D.4 Cultural Resources

D.4.1 Environmental Setting for the Proposed Project

The DCPP site and the Port San Luis area are located on a coastal terrace representing an uplifted wave-cut bench that developed over 100,000 years ago, with bedrock overlain by Pleistocene beach and marine deposits. The terrace is cut by the Diablo Canyon Creek drainage and backed by the Irish Hills. The various landforms of the terrace, drainage, and slope, and the interface of microenvironments, combined to form a favorable habitat for extensive populations of marine mammals, shellfish, sea birds, land mammals, and plants (Schoenherr, 1992). Diablo Canyon Creek drainage has been a dependable source of fresh water and exposed lithic resources, as shown by the archaeological discoveries in the immediate area.

California's coastal terraces have supported a continuous cultural occupation for at least the last 9,000 years. Current archaeological evidence suggests that relatively small groups existed in these areas until about two millennia ago, when populations appear to have expanded into resource-rich coastal and near-shore estuarine environments (Greenwood, 1972; Moratto, 1984).

D.4.1.1 Prehistory

The earliest human occupation of California occurred in the Paleoindian Period (11,000-6500 B.C.), when people lived in small mobile groups that hunted, collected shellfish, and harvested wild seeds. Eventually, watercraft were developed to reach the large offshore islands in the Channel Island chain, which were more exposed when the sea level was 150 feet lower than it is today. Climate was cool and moist, supporting extensive pine forests. Archaeological evidence from this period is sparse, but it includes basketry, sea-grass cordage, millingstones, beads, and chert tools. Assertions of earlier habitations on the Channel Island's Santa Rosa Island, based mainly on so-called "hearth" data, remain unconfirmed (Moratto, 1984), but late Pleistocene habitation there has been demonstrated (Erlandson et al., 1999). Archaeological evidence may have been lost at the end of the Pleistocene when many coastal sites were submerged as glacial ice melted and the sea level rose.

Greenwood (1972) reported two sites almost certainly occupied during the Paleoindian Period. One site is located at the mouth of Diablo Canyon Creek (CA-SLO-2). It is a deep midden deposit where multi-period components were identified. Two early radiocarbon dates were obtained from the site: red abalone shell found adjacent to a burial designated as Burial 5 (at 290 centimeters below surface) was dated to 8960±190 B.P.[1] (7010 B.C.±190), and human bone from a burial designated as Burial 20 (at 320-330 cm below surface) was dated to 9320±140 B.P. (7370 B.C.±140). Burial 5 may be intrusive to the midden deposit, but Burial 20, which was dated directly, had flakes, a core, and a hammerstone associated with it.

In a second Diablo Canyon midden site (CA-SLO-585), the lowest cultural levels also were tentatively dated to the late Paleoindian Period (8410±190 B.P. [6460 B.C.±190]) on the basis of radiocarbon dates derived from abalone shell recovered from 200 cm below the surface. Milling equipment (four millingstones and 10 manos) was also found at the same level, but these artifacts were clearly intrusive.

[1] Radiocarbon dates, especially when uncalibrated, are given as years "before present" (B.P.), which is usually defined as A.D. 1950.

Inferences drawn from these two sites suggest an occupation of this area of the coast long before millingstone technology first appeared in the material assemblage (Moratto, 1984). A subsistence based on marine resources (shellfish, marine birds, etc.) distinguish Paleoindian coastal groups from inland ones.

Population growth is usually seen as leading to increasingly sedentary ways of life and the gradual emergence of regional cultures. In the central coast region, this emergence occurred during a time designated as the Early Period or the Millingstone Horizon (6500-4500 B.C.), due to the abundance of millingstones (basin metates and manos) that appeared during this time. These were used to grind small, hard seeds, which formed a major part of the diet. Shellfish-gathering supplied most protein, as hunting and fishing became relatively less important. Pine forests were still extensive, reflecting a cooler, wetter climate than today. Considerably more evidence exists for occupation during this period than the previous one. The Diablo Canyon sites attest to fishing, intensive shellfish collecting, and hunting during this period (Moratto, 1984).

The climate of the central coastal region became warmer and drier, and human population appears to have declined significantly at the end of this period (3000-1200 B.C.). Few archaeological sites are known to date from this interval.

At the end of the period, there was a significant population increase marked in the archaeological record by the appearance of stone mortars and pestles, which are indicators of a subsistence economy based on seed (primarily acorns) exploitation. Large projectile points mounted on a dart thrown with the *atlatl* (a throwing stick) were also used during this time, indicating that people hunted large animals such as elk, deer, and sea mammals (Chartkoff and Chartkoff, 1984). Shellfish remained an important dietary supplement.

During the Middle Period (3150 B.C.–A.D. 1200), fishing and sea mammal hunting became more important. New inventions, including shell hooks and barbed harpoons, enabled the Indians to catch a wider variety of fish. A very significant innovation occurred about 2,000 years ago — the *tomol*, or plank canoe (Harrington, 1978). The ensuing intensified fishing supported a population increase and large, permanent coastal settlements. For hunting and defense, the bow and arrow replaced the *atlatl* and dart sometime around 1,500 years ago (Justice, 2002).

Marine fishing remained a major subsistence effort in the Late Period (A.D. 1200-1772), with sardines being particularly important. Hunting of land animals and gathering of wild plants — including acorns and various other kinds of seeds — supplemented the marine diet. The growth of seed-bearing plants was encouraged through selective burning. Two-thirds of the native population lived near the coast. Use of shell bead money, predominately on the Channel Islands, indicates the increased importance of trade between communities as a safeguard against local scarcities of wild food resources (Chartkoff and Chartkoff, 1984). Warfare resulting from trespass in hunting-gathering-fishing territories was prevalent at the time of European contact. The missionization of the native population, which took place from A.D. 1772 to 1822, resulted in the loss of ancestral lifeways, which were replaced by the practices of agriculture and animal husbandry.

D.4.1.2 Ethnography

The DCPP site and Port San Luis are located within the ethnographic boundaries of the Chumash Indian native lands, which lie along the coast of California between today's Cities of Malibu and Paso Robles, as well as on the Northern Channel Islands. Before the Mission Period, the Chumash lived in approximately 150 independent villages with a total population of about 18,000 people. In different parts of

the region, people spoke different but related languages. The Chumash Indians within the project area are sometimes identified as Obispeño Chumash, an identity reflecting their association with the Spanish mission of San Luis Obispo de Tolosa, which was established in 1772. Mission records indicate that there were 142 rancherias or villages within the Obispeño Chumash area (Greenwood, 1978).

Over time, the people adapted their lifeways to the local environment. Village settlements consisting of small, round, and domed houses are documented at the time of contact. Villages along the coastline, on the islands, and in the interior had access to different resources, which they traded with one another. This trade was facilitated by the development of the seagoing *tomol*, which was highly regarded by the Spanish. In addition to this plank canoe, the Chumash are known for their fine basketry, their mysterious cave paintings, and their shell bead money. Chumash cultural material also included distinctive projectile points, millingstones, and maritime tools for fishing and harvesting — indicative of subsistence patterns based on exploitation of both coastal mountain and maritime (shallow waters and tidal pools) resources (Grant, 1978; Greenwood, 1978; Santa Barbara Museum of Natural History, 2004). Today, there are still many people who trace their ancestry back to the historic Chumash communities.

D.4.1.3 History

The first documented European contact with the project area was the 1542 expedition of Juan Cabrillo, who sailed up the California coastline from Mexico. His two ships reached the Santa Barbara Channel in October 1542 and after several attempts Cabrillo rounded Point Conception and eventually reached Point Reyes north of the San Francisco Bay (Chesnut, 1993). On his return journey, while wintering in the Channel Islands, Cabrillo had a brief skirmish with natives, during which he shattered a limb. He died of complications from the injury on January 3, 1543 (National Parks Service, 2004).

In 1602, a second Spanish expedition consisting of two ships under the command of Sebastian Vizcaino arrived in the area. Vizcaino was attempting to retrace Cabrillo's route and reassert Spanish claims to the area. He sailed as far north as Monterey Bay before returning to Acapulco (San Diego Historical Society, 2004).

In the 1760s, the Spanish government decided to establish a series of presidios along the California coast between the two great natural harbors of San Diego and San Francisco (Weber, 1982; Weber, 1992). Missions were constructed to fulfill the religious component of the expedition, and also to serve as centers for religious conversion of the local Native Americans. These establishments also countered the fear that the coast would be occupied by Russian or English forces.

In 1769, Don Gaspar de Portola, the governor of Baja California, set out to establish an overland route to Monterey Bay, and to prospect for presidio locations along the way. The expedition passed through the DCPP area on its return to San Diego (Chesnut, 1993). Following Portola's expedition, Spanish visits and activity increased. An expedition led by Juan Bautista de Anza passed through the area in 1776. A presidio was established in Santa Barbara in 1782 to fill the gap between the previously established presidios in Monterey and San Diego. That same year Mission San Buenaventura was founded, firmly establishing a permanent European presence in the area. The establishment of the Santa Barbara Mission in 1786 followed shortly thereafter (California Missions, 2004).

With independence, the Mexican government began to secularize the mission properties, a process that was concluded in 1833. The missions were converted into parish churches, and regional commissions were established to dispose of the properties and resettle the Indians affiliated with the missions. Mexican government policy was to grant mission properties and other unclaimed land to prominent citizens

who were required to inhabit and develop the properties. This period of California history, known as the Rancho Period, brought in a class of wealthy landowners (rancheros) who controlled the subsequent development of the State.

The deterioration of relations between the United States and Mexico resulted in the Mexican War, which ended with Mexico relinquishing California to the United States under the Treaty of Guadalupe Hidalgo of 1848. With the formation of the new State of California, and the onset of the American period, rapid changes were in store for the region. With the discovery of gold in the Sierra Nevada in 1848, the population in California soared as emigrants flooded in, seeking gold or producing goods or services for miners.

D.4.1.4 Previous Recorded Cultural Resources in the Project Area

The staff at the Central Coast Information Center, California Historical Resource Information System (CHRIS) at the University of California, Santa Barbara conducted a record search on behalf of the project on October 7, 2003 (File #2920) and October 10, 2003 (File #2927) for URS Corporation (URS, 2004). The record search included a review of all cultural resource and excavation reports and recorded archaeological sites within a one half-mile radius of the project area. The study included a review of archaeological, ethnographic, historical, and environmental literature as well as records and maps on file. The CHRIS record search included a review of all recorded sites, historical listings, and historical maps within and immediately adjacent to the DCPP site and Port San Luis area. The records search also included reports of previous cultural resource surveys that have been conducted within the project area, which are listed in Table D.4-1.

Table D.4-1. Cultural Resource Surveys in the Project Area

Location	Survey	Author	Date	Report Title
Port San Luis	E 16	Environmental Research Archaeologists	1977	Underwater and On-Land Culture Resource Survey
Port San Luis	E 77	Stickel, G.	1976	Final Report of a Cultural Resource Survey of Port San Luis, California
Diablo Cove	E 123	Riddell, F.	1966	An Archaeological Reconnaissance of the Diablo Creek Vicinity, San Luis Obispo County, CA
Diablo Cove	E 172	Riddell, F.	1968	An Archaeological Reconnaissance of the Access Road to the Diablo Canyon Power Generating Plant, San Luis Obispo County, CA
Diablo Cove	E 714	Holson, J.	1986	Archaeological Resources Located on Parcel P, Diablo Canyon, San Luis Obispo County, CA
Port San Luis	E 2219	Davis-King, S. and Williams, S.	1992	Archaeological Survey on Portions of Diablo Canyon Nuclear Power Plant, North Property Coastal Shelf, San Luis Obispo County, California (Second Field Season); and Archaeological Survey on Portions of Diablo Canyon Nuclear Power Plant, South Property, San Luis Obispo
Port San Luis	E 2533	Singer, C.	1993	Subject: Evaluation of potential impacts to cultural resources associated with proposed dredging project at Port San Luis, San Luis Obispo County
Port San Luis	—	Little, A. D.	1998	Unocal Avila Beach Cleanup Project. EIR/EIS Final Report. Prepared for County of San Luis Obispo, CA. Regional Water Quality Control Board, U.S. Army Corps of Engineers.
Diablo Cove	—	PG&E Co.	2001	Diablo Canyon, Independent Spent Fuels Storage Installation, Coastal Permit Application.

Table D.4-1. Cultural Resource Surveys in the Project Area

Location	Survey	Author	Date	Report Title
Diablo Cove	—	PG&E Co.	2002	Diablo Canyon, Independent Spent Fuels Storage Installation, Environmental Report.
Diablo Cove	—	URS Corp.	2002	Proposal for PG&E Diablo Canyon Power Plant, Independent Spent Fuels Storage Installation, Environmental Impact Report.
Diablo Cove	—	Marine Research Specialists	2003	Diablo Canyon Power Plant, Independent Spent Fuels Storage Installation, Environmental Impact Report

Source: PG&E, 2004.

The CHRIS records search indicates that seven archaeological sites have been previously recorded within the project area. All of the sites are prehistoric, and include four coastal shell middens and two occupation sites. At least one site (CA-SLO-2) has produced human burials. The known cultural resources are presented in Table D.4-2. None of the sites are within the project Area of Potential Effect (APE). In the context of Section 106 of the National Historic Preservation Act [Section 800.16(d)], the Area of Potential Effect is defined as the geographic area or areas within which an undertaking may directly or indirectly may affect a cultural resource, if any exist. See Figure D.4-1 for the APE for the Proposed Project.

Table D.4-2. Known Cultural Resources in the Project Area (Not in APE)

Site	Site Type/Constituents	Distance from APE	Cultural/ Temporal Affiliations	Reference
CA-SLO-61	Gathering Site	N/A[a]	Prehistoric	INFOTEC Research Inc.
CA-SLO-1159	Coastal Shell Midden	N/A	Prehistoric	U.C.A.S.
CA-SLO-1163	Coastal Shell Midden	N/A	Prehistoric	Riddell et al.
CA-SLO-1469	Coastal Shell Midden	N/A	Prehistoric	INFOTEC Research Inc.
CA-SLO-2	Occupation site/burials	Less than 0.25 miles	Prehistoric	U.C.A.S.
CA-SLO-3	Occupation site	Less than 0.50 miles	Prehistoric	U.C.A.S.
CA-SLO-1160	Coastal Shell Midden	N/A	Prehistoric	Riddell et al.

Source: PG&E, 2004.

[a] N/A indicates that the exact location of the cultural resource was not provided by PG&E due to confidentiality reasons, but that it is not within the APE.

According to the records search, the State Office of Historic Preservation (OHP) listing contains four historic properties that are in the project area. These properties have been listed in the Directory of Properties published by the OHP and they are described in Table D.4-3 below. None of the properties are within the project APE.

Table D.4-3. Historic Properties in the Project Area (Not in APE)

Location	Description	Distance from APE	National Register Status
Port San Luis	Harford Pier	Less than 0.25 miles	Eligible for listing in the National Register or the California Register
Port San Luis	Harford Pier Warehouse	Less than 0.25 miles	Eligible for listing in the National Register or the California Register
Port San Luis	Point San Luis Obispo Light Station	Greater than 0.50 miles	Eligible

Source: PG&E, 2004.

D.4.2 Applicable Regulations, Plans, and Standards

Federal and State Standards

The following regulations from the State Public Resources Code and California Environmental Quality Act regulations apply:

- Title 14, Public Resources Code (PRC), Section 5020.1 defines 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 which 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 (Title 16 United States Code Section 470 et seq.); (q) "substantial adverse change" means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired.
- Title 14, PRC, Section 5024.1 establishes a California Register of Historic Places; sets forth criteria to determine significance; defines eligible properties; lists nomination procedures.
- Title 14, PRC, Section 5097.5 establishes that unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority or public corporation, or any agency thereof.
- Title 14, PRC, Section 5097.98 prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn; sets penalties.
- Title 14, PRC, Section 21083.2 establishes that the CEQA 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 they can't be avoided, mitigation measures shall be required; discusses excavation as mitigation; discusses cost of mitigation for several types of projects; sets time frame for excavation; defines "unique and non-unique archaeological resources;" provides for mitigation of unexpected resources.
- Title 14, PRC, Section 21084.1 establishes that a project may have a significant effect on the environment if it causes a substantial change in the significance of a historic resource; the section further describes what constitutes a historic resource and a significant historic resource.
- Title 14, Penal Code, Section 622.5 establishes that anyone who damages an item of archaeological or historic interest is guilty of a misdemeanor.
- *CEQA Guidelines* (Title 14, California Code of Regulations, Chapter 3, Sections 15000, et seq.), Appendix G (j), specifically defines a potentially significant environment effect as occurring when the Proposed Project would ". . . disrupt or adversely affect . . . an archeological site, except as part of a scientific study."
- *CEQA Guidelines* (Section 15064.5) specifically address effects on historic and prehistoric archaeological resources, in response to problems that have previously arisen in the application of CEQA to these resources.

Figure D.4-1. Area of Potential Effects (APE)
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Local Ordinances and Policies

Under the California Coastal Act of 1976, local jurisdictions are required to prepare local coastal plans (LCPs) containing a Coastal Zone Land Use Ordinance to incorporate state-mandated coastal protections into their General Plans. San Luis Obispo County has a certified LCP.

- Section 30244 of the California Coastal Act serves to protect archaeological resources. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.
- The San Luis Obispo County LCP has a variety of policies and ordinances to implement section 30244 of the Coastal Act, including six policies to ensure that any proposed development would be designed and located to minimize its impacts to archaeological resources. These policies define the identification of archaeological resources as well as how to handle archaeological resources discovered during construction or other activities.
- Section 23.07.104 of the Coastal Zone Land Use Ordinance also outlines procedures and requirements to apply to development within archaeologically sensitive areas. These include the definition of an archaeologically sensitive area, the requirement of a preliminary survey, and a description of when a mitigation plan is required.

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

D.4.3.1 Definition and Use of Significance Criteria

CEQA regulations contain provisions regarding the preservation of historic (and prehistoric) cultural sites. Section 15126.4 of the *CEQA Guidelines* directs public agencies to "avoid damaging effects" on an archaeological resource whenever feasible. If avoidance is not feasible, the importance of the site shall be evaluated to determine impact significance and develop mitigation measures.

In considering impact significance under CEQA, the significance of the resource is determined first. *CEQA Guidelines* Section 15064.5 states: Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the following criteria for listing on the California Register of Historical Resources (PRC Section 5024.1, Section 4852):

- 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.

CEQA Guidelines Section 15064.5 also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC Section 5097.98.

Impacts on "unique archaeological resources" are considered under CEQA, as detailed under PRC Section 21083.2. A unique archaeological resource implies that an archaeological artifact, object or site meets one of the following criteria:

- Contains information needed to answer important scientific questions, and there is demonstrable public interest in that information;
- Has a special and particular quality, such as being the oldest of its type or the best example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological artifact, object, or site is one that does not meet any of the above criteria. Impacts on non-unique archaeological artifacts, objects or sites receive no further consideration under CEQA.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for "significance" or "uniqueness" based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and record searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site. Potential impacts on identified cultural resources need only be considered if the resource is "significant" or "unique" under the provisions of CEQA cited above.

D.4.3.2 Replacement Steam Generator Transport

The record search indicates that the Port San Luis offloading location has been subject to previous cultural resource surveys. The Harford Pier has been determined eligible for listing in both the National and California Registers of Historic Places (NRHP and CRHP); and the Harford Pier Warehouse additionally appears to be eligible for federal and State listing in the registers according to previous survey evaluations. Known prehistoric resources are located in the headlands west of the Harford Pier. According to information provided by PG&E, Wickstrom and Tremaine (1993), have reported that eleven cultural resources sites either border, or are crossed by, the seven-mile transport route between Port San Luis and DCPP.

Offloading the replacement steam generators at Port San Luis would not adversely affect the two previously recorded historic resources — the Harford Pier and Harford Pier Warehouse that are located within 0.25 miles of the proposed offloading location. Specialized transporters used to move the RSGs between Port San Luis and DCPP along the seven-mile DCPP Access Road would operate exclusively on existing paved roads engineered to handle such loads and would not adversely affect previously recorded archaeological resources that are less than 0.5 miles from the proposed route ~~as none of these are within the APE~~.

The Port San Luis offloading location and the seven mile transport route were visited by a project archaeologist on November 19, 2004. This visit confirmed that no cultural resources are present ~~either~~ at the offloading location, and no visual indications of sites along ~~or on~~ the seven-mile transport route were identified. Offloading and transport activities at Port San Luis, therefore, would have no adverse impacts on cultural resources.

D.4.3.3 Replacement Steam Generator Staging and Preparation

The records search indicates that the DCPP site has been the subject of previous cultural resource surveys. Archaeological resources are known to exist within 0.25 miles of the proposed location of the RSG storage facility. The proposed location of the RSG storage facility and other staging and prepara-

tion activities within the temporary staging area (TSA) would be within Parking Lot 1 at the southern end of the DCPP site. No known historic or archaeological resources are known to exist at this specific location, the area has been previously disturbed by leveling and paving.

The proposed TSA location was visited by a project archaeologist on November 19, 2004. This visit confirmed that no cultural resources are present at the location, which is paved and is now being used as a parking lot. The construction of temporary facilities would require limited ground-disturbing activities for installation of utilities. Therefore, staging and preparation activities would not be likely to cause adverse impacts on cultural resources (Class III).

If construction of the TSA should require ground-disturbing activity, the possibility of impacting previously unknown cultural resources, however remote, would exist.

Impact C-1: Ground-disturbing activity may damage or destroy previously undetected cultural resources

Unknown and potentially significant cultural resources could exist below Parking Lot 1, as it is located on a coastal terrace overlooking the beach. Destruction of potentially significant cultural resources without mitigation would be a potentially significant impact. However, implementation of Mitigation Measures C-1a and C-1b, would reduce impacts to less than significant levels (Class II).

Mitigation Measures for Impact C-1, Ground-disturbing activity may damage or destroy previously undetected cultural resources

C-1a **Cultural Resources Treatment Plan (CRTP).** PG&E shall develop a CRTP for potential cultural resources should construction of the TSAs require ground-disturbing activities. The CRTP shall include procedures for protection and avoidance of Environmentally Sensitive Areas and Archaeological High-Probability Areas. It shall also include procedures for the evaluation and treatment of the unexpected discovery of cultural resources, including Native American burials; detailed reporting requirements for the Project Archaeologist; the curating of any cultural materials collected during the project; and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California Office of Historic Preservation (OHP).

Current project design ensures that known and recorded cultural resources will be avoided during construction, and operation and maintenance. Specific protective measures shall be defined in the CRTP to reduce the potential adverse impacts on any currently undetected cultural resources to less than significant levels. The CRTP shall be submitted to the CPUC for review and approval at least ~~30~~ 60 days before the start of construction.

C-1b **Construction Monitoring.** Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered during ground-disturbing activities associated with the construction of TSAs. The qualifications of the principal archaeologist shall be approved by the CPUC.

D.4.3.4 Original Steam Generator Removal, Transport, and Storage

The DCPP site has been the subject of previous cultural resource surveys, and archaeological resources are known to exist within 0.25 miles of the proposed location of activities involving the removal, transportation, and storage of the original steam generators (OSGs). Removal, transportation, and storage of

the OSGs, however, would not occur in areas previously identified as containing cultural resources. Removal and transport activities would occur entirely on previously disturbed and paved surfaces of the DCPP site except for construction of the storage facility for the OSGs. The proposed OSG Storage Facility location (now a paved parking area) represents an area of the Diablo Canyon Creek drainage that has been filled in with many tons of man-made fill. Consequently any disturbances created by the construction of the OSG Storage Facility would not impact any cultural resources.

The proposed OSG Storage Facility location was visited by a project archaeologist on November 19, 2004. This visit confirmed that no cultural resources are present at the location, and that the OSG Storage Facility would be situated on top of man-made fill. The proposed OSG Storage Facility location would have no adverse impacts on cultural resources.

D.4.3.5 Replacement Steam Generator Installation

The DCPP site has been the subject of previous cultural resource surveys, and archaeological resources are known to exist within 0.25 miles of the proposed location of RSG installation. RSG installation activities would occur entirely on previously disturbed and paved surfaces of the DCPP site, and they would not be located in an area with previously recorded cultural resources.

The DCPP site was visited by a project archaeologist on November 19, 2004, and this visit confirmed that no cultural resources are present at the location of the RSG installation. The RSG installation activities would have no adverse impacts on cultural resources.

D.4.4 Environmental Impacts and Mitigation Measures for the Alternatives

D.4.4.1 Replacement Steam Generator Offloading Alternative

The Intake Cove area of the DCPP site has been the subject of previous cultural resource surveys, and archaeological resources are known to exist within the area. However, the offloading area at Intake Cove has already been previously disturbed, and offloading the RSGs at this location is not expected to create new disturbances. The RSG Offloading Alternative would use existing onsite roads for transporting the RSGs, and these roads do not traverse any known historical or archaeological resources.

The Intake Cove offload location and onsite transport route were visited by a project archaeologist on November 19, 2004. This visit confirmed that no cultural resources are present either at the offloading location or on the transport route. Similar to the Proposed Project, the RSG Offloading Alternative at the Intake Cove would have no adverse impacts on cultural resources.

D.4.4.2 Temporary Staging Area Alternatives

Each of the TSA Alternatives would be within the DCPP site, which has been the subject of previous cultural resource surveys, at the following locations:

- TSA Alternative A would be located in the southern end of the DCPP site area at Parking Lot 7.
- TSA Alternative B would be located in the southern end of the DCPP site area at Parking Lot 8.
- TSA Alternative C would consist of the addition of a second floor to Warehouse B, which is located north of Shore Cliff Road and east of Reservoir Road. This alternative would also include a smaller temporary building located in Parking Lot 1.

Archaeological resources are known to exist within the area. However, no historic or archaeological resources are known to be located at any of these locations, and the areas have been previously disturbed by leveling and paving.

The locations of the TSA Alternatives were visited by a project archaeologist on November 19, 2004. These visits confirmed that no cultural resources are present at any of the locations, which are now paved and used as parking lots. The use of existing facilities or construction of temporary facilities would require limited ground-disturbing activities for installing utilities. Therefore, similar to the Proposed Project, the TSA Location Alternatives would have no adverse impacts on cultural resources.

However, should construction of a TSA require significant ground-disturbing activity, the possibility of impacting previously unknown cultural resources, however remote, would exist. Unknown and potentially significant cultural resources could exist below Parking Lots 7, 8, or 1, as they are located on a coastal terrace overlooking the beach. Destruction of potentially significant cultural resources without mitigation would be a significant impact (Impact C-1, Class II). Mitigation Measures C-1a and C-1b would reduce this potentially significant impact to a less than significant level.

D.4.4.3 Original Steam Generator Storage Facility Location Alternatives

Similar to the Proposed Project, the OSG Storage Facility Location Alternatives would be situated in a portion of the Diablo Canyon Creek drainage that has been filled in with many tons of man-made fill. Consequently, any disturbances created by excavation or other activity for the construction of the OSG Storage Facility would not impact any cultural resources.

A project archaeologist visited the OSG Storage Facility Location Alternatives on November 19, 2004. This visit confirmed that no cultural resources are present there, and that the OSG Storage Facility Location Alternatives would be situated on top of man-made fill. OSG removal, transportation, and storage activities would have no adverse impacts on cultural resources.

D.4.4.4 Original Steam Generator Offsite Disposal Alternative

As described in Section C.5.5.2, it is assumed that the OSGs would be transported via barge from either the DCPP Intake Cove or the Port San Luis area. No adverse impacts on cultural resources are anticipated from activities associated with disposal of the OSGs at an offsite location, as the issues associated with this activity are very similar to those identified for the Proposed Project and the RSG Offloading Alternative in Section D.4.4.1 and the OSG Storage Facility Location Alternatives described in Section D.4.4.3.

D.4.5 Environmental Impacts of the No Project Alternative

The No Project Alternative would most likely cause DCPP to shut down prior to the expiration of the NRC licenses and would diminish the potential for damaging any unknown cultural resources in the area or on the DCPP property. New generation facilities could be sited in a manner that reduces or avoids impact on cultural resources; however, significant impacts may still occur, depending upon the location chosen. Appropriate mitigation considerations would be specific to the site selected and the type of generation constructed. In comparison to the Proposed Project, the No Project Alternative may have a greater likelihood of impacting cultural resources, since the Proposed Project would require very little ground-disturbing activities in an area with minor potential for cultural resources.

D.4.6 Mitigation Monitoring, Compliance, and Reporting Table

Table D.4-4 shows the mitigation monitoring, compliance, and reporting program for Cultural Resources.

Table D.4-4. Mitigation Monitoring Program – Cultural Resources

IMPACT C-1	**Ground-disturbing activity may damage or destroy previously undetected cultural resources (Class II)**
MITIGATION MEASURE	**C-1a: Cultural Resources Treatment Plan (CRTP).** PG&E shall develop a CRTP for potential cultural resources should construction of the TSAs require ground-disturbing activities, including procedures for protection and avoidance of Environmentally Sensitive Areas and Archaeological High-Probability Areas, and evaluation and treatment of the unexpected discovery of cultural resources including Native American burials; detailed reporting requirements by the Project archaeologist; curating any cultural materials collected during the Project; and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California OHP. Current project design ensures that known and recorded cultural resources will be avoided during construction, and operation and maintenance. Specific protective measures shall be defined in the CRTP to reduce the potential adverse impacts on any currently undetected cultural resources to less than significant levels. The CRTP shall be submitted to the CPUC for review and approval at least 60 days before the start of construction.
Location	TSA Proposed Project, TSA Alternative A, TSA Alternative B, and TSA Alternative C
Monitoring / Reporting Action	CPUC to review CRTP
Effectiveness Criteria	Previously undetected cultural resources in designated sensitive areas are identified by the PG&E archaeological monitor. Previously undetected resources are properly managed after identification by the archaeological monitor as outlined in the CRTP
Responsible Agency	CPUC
Timing	At least 60 days prior to the start of construction
MITIGATION MEASURE	**C-1b: Construction Monitoring.** Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered ground-disturbing construction. The qualifications of the principle archaeologist shall be approved by the CPUC.
Location	TSA Proposed Project, TSA Alternative A, TSA Alternative, and TSA Alternative C
Monitoring / Reporting Action	CPUC to approve qualifications of archaeological monitor. CPUC to coordinate with principal archaeologist to verify that PG&E archaeologist monitors the designated locations and follows procedures outlined in CRTP in the event of unanticipated discoveries
Effectiveness Criteria	Previously undetected cultural resources in designated sensitive areas are identified by the PG&E archaeological monitor. Previously undetected resources are properly managed after identification by the archaeological monitor as outlined in the CRTP.
Responsible Agency	CPUC
Timing	During project construction, when ground-disturbing activity planned in locations.

D.4.7 References

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