC will mediate.

Impact C-3: Future Maintenance Operations Could Affect Cultural Resources

Wellhead Site, Compressor Station, and Pipeline Segments 1 and 2

Future operations will be conducted at the wellhead site and compressors station sites. Because no cultural resources have been identified and future maintenance operations would take place within the wellhead site and compressor station perimeters, no impacts to cultural resources would occur due to future maintenance operations.

Future maintenance operations would involve routine maintenance and inspection activities along the pipeline alignment. Because no cultural resources have been identified and future maintenance operations would take place within the connecting pipeline segments right-of-way, no impacts to cultural resources would occur due to future maintenance operations.

D.4.4 Project Alternatives

D.4.4.1 Gas Field Alternatives

Freeport Gas Field

Environmental Setting

The Freeport Gas Field is located approximately 5 miles southwest of the Florin Gas Field on agricultural land located on the suburban fringe of Elk Grove. The gas field is partially located underneath a wastewater treatment plant; however, cultural resources may occur both in the project area and throughout the proposed pipeline alignment.

Environmental Impacts and Mitigation Measures

Similar to the Proposed Project, this alternative would involve constructing facilities including injection/withdrawal wells, compressor station, and connecting pipeline(s). This alternative would construct nearly 1 mile of pipeline travelling through a largely rural area in order to reach tie-ins. There is a potential that known or previously unknown sites may be impacted by the

project (Impacts C-1 through C-3) could occur. The sites could either be avoided or mitigated through implementation of Mitigation Measures C-2a and C-2b.

Comparison to the Proposed Project

Cultural resource impacts resulting from the development and construction of the Freeport Gas Field Alternative would be similar to those of the Proposed Project. However, the pipeline connections required may have the potential to impact fewer sites resulting in less overall impacts.

Snodgrass Slough Gas Field

Environmental Setting

The Snodgrass Slough Gas Field is located approximately 20 miles southwest of the Florin Gas Field on agricultural land. Additionally, the Snodgrass Slough Gas Field is located 3 miles east of the Sacramento River and California State Highway 160 and 4 miles north of the nearest population center, Walnut Grove. Based on information for the general area, the Proposed Project site has a medium to high potential to contain cultural resources.

Environmental Impacts and Mitigation Measures

Similar to the Proposed Project, this alternative would involve constructing facilities including injection/withdrawal wells, compressor station, and connecting pipeline(s). However, due to location, nearly 5 miles of pipeline would be required for the transmission of natural gas from the extraction point to tie-ins with PG&E and SMUD pipelines. Additionally, pipeline construction would require HDD to cross beneath the Snodgrass Slough, Interstate 5 (I-5), and UPRR. There is a potential that known or new cultural resources could be significantly impacted by the project (Impacts C-1 through C-3). These impacts will be mitigated through the avoidance of the resources in project siting or through implementation of Mitigation Measures C-2a and C-2b.

Comparison to the Proposed Project

Generally, the impacts to cultural resources may be the same or greater than the Proposed Project. This means that there is a relatively good chance that cultural resources would be encountered based on information for the area. Greater impacts would be due primarily to the potential to encounter resources along the pipeline alignment.

Thornton Gas Field

Environmental Setting

The Thornton Gas Field is located approximately 20 miles south of the Florin Gas Field on agricultural land south of the Cosumnes River Preserve. Additionally, the Thornton Gas Field is located 1.5 miles east of I-5 and 1 mile north of the town of Thornton. Since this alternative would be located in a largely agricultural area, there is a potential that the area would contain known or unknown cultural resources. The pipeline alignment may also have the potential to impact additional sites.

Environmental Impacts and Mitigation Measures

Similar to the Proposed Project, this alternative would involve constructing facilities, including injection/withdrawal wells, compressor station, and connecting pipeline(s). This alternative would construct nearly 7 miles of pipeline travelling through a largely rural area in order to reach tie-ins. There is a potential that significant impacts may occur to cultural resources (similar to Impacts C-1 through C-3) and which would require Mitigation Measures C-2a and C-2b.

Comparison to the Proposed Project

Generally, the cultural resource impacts for this alternative gas field location would be similar or greater than the Proposed Project. This would be due primarily to the potential to encounter resources along the pipeline alignment.

D.4.4.2 Project Design Alternatives

Alternative Wellhead Site to Compressor Station Pipeline Route 1

Environmental Setting

This alternative would utilize the same construction locations for the wellhead site, compressor station, and SMUD Line 700 tie-in (see Figure C-5). Only the pipeline route would differ from the Proposed Project. From the northwest corner of the wellhead site, this alternative would head due east to the UPRR tracks. This alternative would parallel Junipero Street and cross an active industrial use yard. It would then parallel the UPRR tracks, northwest to Elder Creek Road. This route would be approximately 7,800 feet long. This alternative would be approximately 450 feet longer than the Proposed Project. The existing cultural resource environment is the same as for the Proposed Project.

Environmental Impacts and Mitigation Measures

Construction and operation impacts would occur in a similar manner as with the Proposed Project (Impacts C-1 through C-3). As with the Proposed Project, Mitigation Measures C-2a and C-2b would be required to reduce impacts to less than significant (Class II).

Comparison to the Proposed Project

Due to the increased length of pipeline required, cultural resource-related impacts associated with the proposed pipeline connections would be slightly greater than for the Proposed Project.

Alternative Wellhead Site to Compressor Station Pipeline Route 2

Environmental Setting

This alternative would utilize the same construction locations for the wellhead site, compressor station, and SMUD Line 700 tie-in (see Figure C-5). Only the pipeline route would differ from the Proposed Project. From the northwest corner of the wellhead site, this alignment would run approximately 600 feet north within the utility alignment to Berry Avenue, and then parallel the UPRR tracks northwest to Elder Creek Road. This alignment would be approximately 7,700 feet long. This alternative would be approximately 350 feet longer than the Proposed Project.

Environmental Impacts and Mitigation Measures

Construction and operation impacts would occur in a similar manner as with the Proposed Project (Impacts C-1 through C-3). As with the Proposed Project, Mitigation Measures C-2a and C-2b would be required to reduce impacts to less than significant (Class II).

Comparison to the Proposed Project

Due to the increased length of pipeline required, the cultural resource-related impacts associated with the proposed pipeline connections would be slightly greater than for the Proposed Project.

Alternative Wellhead Site to Compressor Station Pipeline Route 3

Environmental Setting

This alternative would utilize the same construction locations for the wellhead site, compressor station, and SMUD Line 700 tie-in (see Figure C-5). Only the pipeline route would differ from the Proposed Project. From the northwest corner of the wellhead site, this alignment would run north approximately 1,650 feet within an existing utility alignment, and then approximately 650 feet north along Power Inn Road to Elder Creek Road. From that intersection, the pipeline would be installed within Elder Creek Road, for approximately 1,800 feet, to the intersection with the UPRR tracks. This alternative would be approximately 7,100 feet long. This alternative would be approximately 250 feet shorter in length compared to the Proposed Project.

Environmental Impacts and Mitigation Measures

Construction and operation impacts would occur in a similar manner as with the Proposed Project (Impacts C-1 through C-3). As with the Proposed Project, Mitigation Measures C-2a and C-2b would be required to reduce impacts to less than significant (Class II).

Comparison to the Proposed Project

Due to the decreased length of pipeline required, the cultural resource-related impacts resulting from developing Alternative Wellhead Site to Compressor Station Pipeline Route 3 would be slightly less than for the Proposed Project.

D.4.4.3 Environmental Impacts of the No Project Alternative

Implementation of the No Project Alternative would result in the SNGS Facility not being constructed. As such, there would be no cultural resource impacts associated with the construction or operation of facilities.

D.4.5 Mitigation Monitoring, Compliance, and Reporting

Table.G-1 shows the mitigation monitoring, compliance, and reporting program for cultural resources.

D.4.6 References

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