

Study 10.1

CULTURAL RESOURCES STUDY

January 2017

1.0 Project Nexus

South Sutter Water District's (SSWD) continued operation and maintenance (O&M) of the Camp Far West Hydroelectric Project (Project) and associated Project recreation have the potential to affect cultural resources.

For the purpose of this Cultural Resources Study (Study), "cultural resource" refers to any prehistoric or historic district, site, building, structure, or object, regardless of its National Register of Historic Places (NRHP) eligibility.¹

2.0 Study Goals and Objectives

The goal of the Study is to supplement existing information regarding historic properties² and cultural resources not evaluated for the NRHP.

The objective of this Study is to gather the information necessary to meet the Study goal by filling gaps in the existing data using field and research methods to identify cultural resources in the Study Area.

This Study does not include National Historic Preservation Act (NHPA) Section 106 informal consultation with the State Historic Preservation Officer (SHPO) or interested Native American tribes. Section 106 consultation will be conducted separately, outside of this Study.

The Study does not include the development of potential requirements in the new license.

3.0 Existing Information and Need for Additional Information

Existing, relevant and reasonably available information regarding cultural resources within the existing Federal Energy Regulatory Commission (FERC) Project Boundary plus an additional 0.25-mile (mi) radius around the boundary³ is provided in Section 3.2.10 of SSWD's Pre-Application Document (PAD). SSWD identified 39 previously recorded cultural resources

¹ This Study does not address traditional cultural properties (TCP), which are addressed in Study 11.1, *Tribal Interests*.

² As defined under 36 C.F.R. Section 800.16(l), "historic properties" are prehistoric or historic archaeological sites, buildings, structures, objects, districts, or locations of traditional use or beliefs that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Historic properties are identified through a process of evaluation against specific criteria found at 36 C.F.R. Section 60.4.

³ The PAD refers to this area as the "Initial Cultural Data Gathering Area." This area was included in the cultural literature review and records searches for PAD.

within the FERC Project Boundary, 37 of which are archaeological sites and two of which are historic structures. In addition, SSWD identified 38 previously recorded isolated artifacts within the FERC Project Boundary, 35 of which are prehistoric and three of which are historic. SSWD's review of historical maps indicates that there are approximately 53 potential historic-era sites or features that may be located within the existing FERC Project Boundary.

Portions of the FERC Project Boundary have been previously surveyed for cultural resources. However, many of these investigations are more than 10 years old. Professional standards change over time, as do site and field conditions. As a result, all but one of the previously investigated areas within the Study Area will be included in the field survey, particularly because the existing and relevant information indicates that the lands within the existing FERC Project Boundary are highly sensitive for both prehistoric and historic cultural resources. Additionally SSWD's review of historic maps suggests the possibility that undocumented historic-period cultural resources may still be present within the FERC Project Boundary. A survey was recently completed by Mead & Hunt (2013) for the 5-foot boundary above the Camp Far West Reservoir normal maximum water surface elevation and incorporates the area that will not be included in this Study.

4.0 Study Methods and Analysis

4.1 Study Area

The Study Area includes most lands, Project facilities and features within the existing FERC Project Boundary, including the North Shore Recreation Area, South Shore Recreation Area, Camp Far West Dam and associated dikes and spillway, the Camp Far West Dam Powerhouse and the Camp Far West Reservoir, for a total of 2,280 acres. The facilities are described in Section 2 of SSWD's PAD, and the Study Area is shown in Figure 4.1-1.

It is anticipated that the Study Area and the Area of Potential Effects (APE), that will be defined during the NHPA Section 106 consultation, are synonymous, pending the SHPO's concurrence on the APE. As defined in 36 C.F.R. Section 800.16(d), an APE is:

...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

If SSWD proposes an addition to the Project or Project-related effects are identified outside of the Study Area, the Study Area (and subsequently the APE) will be expanded as necessary to include areas potentially affected by the addition.⁴

⁴ Outside of this Study and as part of its Section 106 consultation, if any changes to the APE are proposed, SSWD will consult with tribes and agencies regarding the modification, and consult with the SHPO for concurrence on the revised APE.

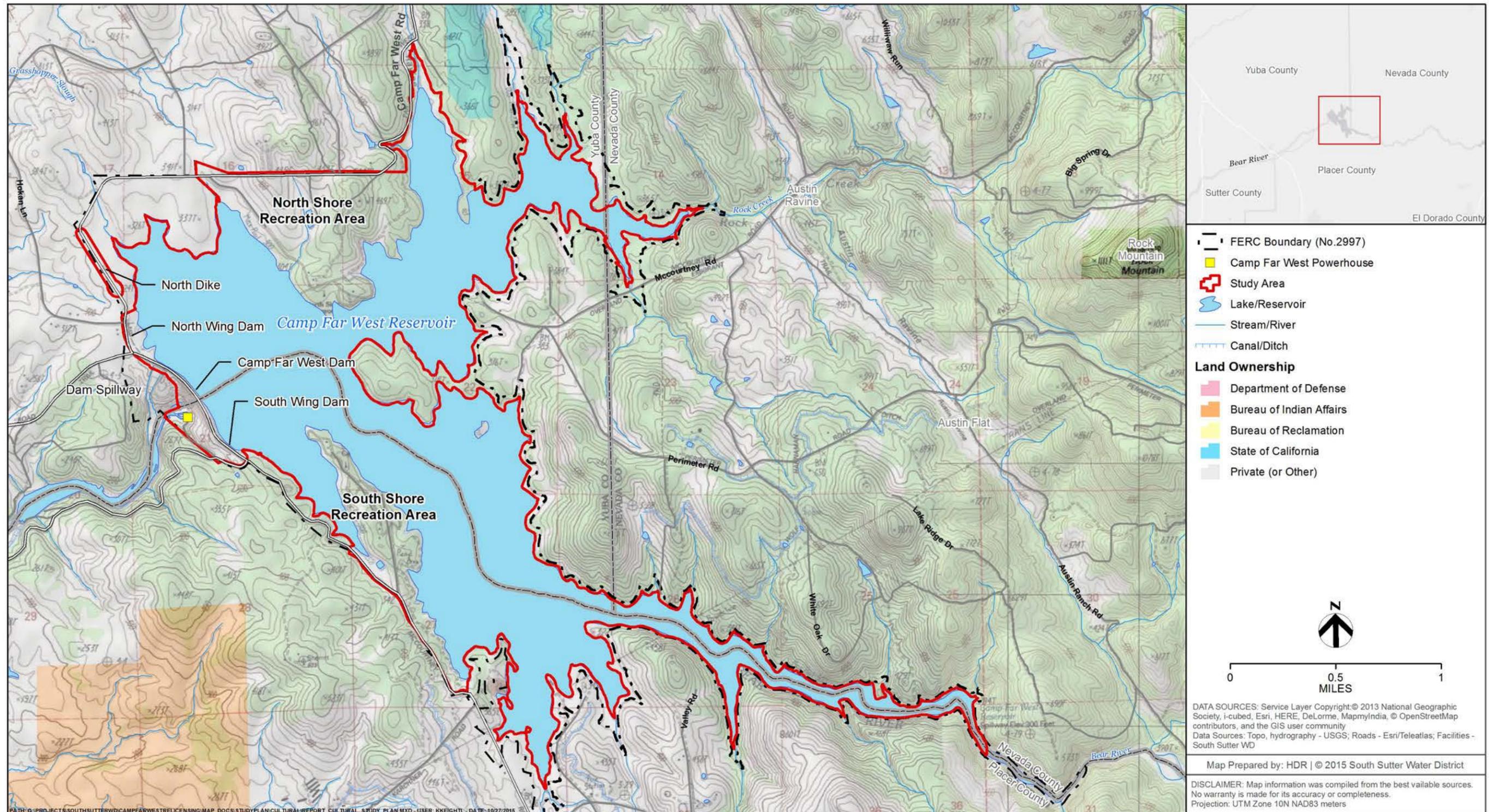


Figure 4.1-1. Study Area for Cultural Resources Study.

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4.2 General Concepts and Procedures

The following general concepts and practices apply to all SSWD relicensing studies:

- Personal safety is the most important consideration of each fieldwork team.
- If required for the performance of the study, SSWD will make a good faith effort to obtain permission to access private property well in advance of initiating the study.
- SSWD will only enter private property if such permission has been provided by the landowner.
- SSWD will acquire all necessary agency permits and approvals prior to beginning fieldwork for a study that requires them.
- Field crews may make variances to the study plan in the field to accommodate actual field conditions and unforeseen problems. When a variance is made, the field crew will follow to the extent applicable the protocols in and intent of the study plan.
- SSWD's performance of the study does not presume that SSWD is responsible in whole or in part for measures that may arise from the study.
- If Global Positioning System (GPS) data are required by a study plan, they will be collected using either a Map Grade Trimble GPS (i.e., sub-meter data collection accuracy under ideal conditions), a Recreation Grade Garmin GPS unit (i.e., 3-meter data collection accuracy under ideal conditions), or similar units. GPS data will be post-processed and exported from the GPS unit into Geographic Information System (GIS) compatible file format in an appropriate coordinate system using desktop software. The resulting GIS file will then be reviewed by both field staff and SSWD's consultant's relicensing GIS analyst. Metadata will be developed for deliverable GIS data sets. Upon request, GIS maps will be provided to NMFS, USFWS, Cal Fish and Wildlife or SWRCB in a form, such as ESRI Shapefiles, GeoDatabases, or Coverage with appropriate metadata. Metadata will be Federal Geographic Data Committee compliant.
- SSWD's field crews conducting relicensing studies will record incidental records of aquatic, botanical and wildlife species observed during the performance of a study. All incidental observations will be reported in the DLA and FLA. The purpose of this effort is not to conduct a focused study (i.e., no effort in addition to the specific field tasks identified for the specific study plan) or to make all field crews experts in identifying all species, but only to opportunistically gather data during the performance of a relicensing study. Species included for incidental observation will include, but are not limited to: bald eagle (*Haliaeetus leucocephalus*); golden eagle (*Aquila chrysaetos*); osprey (*Pandion haliaetus*); any bats or positive sign of bats; Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*O. mykiss*), including redds and carcasses; northern western pond turtle (*Actinemys marmorata*); foothill yellow-legged frog (*Rana boylei*); American bullfrog (*Lithobates catesbeianus*); blue elderberry (*Sambucus nigra ssp. caerulea*); and aquatic invasive species.

- Field crews will be trained on, provided with, and use materials (e.g., Quat disinfectant) for decontaminating their boots, waders, and other equipment between water-based study sites. Major concerns are amphibian chytrid fungus, and invasive invertebrates (e.g., zebra mussel, *Dreissena polymorpha*).
- If in the performance of a study, SSWD observes an ESA-listed or special-status species, within 30 days of the observation SSWD will submit to Cal Fish and Wildlife's California Natural Diversity Database a record, on the appropriate form, of the observation.
- If a study plan requires collection and reporting of time series data, the data will be provided at a minimum in HEC-DSS format. A viewer for these files (HEC-DSSVue) can be obtained from the United States Army Corps of Engineers at the following website as of March 2008: <http://www.hec.usace.army.mil/software/hec-dss/hecdssvue-dssvue.htm> in both Microsoft® Excel and *.DSS formats.
- If a field crew encounters human remains during field work, all work within a 100-foot radius of the discovery will stop immediately. The field crew will not disturb the remains in any way. The field crew will secure the area to the best of its ability, mark the location with flagging tape in such a way as to not draw attention to the remains, and record the location using a GPS unit or plot the location by hand on a map if no GPS unit is available. As soon as possible thereafter, the field crew will contact SSWD and the relicensing Cultural Resources Lead to report the discovery. SSWD will report the finding and initiate the appropriate steps required under State of California and federal law to address the discovery. Any human remains encountered will be treated with respect, and the field crew members will keep the location confidential and will not disclose the location of the discovery to the public or to any other study crews. The field crew will keep a log of all calls/contacts it makes regarding the discovery and that details the event. Work will not proceed in the secured area of the discovery until provided clearance by SSWD.

4.3 Methods

The Study will be performed in four steps: 1) archival research; 2) field survey and identification of resources; 3) identification and assessment of potential Project effects on identified cultural resources; and 4) reporting. Each of these steps is described below.

4.3.1 Step 1 – Archival Research

Information has been obtained from existing, relevant and reasonably available sources to assist in identifying data gaps relevant to identifying historic properties. These data revealed previous cultural resources surveys and recorded cultural resources within or directly adjacent to the Study Area. Additional archival research will be conducted under this Study. Appropriate repositories to be visited during this effort may include those listed below as well as at others as they are identified during the Study to obtain additional information specific to cultural resources in the Study Area. The results of the archival research will serve as the basis for preparing the

prehistoric and historic contexts against which cultural resources identified during the Study may be understood and potentially evaluated for the NRHP at a later date.

Potential places/repositories to be visited include:

- Oral histories, as applicable
- State Library, Sacramento
- Special Collections, Meriam Library, California State University, Chico

4.3.2 Step 2 – Field Survey and Identification of Resources

4.3.2.1 Archaeological Field Survey

Following completion of Step 1, SSWD will conduct a field survey to verify locations of previously recorded cultural resources and to identify previously unknown cultural resources, if present, in the Study Area. This will be completed by examining all accessible lands within the Study Area. Locations within the Study Area that cannot be accessed in a safe manner (e.g., locations containing dense vegetation or unsafe slopes) will not be surveyed; these areas will be identified in the Study report and an explanation for survey exclusion will be provided.

Field methods will include crew members walking parallel transects spaced 15-20 meters apart. In areas containing moderately dense vegetation or moderately steep terrain, the survey strategy may employ 20- to 40-meter transects. All topographical features encountered in moderate areas, and considered to be sensitive for cultural resources (e.g., springs and drainages) will be thoroughly inspected. Lands typically inundated by Camp Far West Reservoir that become accessible during the survey season as a result of normal reservoir drawdown or other O&M activities will be examined. To accommodate low water levels, the field survey of the reservoir will be scheduled to occur as close to the periods of annual low reservoir levels as possible, depending on weather conditions. Additionally, each site identified during the survey will be assessed for Project-related effects including, but not limited to, water fluctuation, wave action, and vegetation management activities. The areas examined during the field survey will be plotted onto the appropriate United States Geological Survey (USGS) 1:24,000 scale topographic quadrangle.

The field survey will be supervised by qualified, professional archaeologists (i.e., individuals who meet the Secretary of the Interior's Standards for professional archaeologists). The field survey will follow the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (NPS 1983).

Locations of previously recorded cultural resources will be verified and the sites re-recorded only if their existing site records or other documentation do not meet current standards for recording, or if the condition and/or integrity of the property has changed since its previous recording. Newly discovered cultural resources, including isolated finds, will be fully documented following the recordation procedures outlined in *Instructions for Recording Historical Resources* (OHP 1995), which utilizes State of California, Department of Parks and Recreation (DPR) 523 Forms A-L. A sketch map will be drawn to-scale for re-documented

archaeological sites, if needed, and for newly discovered sites. Sites, historic built resources, and isolates will be photographed using digital photography. The locations of archaeological sites, historic built resources, and isolates documented during the survey will be plotted onto the appropriate USGS 1:24,000 scale topographic map by hand at the time of discovery, and the locations recorded using a GPS receiver in accordance with the procedures outlined above in Section 4.2. The GPS data will be based on the North American Datum (NAD) 83 and utilize the Universal Transverse Mercator (UTM) system. The mapped resource locations are considered to be confidential and will only be included in documents related to the Section 106 consultation and provided only to those on a need-to-know basis (e.g., tribes, SHPO and FERC).

4.3.2.2 Built Environment Inventory

A field inspection and documentation of historic (i.e., 45 years old or older) built-environment resources (i.e., buildings and structures) located within the Study Area will be undertaken by qualified, professional individuals meeting the Secretary of the *Interior Qualification Standards for Architectural and Engineering Documentation*. Historic built-environment resources will be recorded or re-recorded to meet current DPR standards. This will include digital color photography and sketch maps of individual features that show the relationship between buildings and structures. The historic built environment resources identified during the Study will be assessed together, as a system, as well as on an individual basis.

4.3.4 Step 3 – Identify and Assess Potential Project Effects on Cultural Resources

During Step 2, SSWD will document any Project-related effects identified at cultural resources in the Study Area. This information will be used to inform the need for any NRHP evaluations that may occur under the NHPA Section 106 consultation.

4.3.5 Step 4 – Reporting

SSWD will prepare a report at the conclusion of the Study that includes the following sections: 1) Study Goals and Objectives; 2) Methods; and 3) Results of the study. The report will include maps that clearly depict the following on USGS 1:24,000 topographic maps: the area examined; current inventory coverage in the areas surveyed, and intensity of the survey coverage. The Study report will be a summary of findings that excludes sensitive, confidential, and privileged information for purposes of the public relicensing process. A separate report will be filed as “Privileged” with FERC that contains all sensitive, confidential, and privileged information resulting from the Study. The Privileged report will be distributed to interested tribes and the SHPO for review and comments as part of the NHPA Section 106 consultation process that will be conducted by SSWD outside of this Study.

6.0 Schedule

SSWD may schedule the field survey at any time the weather permits, but will schedule survey below the normal maximum water surface elevation of Camp Far West Reservoir to accommodate, to the extent possible, annual, normal drawdowns and low water levels. Camp Far West Reservoir is historically at its lowest level in September.

SSWD anticipates the schedule to complete the study as follows:

Archival Research (Step 1)	April 2016 – September 2016
Field Survey (Step 2)	November 2016 – January 2017
Report Preparation (Steps 3 & 4).....	February 2017 – June 2017

The Study report will be included in SSWD’s DLA and FLA. As described above, a separate report will be filed as “Privileged” with FERC that contains all sensitive, confidential, and privileged information resulting from the Study. The Privileged report will be distributed to interested tribes and the SHPO for review and comments as part of the NHPA Section 106 consultation process that will be conducted by SSWD outside of this Study.

7.0 Consistency of Methods with Generally Accepted Scientific Practices

This Study is consistent with the goals, objectives, and methods outlined for most recent FERC hydroelectric relicensing efforts in California, including for the Don Pedro Project (FERC No. 2299), Yuba River Hydroelectric Project (FERC No. 2246) and Merced River Hydroelectric Project (FERC No. 2179) relicensings. The methods are consistent with the ACHP’s guidelines (ACHP 2007).

8.0 Level of Effort and Cost

SSWD estimates the cost to complete this study in 2016 dollars is between \$83,000 and \$138,400.

9.0 References Cited

Advisory Council on Historic Preservation (ACHP). 2007. *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Object*. Washington, D.C.

Mead and Hunt. 2013. Cultural Resources technical Report. FERC Project No. 2997. Amendment Prepared for South Sutter Water District.

Office of Historic Preservation (OHP). 1995. Instructions for Recording Historical Resources. March 1995. Sacramento, CA.

South Sutter Water District
Camp Far West Hydroelectric Project
FERC Project No. 2997

United States Department of Interior, National Park Service (NPS). 1983. *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines in the Federal Register, September 29, 1983 (48FR44716)*. Department of the Interior, Washington, D.C.