

5.3 Cultural Resources

5.3.1 Introduction

On August 16, 2001, GWF Energy LLC filed an Application for Certification (AFC) with the California Energy Commission (CEC) for the Tracy Peaker Project (TPP). The CEC found the AFC data adequate on October 17, 2001. The CEC released a staff assessment on December 28, 2001, and a supplemental staff assessment on February 1, 2002. The CEC published its Presiding Member's Proposed Decision on May 31, 2002, with the project receiving its Final Decision on July 17, 2002. These documents are incorporated by reference into this AFC and are presented in electronic form in Appendix 1A.

The majority of the data and analyses presented in that AFC are still valid and comprise the primary data source for this supplemental AFC, and is cited as "GWF, 2001". The specific portions of the previous AFC used to satisfy the data adequacy requirements are presented below.

Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Section 5.3.3.2, page 5.3-7
		Section 8.3.1.4 of the TPP AFC, page 8.3-3
		Section 8.3.1.5 of the TPP AFC, page 8.3-3
		Section 8.3.1.6 of the TPP AFC, pages 8.3-4 and 8.3-5

This section evaluates the potential effect to cultural resources from the construction and operation of the GWF Tracy Combined Cycle Power Plant (GWF Tracy). The project will be sited within the boundaries of the area disturbed during the construction of the TPP.

Operation of GWF Tracy will not involve further ground-disturbing activities, and therefore no impacts to cultural resources would occur during the operational phase of this project.

This section is consistent with state regulatory requirements for cultural resources pursuant to California Environmental Quality Act (CEQA). Cultural resources include prehistoric and historic archaeological sites;¹ districts and objects; standing historic structures, buildings, districts and objects; and locations of important historic events, or sites of traditional/cultural importance to various groups.² The study scope was developed in

¹ Site – "The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure...where the location itself possesses historic, cultural, or archeological value." (U.S. National Park Service [USNPS]-IRD, 1991: 15).

² The federal definitions of cultural resource, historic property or historic resource, traditional use area, and sacred resources are reviewed below and are typically applied to non-federal projects.

A cultural resource may be defined as a phenomenon associated with prehistory, historical events or individuals or extant cultural systems. These include archaeological sites, districts and objects; standing historic structures, districts and objects; locations of important historic events; and places, objects and living or non-living things that are important to the practice and continuity of traditional cultures. Cultural resources may involve historic properties, traditional use areas and sacred resource areas.

consultation with the CEC's cultural resources staff and complies with *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification* (CEC, 1992) and *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007) (the "Siting Regulations"). This section was prepared by Clint Helton, M.A., RPA, a Cultural Resource Specialist who meets the qualifications for Principal Investigator stated in the Secretary of the Interior's standards and guidelines for archaeology and historic preservation (USNPS, 1983).

Section 5.3.2 discusses the laws, ordinances, regulations, and standards (LORS) applicable to the protection of cultural resources. Section 5.3.3 cultural resources environment that might be affected by GWF Tracy. Section 5.3.4 discusses the environmental consequences of construction and operation of the proposed development. Section 5.3.5 determines whether there will be any cumulative effects from the project. Section 5.3.6 presents mitigation measures that will be implemented to avoid construction impacts. Section 5.3.7 lists the agencies involved and agency contacts, and Section 5.3.8 discusses permits and the permitting schedule. Section 5.3.9 lists reference materials used in preparing this section.

Per the Siting Regulations, Appendix 5.3A provides copies of agency consultation letters. Confidential Appendix 5.3B provides a copy of the TPP AFC Cultural Resource Assessment. Confidential Appendix 5.3C provides a copy of the updated CHRIS literature search results for GWF Tracy including copies of previous technical reports occurring within ¼ mile of the project and DPR 523 forms for previously recorded resources occurring within 1 mile of the project and ¼ mile of linear facilities. Appendix 5.3D provides names and qualifications of personnel who contributed to this study. Appendix 5.3E provides Confidential Figure 5.3E-1a through 5.3E-1d, depicting the specific area surveyed for cultural resources and known cultural resources occurring within 1 mile of the project or ¼ mile of linear facilities.

GWF Tracy is subject to the CEC power plant licensing requirements, which is a CEQA-equivalent process. The project does not require review under federal regulations such as the National Historic Preservation Act (NHPA) and the Archaeological and Historic Preservation Act of 1974 (16 USC 469), among others, because it is not a federal undertaking (federally permitted or funded).

5.3.2 Laws, Ordinances, Regulations and Standards

Among the local LORS discussed in this section are certain ordinances, plans, or policies of San Joaquin County. For informational purposes, this section reviews compliance of the project with such requirements even though the Applicant understands that they are not applicable to the project as a matter of law. (See Section 5.6, Land Use, for a discussion of this issue.) The analysis of local LORS in this section is informational and does not address

Historic property or historic resource means any prehistoric district, site building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places. The definition also includes artifacts, records and remains that are related to such a district, site, building, structure or object.

Traditional use area refers to an area or landscape identified by a cultural group to be necessary for the perpetuation of the traditional culture. The concept can include areas for the collection of food and non-food resources, occupation sites and ceremonial and/or sacred areas.

Sacred resources applies to traditional sites, places or objects that Native American tribes or groups, or their members, perceive as having religious significance.

the jurisdictional issues, which are discussed in Section 5.6, Land Use. Federal LORS are not applicable because the project is not a federal undertaking (federal ownership, funding, or permit). A summary of applicable LORS is provided in Table 5.3-1.

5.3.2.1 State LORS

CEQA requires review to determine if a project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group eligible for inclusion in the California Register of Historic Resources (CRHR) (CEQA Guidelines). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1 of the Public Resources Code [PRC]) and defines substantial adverse change as demolition, destruction, relocation, or alteration that would impair historical significance (PRC Section 5020.1). Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the CRHR³ is presumed to be historically or culturally significant.⁴

TABLE 5.3-1
Laws, Ordinances, Regulations, and Standards for Cultural Resources

Law, Ordinance, Regulation, or Standard	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
State			
California Environment Quality Act Guidelines	Project construction may encounter archaeological and/or historical resources	CEC	Section 5.3.2.1
Health and Safety Code Section 7050.5	Construction may encounter Native American graves; coroner calls the Native American Heritage Commission (NAHC)	State of California	Section 5.3.2.1
Public Resources Code Section 5097.98	Construction may encounter Native American graves; NAHC assigns Most Likely Descendant	State of California	Section 5.3.2.1

³ The CRHR is a listing of "...those properties which are to be protected from substantial adverse change." Any resource eligible for listing in the California Register is also to be considered under CEQA.

⁴ A historical resource may be listed in the CRHR if it meets one or more of the following criteria: "(1) is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) is associated with the lives of persons important to local, California or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or (4) has yielded or has the potential to yield information important in prehistory or history (...of the local area, California or the nation)" (Public Resources Code §5024.1, Title 14 CCR, Section 4852). Automatic CRHR listings include National Register of Historic Places (NRHP)-listed and determined eligible historic properties (either by the Keeper of the NRHP or through a consensus determination on a project review); State Historical Landmarks from number 770 onward; and Points of Historical Interest nominated from January 1998 onward. Landmarks prior to 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

TABLE 5.3-1
Laws, Ordinances, Regulations, and Standards for Cultural Resources

Law, Ordinance, Regulation, or Standard	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Public Resources Code Section 5097.5/5097.9	Would apply only if some project land were acquired by the state (no state land is associated or expected to be associated with this project so this LORS does not apply)	State of California	Section 5.3.2.1
Local			
San Joaquin County Planning Department – General Plan Volume I, Sections G and H	The county follows all provisions of CEQA. The General Plan Heritage Resource section stipulates the preservation of significant historical and archaeological sites and structures within the county.	San Joaquin County	Section 5.3.2.2

Resources listed in a local historic register or deemed significant in a historical resource survey (as provided under PRC Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not.

A resource that is not listed in or determined to be eligible for listing in the CRHR, is not included in a local register of historic resources, nor deemed significant in a historical resource survey, may nonetheless be historically significant (PRC Section 21084.1; see PRC Section 21098.1).

CEQA requires a Lead Agency to identify and examine environmental effects that may result in significant adverse effects. Where a project may adversely affect a unique archaeological resource,⁵ PRC Section 21083.2 requires the Lead Agency to treat that effect as a significant environmental effect and prepare an Environmental Impact Review. When an archaeological resource is listed in or is eligible to be listed in the CRHR, Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a project may have a potential adverse effect on archaeological resources.

Other state-level requirements for cultural resources management appear in the California PRC Chapter 1.7, Section 5097.5 (Archaeological, Paleontological, and Historical Sites), and

⁵ Public Resources Code 21083.2 (g) defines a unique archaeological resource to be: An archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Chapter 1.75, beginning at Section 5097.9 (Native American Historical, Cultural, and Sacred Sites) for lands owned by the state or a state agency.

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code (H&SC) and Sections 5097.94 and 5097.98 of the PRC, and falls within the jurisdiction of the NAHC.

In order to comply with these requirements, if human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the Coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to H&SC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native American so they can inspect the burial site and make recommendations for treatment or disposal.

5.3.2.2 Local LORS

As discussed above, among the local LORS discussed in this section are certain ordinances, plans or policies of San Joaquin County (see Section 5.6, Land Use, for a discussion of this issue). The analysis of County LORS is presented below.

San Joaquin County General Plan. Volume I, Sections G and H, of the General Plan describe efforts to protect heritage resources in San Joaquin County. The objective is to protect the county's valuable architectural, historical, archaeological, and cultural resources by promoting identification and inventory, public awareness, reuse, educational programs, funding, and restoration. Section G details local, state, and federal historic preservation programs, and provides a list of local historic places listed in the National Register. Section G also lists local historic points of interest and historic landmarks in San Joaquin County. San Joaquin County also follows the provisions of CEQA regarding cultural resources. The administering agency for this authority is San Joaquin County.

5.3.3 Affected Environment

In California, cultural resources extend back in time for at least 11,500 years. Written historical sources tell the story of the past 200 years. Archaeologists have reconstructed general trends of prehistory in California.

5.3.3.1 Regional Setting

The environmental setting of GWF Tracy is the central San Joaquin Valley. Topographically, the valley is an expansive flatland comprising alluvial floodplains, river and creek channels, dried lakebed, marshes, sloughs, and various other riparian environments. The environmental setting is also characterized by uplands of low and gradual relief. During prehistoric times (i.e., Late Pleistocene and Early Holocene), wetlands covered more than 5,000 square kilometers of the San Joaquin Valley area (Moratto, 1984). The GWF Tracy site is approximately 176 feet above mean sea level and is relatively flat with little topographic relief (GWF, 2001).

Two simple-cycle GE 7EA combustion turbines (CTGs) with a total nominal output of 169-megawatts (MW) are presently in operation at the project site. GWF proposes to convert the existing TPP into a combined-cycle facility by building a heat recovery steam generator

(HRSG) on the exhaust of each CTG, which provide steam to a nominal 145-MW steam turbine generator. This will result in the GWF Tracy project being a nominal 314-MW, combined-cycle power plant, on an approximately 16.4-acre fenced site within a 40-acre parcel in unincorporated San Joaquin County. The site is located southwest of the City of Tracy, California and approximately 20 miles southwest of Stockton, California. GWF Tracy consists of installation of the steam generation and heat rejection equipment, connections to the existing onsite switchyard, onsite natural gas and water supply from the Delta-Mendota Canal interconnections, onsite 115-kV electric transmission line, installation of two transmission termination structures, relocation of the stormwater retention basin, and the relocation of the equipment storage.

The property is bounded by the Delta-Mendota Canal to the southwest, agricultural property to the south and east, and the Union Pacific Railroad to the north. Immediately north of the railroad are the Owens-Brockway glass container manufacturing plant and the Nutting-Rice warehouse. The Tracy Biomass power plant is approximately 0.6 mile to the northwest.

In addition, as a result of a System Impact Study (electrical interconnection study) conducted for GWF Tracy by Pacific Gas and Electric (PG&E), the PG&E transmission system will require the re-conductoring of three segments of transmission line (2.5-mile section of the Vierra-Tracy-Kasson 115-kV line; 0.7-mile section of the Schulte-Lammers 115-kV line; existing GWF Tracy Peaker Plant to PG&E Lammers Substation). No new transmission poles, no replacement poles, and no excavation are expected for this re-conductoring effort.

5.3.3.2 Prehistoric, Historic, and Ethnographic Setting

The prehistoric, historic, and ethnographic setting of the GWF Tracy project area was described thoroughly for the TPP AFC (GWF, 2001) and will not be repeated in this section.

5.3.3.3 Resources Inventory

For GWF Tracy, updated cultural resources records reviews were conducted for the project using the archives of the Central California Information Center (CCIC) of the California Historic Resources Information System (CHRIS). These updates follow four previous searches conducted for the TPP (GWF, 2001).

Since no construction will occur for GWF Tracy outside of the previous survey area and because the surface of the current project area is composed entirely of artificial fill and disturbed topsoil (GWF 2001), no new field survey for cultural resources at the plant site was conducted. CEC staff agreed to this approach, documented in a letter to Ms. Eileen Allen, Energy Facility Licensing Program Manager of CEC dated February 27, 2008. A copy of this letter is provided in Appendix 5.3A.

However, subsequent to this decision, it was determined that re-conductoring of three segments of PG&E electrical transmission line would be required to accommodate GWF Tracy. Therefore, a pedestrian inventory was conducted on June 16, 2008 by CH2M HILL cultural resources specialist Clint Helton of these three transmission line segments to assess potential impacts to cultural resources. Additionally, a 200-foot buffer was also surveyed for cultural resources around the existing GWF Tracy plant site.

5.3.3.3.1 Archival Research

Since CEC standards and guidelines have changed since the TPP study was conducted, and new resources may have been identified thereafter, a new archival literature search was conducted for GWF Tracy using the archives of the CCIC of the CHRIS using a definition of a 1-mile radius around the project site and associated laydown areas and at least a 0.25-mile radius around linear facilities as the “Project Area.”

According to information available in the CHRIS files, there have been 14 previous cultural resource surveys conducted within this Project Area (Table 5.3-2).

TABLE 5.3-2
Cultural Resources Reports Within 1 Mile of the Project Area

Report Authors	CHRIS Catalogue NADB Numbers
Moratto et al. (1990)	00621
Foster (1995)	02646
Morrato et al. (1994)	02753
Egherman (2001)	04509
Reno (2003)	05159
Baker and Smith (1989)	00716
Napton (1989)	00790
Canaday et al. (1992)	01846*
Lanier and Jackson (1993)	02080*
Foster and Foster (1994)	02293
Hatoff et al. (1995)	02759*
Foster (1996)	02857
Jensen (1996)	02930
Foster (1999)	03559*

Source: California Historical Resources Inventory System, CCIC

* Study area located within 0.25 mile of project area—a copy of the technical report is provided in Confidential Appendix 5.3C

The record search indicated that there are nine previously recorded properties within 1 mile of the Project Area (see Table 5.3-3). None of these previously recorded sites are situated within the GWF Tracy Area of Potential Effect (APE). All other previously recorded sites are located outside of the GWF Tracy APE, and the project will have no effect on them.

TABLE 5.3-3
Summary of Previously Documented Sites within 1 Mile of the Project Area

Site	Description	NRHP/CRHR Status	Effect
CA-SJO-250H	Southern Pacific Railroad	Eligible	None
CA-SJO-262	Milling implement cache	Not Evaluated	None
39-000089	Delta-Mendota Canal	Eligible	None
39-000090	California Aqueduct	Not Eligible	None
39-004287	Fence line	Not Evaluated	None
39-004288	Telegraph, telephone, and power lines	Not Evaluated	None
39-004289	Three sets of transmission line towers	Not Evaluated	None
CA-SJO-285H	Utility line, fence line, refuse scatter	Not Evaluated	None
39-004388	Two historic artifacts	Not Evaluated	None

Source: California Historical Resources Inventory System, CCIC. See also GWF, 2001.

Because of the addition of the transmission line re-conductoring component to the project, a second literature search was undertaken using the archives of the CCIC of the CHRIS for the three PG&E transmission line segments. The results of this separate literature search are presented in Tables 5.3-4 and 5.3-5.

TABLE 5.3-4
Cultural Resources Reports Within 1 Mile of the PG&E Transmission Line Segments

Report Authors	CHRIS Catalogue NADB Numbers
Moratto et al. (1990)	00621*
Foster (1995)	02646*
Morrato et al. (1994)	02753*
Egherman (2001)	04509*
Reno (2003)	05159*
Canaday et al. (1992)	01846*
Lanier and Jackson (1993)	02080*
Foster and Foster (1994)	02293
Hatoff et al. (1995)	02759*
Jensen (1996)	02930
Foster (1999)	03559
Baker and Smith (1989)	0716*
Napton (1991)	0810*
Owens (1991)	0816
Wickstrom (1981)	04182*

TABLE 5.3-4
Cultural Resources Reports Within 1 Mile of the PG&E Transmission Line Segments

Report Authors	CHRIS Catalogue NADB Numbers
Wohlgemuth and Mears (1994)	04501*
Napton (2006)	06263*
Gross (2002)	06577*
Dolan (2004)	06579*
Werner (1984)	0701
Cupples (1977)	0734*
Shapiro and Syda (1997)	0734
Keefe (2001)	04216*
Tanksley (2003)	05622*
Adamson (2001)	05625*

Source: California Historical Resources Inventory System, CCIC

* Study area located within 0.25 mile of project area—a copy of the technical report is provided in Confidential Appendix 5.3C

In addition to those sites listed within one mile of GWF Tracy, the record search indicated that there is one previously recorded property within 0.25 mile of the PG&E Vierra–Tracy–Kasson and Schulte–Lammers 115-kV line (see Table 5.3-5). The Western Pacific Railroad tracks are located well outside of the GWF Tracy APE and the project will have no effect on them.

TABLE 5.3-5
Summary of Previously Documented Sites within 0.25-Mile of the PG&E Transmission Line Segments

Site	Description	NRHP/CRHR Status*	Effect
P-39-000098	Western Pacific Railroad	Unknown	None

Source: California Historical Resources Inventory System, CCIC.

5.3.3.3.2 Field Survey

A cultural resources survey of three segments of PG&E electrical transmission lines in addition to a 200-foot buffer surrounding the existing TPP site was conducted on June 16, 2008 by CH2M HILL cultural resources specialist Clint Helton. As described previously, GWF Tracy will require the re-conductoring of three segments of PG&E's 115-kV line transmission line (2.5-mile section of the Vierra–Tracy–Kasson 115-kV line; 0.7-mile section of the Schulte–Lammers 115-kV line; existing GWF Tracy Peaker Plant to PG&E Lammers Substation). No new transmission poles, no replacement poles, and no excavation are expected for this re-conductoring effort. Notwithstanding the absence of anticipated ground disturbance as a result of the re-conductoring, as per the latest *CEC Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007), the electrical transmission lines were surveyed with at least a 50-foot buffer, centered on the centerline.

A separate architectural survey was deemed unnecessary given that the PG&E transmission lines to be re-conducted were constructed in 1974 and, therefore, do not qualify as a historical resource. This information was provided to GWF Power by PG&E's Raymond J. Yazzolino, Sr. Project Manager (Yazzolino, 2008).

A 100 percent intensive level pedestrian survey was not possible for some portions of the transmission line segments because the line is surrounded by active and newly planted agricultural fields. For these areas, a combination of pedestrian transects spaced at 15 meters and opportunistic examination of exposed soils, furrows, ditches, and cut banks were utilized throughout the survey area. All other areas were surveyed using pedestrian transects spaced at 15-meter intervals. Exposed soils, consisting mainly of previously disturbed agricultural sediments and road bed material, were inspected carefully and no evidence of cultural materials was noted.

Construction on nearby roads as well as agricultural activities, especially mechanical cultivation from many decades of agricultural activity within and near the boundaries of the GWF Tracy site and the segments of PG&E transmission line to be re-conducted have left varying depths of fill or disturbed soil in the area. Artificial fill and previously disturbed sediment would not have cultural material in context. Most cultural material would be destroyed by the mechanical equipment used in excavation, mixing, and spreading within the plough zone. However, it is duly noted that intact cultural deposits could remain present below this plough zone. No historic or prehistoric or historic architectural resources were observed during the survey.

5.3.3.3 Native American Consultation

CH2M HILL contacted NAHC by letter on January 15, 2008 to request information about traditional cultural properties such as cemeteries and sacred places in the project area. NAHC responded on January 16, 2008, with a list of Native Americans interested in consulting on development projects. Each of these individuals/groups was contacted by letter on January 17, 2008. As of March 7, 2008, one response has been received. Copies of the letters sent are provided in Appendix 5.3A. Also, a detailed summary table of the results of consultations with the individual Native American organizations on the NAHC contact list is included in Appendix 5.3A.

The NAHC record search of the Sacred Lands file failed to indicate the presence of Native American cultural resources in the immediate project area. The record search conducted at the CCIC of CHRIS for CH2M HILL also failed to indicate the presence of Native American traditional cultural properties.

5.3.3.4 Sensitivity

The sensitivity of GWF Tracy is low for prehistoric sites potentially eligible for inclusion on the NRHP. No prehistoric resources were located during the survey for TPP, and except for a small cache of milling implements, no other prehistoric resources are known to exist within 0.5 mile of the GWF Tracy site. Although a number of historical resources exist near the proposed project corridor, they would not be affected by the construction of GWF Tracy. No impacts to cultural resources are anticipated.

5.3.4 Environmental Analysis

No significant or potentially significant cultural resources are known to exist within the study area. The previous TPP AFC Conditions of Certification required cultural resources monitoring at the plant site and was conducted by MACTEC from July 29, 2002, and continued at varying levels of intensity until completion of plant construction on May 7, 2003. No cultural materials were found in the course of cultural resources monitoring within the area to be affected by GWF Tracy (Reno and Zeier, 2003).

The previous cultural resources investigation conducted for the TPP AFC was comprehensive and formed the basis of the GWF Tracy cultural resources analysis, along with a new pedestrian inventory of three segments of the PG&E 115kV electrical transmission line undertaken by CH2M HILL. This line is less than 35 years old; and no new transmission poles, no replacement poles, and no excavation are expected for this re-conducting effort. CH2M HILL conducted updated archival literature reviews, which failed to document any new resources within the GWF Tracy APE. Operation of GWF Tracy will not involve further ground disturbing activities outside of the area subject to analysis for the TPP, and therefore no impacts to cultural resources are anticipated.

5.3.4.1 Significance Criteria

Appendix G, Environmental Checklist Form, of the CEQA guidelines addresses significance criteria with respect to cultural resources (Public Resources Code Sections 21000 et seq.). Appendix G (V)(a,b,d) indicates that an impact would be significant if the project will:

- Cause a substantial adverse change in the significance of a historical resource.
- Cause a substantial adverse change in the significance of an archaeological resource.
- Disturb any human remains, including those interred outside of formal cemeteries.

5.3.4.1.1 Construction Impacts

The literature search and pedestrian inventory previously conducted for the TPP, and the updated archival literature search performed by CH2M HILL for GWF Tracy, as well as the lack of discovery of any cultural resources as a result of construction monitoring within the TPP plant site (Reno and Zeier, 2003) have shown that there are no significant prehistoric or historic sites located within the GWF Tracy project area. Therefore, the project will have no adverse effect on significant historical or archaeological sites (that are eligible for listing in the CRHR). In addition, there are no known cemeteries in the project area that project construction might disturb.

It is highly unlikely, due to the extensive disturbance by construction of the TPP, that the project construction would encounter buried intact cultural resources.

5.3.4.1.2 Operation Impacts

No ground disturbance would be required during project operation; therefore, impacts to cultural resources are not anticipated during operation of GWF Tracy. Maintenance of project facilities will not cause any effects outside of the initial construction area of impact.

5.3.5 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may

compound or increase the incremental effect of the proposed project (Pub. Resources Code § 21083; Cal. Code Regs., Title 14, §§ 15064(h), 15065(c), 15130, and 15355). Cumulative projects are described in detail in Section 5.6, Land Use. Although environmental analyses for most of these projects have not been completed at the time of preparation of this AFC, standard mitigation measures exist to reduce impacts to cultural resources to a less-than-significant level, and it is anticipated that impacts to cultural resources from the cumulative projects, if any, would be mitigated to a less-than-significant level. The project is unlikely, therefore, to have impacts that would combine cumulatively with other closely related past, present, and reasonably foreseeable future projects.

5.3.6 Mitigation Measures

Although significant archaeological and historical sites are not known to occur within the GWF Tracy site, it is remotely possible that subsurface construction could encounter buried archaeological remains. For this reason, GWF Tracy will include the following measures to mitigate any potential adverse impacts that could occur if there were an inadvertent discovery of buried cultural resources.

5.3.6.1 Designated Cultural Resources Specialist

The Applicant will retain a designated Cultural Resources Specialist (CRS) who will prepare a cultural resource monitoring and mitigation plan for the project prior to the start of construction. The CRS will also develop a worker environmental training program to be implemented to train construction personnel expected to be involved in earth-disturbing activities to identify potential cultural resources in the event the CRS is not present and to halt work until the CRS is present to inspect the resource.

The CRS, or a qualified monitor, will be available during the earth-disturbing portion of the GWF Tracy construction periods to inspect and evaluate any finds of buried archaeological resources that might occur during the construction phase. If there is a discovery of archaeological remains during construction, the CRS, in conjunction with the construction superintendent and environmental compliance manager, will make certain that construction activity stops in the immediate vicinity of the find until the find can be evaluated. The CRS will inspect the find and evaluate its potential significance, in consultation with CEC staff and the CEC compliance project manager (CPM). The CRS will make a recommendation as to the significance of the find and any measures that would mitigate adverse impacts of construction on a significant find.

The CRS will meet the minimum qualifications for Principal Investigator on federal projects under the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The CRS will be qualified, in addition to site detection, to evaluate the significance of the deposits, consult with regulatory agencies, and plan site evaluation and mitigation activities.

5.3.6.2 Emergency Discovery

If the cultural resource monitor, construction staff, or others identify cultural resources during construction, they will immediately notify the CRS and the site superintendent, who will halt construction in the immediate vicinity of the find, if necessary. The cultural resource monitor or CRS will use flagging tape, rope, or some other means as necessary to

delineate the area of the find within which construction will halt. This area will include the excavation trench from which the archaeological finds came as well as any piles of dirt or rock spoil from that area. Construction will not take place within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can inspect and evaluate the find.

5.3.6.3 Site Recording and Evaluation

The CRS will follow accepted professional standards in recording any find and will submit the standard Department of Parks and Recreation historic site form (Form DPR 523) and locational information to the CCIC of the CHRIS.

If the CRS determines that the find is not significant, and the CEC CPM concurs, construction will proceed without further delay. If the CRS determines that further information is needed to determine whether the find is significant, the designated CRS will, in consultation with the CEC, prepare a plan and a timetable for evaluating the find.

5.3.6.4 Mitigation Planning

If the CRS, CEC staff, and CPM determine that the find is significant, the CRS will prepare and carry out a mitigation plan in accordance with state guidelines. This plan will emphasize the avoidance, if possible, of significant archaeological resources. If avoidance is not possible, recovery of a sample of the deposit from which archaeologists can define scientific data to address archaeological research questions will be considered an effective mitigation measure for damage to or destruction of the deposit.

The mitigation program, if necessary, will be carried out as soon as possible to avoid construction delays. Construction will resume at the site as soon as the field data collection phase of any data recovery efforts is completed. The CRS will verify the completion of field data collection by letter to the project owner and the CPM so that the project owner and the CPM can authorize resuming construction.

5.3.6.5 Curation

The CRS will arrange for curation of archaeological materials collected during an archaeological data recovery mitigation program. Curation will be at a qualified curation facility meeting the standards of the California Office of Historic Preservation. The CRS will submit field notes, stratigraphic drawings, and other materials developed as part of the data recovery/mitigation program to the curation facility along with the cultural resource collection, in accordance with the mitigation plan.

5.3.6.6 Report of Findings

If a data recovery program is planned and implemented during construction as a mitigation measure, the CRS will prepare a detailed scientific report summarizing results of the excavations to recover data from a cultural resource site. This report will describe the site soils and stratigraphy, describe and analyze artifacts and other materials recovered, and draw scientific conclusions regarding the results of the excavations. This report will be submitted to the curation facility with the collection.

5.3.6.7 Inadvertent Discovery of Human Burials

If human remains are found during construction, project officials are required by the California H&SC (Section 7050.5) to contact the County Coroner. If the Coroner determines that the find is Native American, he/she must contact the NAHC. The NAHC, as required by the Public Resources Code (Section 5097.98) determines and notifies the Most Likely Descendant with a request to inspect the burial and make recommendations for treatment or disposal.

5.3.7 Agencies and Agency Contacts

Table 5.3-6 lists the agencies involved in cultural resources management for the project and a contact person at each agency.

TABLE 5.3-6
Agency Contacts for Cultural Resources

Issue	Agency	Contact
Native American traditional cultural properties	Native American Heritage Commission	Dave Singleton Associate Governmental Program Analyst Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814 (916) 653-4082
Federal agency NHPA Section 106 compliance	Office of Historic Preservation	Milford Wayne Donaldson State Historic Preservation Officer 1416 9th Street, Room 1442, Sacramento, CA 95814 (916) 653-6624
Unanticipated discovery of human remains	San Joaquin County Sheriff's Department	Baster Dunn, Sheriff-Coroner San Joaquin County Sheriff's Department 7000 Michael N. Cavilis Blvd. French Camp, CA 95231 (209) 468-4300
Cultural resources policy	San Joaquin County Planning Department	Kerry Sullivan, Director of Planning 1810 E. Hazelton Avenue Stockton, CA 95205 (209) 468-3140

5.3.8 Permits and Permit Schedule

Other than certification by the CEC, no state, federal, or local permits are required for the project for the management of cultural resources.

5.3.9 References Cited or Consulted

California Energy Commission (CEC). 2007. *Rules of Practice and Procedure & Power Plant Site Certification*. California Energy Commission, Sacramento.

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United States Department of the Interior, National Register of Historic Places, National Park Service (USNPS). 1983. Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. *Federal Register*. 44716-68, Washington D.C.

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