

# Chapter 5: Archaeological Resource Identification, Evaluation, Effects and Treatment

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## Table of Contents

5.1	Introduction.....	1
5.2	Legal and Regulatory Context .....	2
5.3	Standards, Work, and Safety.....	2
5.3.1	Professional Qualifications .....	2
5.3.2	Multi-Component Resources .....	3
5.3.3	Coordinating Consultants and Outside Agencies .....	3
5.3.4	Timing Archaeological Studies .....	4
5.3.5	Field Preparation.....	5
5.3.6	Confidentiality of Information .....	13
5.4	Identifying Archaeological Properties (Phase I) .....	15
5.4.1	Area of Potential Effects/Project Area Limits.....	15
5.4.2	Record Searches.....	17
5.4.3	Consultation.....	17
5.4.4	Research.....	19
5.4.5	Buried Site Sensitivity .....	19
5.4.6	Pedestrian Field Survey.....	20
5.4.7	Extended Phase I.....	26
5.4.8	Phase I Reporting .....	29
5.5	Evaluating Archaeological Properties (Phase II).....	32
5.5.1	Properties Exempt from Evaluation.....	33
5.5.2	Previously Evaluated Sites .....	34
5.5.3	Sparse Lithic Scatter CARIDAP .....	34
5.5.4	Assumption of Eligibility .....	35
5.5.5	Archaeological Evaluation Proposal (AEP).....	37
5.5.6	Phase II Field Methods.....	40
5.5.7	Laboratory Analysis and Curation.....	41
5.5.8	Ethnographic Studies .....	42
5.5.9	CEQA-only Projects .....	44
5.5.10	Phase II Reporting.....	44
5.6	Assessing Effects to Archaeological Properties.....	47
5.6.1	Applying the Criteria of Adverse Effect.....	47
5.6.2	Communicating Effects.....	50
5.6.3	Findings of Effect.....	51
5.6.4	Conditions on a Finding of Effect.....	53
5.7	Resolution of Adverse Effects .....	55

5.7.1	Introduction .....	55
5.7.2	Archaeological Data Recovery (Phase III) .....	57
5.8	Construction Monitoring and Post-Review Discoveries.....	61
5.8.1	Effective Monitoring .....	61
5.8.2	Planning for Post-Review Discovery .....	62
5.8.3	Post-Review Discovery – No Plan in Place .....	62
5.8.4	Safety Concerns While Monitoring.....	62
5.8.5	Recovery of Artifacts During Construction .....	63
5.9	Special Considerations for Excess Property Disposal, Maintenance, and Encroachment Permit Projects.....	64
5.9.1	Excess Property Disposal .....	64
5.9.2	Maintenance Projects.....	66
5.9.3	Encroachment Permits.....	66

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## 5.1 Introduction

At least 12,000 years of human occupation are represented in California's archaeological record. Over the millennia a rich complex of Native American societies, and much later Euro-American societies, developed within the diverse regions of the state. The resulting archaeological and cultural resources that form the archaeological record are an irreplaceable source of knowledge of the past, as well as an important link for the modern descendants of these cultures.

Caltrans cultural resource policy is to avoid and, if avoidance is not possible, to minimize adverse effects of transportation projects upon significant cultural resources. Thorough studies and consultation are the most effective way to meet the goals of this policy as they relate to archaeological resources. This chapter provides information on the procedures and documents Caltrans uses to implement these studies and comply with applicable state and federal laws and regulations.

The guidance in this chapter is based on industry best practices, the Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation, guidance from the Advisory Council on Historic Preservation (ACHP), California Office of Historic Preservation (OHP) publications *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (1990) and *Guidelines for Archaeological Research Designs* (1991), and the National Parks Service (NPS) National Register Bulletins *Guidelines for Evaluating and Registering Archaeological Properties* and *Guidelines for Evaluating and Registering Traditional Cultural Properties*.

Caltrans is committed to the growing movement toward social and scientific equity, which can be reflected in the language and terminology Caltrans uses to discuss archaeology. To that end, Caltrans acknowledges that the terms *prehistoric* and *prehistory* are imperfect and that a growing number of archaeologists, indigenous individuals, and tribal communities prefer different language to describe the discipline. Caltrans continues to use these terms in

this guidance to maintain consistency with state and federal regulatory language, as well as existing Caltrans guidance and documentation.

## **5.2 Legal and Regulatory Context**

Caltrans prepares cultural resources studies to comply with Section 106 of the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA) and California Public Resources Code (PRC) 5024. Caltrans has a Section 106 Programmatic Agreement<sup>1</sup> (106 PA) and a PRC 5024 Memorandum of Understanding<sup>2</sup> (5024 MOU) that implement alternate procedures for compliance with Section 106 and PRC 5024. The attachments to the 106 PA and 5024 MOU provide general guidance that Caltrans follows to comply with CEQA and other pertinent historic preservation laws, regulations, and guidelines.

Chapter 1 of the SER Volume II discusses the full range of applicable historic preservation laws. Chapter 2 discusses the general regulatory context of cultural studies work. Chapter 3 discusses laws and guidance relating to the involvement of Native American tribes, groups or individuals in cultural resource studies, including curation and compliance with Health and Safety Code and Public Resources Code when dealing with human remains and associated grave goods.

## **5.3 Standards, Work, and Safety**

### **5.3.1 Professional Qualifications**

For purposes of this chapter, the term “archaeologist” refers to all cultural resource specialists who meet the Secretary of the Interior’s Professional Qualifications Standards for archaeology. Caltrans has further identified four tiers of archaeological qualifications (Archaeological Crew Member, Lead Archaeological Surveyor, Co-Principal Investigator, or Principal Investigator) that Caltrans cultural resources staff must meet to conduct work

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<sup>1</sup> First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid High-way Program in California.

<sup>2</sup> 2015 Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code Section 5024 and Governor’s Executive Order W-26-92.

under the 106 PA or the 5024 MOU. These are codified as Professionally Qualified Staff (PQS) designations and detailed in Attachment 1 of the 106 PA/5024 MOU. The Co-Principal Investigator (Co-PI) and Principal Investigator (PI) PQS tiers are further refined by specialty in either prehistoric or historical archaeology. Exhibit 1.7 provides further information and guidance on becoming certified as PQS.

Only Caltrans staff may be officially certified as PQS under the 106 PA/5024 MOU; however, non-Caltrans archaeologists who meet the appropriate level of PQS standards may conduct studies and prepare documents of the equivalent PQS tier as long as their work is overseen and approved by a PQS. Caltrans PQS may review consultants' resumé's to ensure professionals meeting the Secretary of the Interior's Professional Qualifications Standards conduct the appropriate work. Exhibit 1.6 outlines the PQS qualification levels required to conduct particular tasks, prepare studies, and approve documents related to archaeology.

### **5.3.2 Multi-Component Resources**

Prehistoric archaeology, historical archaeology, and the built environment involve unique property types and contexts that require specialized skillsets. When a cultural resource includes more than one component, PQS of the relevant specialties must work together to complete the appropriate studies and documentation in an efficient and effective manner. A collaborative approach creates a stronger interdisciplinary team that ensures holistic analysis of the resource in all stages of identification, evaluation, and treatment. There is guidance for built environment resources in Chapter 6 and Exhibit 5.14 for best practices in historical archaeology.

### **5.3.3 Coordinating Consultants and Outside Agencies**

A single PQS (Project PQS) will act as the main point of contact when Caltrans hires private CRM consultants or academic institutions to conduct project-specific cultural resource studies or has oversight responsibility for other government agency projects. The Project PQS must have a thorough understanding of the scope and goals of the project, as well as any requirements of the contract or task order. The Project PQS must also recognize when project activities or consultant-prepared documents require review by PQS of a different specialty than their own. The Project PQS is responsible for providing accurate and effective guidance on the personnel, methods, and documentation needed to successfully complete a given task and comply with any applicable laws. The Project PQS is also responsible for

conducting any consultation with the Caltrans Cultural Studies Office (CSO) or the State Historic Preservation Officer (SHPO) required for legal compliance, including projects that utilize consultant-prepared or local agency-prepared reports.

### **5.3.4 Timing Archaeological Studies**

The time needed to complete archaeological studies can range from a few days to screen an applicable undertaking to multiple years for complex evaluations or mitigation efforts. These timelines are dependent on a number of variables, including the size of the project, number and complexity of resources involved, input from consulting parties, shifting construction schedules or design, reliance on ancillary studies, conflicting work priorities, need for a task order or contract, access restrictions, permit requirements, and consultant workloads. The PQS needs to give careful consideration to the full range of potential studies that may be necessary when scoping archaeological compliance efforts based on the sensitivity of the project area and the scope of potential impacts. It is important to build flexibility into project schedules whenever possible, as unpredictable changes regularly occur during the project delivery process.

Exhibit 2.3 gives general estimates of the time and person-hours required to complete specific archaeological studies and field work. The PQS should keep in mind that they or the consultants may be simultaneously involved in multiple projects that affect these timelines.

#### **5.3.4.1 Compliance with Construction Planning Studies**

Compliance with Section 106/PRC 5024 should be completed before approval of the expenditure of any project funds or the issuance of a license or permit. However, it is sometimes necessary to conduct project planning studies such as hazardous materials testing, geotechnical studies, utility location, or percolation tests, prior to completion of Section 106/PRC 5024 consultation. The activities must not be destructive to potential historic properties nor restrict consideration of alternatives.

When Caltrans requires project planning studies that involve ground disturbance, the Project Manager (PM) or responsible Project Development Team (PDT) member must notify the Project PQS. The Project PQS should review the proposed work and identify any cultural resources that may be affected. If the PQS determines that there is no potential to affect historic resources, PQS, following the screening process pursuant to Attachment 2 of the

106 PA/5024 MOU, may exempt the preconstruction activities from further Section 106/PRC 5024 review. Chapter 2.3.6 of Volume 2 and Stipulation VII and Attachment 2 of the Section 106 PA/5024 MOU provide more information on screened undertakings.

An archaeological survey may be needed if sufficient environmental analysis and information regarding potential cultural resources is not yet available, is outdated, or if the original effort did not meet current professional standards. Project PQS may work with the PDT to redesign the preconstruction activity to avoid any effect to potential historic properties. If avoidance is not possible, the activity is subject to further consultation under the 106 PA/5024 MOU.

### **5.3.5 Field Preparation**

Successful field efforts require good planning and coordination. This includes preparing appropriate mapping, safety preparations, acquiring permits and rights of entry, and scheduling the field visit. Additional pre-field measures may be found in the Pre-Excavation Checklist provided as Exhibit 5.9.

#### **5.3.5.1 Mapping**

The PQS should obtain or develop any mapping and photography needed for the field effort. The maps should be of sufficient detail to document the plan the work and for use in the field. Assessor's parcel maps are helpful to clearly determine the ownership of the property on which survey or excavation is to be undertaken. Engineering plans, cross-section schematics, and/or as-builts may be necessary to determine and demonstrate the spatial relationship between proposed testing efforts, previous disturbances, and the proposed project.

#### **5.3.5.2 Safety Considerations**

Caltrans's policy is that "no field activity shall be considered so important or urgent that...any safe practice will be compromised." Any combination of hazardous conditions may be present on the jobsite, especially in Caltrans and local transportation agency rights-of-way. These hazards can include rough terrain, geographic isolation, severe weather, dangerous vehicle traffic and natural or artificial chemical contaminants. All field efforts should include consideration and planning for potential safety concerns. Caltrans strongly recommends using the "buddy system" anytime staff are in the field. The principal

investigator on excavations can also request a safety review by the Caltrans District Safety Officer.

The Field Supervisor is responsible for ensuring that the crew is aware of any safety hazards, concerns, and precautions. Daily tailgate meetings or weekly safety meetings can be an effective way of keeping a crew's attention focused on project hazards. For work in remote or dangerous localities and in hazardous areas or conditions, safety procedures also include daily communication with a supervisor. In certain circumstances, a detailed health and safety plan may be necessary to guide fieldwork.

Depending on project circumstances, necessary safety considerations can require significant alterations to standard archaeological practices. For excavations deeper than 150 cm (5 ft.), shoring, or acceptable alternatives to shoring, in conformity with the Division of Occupational Safety and Health (OSHA) standards, must be used and may be necessary for more shallow excavations, dependent on the soil matrix and profile. Field staff may be required to be trained in confined space and/or shoring procedures.

When conducting archaeological excavation in potentially contaminated soils, a detailed health and safety plan or cultural resource management plan should include provisions for alternate methods of field and laboratory analysis and curation of the recovered materials. Field staff working in potentially contaminated soils should be certified in Hazardous Waste Operations and Emergency Response (HAZWOPER) safety training.

Chapter 4 Section 4.7.2.4 provides more information on field safety.

### **5.3.5.3 Access and Permitting**

Permits or access agreements are usually required before conducting archaeological studies on public or private lands. The process for obtaining permits will depend on whether the land is public or private, the Caltrans district, and the other local, state, or federal agencies involved. Typically, Caltrans PQS or the project consultants obtain permits for public lands, while Caltrans Right-of-Way (ROW) agents obtain permission to enter for private lands.



The primary federal agencies requiring access permits for Caltrans projects are:

- Bureau of Land Management (BLM)
- U.S. Forest Service (USFS)
- National Park Service (NPS)
- Bureau of Indian Affairs (BIA) issues ARPA permits for excavations on tribal lands

State agencies that may require permits include:

- California Coastal Commission (Commission)
- Department of Parks and Recreation (DPR)
- Department of Fish and Wildlife (CDFW)

Table 5.1 outlines the permits required and the processing time to expect.

Table 5.1. Governmental Permits

Agency	Jurisdiction	Survey	Lead Time*	Excavation	Lead Time*
USFS	Federal	Special Use Permit	4-6 weeks	Special Use Permit**	8-10 weeks
NPS	Federal	Special Use Permit	4 weeks	Special Use Permit**	8 weeks
BLM	Federal	Fieldwork Authorization	1-2 weeks	Cultural Resource Use Permit**and Fieldwork Authorization	8-10 weeks
DPR	State	DPR 412	4-6 weeks	DPR 412	8-10 weeks

\* listed times depend on the schedules of personnel in outside agencies and can be longer

\*\*these permits are issued under and satisfy the ARPA requirements

USFS = U.S. Forest Service

NPS = National Park Service

BLM = Bureau of Land Management

DPR = California Department of Parks and Recreation.

The permitting agency reviews permit applications to ensure that the application is complete, the proposed work is appropriate, and the personnel and curation facility are qualified. Caltrans PQS PIs should qualify to direct excavations under these permits.

### ***Rights of Entry***

A district ROW agent normally obtains right of entry for archaeologists and other environmental specialists conducting studies on private land. It is the responsibility of the project archaeologist to inform the environmental planner and/or ROW agent when such permissions are needed. Coordination should take place as early as possible due to the amount of time that may be required to obtain the permits for large surveys. Written permission is required for all excavations, in order to protect the owners against damage or interference with possession or use of the property, and to absolve them of liability in the event of an accident.

In seeking written permission, the district ROW agent provides the following information:

- Proposed survey or excavation activities
- Duration of access
- Archaeological project's potential effects on the property

Because the owner is agreeing to specific conditions, it is important that the project archaeologist plan a field strategy as completely as possible *prior* to the ROW agent contacting the landowner to avoid having to seek permission a second time to add additional activities that might be of concern to a landowner (such as use of a backhoe). If there are verbal objections to survey work, or if written permission for excavations cannot be obtained, the District Environmental Branch Chief (DEBC) should be notified. It is possible to obtain entry through the “Right of Eminent Domain,” but this is an extreme step that is rarely used.

Archaeological materials recovered from private lands legally are the landowner’s property and may be retained by the landowner. Caltrans must obtain written permission from the property owner to curate the recovered material. This issue should be addressed in the original letter requesting permission to excavate. While failure to obtain this permission will not necessarily affect compliance with the 106 PA/5024 MOU, Caltrans must try to ensure that archaeological materials will be stored properly and that they will be accessible to

qualified researchers upon request. Every effort should be made to apprise the landowner of the value of proper curation for all site artifacts.

### **Federal Permits**

Permits for archaeological studies on federal land may be issued in accordance with the following legislation and implementing regulations, depending on the agency involved:

- *Organic Administration Act of June 4, 1897 (Chapter 2, 30 Stat 11, as amended, 16 USC 473475, 477-482, 551)* In part, directs the Secretary of Agriculture to protect National Forests and regulate their occupancy and use. The permit is issued under the provisions of 16 USC 551.
- *The Federal Land Policy and Management Act of 1976 [FLPMA] (P. L. 94579; 43 USC 1701-1784)* In part, provides for the periodic and systematic inventory of public lands and their resources, and the management of the resources in a manner that will protect the quality of the land. The permit is issued under 43 USC 1732 and P.L. 94-579 Section 302(b).
- *Archaeological Resources Protection Act of 1979 [ARPA] (P. L. 9695; 93 Stat 721; 16 USC 470 aa-11; 36 CFR 229; 43 CFR 7)* Primarily provides for the protection of archaeological resources on federal lands and Indian lands. A permit is required for the surface collection and/or excavation of sites 100 years or older (16 USC 470cc). The implementing Uniform Regulations for ARPA were published in the *Federal Register*, Volume 29, No. 4, Friday January 6, 1984, with supplemental regulations issued in the *Federal Register*, Volume 52, No. 55, March 23, 1987. Identical regulations for the different federal landholding agencies appear under different titles of the Code of Federal Regulations; thus the implementing regulations for the US Department of Defense is [32 CFR 229](#), and the regulations for the BLM and the NPS (Department of the Interior) can be found under [43 CFR 7](#).

All ARPA permit applications that involve collection and/or excavation are submitted by the permitting agency to the Native American group for whom the site or area may have cultural or religious significance for a 30-day review and comment period. The permitting agency will also require additional notification and consultation if the activity proposed may result in the excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony as provided for in subpart B of the Native American Graves Protection and Repatriation Act (NAGPRA) regulations ([43 CFR 10](#)).

## Bureau of Land Management (BLM) Cultural Resource Use Permit

The BLM issues permits for two levels of study. A non-collection survey/recordation permit, issued under FLPMA, authorizes non-disturbing pedestrian survey and limited subsurface probing for mapping purposes only (e.g., determination of boundaries). No collection of artifacts, except isolated artifacts not associated with an archaeological site, is allowed under this permit. To remain in compliance with the permit, Caltrans must provide copies of any reports discussing work conducted under such permits to the agency.

Caltrans has a statewide non-collection survey/recordation permit for survey on BLM lands which is renewed every three years. CSO maintains a list of staff who are identified on the permit; new staff can be added during permit modifications and should submit current resumes to CSO. Before any fieldwork begins, the archaeologist conducting the survey must notify the appropriate BLM Field Office Manager and is required to submit a fieldwork authorization request. The authorization to conduct fieldwork may be granted immediately, or it may take two weeks.

An ARPA permit is issued on a project-specific basis for activities, such as limited testing, excavation and collection, that may disturb the research potential of the site. Two copies of the application, including supporting documentation, are submitted to the BLM State Director, California State Office, Sacramento, with a concurrent submittal of one copy to the appropriate Field Office. The BLM Field Office submits the application package to the designated Native American group for a 30-day review period. Caltrans, as the applicant, should anticipate a minimum period of 8-10 weeks before an ARPA permit is granted. This allows for review by the Native Americans and the BLM and for inter-agency transmittals of the application.

If a qualified consultant is conducting the work, the consultant must be the applicant for the ARPA Permit. It is strongly recommended that a copy of the application be forwarded concurrently to the appropriate Field Office, in order to keep local staff apprised of the status of the project. The Deputy State Director, Division of Natural Resources, then signs the permit.

Once the ARPA permit is issued, the applicant must submit another Fieldwork Authorization form, which describes the personnel involved, location, and period of the proposed fieldwork, to the appropriate BLM Field Office before initiating fieldwork. This serves to

ensure that the Field Office is properly notified and that the schedule of the permitted activity does not conflict with other concurrent activities or conditions in the field. The Field Office Manager must authorize any fieldwork under this permit before fieldwork commences.

### U.S. Forest Service (USFS) Special Uses Permits

The USFS issues permits under the Organic Administration Act of 1897 or ARPA, as outlined in [36 CFR 251.50](#) *Special Uses Permits*. The procedures and requirements for obtaining a permit vary between forests, as does USFS organizational structure.

Special Use Permits are issued for two levels of study: 1) Survey, and 2) Surface collection, testing, or data recovery excavations. For either type of permit, the lead archaeologist initiates the application process by contacting the appropriate Forest Archaeologist.

Either the Forest Supervisor or the District Ranger reviews and approves the application for a survey permit. A review period of 30 days can be anticipated.

The USFS submits the permits for surface collection or excavation to the Pacific Southwest Region headquarters for review, approval, and issuance of the permit. The permitting process may take several months.

The project archaeologist notifies the District Ranger of the date fieldwork will be initiated. The district ranger approves this date in writing.

### National Park Service (NPS) Cultural Resource Special Use Permits

National Park Service permit requirements for surveys depend on the nature and scale of the proposed project. The NPS issues permits under ARPA for all collection or excavation. To initiate the permit process, the project archaeologist calls the appropriate Park office and the NPS Pacific West Regional Office. Two copies of an application and attachments are prepared and sent to the Pacific West Regional Director for approval. The time for processing the permit is typically four weeks for survey and eight weeks for excavations.

## **State Permits**

### **California Department of Parks and Recreation (DPR) Permits**

Archaeological investigations or collection within the boundaries of units of the State Park System require a permit. The permit is issued for surveys under a DPR Resource Management Directive. Permits for excavations are issued under the provisions of PRC 5097.5, which states that permission is necessary to excavate or remove any archaeological, paleontological, or historical feature situated on public lands from the agency having jurisdiction over that land.

Four copies of an “Application and Permit to Conduct Archaeological or Paleontological Investigations/Collections on Lands of the State of California (DPR 412)” are submitted to the district superintendent or to the supervisor of the cultural heritage Section. The permit is reviewed by the district superintendent, the supervisor of the cultural heritage section, as well as by the manager for archaeological collections if the requested permit is for an excavation. Review period is ten (10) working days. The regional director signs approval of the permit. Once the permit is granted, the project archaeologists must contact the district superintendent or designee before beginning fieldwork.

### **California Coastal Commission Permits**

Archaeological excavation undertaken in the coastal zone may require a permit under the authority of the California Coastal Act of 1976 (Public Resources Code, Division 20). The Commission may issue a Coastal Development Permit for archaeological undertakings. When appropriate, the permit requirements may be waived. To determine whether such a permit is needed, the project archaeologist contacts the appropriate district office of the Commission.

For some cities and counties, the Commission has approved Local Coastal Plans (LCPs). The Commission’s district office can indicate whether the permit must be obtained from a local agency. Archaeological requirements for permits issued under various LCPs vary.

### **California Department of Fish and Wildlife (CDFW) Permits**

In rare cases, permits from the Department of Fish and Wildlife (CDFW) may be required for archaeological excavations involving streams or rivers. If an archaeological excavation is conducted in a stream or riverbed or on adjacent banks, a Section 1601 Permit may be

required. When considering the use of wet screening, it should be noted that some streams are off-limits for any such use because of their sensitivity to siltation. Others have various seasonal restrictions while some have unrestricted use. If the excavation will include wet screening that allows archaeological deposits to flow into the watercourse, a Suction Dredge Permit may be required. The appropriate CDFW Regional Office should be contacted to determine whether a permit is needed. Contacts should be coordinated through the district biologist.

#### **5.3.5.4 Native American Monitors**

The decision to monitor should be made in consultation with interested Native American tribes, groups, or individuals. The Project PQS, in coordination with the local agency if applicable, is responsible for ensuring that tribe(s) are notified when field work that includes monitoring will begin. Adequate notice must be provided to allow tribes and monitors time to mobilize for a field effort. Personnel, schedule, and reimbursement details should be approved prior to the start of field work.

#### **5.3.5.5 Curation Agreement**

If the field effort includes collection of artifacts and materials from the site (soils, faunal materials, etc.), a curation agreement with an approved facility should be in place before fieldwork begins. If arrangements with a facility cannot be completed prior to work, the relevant proposal must identify how and where materials will be securely and safely maintained until an agreement is reached. Any proposed collection of Native American archaeological materials should be developed in consultation with interested tribes or individuals. The DEBC reviews and approves the curation agreement.

[36 CFR Part 79](#), “Curation of Federally Owned and Administered Archaeological Collections,” and OHP’s [“Guidance for the Curation of Archaeological Collections”](#) provide detailed information.

#### **5.3.6 Confidentiality of Information**

Much of the cultural and archaeological information Caltrans gleans through compliance activities is highly sensitive and confidential. Caltrans respects this sensitivity and confidentiality while recognizing the occasional need to share cultural resource information with other responsible or consulting parties. These may include Caltrans PDT members such

as environmental branch chiefs, generalists, project managers, and engineers, our outside parties such as qualified consultants, Native American Tribes, or historical societies. Caltrans PQS should only share the minimum amount of cultural resource information with other PDT members necessary for project delivery, and should only share information with outside parties when necessary to facilitate effective project consultation or when necessary for legal compliance.

As a rule, archaeological site records, maps, and aerials depicting exact site locations are limited to technical documents, such as archaeological survey and excavation reports. These documents are not available to the general public, but qualified researchers may access them through the Information Centers (IC) of the California Historical Resources Information System ([CHRIS](#)). The Information Centers require all researchers who use the records to sign an Agreement of Confidentiality form which states that they will not disclose specific site locations to unauthorized individuals or in publicly distributed documents without written consent of the SHPO.

Consistent with Section 304 of the National Historic Preservation Act, Caltrans, as assigned by the Federal Highway Administration (FHWA), may withhold from disclosure to the public all information relating to the location or character of historic properties whenever Caltrans determines that disclosure may create a substantial risk of harm to the resource.

Information on archaeological site locations is also exempt from public access pursuant to [Section 6254.10](#) of the California Public Records Act. In addition, [PRC 21082.3\(c\)](#) provides confidentiality protections for information California tribes have provided through consultation.

While Caltrans' summary documents such as the Historic Property Survey Report (HPSR) or Historic Resource Compliance Report (HRCR) contain legal findings and determinations for compliance with Section 106, PRC 5024 or CEQA, sensitive materials are to be excluded from these documents. Technical studies containing confidential information must be labeled as confidential when being transmitted to CSO, the SHPO, or a Tribal Historic Preservation Officer (THPO) for review. Confidential documents should not be appended to copies of an HPSR or HRCR that may circulate to parties other than CSO, SHPO, or THPO reviewers.



## 5.4 Identifying Archaeological Properties (Phase I)

The goal of the identification phase of archaeological studies (Phase I) is to identify any potentially significant cultural resources that may be affected by a project. Phase I consists of defining the geographical limits in which a project has the potential to cause effects and inventorying that area for cultural resources. Typical tasks include:

- Setting an initial Area of Potential Effects (APE)/Project Area Limits (PAL) or Study Area
- Conducting record searches at the appropriate CHRIS IC(s)
- Requesting a Sacred Lands File and Native American Contact List from the Native American Heritage Commission (NAHC)
- Consultation with Native American, historic societies, and other potentially interested parties
- Research on the prehistoric and historical context of the study area
- Review of in-house documentation, including the Caltrans Cultural Resources Database (CCRD)
- Pedestrian field survey
- In some cases, Extended Phase I Identification (XPI; see Section 5.4.7 below)

Caltrans documents the results of the Phase I effort in an Archaeological Survey Report (ASR), which includes both prehistoric and historical archaeological properties. The results of any XPI can be included in the ASR or in a separate dedicated report. The results of Phase I studies are also summarized in the HPSR or HRCR (see Section 5.4.8 below).

### 5.4.1 Area of Potential Effects/Project Area Limits

In accordance with Stipulation VII.A and Attachment 3 of the 106 PA/5024 MOU, the project APE/PAL is established by PQS in consultation with the Project PM or District Local Assistance Engineer (DLAE) and delineates the geographic area where potential historic properties may be directly or indirectly affected by the project. The initial APE/PAL typically includes areas of potential construction activity that can cause physical impacts to cultural resources, including the existing Caltrans or local agency right-of-way within the project limits, any proposed new rights-of-way, proposed temporary or permanent easements, staging areas, construction access roads, and material borrow or disposal sites. Depending on the nature of the project and potential cultural resources in a project area, the APE/PAL

may also require additional areas to account for non-physical effects such as visual or auditory impacts.

PQS can designate a preliminary APE/PAL or Study Area prior to field studies, as the results of identification and evaluation may result in the need to modify the initial APE/PAL boundary to include newly discovered or evaluated resources. The final APE/PAL should take into account all results of identification studies and National Register of Historic Places (NRHP), California Historical Landmark (CHL)<sup>3</sup> and California Register of Historical Resources (CRHR) evaluations and include the full boundaries of any historic properties or historical resources that may be affected by the project. In the case of long linear resources, large historic districts or parcels, cultural landscapes, or large Traditional Cultural Properties (TCP), it is acceptable to only include the part of the property that may reasonably be affected by the project.

The Section 106 regulations and the 106 PA/5024 MOU allow PQS to set multiple APE/PALs for different property types (e.g. separate archaeological and built-environment APEs). It is possible to include further mapping designations to identify specific types of effects, such as direct ground disturbance. The most common example in Caltrans projects with archaeological resources includes the delineation of an Area of Direct Impact (ADI), which indicates where the project proposes direct, physical ground-disturbing activities. Including the ADI on an APE/PAL map serves to differentiate the portions of archaeological sites that can be directly affected by a project from the portions that were included in the archaeological APE but will not be affected. Caltrans PQS should use these mapping options to efficiently and clearly communicate the potential for effects posed by a specific project.

The final APE/PAL map should be of sufficient scale (at least 1" = 200') to depict the boundaries of major project features (e.g., right-of-way, edge of pavement, cut/fill ) relative to the boundaries of any identified cultural resources. The final APE/PAL must be formally designated and signed by the Project PQS and Project PM (and the Cultural Studies Office Chief, on federal projects for which the 106 PA is not applicable), to complete cultural resources studies. Chapter 4 Section 4.3 has more information on defining the APE/PAL.

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<sup>3</sup> The CHL criteria is used in addition to the NRHP criteria for evaluations of Caltrans-owned resources under the 5024 MOU.

## **5.4.2 Record Searches**

### **5.4.2.1 CCRD**

Caltrans and Caltrans oversight projects should always include a search of the known cultural resources and previous resource studies that have been conducted in the project area. Caltrans PQS should first query the Caltrans Cultural Resources Database (CCRD) to identify any previous Caltrans studies or recorded resources in the vicinity. The CCRD is an effective scoping tool, but a CCRD search is not sufficient to replace a formal record search from the relevant CHRIS IC(s) for most projects.

### **5.4.2.2 CHRIS Information Centers**

The CHRIS ICs maintain up-to-date site records and reports of cultural resource investigations throughout California. A search of the IC(s) that maintains records for a specific project area is usually a necessary part of Phase I Studies; however, the Project PQS determines when a CHRIS record search is necessary. On rare occasions, depending on the project's scope, the age of the last comprehensive records search conducted in the project area, and the known archaeological sensitivity of the area, a CHRIS record search may not be necessary.

Cultural resource specialists typically design CHRIS record searches to produce a list of previously recorded sites and studies within a broad radius of the study area (e.g. 1 mile), and full copies of all records and reports within a smaller radius (e.g. one-quarter mile). The Project PQS should decide these radii based on the project setting, scope, and potential to impact resources. The PQS archaeologist should use the results of the CCRD and CHRIS record searches to identify the need for additional archaeological survey within the study area, as well as type and density of archaeological resources that may exist in and near the project area.

## **5.4.3 Consultation**

### **5.4.3.1 Native American Consultation**

Caltrans policy is to initiate consultation with the individuals and groups on the NAHC contact list for the geographical area of a project as part of compliance with Section 106, PRC 5024 and AB 52. Most Caltrans and local agency projects require a new request for a search of the NAHC Sacred Lands File (SLF) and an updated Native American contact list as a

part of sufficient Native American consultation efforts. The Project PQS archaeologist decides if a SLF search or Native American consultation is required as part of the screened undertaking process.

The Project PQS archaeologist or qualified consultant, in coordination with the District Native American Coordinator (DNAC) if applicable, initiates Native American consultation with a written letter sent to the contacts on the NAHC contact list. The letter must be on Caltrans or local agency letterhead and specifically indicate the legal context of the consultation. Caltrans and local agency qualified consultants may physically send or email consultation correspondence and conduct project level coordination; however, Section 106, PRC 5024, and AB 52 consultation and the resulting decision making are the responsibility of the government agency with lead Section 106, PRC 5024 or CEQA status. Chapter 3 provides further guidance on Native American consultation.

#### **5.4.3.2 Consultation with Historic Societies or other Descendant Communities**

If there is potential for historical archaeology or cultural resources significant to historical populations in a project area, PQS or appropriately qualified consultants identify historical societies or other interested parties regarding information they may have about properties in the project area. Identification of these stakeholders and consultation with interested parties is a requirement of a good faith effort to identify significant cultural resources.

#### **5.4.3.3 Timing Consultation**

Project PQS should request a NAHC SLF search and Native American contact list and attempt to identify other descendent communities, historic societies, other interested parties as soon as possible after being assigned to a project. Consultation with these groups is critical to identifying important archaeological resources in a project area and is the only source of identifying important landscapes or TCPs. This can be instrumental both in preparing efficient and effective field surveys, as well as in ascertaining the importance and potential concerns regarding cultural resources identified during survey. Project PQS must ensure that consistent communication and consultation is conducted throughout the Phase I process, as well as through the entire Section 106 compliance for a project.

## **5.4.4 Research**

### **5.4.4.1 Pre-Field Research**

Some background research is always conducted in advance of the archaeological field survey to ensure that the archaeologists are adequately informed about the types of resources they may be required to identify or relocate in the field. In addition to consultation and record searches, pre-field research typically involves reviewing past archaeological literature, detailed project plans, aerial photographs, Caltrans photologs, historic maps and photos, as-built records, and assessor's parcel maps. Exhibit 4.2 has more information on standard sources.

### **5.4.4.2 Prehistoric and Archaeological Context**

Caltrans PQS or qualified consultants conduct archaeological research to provide prehistoric and historic contexts for the results of Phase I inventories. This research typically includes a more detailed review of relevant archaeological literature and previous studies than was done in preparation for fieldwork but should not be unnecessarily detailed. Caltrans documents the results of this research in the ASR. It should be sufficient to place any cultural resources discussed in the ASR into a broad historical framework for the region. Exhibit 5.14 provides guidelines for conducting and documenting contexts for historical archaeology.

## **5.4.5 Buried Site Sensitivity**

California contains countless geomorphic and depositional landscapes, many of which have the potential to contain buried archaeological deposits with no surface indication. Project PQS should always consider the potential to affect buried deposits during the Phase I efforts for a project, especially in landforms broadly known to be sensitive. A buried site sensitivity analysis conducted early in the identification phase can most effectively aid in shaping any necessary studies through the compliance process and help avoid unnecessary effects to archaeological resources.

Multiple geoarchaeological overview reports throughout California have been produced for Caltrans. These studies have generated GIS based models useful for determining landform age and buried site sensitivity. These models are informed by previous archaeological studies conducted in the region. Coarse-grained geologic surveys and maps have been

refined using C14 dating of depositional landforms and assessment of geologic landscape features and events (glacial moraines, volcanic ash layers, pluvial lake high stands, etc.) to estimate multiple intervals of deposition throughout the late Pleistocene and Holocene.

Project PQS or qualified consultants can utilize different levels of buried site sensitivity analysis, from preliminary analyses using geoarchaeological reports that help inform field survey to full-scale field investigations conducted by qualified geoarchaeologists that develop detailed buried sensitivity models for the project area. In most circumstances, the ASR should include at least a simple discussion of the potential for encountering and affecting buried sites and may include justification for further buried site testing during an XPI or geoarchaeological field effort.

#### **5.4.6 Pedestrian Field Survey**

The purpose of the Phase I survey is to identify and record any archaeological resources or related cultural resources that have the potential to be historic properties under Section 106 or historical resources under CEQA. These most often meet the NRHP definition of a “site” but may include additional archaeological resources such as unique artifacts or objects. It may be necessary to record certain aspects of cultural landscapes or TCPs during survey that were identified during consultation. The archaeologist may also note any historical built-environment properties or linear resources that may require referral to other experts.

Caltrans PQS or qualified consultants should conduct an intensive archaeological survey of any areas in the APE/PAL/Study Area where ground surfaces cannot be documented as covered by modern fill or otherwise developed, or where a qualified archaeologist cannot provide documentation that the area has been previously surveyed within the last five years to appropriate standards. If the Project PQS determines that full or partial survey is unnecessary, they must provide documentation supporting the decision in the HPSR/HRCR or Screened Undertaking Memo.

For complex projects or those that cover a large area, a brief reconnaissance survey may be useful to reveal the quantity and distribution of resources that might be identified and help the archaeologist prepare for the intensive field survey. In some cases, the reconnaissance survey may be sufficient to complete the archaeological identification effort, such as in urban areas where research shows no original ground surface remains and there is no

potential to encounter subsurface archaeological deposits; however, the Project PQS archaeologist must conduct appropriate background research and provide sufficient documentation to support the absence of previously recorded sites or potentially buried archaeological resource. If that documentation is not available, further Phase I studies may be necessary.

#### **5.4.6.2 Field Methods**

Ideally, archaeological field survey strategies should include a pedestrian survey of 100 percent of the APE/PAL or Study Area with regularly spaced transects. Exceptions to complete coverage include areas that cannot safely be accessed or that afford no ground visibility such as dangerously steep slopes, dense underbrush, stands of poison oak, and areas that are paved or under water. The presence of small areas excluded from survey should be noted in the ASR; more extensive unsurveyed areas should be plotted on a Survey Coverage Map. Note that if identification cannot be completed due to restricted access, a phased approach may be required (See Chapter 4 Section 4.8).

It is necessary to survey areas rated as having "low archaeological sensitivity" by ICs or other agencies. Time saved by not surveying in low-sensitivity areas does not offset the risk of delaying a project if archaeological resources are discovered during construction. Plowed fields and graded areas should also be included in survey coverage as undisturbed portions of sites may still exist.

Parallel transects are the most common survey method. The lead archaeological surveyor determines the transect spacing on the basis of ground visibility, lateral visibility, and area sensitivity for prehistoric and historic-era remains. Maximum spacing should not be more than 25 meters; an interval of 15 meters is commonly used in many areas. If systematic linear transecting is not practical, zigzagging to ensure coverage is appropriate. Where different coverage methods have been used, indicate the locations on an appropriately scaled Survey Coverage Map.

#### **5.4.6.3 Archaeological Property Types Exempt from Evaluation**

In accordance with Stipulation VIII.C.1 and Attachment 4 of the 106 PA/5024 MOU, PQS and qualified consultants at the Co-PI level and above may exempt certain archaeological property types and features from evaluation. These include isolated prehistoric finds of

fewer than three items per 100 square meters, isolated historic finds consisting of fewer than three artifacts per 100 square meters (e.g., several fragments from a single glass bottle constitute one artifact), isolated refuse dumps and scatters over 50 years old that lack specific associations, and in very specific instances, the remains of certain buildings and structures. Section 5.5.1 below has more information on exempt resources.

### **Isolates**

When potential isolated prehistoric or historic-era artifacts are encountered in a project area, it's important to ensure that such finds are, in fact, isolated. Project PQS or consultants qualified at the lead surveyor level or above can choose to perform minimal shovel scrapes to identify the presence of additional artifacts or deposits. Project archaeologists decide the level of recording necessary for isolates. Unusual or exceptional finds, such as a fluted projectile point, should always be recorded, as should anything required by public land-holding agencies' use permits. Under these conditions, isolates should be reported in the survey report and plotted on survey coverage maps.

### **Isolated Refuse Dumps and Scatters Over 50 Years Old**

Isolated refuse dumps and scatters with approximately 500 artifacts or less, which are over 50 years old and lack specific associations, require careful consideration in determining whether they qualify as exempt from evaluation. Such properties may possess historical associations that are not readily apparent, yielding research value under National Register Criterion D. When in doubt, a resource can be recorded in the field and a qualified historical archaeologist consulted for guidance. Additional documentary research may be needed to determine whether the property meets the exemption criteria. If research indicates an association, such as historical occupation of the parcel corresponding to the date of the assemblage, the property is not exempt from evaluation. This association does *not* need to be "significant", as defined in the NRHP evaluation criteria.

### **Ruins of Buildings and Structures**

Foundations and mapped locations of buildings or structures more than 50 years old with few or no associated artifacts or ecofacts and with no potential for subsurface archaeological deposits may be exempt from evaluation in accordance with Attachment 4 of the 106 PA/5024 MOU.; Building and structure ruins and foundations less than 50 years old that are not part of a larger, potentially historic property, may be also exempt from



evaluation . Section 5.9.12.1 below provides more information regarding ruins of buildings and structures.

#### **5.4.6.4 Archaeological Site Recording**

Archaeological properties should be recorded in detail using DPR 523 forms, available on [OHP's website](#). OHP has instructions for completing the forms on its [Publications](#) and Technical Bulletins website. The specific DPR 523 form(s) required will depend on the nature of the project and the type and complexity of the resource. The minimum level of documentation is a Primary Record (DPR 523A) and Location Map (DPR 523J). Once the field survey is concluded, the Project PQS should upload the DPR forms into the CCRD.

Detailed recording of archaeological sites typically consists of:

- Primary Record (DPR 523A)
- Archaeological Site Record (DPR 523C)
- Sketch Map (DPR 523K)
- Location Map (DPR 523J)

If the following types of features are present, recording also may require the use of:

- Rock Art Record (DPR 523G)
- Milling Station Record (DPR 523F)
- Linear Feature Record (DPR 523E)

Very large and complex sites comprising multiple components or features also may be recorded as Districts using a Primary Record, Location Map, and District Record (DPR 523D), with individual records also prepared for each major contributing element within the APE/PAL. Minor elements of the District usually do not require individual records if they can be described adequately on the District Record.

Archaeological property types treated as exempt from evaluation pursuant to 106 PA/5024 MOU Attachment 4 rarely warrant any recording. The level of documentation should be “commensurate with the nature of the property.” The PQS or qualified consultant may determine it appropriate to note exempt resources in the ASR and on survey coverage maps but they are not described in the HPSR/HRCR or plotted on APE/PAL maps. When in doubt,

a resource can be recorded and later exempted if the PQS or qualified consultant finds that it qualifies under Attachment 4.

PQS should consider the following best practices when recording archaeological sites:

- If practicable, the *entire* property should be recorded, even when portions of a resource fall outside the initial Study Area. Under those circumstances it may be appropriate to expand the Study Area. For very large and complex resources (e.g., districts and linear resources) it may be adequate to define the overall extent and general configuration of the property without recording features outside the Study Area in detail. The final APE/PAL would encompass the boundaries of the identified properties.
- Site boundaries should be drawn as lines encompassing all of the associated physical remains. Historical information should be used to the fullest extent possible when defining the limits of historic-era resources. Information about parcel, claim, and easement boundaries may have bearing on the limits of a historical resource.
- It is not necessary to describe every item observed, but provide a representative sample and estimated count of the various types of materials present at a resource. Some effort should be made to describe, and, where appropriate, illustrate or photograph, diagnostic materials such as projectile points, beads, and maker's marks or patterns on historic-period artifacts. For resources with multiple features or activity areas, observations regarding associated cultural materials should be recorded for each individual locus because those locations may differ in age or function.
- Record all observable ground disturbances in and adjacent to archaeological deposits, including subsequent construction of buildings or roads. Plot all disturbance and modern features present at the site on the sketch map.
- As appropriate, describe the building materials and construction techniques of intact buildings or structural remains; include these resources on site mapping. A qualified historical archaeologist or architectural historian should be consulted regarding these buildings and features.
- Documentation of historical archaeological resources that include linear features (e.g., water conveyance system, railroads, trails, and road ruins) should be supplemented with a Linear Feature Record (DPR 523E). Reasonable efforts should be made to

ascertain the entire extent of the linear resource, using records such as historic maps and aerial photographs.

#### **5.4.6.5 Complex and Non-Archaeological Sites**

##### ***Ruins of Buildings and Structures***

The National Register Bulletin “How to Apply the National Register Criteria for Evaluation” states that a building is usually considered a “ruin” and is categorized as a “site” if it has lost any of its basic structural elements, and a structure if it has “lost its historic configuration or pattern of organization through deterioration or demolition.” Historical archaeologists and architectural historians work together to determine whether a building or structure in the APE/PAL is a “ruin.” If the building or structure is determined to be a historical archaeological site, PQS historical archaeologists or appropriately qualified consultants do the recording and subsequent necessary analyses. An interdisciplinary approach is used if both built environment and associated archaeological components may be present. Chapter 4 Section 4.4.2 and Exhibit 5.14 have further guidance on an interdisciplinary approach to these studies.

Archaeologists will consult with architectural historians as a multi-disciplinary team on properties like these that may include both archaeological and built environment components or features.

##### ***Linear Resources***

The National Register Bulletin describes structures that have lost “historic configuration or pattern of organization through deterioration or demolition” as being considered a ruin and are, therefore, characterized as an archaeological site. Linear resources, which include trails, roads and road segments, railroad alignments, and water conveyance systems, such as ditches and canals, should be evaluated by the appropriate PQS or multi-disciplinary PQS team. They can be treated as structures or archaeological sites depending on their condition. It is important to keep in mind that SHPO guidance requires cultural staff to consider the resource in its entirety and not simply the segment of the linear resources within the footprint of the undertaking. However, it is only necessary to record enough of a linear resource to support any necessary Phase II evaluative work and effect assessments for the given project.

## **Traditional Cultural Properties and Landscapes**

Traditional Cultural Properties and important cultural landscapes may or may not have associated archaeological features and deposits. The Project PQS, in consultation with the relevant consulting parties, should determine the level of field recording appropriate for non-archaeological elements of these features. Due to the nature of many TCPs, mapping and description may be only be possible through consultation and a combination of field and office approaches. Any individual archaeological resource that makes up or is within important cultural landscapes should be recorded on DPR forms as described above.

### **5.4.6.6 Collection of Artifacts**

Artifacts are *not* collected during the field survey unless required under the terms of a federal permit or with authorization of the Project PQS archaeologist. Any field collection during survey must be done in consultation with interested consulting parties and include a plan for the disposition of the artifacts. If collection of diagnostic artifacts may be a condition of a federal survey permits, the project archaeologist follows the permit terms.

Collection of artifacts on private land requires the written permission of the property owner. Artifacts located on private land are legally the property of the landowner and are to be returned unless a written agreement is obtained by Caltrans to curate those artifacts. The unauthorized collection of artifacts is prohibited by Caltrans policy and may subject the collector to disciplinary action. Unauthorized collection may also be a violation of state or federal law.

### **5.4.7 Extended Phase I**

Extended Phase I studies determine the presence or absence of subsurface archaeological deposits, features, or artifacts. These studies are generally employed to define the vertical and horizontal extents of known archaeological sites that may have buried components and to test for the presence of unknown buried resources in sensitive areas. An XPI study is usually not sufficient to evaluate the significance of a site or determine integrity under Criterion D, both of which require Phase II-level evaluative study (See Section 5.5 below).

The Project PQS archaeologist determines whether an XPI study is warranted and, if so, begins by preparing an XPI Proposal. Good reasons to conduct an XPI study are:

- to determine whether a buried component of a known site extends horizontally into the ADI or APE/PAL
- to determine whether known sites can be protected from effects through the establishment of an ESA
- to determine if a subsurface deposit is associated with surface materials or features (such as a bedrock milling station with no apparent associated remains)
- to search for unknown archaeological deposits (as an extension of the survey effort) in areas of high sensitivity where such deposits may be buried or obscured by sediment deposition, vegetation, or landscaping or other modern development.

The minimum qualification for directing the XPI study is PQS Co-PI under the supervision of a PI; qualifications levels for other participants in the XPI are shown in Exhibit 1.6 Table 2. Exhibit 2.3 provides guidelines on the estimated time and personnel required to complete an XPI effort.

In some instances, with appropriate planning and methods, Caltrans archaeologists can work in tandem with certain early construction planning studies such as geotechnical boring, utility potholing, or biological wetland delineations to conduct XPI studies. Such studies require the same elements of planning, sampling, analysis, and reporting included in the standard XPI process. Project PQS must work with the relevant PDT members to plan and ensure that the equipment and methods used in the planning study allow the level of observation and analysis necessary to fulfill the goals of the XPI study. When an early construction planning study is being conducted as a standalone project, as is sometimes the case with geotechnical studies, the project is still subject to Section 106 or PRC 5024 compliance, as necessary.

#### **5.4.7.1 Extended Phase I Proposal**

Prior to excavation, the archaeologist prepares an XPI Proposal indicating the reasons for testing, the field methods to be used, treatment of artifacts, and the thresholds that will determine when the study goals have been met. Because of the limited scope of the XPI study, extensive background information and elaborate discussions of regional research questions are not appropriate. In general, XPI study proposals are much simpler than those

prepared for Phase II studies and should be no more than a few pages in length. The level of detail required will depend on the complexity of the resource and the scope of anticipated project impacts.

Methods of excavation for an XPI may include any combination of standard archaeological techniques, including mechanical excavation, surface scrapes, augering, shovel test pits, rapid recovery units, standard control units, and trenching. Extended Phase I efforts designed towards prehistoric archeology tend to be less invasive than those geared toward historical archaeology, as the extent and nature of the associated deposits and features are often different. The XPI proposal must explain how the specific methods selected, including the type, number, and placement of study units, will achieve the study's goals and support any conclusions.

The XPI Proposal must also include:

- specific provisions for obtaining necessary entry rights and permits
- estimates of the time and personnel required to complete field, laboratory, and reporting tasks
- when necessary, arrangements for a Native American Monitor

The XPI report requires peer review prior to approval and distribution. It may also be necessary to coordinate the XPI approach with other environmental members of the PDT, especially the biologist, to ensure that no impacts to important resources would result from archaeological excavation. Exhibit 5.2 has more information on XPI Proposal format and content guidelines

### **5.4.7.3 Fieldwork**

Fieldwork should follow the XPI proposal. Extended Phase I studies with no planned or predicted Phase II or Phase III excavation should not include collection of artifacts unless unique artifacts are encountered. The field crew should collect enough information in the field to accurately complete all unit records, artifacts logs, and analysis necessary to fulfill the goals of the study. Field recording should include unit profiles, detailed site mapping and photography, and artifact sketches and/or photography, as necessary. Artifacts should be returned to the units from which they were excavated.

#### **5.4.7.4 Laboratory Analysis and Curation**

Artifact recording and analysis for most XPI efforts should take place in the field, and all artifacts and sediments should be returned to the units from which they were excavated. However, artifact and sediment collection for laboratory analysis may be appropriate if the Project PQS predicts the need for further Phase II or Phase III studies. Since XPI studies are geared towards presence absence testing, laboratory work will likely be limited to washing, basic identification of materials and artifact types, cataloging the materials, and the tabulation of their quantities. If an XPI effort may result in artifact collection, Caltrans PQS should develop a curation or reburial strategy in consultation with interested consulting parties prior to the initiation of any XPI field efforts.

If a Phase II study is already planned and will be conducted soon after the XPI fieldwork, the full processing and analysis of the XPI collection may be deferred for concurrent analysis with the Phase II collection. However, if it is uncertain whether a Phase II study will be conducted or if any substantial time will elapse before it commences, the XPI collection should be processed and reported separately. Caltrans is committed to completing documentation of the collection regardless of changes in highway project plans.

#### **5.4.8 Phase I Reporting**

##### **5.4.8.1 Archaeological Survey Report**

The Archaeological Survey Report (ASR) documents the results of both positive and negative Phase I studies. It is important to append copies of all previously and newly prepared site records or updates to the ASR. Exhibit 5.1 contains guidelines for the format and content of ASRs.

The ASR demonstrates that Caltrans has made a reasonable level of effort to identify historic properties that is commensurate with the scale and scope of the undertaking. Accordingly, the level of detail included in the ASR is variable. A small project with no sites may result in a three-page ASR while a large project through several ethnographic areas with a number of sites may result in a 50-page ASR.

The ASR should discuss the results of background research, including the modern environment, paleoenvironment, archaeology, ethnography, and history of the study region as appropriate. These background sections serve to provide a context for understanding the

sites identified in the study, the project area sensitivity, and appropriate identification methods. There should not be any irrelevant or unnecessarily detailed information in the report. In the text, the ASR should briefly describe and discuss each recorded resource individually. It is not necessary to include recommendations for further work in the ASR.

### **Primary Numbers and Trinomials**

For any newly recorded cultural resources, district PQS obtain permanent primary numbers, and as appropriate, site trinomials from the appropriate CHRIS Information Center before completing the ASR. The project specialist or consultant may obtain primary numbers or trinomials at the PQS's direction. If obtaining permanent primary numbers and trinomials would create an unacceptable delay, temporary numbers may be used, with documentation of the request for permanent numbers appended to the report.

### **Maps**

All ASRs should attach at least three maps:

- *Study Vicinity Map* depicting the study vicinity in relation to the county or district
- *Study Location Map* showing the area surveyed on the appropriate USGS quadrangle (at its original scale)
- *Survey Coverage Map* showing the area of pedestrian survey and the boundaries of identified cultural resources on detailed project mapping or aerials. Include the APE/PAL map if one has been prepared

#### **5.4.8.2 XPI Report**

The XPI Report should address explicitly the purpose for which the work was undertaken, the relationship of the site limits to the project's direct and indirect APE/PAL, basic documentation of any cultural materials that were recovered and the nature of the deposits that were encountered. If the study has refined the boundaries or characteristics of the archaeological site, append an archaeological site record update. Please note that XPI excavations should discuss site any disturbance when observed but are generally not used to evaluate a resource or to make integrity assessments. Exhibit 5.3 provides more information on XPI Report format and content guidelines.



The draft XPI report requires peer review prior to approval and distribution. When applicable, consulting parties and permitting agencies should be given a copy of the draft XPI report for review and any comments incorporated.

#### **5.4.8.3 Supplemental Phase I Reports**

Supplemental ASR and XPI reports are required when a change in the project design, APE/PAL, or new information necessitates additional Phase I or XPI study *after* the original reporting has been submitted to SHPO (or to CSO, for PRC 5024-only projects) and the requested consultation has been completed. Updates to studies completed prior to this step should be incorporated in the to the most recently prepared ASR or XPI report that has not yet been submitted.

Supplemental ASRs may be stand-alone documents incorporating relevant data from the original study or present the new material supported by the original ASR as an attachment. If the latter, the supplemental ASR should still briefly summarize information from the original document and reference the attachment for more details. Supplemental ASRs are numbered sequentially: First Supplemental ASR, etc.

#### **5.4.8.4 Phase I Report Review, Approval, and Distribution of ASR**

Caltrans PQS certified at the Co-PI level or higher must peer review the draft ASR or XPI Report whether it is prepared by Caltrans PQS or qualified consultants. Caltrans PQS carefully review them prior to submission to FHWA and SHPO to ensure timely consideration and approval by those agencies. Peer review ensures that the documents:

- 1) Follow the format and content guidelines provided in the relevant exhibits
- 2) Meet professional standards in field methods, site recording, and reporting
- 3) Meet and support the goals of the studies
- 4) Fulfills the obligation of the identification step required by 106 PA Stipulation VIII/5024 MOU Stipulation VII and 36 CFR 800.4(b) and PRC 5024.

Following peer review, and any necessary revisions, the report preparer signs the title page of the final document. Caltrans PQS certified at the Co-PI level or higher then reviews the document for final PQS approval. Review ensures that the report is acceptable and that the maps depicting the Study Area and the area surveyed are accurate. If a Caltrans PQS Co-PI has not prepared the report, the responsible PQS Co-PI indicates review and *approval* by

signing the title page of the report. The DEBC then reviews and signs the title page to indicate final district approval. Note that further revisions to any reporting may be necessary after CSO or SHPO review, regardless of district approval.

## **5.5 Evaluating Archaeological Properties (Phase II)**

The evaluation phase of archaeological studies, or Phase II, consists of determining the eligibility of known archaeological resources for listing on the NRHP or as historical resources for purposes of CEQA. Caltrans PQS also utilize Phase II studies to support effect assessments on the portions of resources within a project ADI or APE/PAL, as Caltrans and Caltrans oversight projects are often confined to relatively narrow rights-of-way that preclude formal evaluation of large resources. Phase II studies typically involve developing a historic context and research design and conducting test excavations. Certain archaeological resources may be evaluated through site-specific historical research and developing a historic context instead of, or in addition to, excavation. In some circumstances archaeological properties may be assumed eligible for purposes of the project without formal evaluation (See Section 5.5.10.3 below).

A key goal of the Phase II study is to define the significance and integrity of resources, as defined in the NHPA regulations at 36 CFR 60.4 and in accordance with the National Register Bulletin “How to Apply the National Register Criteria for Evaluation”. Well-developed characterizations of significance and integrity are key to a successfully applying the Criteria of Adverse Effect and fulfilling Caltrans responsibilities under the 106 PA/5024 MOU. Caltrans uses the NRHP criteria to evaluate archaeological resources for both Section 106 and PRC 5024 compliance. Under the 5024 MOU, Caltrans also uses the CHL criteria for evaluating Caltrans-owned resources. For CEQA-only projects, Caltrans uses the CRHR criteria (PRC 5024.1), as required by CEQA Guidelines 15064.5(a)(I). Exhibit 4.3 has additional information on eligibility criteria, the similarities and the differences between the NRHP and CRHR criteria.

While both prehistoric and historic-era archaeological sites have typically been determined eligible under Criterion D, any Phase II study must evaluate archaeological resources for eligibility under all four NRHP criteria. Since many types of archaeological resources may be significant to Native American groups or other descendant communities for reasons other than significant data potential, evaluation under Criteria A, B, and C must include a good faith attempt at consultation with potential stakeholders.

The minimum qualification for directing a Phase II evaluation is PQS Co-PI under the supervision of a PI; qualifications levels for other participants in the Phase II are shown in Exhibit 1.6 Table 2. Exhibit 2.3 provides guidelines on the estimated time and effort required to complete Phase II studies. If the site has an historic component, it is necessary to include a Historical Archaeological PQS.

Caltrans continues the consultation initiated during the Phase I effort, making a reasonable and good faith effort to consult with any Native American tribes, other descendent communities, historic societies, and other interested parties regarding evaluation of any properties to which they may attach religious and cultural significance. Depending on the results of the Phase I or Phase II efforts, it may be appropriate to provide notification of continuing project developments to consulting parties who have not responded to initial outreach efforts or yet expressed interest in the project.

The results of the Phase II evaluation effort are documented in the applicable archaeological technical study and summarized in the HPSR/HRCR. An Archaeological Evaluation Report (AER) is used for prehistorical resources when the evaluation effort involved test excavations (see exhibit 5.5). A Historic Resources Evaluation Report (HRER) is used for historical archaeological studies (see exhibit 6.5). For multi-component sites, discussion of the historic component is also included in the AER (See Section 5.5.10 below).

### **5.5.1 Properties Exempt from Evaluation**

Under Stipulation VIII.C.1 and Attachment 4 of the 106 PA/5024 MOU, PQS and qualified consultants at the Co-Principal Investigator level and above may exempt certain archaeological property types and features from evaluation. Resources found to qualify for treatment under Attachment 4 may have been exempted during the Phase I identification effort, as discussed in Section 5.7.4.3 above. If information gathered during the Phase I is not sufficient to make a summary conclusion, additional background research will be needed to determine whether the resource may be exempted or should be evaluated.

Architectural and historical properties Type 1 (minor, ubiquitous, or fragmentary infrastructure elements), Type 2 (Buildings, structures, objects, districts and sites less than 30 years old), and Type 3 (Buildings, structures, objects, districts and sites so altered as to appear less than 30 years old) may be exempted from evaluation, when appropriate, by PQS or qualified consultants at the Lead Archaeological Surveyor and above. If the age of a

property is not readily discernable, the date of construction may be confirmed by checking assessor's records or other sources, such as USGS quadrangle maps or building permits, or by consulting a qualified architectural historian or historical archaeologist, as appropriate. An architectural historian should review altered properties if they are listed in a local survey of historic properties, or if there is any question regarding the extent of alterations or the age of the property.

The provisions of Attachment 4 do not apply to archaeological sites, traditional cultural properties, Tribal Cultural Resources under CEQA, or other cultural remains or features that may qualify as contributing elements of districts or cultural landscapes.

### **5.5.2 Previously Evaluated Sites**

If previously evaluated sites were identified during the Phase I effort, the Project PQS, in consultation with Native American tribes who may attach religious or cultural significance to the sites and/or other consulting/interested parties, as applicable, determines whether the previous evaluations are still valid or re-evaluate as appropriate. The passage of time, changing perceptions of significance, eligibility under previously unconsidered criteria, new information, incomplete or erroneous prior evaluation, and errors of fact are among the reasons to conduct a re-evaluation. If previous evaluation studies did not adequately characterize the site within the project's APE/PAL, a new Phase II will be necessary to support the upcoming assessment of effects for the project.

### **5.5.3 Sparse Lithic Scatter CARIDAP**

Some Phase II studies may use the Sparse Lithic Scatter California Archaeological Resource Identification and Data Acquisition Program (CARIDAP), a resource-specific programmatic treatment developed by the OHP that establishes procedures for the efficient identification, recording, and management of sparse lithic scatters containing limited but useful data. The CARIDAP treatment may be sufficient to evaluate a site or may be a component of a larger Phase II study.

The CARIDAP treatment is not appropriate when only a portion of the site is accessible. For the CARIDAP to be applicable, the site must also meet the following criteria:

- It must contain only flaked stone and lack other classes of archaeological material (such as groundstone, fire-affected rock, pottery, bone, or shell)

- It must be smaller than 10,000 m<sup>2</sup> in area
- It must lack a substantial cultural deposit, as defined by the program
- It must have surface artifact densities less than or equal to three items per square meter

For a qualifying property, CARIDAP implementation defines the site through prescribed field identification methods and either provides: 1) sufficient information to ensure accurate site classification and evaluation of the resource's research potential, or 2) reveals the need for a Phase II evaluation through excavation. If the CARIDAP criteria are met, the evaluation effort is concluded. If the CARIDAP is not sufficient to evaluate the site, the archaeologist should develop an Archaeological Evaluation Proposal that addresses the CARIDAP effort and continue the evaluation effort in accordance with a research design (See Section 5.5.5 below).

The current Section 106 PA/5024 MOU do not include provisions for the Sparse Lithic Scatter CARIDAP. If used, the CARIDAP would be a supporting element of a determination of eligibility or a Finding of No Adverse Effect with non-standard conditions, both subject to SHPO concurrence.

#### **5.5.4 Assumption of Eligibility**

In accordance with the 106 PA/5024 MOU Caltrans may assume eligibility of sites in specific circumstances. Under Stipulation VIII.C.3, Caltrans may assume an archaeological site eligible when it will be protected from all potential effects by the establishment and effective enforcement of an ESA. Under Stipulation VIII.C.4 Caltrans may, with CSO's approval, consider an archaeological site eligible when specific circumstances, including restricted access, large property size, or limited potential for effect, preclude its complete evaluation.

An assumption of eligibility is not a "determination of eligibility" or a "consensus determination," which require SHPO consultation. The assumption is for the purposes of the undertaking only and does not apply to future undertakings involving the same property. Under CEQA and AB 52, the lead agency, at its discretion, may choose to treat a resource as a historical resource or a Tribal Cultural Resource (TCR) even if it is not listed or eligible for listing.

#### **5.5.4.1 Assuming Eligibility Under Stipulation VIII.C.3**

An assumption of eligibility under Stipulation VIII.C.3 of the 106 PA/5024 MOU is applicable only to archaeological properties that will be protected in their entirety from any and all potential effects by the establishment and effective enforcement of an ESA, as described in Attachment 5 of the 106 PA/5024 MOU. This protection must avoid any effects to potential significance under NRHP Criteria A-C, in addition to D. Stipulation VIII.C.3 is not applicable when a project may have indirect or non-physical impacts to the property.

Caltrans must consult with Native American Tribes that may attach religious or cultural significance to the property and/or other consulting/interested parties, as applicable, to determine if it has values that may qualify it as eligible under any NRHP Criteria and whether the ESA will adequately protect those values. Caltrans also consults Native Americans and/or other interested parties as applicable, regarding whether the resource has significance under CHL Criteria 1, 2, or 3 for PRC 5024-only projects.

Assumptions under Stipulation VIII.C.3 do not require CSO approval; however, the Project PQS archaeologist must provide adequate support for the effectiveness of the ESA in the project documentation.

#### **5.5.4.2 Assuming Eligibility Under Stipulation VIII.C.4**

Under Stipulation VIII.C.4 of the 106 PA/5024 MOU, Caltrans may assume archaeological properties eligible for the purposes of an undertaking when their complete evaluation is not possible. Circumstances that would preclude complete evaluation include restricted access, large property size, or limited potential for effects. Assumptions of eligibility under Stipulation VIII.C.4 must be approved by CSO.

The Project PQS should direct requests for approval to the Section 106 Branch Chief or the PRC 5024 Branch Chief, as applicable, and include:

- A brief description of the resource(s) to be assumed eligible
- A brief description of the project, county/route, its geographical relationship to the resource(s), and its potential to affect the resource(s)
- The NRHP/CRHR and/or CHL criteria under which the resource(s) will be assumed eligible, the period of significance, and any information relevant to a forthcoming effects assessment

- The justification for the assumption (large size, limited access, limited potential for effects) and reference to Stipulation VIII.C.4 of the 106 PA and/or 5024 MOU

If a project will cause effects to a cultural resource that has been assumed eligible under Stipulation VIII.C.4, a Phase II evaluative study of the part of the resource to be affected may be necessary to support the effect assessment. Caltrans PQS often conduct Phase II excavation within the ADI of a project that intersects an archaeological site when full formal evaluation is not possible or not warranted. Both formal evaluation and Phase II effect assessments involve the same scope of investigation, as described below.

### **5.5.5 Archaeological Evaluation Proposal (AEP)**

Prior to excavation, the Project PQS or qualified consultant prepares an Archaeological Evaluation Proposal (AEP), also known as a Phase II Proposal, stating the goals of the study and clearly linking the proposed field and laboratory methods to fulfilling those goals. The Phase II proposal is an in-house document that is not included in HPSRs/HRCRs.

Because a Phase II excavation will evaluate the research potential of a site, the proposal must present:

- Sufficient background information
- An historic or prehistoric context
- A realistic, site-specific research design
- Discussion of relevant regional research issues
- Specific provisions for obtaining necessary entry rights and permits
- Methods to be used for field, lab and analysis. For multi-component sites explain how the prehistoric and historic methods will be integrated to evaluate both components.
- Estimates of the time and personnel required to complete field, laboratory, and reporting tasks
- Curation and discard plans
- And when necessary, arrangements for a Native American Monitor

The AEP requires peer review prior to approval and distribution. It may also be necessary to coordinate the approach with other environmental members of the PDT, especially the biologist, to ensure that no impacts to important resources or hazardous materials would

result from archaeological excavation. As appropriate, the AEP will be provided to consulting tribes who will participate in monitoring the field work.

Exhibit 5.4 has more information on the AEP format and content guidelines.

### **5.5.5.1 Research Design**

Evaluations of archaeological resources involving test excavation require developing research issues to determine whether the resource may have the potential to yield important information. For purposes of the AEP, the research design must be broad and preliminary, containing current research themes and topics relevant to the expected materials and site types being investigated. The research design should explain in detail why the research themes and topics are important and how the anticipated information will advance our knowledge and understanding of history or prehistory. The complexity and size of a project, including the quantity and nature of the resources, will determine the length and breadth of the research design.

The research design should draw from current research within the field of study and incorporate up-to-date regional information that will be useful for the current undertaking. Research domains and theoretical paradigms change over time and multiple frameworks may overlap within the discipline. Previous studies that have been produced for a particular region or portion of the highway may utilize similar research designs; however, a critical review of how a research design accurately reflects shifts in current research is recommended. Avoid using considerably older documents as a reference for current topics. It is advisable to seek out updated research beyond that produced solely for previous Caltrans projects.

Often, research topics are presented following a logical sequence from the broadest to more specific, with the expectation that certain broad patterns of information be known in order to address subsequent topics. Many topics, however, can be addressed in tandem using the same sets of data, and the results of these analyses can inform one another. Development of specific data requirements to effectively address each topic is needed to adequately demonstrate these relationships. Even if sites are unable to meet the data requirements to address broader topics, that does not preclude the ability of a site to yield important information. Transportation projects often involve working in disturbed or



altered contexts where portions of sites may be displaced, but well-developed research designs should consider a site's data potential while also addressing these limitations.

While the research design is meant to be broad enough to capture all possibilities for what may be encountered during an excavation, previous information about properties within the study area should be used to focus the research questions and data expectations. Information obtained during the survey or XPI can help tailor the methods that will be employed during the field work. For prehistoric sites, information from consultation with Native American groups that can inform certain research topics.

### ***Historical Archaeological Research***

Detailed knowledge of the social context and history of a resource is usually required to formulate research issues for historic-era archaeology. Research issues should focus on significant themes or topics that the site may reasonably be able to address and cannot be assessed through historical research alone. Clearly defined data requirements are the basis for assessing the potential value of any remains discovered at the property. When developing research themes and questions, the PQS should use previous historical archaeological literature for research concerning the type of property under evaluation. More detail for developing a historical archaeological research design is in Exhibit 5.14.

To be eligible because of its research value, historical archaeological resources must have the potential to yield significant information that cannot be obtained through historical research alone or from more intact examples of its resource type. Historical research, which should encompass a review of the relevant literature as well as property-specific research, always precedes excavation and provides justification for the excavation program, when warranted. The information must be able to add to our understanding of the historic context or theme it represents. Exhibit 5.14 has more information on methods for testing historic sites.

### **5.5.6 Phase II Field Methods**

In accordance with Attachment 3 of the 106 PA/5024 MOU, the Phase II field effort should focus testing on areas of the site that are subject to reasonably foreseeable effects of the undertaking (e.g. ADI) and must be guided by the research design and methods in the AEP. If the Project PQS finds a compelling reason to investigate areas beyond the ADI (e.g., testing is necessary in order to understand the context of the deposits within the ADI), the rationale must be provided in the research design.

Phase II testing typically requires systematic sampling of the site or ADI using methods ranging from controlled surface collection to excavation units, or a mix of both. Targeted excavation can be used if features are present on the surface, when surface conditions indicate specific loci, or discrete concentrations of artifacts are easily observed. Unit configurations can range in size and method dependent on the nature of the deposit; however, hand excavations should proceed in a controlled fashion either by means of arbitrary intervals or stratigraphic layers. Shoring the walls of any occupied unit is required if excavations exceed the depth prescribed by OSHA regulations.

Mechanical excavation using backhoe trenches or larger exposures can be employed when proposed project impacts will exceed depths reachable through hand excavation, and it is reasonably suspected that archaeological deposits extend to these depths. Additionally, trenching can be an expedient method for characterizing the subsurface in sites within depositional contexts.

Field recording should be done using dedicated level records indicating the date, unit provenience, level depth, and artifact counts. In-field inventory of all materials should adhere to a standard system for tracking provenience of items (unit and level) and bags should be labeled and separated by unit and level to avoid potential mixing. Unit walls should be photographed and profiled to capture changes in soils and constituents. Features should be recorded on separate forms and photographed/drawn in plan and profile view (if possible). Separate logs for photographs and GPS data should be kept (if applicable). The specific procedures and formatting for this information will be included in the AEP.

#### **5.5.6.1 Historical Archaeology Field Methods**

Field methods for testing historical archaeological resources can differ from those used for prehistoric archaeological sites. The types of sampling strategies commonly used at

prehistoric sites (particularly random sampling) may not be effective, as sample units may more appropriately target the identified features. Some historical archaeological sites require exploratory backhoe trenches or grading to identify site stratigraphy and location of features. Trenching may be an essential first step for investigating sites with long occupations where there may be buried components, flood deposits, or other vertically stratified elements. Others (such as single component sites) may require shallow block exposures or broad excavations that have the potential to reveal a maximum number of subsurface and surface features.

Exhibit 5.14 has more information on historical archaeology field methods.

### **5.5.7 Laboratory Analysis and Curation**

Phase II laboratory studies will generally follow the methods and guidelines proposed in the AEP, but will ultimately be contingent upon the results of the field work. When undertaken, laboratory methods must be detailed enough to meet professional standards and provide data necessary to evaluate site integrity, research potential, and historical significance under the applicable criteria. If processing and analysis of the XPI collection has not been completed, it should be included with the Phase II collection. Some specialized analyses may require separate consultant contracts.

In general, most items coming from the field should be washed to properly analyze their macroscopic and microscopic attributes. Some delicate items such as faunal bone or shell may require dry-brush-only cleaning. Special consideration may be given to certain classes of artifacts that require different handling methods. For instance, residue analyses including starch and protein, require artifacts to remain unwashed in order to extract the necessary samples. All special studies carried out on these materials should follow guidelines and practices consistent with the most up-to-date research within the respective field.

Cataloging artifacts should be done in a manner consistent with current standards and will generally require creation of a sortable and searchable electronic database (e.g. Microsoft Access). Database formatting and terminology used are sometimes proprietary to each consulting firm and will require a glossary or key to be made available as part of the report. Accession numbers provided by the repository where the collections will be housed should be included in the final catalog.

Artifacts from prehistoric sites are cataloged by morphological classification, although functional inferences can be made for certain specimens. Specific methods may vary between consultants, but typically, formal tools are counted individually. Smaller items that are encountered in mass quantities, such as flakes (debitage), shell and animal bone, are counted as a lot specific to the level of the unit they came from.

Methods and viewpoints can differ between researchers; therefore, terminology can vary for certain classes of data. The categories used, however, should derive from existing and widely cited sources. If a certain tool type or data class within a collection exhibits unique characteristics that would require distinction from similar types (e.g. use wear, manufacture method), it should be explicitly discussed in the report. Otherwise, tools of the same class can exhibit morphological variation as a subclass. Any methods and justifications used to classify materials should be replicable and applicable by future researchers.

Historic artifacts may require different washing techniques. Alternate methods may be necessary for fragile artifacts, including, but not limited to, leather, wood, other organic materials, paper labels, applied color labels on glass, and stencil designs on ceramics. Artifacts from historic sites are cataloged using functional classifications. This method of cataloging is also the first step of analysis. Rather than counting historic artifacts, minimum number of vessels (MNV) is calculated. Exhibit 5.14 provides more information.

Recovered materials are to be curated at an appropriate repository in accordance with the NPS “Curation of Federally Owned and Administered Archaeological Collections,” (36 CFR 79) and OHP’s “Guidelines for the Curation of Archaeological Collections” (see Chapter 3 for more information). Exhibit 5.4 provides information on content and formatting of the AEP.

### **5.5.8 Ethnographic Studies**

Projects that may affect potentially significant resources with non-archaeological components such as TCPs or cultural landscapes may require a formal ethnographic study to support evaluation efforts. As with archaeological sites, the Project PQS decides the need and scope for ethnographic studies based on the project’s potential to adversely affect the significance of the resources under Criteria A-C. Ethnographic studies are most often employed when assessing eligibility for important Native American cultural resources, but they may be appropriate in analyzing resources important to other historic descendant communities as well.

The study might consist of ethnographic and historic research and interviews with Native American cultural practitioners or important people in the affected community. An ethnographic study is preferably conducted concurrently with archaeological investigations and integrated into the same reporting, as the results of the ethnography may be important to the archaeological analysis. However, project schedules and sensitivity concerns may make it infeasible or inappropriate to include ethnographic analysis in the archaeological evaluation report. In those cases, separate reports are acceptable. The ethnographic study does not replace consultation with Native Americans or other affected communities.

### **5.5.8.1 Traditional Cultural Properties**

A Traditional Cultural Property (TCP) is a property that is eligible for inclusion in the NRHP based on its associations with the cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. TCPs are rooted in a traditional community's history and are important in maintaining the continuing cultural identity of the community.

With respect to Tribal communities, the traditional knowledge about a place on the landscape may be vital for understanding how that place meets the NRHP criteria. The value of a traditional location as it relates to important events and people are best determined by taking into account the perspective of the consulting tribe(s). As these types of resources are usually seen as part of the larger cultural landscape, they often are not easily defined by a boundary or discrete limits. TCPs generally convey their significance in the present day and may have been continually used by groups for traditional purposes. These resources can and often do correspond to ethnographic or archaeological locations, but knowledge regarding specific cultural practices, beliefs or activities at a given location are passed down through familial knowledge or oral traditions within the community.

When deciding to document and evaluate such resources, any knowledge given by the tribe is done so with a high level of trust and goodwill. This type of information is often needed to avoid or minimize any project impacts to the TCP. Confidentiality is of utmost importance to tribes and as good faith actors, it is Caltrans intent and policy to keep sensitive information out of the public realm.

The [National Register Bulletin](#) "Guidelines for Evaluating and Documenting Traditional Cultural Properties" has further information.

### **5.5.9 CEQA-only Projects**

For CEQA-only projects, the Phase II and Phase III (data recovery) excavation work may be conducted in a single step. The Phase II/Phase III Proposal for this approach will specify the conditions under which test excavation would phase into data recovery. CEQA Guidelines also allow for Phase III studies to be conducted without a preceding test excavation if the site clearly is an important resource. The nature of the research to be conducted must be apparent, obviating the need for data generated by a Phase II test evaluation. The appropriateness of combining Phase II and Phase III work, or proceeding directly to Phase III, is decided by the Project PQS on a case-by-case basis prior to any fieldwork. Proceeding directly to Phase III mitigation is not appropriate if there may be alternatives for avoidance. Proceeding directly to Phase III is also not appropriate when project compliance with Section 106 may be necessary at a later date.

### **5.5.10 Phase II Reporting**

#### **5.5.10.1 Archaeological Evaluation Report (AER)**

An AER is the cultural resources technical study used to document the evaluation effort (i.e., the results of the Phase II survey) for prehistoric archaeological resources and sites with both prehistoric and historical archaeological components. The AER describes the fieldwork and data analyses undertaken and, based on this information, presents conclusions regarding whether the resource does or does not possess the information potential to address significant research questions. Specific recommendations for further work may be included in a memorandum transmitting the final AER to the DEBC but do not belong in the AER itself. Exhibit 5.5 has more information on AER format and content guidelines.

Do not include specific recommendations for further work in the AER. If recommendations are to be made, the archaeologist should include them in a memorandum transmitting the final AER to the DEBC.

A draft of the AER should be made available to the consulting Native American tribe(s) for comments. When applicable, permitting agencies, such as BLM or the USFS, should be given a copy of the draft AER for review and any comments incorporated.

A revised archaeological site record, incorporating information gained during Phase II studies, should be prepared and appended to the AER. The district PQS also separately files the revised archaeological site record with the appropriate CHRIS Information Center.

### **5.5.10.2 Historic Resources Evaluation Report (HRER)**

The HRER is the cultural resources technical study used to document the evaluation efforts for historical archaeological resources. The HRER also includes the appropriate context in which properties within the APE/PAL were evaluated, descriptions of the evaluated properties, and their eligibility status. Information from the DPR 523 form(s) is summarized in the HRER. The author should ensure that details about each evaluated property (name and/or location, Map Reference Number, eligibility criteria, etc.) are consistent between the DPR 523 form(s) and the HRER. Exhibit 6.5 has more information on HRER format and content guidelines, and Exhibit 5.14 has guidance on evaluating historic-era resources.

If the APE/PAL contains built environment and historical archaeological resources, a team of qualified cultural resources specialists should jointly prepare the HRER. However, if studies are conducted at different times or by different entities, separate HRERs can be prepared.

For combined work, the citation and reference style is determined by the principal author and the preponderance of resources; e.g., if resources are primarily built environment resources and, therefore, the architectural historian is the principal author, the historical archaeologist's portion of a combined document should conform to the Chicago Manual of Style, as revised. If the resources are primarily historical archaeology, then the combined document should conform to the Society for Historical Archaeology's style guide. If historical archaeologists and historians or architectural historians separately prepare two HRERs, the HRERs do not need to conform to the same citation and reference style.

### **5.5.10.3 Phase II Report Review, Approval, and Distribution**

Caltrans PQS-PI of the appropriate specialty level must peer review the draft and final Phase II documents. Caltrans Districts and CSO carefully reviews AER and HRERs prior to submission to SHPO to ensure timely consideration and concurrence by those agencies. They are reviewed to ensure professional adequacy in:

- field and laboratory techniques
- Reasonableness of analysis and interpretation
- Quality of presentation
- Consistency with Caltrans and OHP standards
- Adequacy of the Section 106 consultation process (for federal undertakings)

The Project PQS should forward the draft Phase II document(s) to permitting agencies (e.g., COE, USFS, BLM) for review, as well as to appropriate Native American Tribes, groups or individuals when appropriate. Depending on the resources being evaluated and the scope of the project, giving these organizations an opportunity to comment may be required for Section 106/PRC 5024 consultation efforts, but is generally a good practice for maintaining relationships. Review of the draft by permitting agencies also may be a condition of specific permits. In instances involving especially numerous or complex resources, it may be advantageous to plan for a second draft prior to delivery of the finalized report. This option provides an opportunity to address any lingering concerns, as well as a longer review period for outside reviewers from permitting agencies and Native American Tribes, groups or individuals.

Following peer review, and any necessary revisions, the report preparer signs the title page of the final document. Caltrans PQS certified at the Co-PI level or higher then reviews the document for final PQS approval. Review ensures that the report is acceptable and that the maps depicting the Study Area and the area surveyed are accurate. If a Caltrans PQS Co-PI has not prepared the report, the responsible PQS Co-PI indicates review and *approval* by signing the title page of the report. The DEBC then reviews and signs the title page to indicate final district approval. Note that further revisions to any reporting may be necessary after CSO or SHPO review, regardless of district approval.

### ***Determinations of Eligibility***

When using the documents to consult with the SHPO under the 106 PA/5024 MOU regarding determinations of eligibility (DOE), the Project PQS prepares a DOE document package for submittal including a transmittal letter, HPSR/HRCR form, Phase I reports, and Phase II reports. The Project PQS concurrently submits the DOE document package to the SHPO and the CSO Section 106 Branch Chief and/or PRC 5024 Branch Chief, as applicable. The Project PQS should also provide final copies of any Phase II documents to interested consulting parties unless the party has indicated otherwise.



After SHPO has concurred on NRHP eligibility determinations, the Project PQS provides:

- One copy of the approved Phase II document to the regional CHRIS Information Center
- Additional copies of the approved AER to permitting agencies as required for conditions of permits (e.g., COE, USFS, BLM), and to any other consulting parties

Exhibit 2.16 outlines Caltrans policies regarding the publication and external distribution of reports.

## **5.6 Assessing Effects to Archaeological Properties**

If eligible properties are identified in the APE/PAL, the project's effect on these properties must be assessed. Caltrans PQS use these resource-specific effect assessments to determine a single overall finding of effect for a project under Section 106 or PRC 5024. Chapter 2 Section 2.3.9 has further guidance on documenting and processing effect findings under the 106 PA and PRC 5024 MOU.

The Section 106 regulations (36 CFR 800.16(i)) define an effect as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." In March 2019, the Washington D.C. circuit court issued an opinion that clarifies the difference between "direct" and "indirect" effects for the NRHP. Direct refers to the causality, not the physicality, of the effect. Direct effects are thus those that take place at the same time and place of the project, regardless of the type (e.g. physical, visual, auditory). Indirect effects are reasonably foreseeable impacts that would happen later in time or removed in distance (e.g. deterioration due to neglect, looting).

There are three possible effect findings under Section 106/PRC 5024/PRC 5024:

- 1) No Historic Properties Affected/No State-Owned Historical Resources Affected
- 2) No Adverse Effect
- 3) Adverse Effect

### **5.6.1 Applying the Criteria of Adverse Effect**

For Section 106 projects, if an eligible property in the APE may be affected, in accordance with 106 PA Stipulation IX.B, Caltrans PQS or qualified consultants apply the Criteria of Adverse Effect, set forth at 36 CFR 800.5(a)(1), to determine whether effects to the resource will occur and whether they will be adverse. The Criteria of Adverse Effect state

that “[a]n adverse effect is found when a project may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.”

For PRC 5024-only projects, if an eligible Caltrans-owned resource in the PAL may be affected, Caltrans PQS or qualified consultants apply the List of Adverse Effects found in 5024 MOU Stipulation IV.D. The guidelines below for using the Criteria of Adverse Effect also apply to the List of Adverse Effects.

An assessment of effects requires both relevant information gleaned through evaluation and a detailed understanding of the project’s activities. It is critical to consider the assessment of effects when scoping Phase II investigations, as insufficient initial efforts may necessitate additional work to support the analysis. Important resource-specific information to consider for this process includes:

- Criteria under which the property was listed or determined eligible
- Level of significance (local, state, national)
- Period of significance
- Character-defining features
- Resource boundaries
- Applicable aspects of integrity

The types of project activities that may affect an eligible property depend on the nature of that property. Phase II investigations must consider the potential for a property to be eligible under all four NRHP criteria, and the PQS must assess effects to a property under any criteria for which it was found eligible. The most common effect to archaeological resources during a Caltrans project is physical disturbance, which most often has the potential to diminish a property’s ability to convey important archaeological data and thus its significance under Criterion D. However, the nature and significance of archaeological sites varies widely, as do the communities that ascribe them significance. It is important to critically determine whether and how any project activity may have the potential to adversely effect an eligible archaeological site. The project PQS must take into account the views of stakeholders and interested parties as part of the assessment.

Within the regulation, 36 CFR 800.5(a)(2) provides examples of adverse effects, including physical destruction or damage, alteration (including moving the property from its historic location), isolation from or alteration of the setting, introduction of intrusive elements, neglect leading to deterioration or destruction, and transfer from federal ownership. These are not the Criteria of Adverse Effect but simply common recognizable examples of effects that are often adverse. The regulations clearly state that adverse effects are not limited to these examples. These examples are also *not* automatically adverse effects. It is not necessary to list the examples as part of an effect assessment, and stating which example is applicable to the project is not an application of the Criteria of Adverse Effect.

**An effective application of the Criteria of Adverse Effect uses clear supporting information and documentation to determine whether an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the National Register in a manner that would diminish the property's integrity.**

#### **5.6.1.1 Effects to Disturbed and Secondary Archaeological Deposits**

Much of Caltrans and local agency right of way has been subject to at least minor road development or maintenance activity. It is thus rare when working at Caltrans to encounter an archaeological resource that hasn't been subjected to some form of disturbance. It is important to note that disturbance does not equate to a lack of integrity, and localized disturbance (e.g. installing an underground utility vault or bisecting a large site with a highway) does not equate to wholesale destruction of a resource. A disturbed site, and even disturbed deposits themselves, can still have integrity. When assessing effects to an eligible archaeological site, any disturbance should be used to help describe the present condition of the significant characteristics of the site in support of the analysis of how specific project effects will or won't *further* diminish the ability of the site as a whole to convey important information about the past.

It is also important to note that disturbed deposits are different than secondary deposits, which are not in their original depositional contexts. Secondary archaeological deposits rarely possess integrity under Criterion D and are, therefore, rarely evaluated as eligible or considered during an effect assessment. However, the significance and integrity of secondary deposits under Criteria other than D should still be considered during identification and evaluation, especially when those deposits are very rare or may contain human remains.

## 5.6.2 Communicating Effects

When describing and documenting effect assessments, it is important to remember that current and future reviewers will likely not have the same knowledge of the APE/PAL conditions and eligible properties as the Project PQS. It is thus crucial to clearly and adequately describe the aspects of the APE/PAL, eligible properties, and project activities that are relevant to the assessment in the reporting. Caltrans Finding of Effect (FOE) documents include dedicated sections for the results of public outreach, description of historic properties, and project description. Each section should include enough detail to support the following discussion of the application of the Criteria of Adverse Effect.

Communicating effects to archaeological sites eligible under Criterion D requires specifically describing the characteristics of the archaeological deposits that will be affected. This should include any applicable discussion of the stratigraphic and depositional context of the deposits, the important natural and/or cultural materials known or reasonably suspected to be present, previous post-depositional processes or disturbances that shape the present condition of the site, and any information gleaned through consultation that may contribute to a site's significance. If necessary, include discussion of any intra-site variation in these elements that may factor in the effect assessment. This information should be clearly related to the site's significance and integrity to translate effectively to the application of the Criteria of Adverse Effect.

The project description should include enough detail on specific activities to relate their potential effects to the historic property. Good project mapping is an invaluable tool for effectively conveying this information. The depth, breadth, and type of ground disturbance are the most important details to describe for any activities within or near an eligible property when assessing effects under Criterion D. However, if an archaeological site can provide important information that is not tied to buried archaeological deposits, include the project activities that may destroy or impact the site's ability to convey that data. The project PQS should also consider non-tangible project elements that may cause indirect effects, such as increased public access or changes in drainage and erosion patterns within a site.

The application of the Criteria of Adverse Effect should describe how each relevant project activity will impact or alter the important characteristics of the eligible property and why the activities do or do not diminish its integrity. The complexity of this analysis will vary

based on the nature of the project and the historic properties. Effect determinations are subjective; the analysis should form a persuasive argument rather than an assertion.

### **5.6.3 Findings of Effect**

#### **5.6.3.1 No Historic Properties Affected**

A Finding of No Historic Properties Affected/State-Owned Historical Resources Affected is appropriate when there are no eligible properties in the APE/PAL, or a project will not affect any eligible properties in any way, either directly or indirectly. Determining if a project will have an effect on an eligible property requires a strong understanding of the significance of the property and its physical features and boundaries. A Finding of No Historic Properties Affected/No State-Owned Historical Resources Affected is not appropriate when project activities may cause effects to unknown resources or unknown elements of a known resource.

Caltrans projects often include ground-disturbing activities outside of, but near, the recorded boundaries of known archaeological sites. The project PQS must consider the potential for buried archaeological deposits beyond recorded boundaries (especially when determined by pedestrian survey alone) or in areas sensitive for buried sites with no surface manifestation. A Finding of No Historic Properties Affected/No State-Owned Historical Resources Affected in this circumstance must include evidence that supports the determination that the project will not affect unknown site deposits. Extended Phase I or a buried site sensitivity analysis may be necessary to provide this evidence.

#### **5.6.3.2 No Adverse Effect**

A Finding of No Adverse Effect (FNAE) is appropriate when the project will affect one or more eligible properties, but none of the effects will alter, directly or indirectly, characteristics that qualify any property for inclusion in the NRHP in a manner that would diminish the property's integrity.

Exhibit 2.8 has format and content guidelines when preparing a FNAE document.

#### ***No Adverse Effect with Standard Conditions- ESA***

Stipulation X.B.1 and Attachment 5 of the 106 PA/5024 MOU provide Caltrans PQS with the option to make a Finding of No Adverse Effect with Standard Conditions- ESA (NAE-SC-ESA).

This finding is appropriate when eligible resources within the APE/PAL will be protected from any potential effects through the establishment and effective enforcement of an ESA. The 106 PA/5024 MOU delegate CSO the authority to approve or object to findings of NAE-SC-ESA without project-specific consultation with the SHPO, and thus offers time savings for compliance on applicable projects.

A Finding of NAE-SC-ESA is only appropriate when all the following apply:

- The establishment and effective enforcement of ESAs will prevent any potential direct project effects to the eligible resources they are designed to protect
- There is no potential for indirect effects to resources subject to an ESA
- The vertical and horizontal resource boundaries are well-defined and supported
- Good faith consultation with interested parties does not indicate that an ESA will be inadequate to protect the resource from effects without other conditions or mitigation
- Sufficient documentation is provided to support the determination that relevant eligible resources will not be affected through the effective enforcement of the ESA
- There are no other project effects to other eligible resources in the APE/PAL (with the exception of those that comply with the provisions of other Standard Conditions findings set forth in Stipulation X.B.1 and Attachment 5 of the Section 106 PA/5024 MOU).

Environmentally Sensitive Areas are most often set horizontally and depicted on a plan map. However, an ESA can also include a vertical limit that protects a historic property from vertical construction impacts. When buried sites are within the horizontal boundaries of a project, vertical ESAs can be included in a Standard Conditions finding if documentation is provided that clearly demonstrates that the ESA will protect the site from any effects. At a minimum, this documentation should include the known depth of the site and any non-archaeological overburden and the depth of all construction activities within the resource horizontal boundary. It is helpful to include detailed mapping such as soil profiles and as-builts to support vertical ESAs. Generalized mapping, such as typical cross sections or large-scale buried site sensitivity maps, may not be sufficient to support the effectiveness of a vertical ESAs.

Any Standard Conditions provisions that are included in Stipulation X.B.1 of the 106 PA/5024 MOU can be combined into an overall Finding of No Adverse Effect with Standard

Conditions as long as all parameters of the standard conditions are met. Caltrans PQS documents the finding in a HPSR/HRCR. Any Standard Conditions finding that includes ESAs must be supported by an ESA Action Plan, as described in Attachment 5 of the Section 106 PA and 5024 MOU. Section 5.6.4.2 below has further information on ESAs.

### **5.6.3.3 Adverse Effect**

A Finding of Adverse Effect (FAE) is appropriate when the project will directly or indirectly affect the significant characteristics of one or more eligible properties in a manner that would diminish the property's integrity. Exhibit 2.9 has the format and content guidelines for preparing a FAE document. Chapter 2 contains information on how to process a Finding of Adverse Effect.

The transfer, lease, or sale of a Caltrans-owned resource out of state ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance can also be an adverse effect. Section 5.15 below, provides information regarding property transfers and relinquishments.

### **5.6.4 Conditions on a Finding of Effect**

Caltrans PQS may impose conditions that do not conform to the Standard Conditions included in Attachment 5 of the Section 106 PA/5024 MOU to support a project finding or provide protection for cultural resources. These conditions are often referred to as “non-standard conditions” to differentiate them from those included in Attachment 5. Caltrans PQS can impose non-standard conditions projects that will or will not cause adverse effects and to projects that also include standard conditions; however, Caltrans cannot propose a Finding of No Adverse Effect with Standard Conditions if non-standard conditions are included.

#### **5.6.4.1 Archaeological and Native American Monitoring**

Section 5.8 below provides detailed information on construction monitoring for cultural resources. Whenever monitoring is imposed as a necessary condition to support a finding of effect, it is a non-standard condition. In certain limited circumstances, such as when cultural monitoring has been agreed to through consultation, but it is not a condition of identifying or protecting cultural resources, monitoring may be included in a Finding of No Adverse

Effect with Standard Conditions. Caltrans PQS should discuss the inclusion of monitoring as part of a standard conditions finding with CSO prior to submitting projects for review.

#### **5.6.4.2 Environmentally Sensitive Areas**

When the requirements for a NAE-SC-ESA finding cannot be met, an ESA may still be appropriate as a “non-standard condition” to protect resources from effects outside of the project footprint. The ESA still signals to construction personnel that there is an area to be protected by avoidance or restrictions on Caltrans activities. When used as a non-standard condition, only the portion of the resource that will be protected from any potential effects should be documented as an ESA. Any potential effects to the resource within the ADI should be discussed in the FOE and may require Phase II studies to support an effect assessment.

Caltrans documents the details on establishing and enforcing an ESA, which are explained in an ESA Action Plan prepared for the undertaking. The ESA Action Plan explains specific provisions that will be employed to physically protect the site (e.g., construction of protective fencing). Enforcement measures may include provisions such as periodic monitoring by PQS or consultant archaeologists, monitoring by Native Americans as appropriate, as well as contractually binding penalties for ESA violations. Exhibit 2.11 Environmentally Sensitive Area Action Plan (ESA) Format and Content Guide have more information.

#### ***Providing ESA Information to Others***

- The PQS is responsible for developing the ESA Action Plan and providing information on ESAs to the other functional units. The PQS provides ESA information to:
- District Project Development, for inclusion in construction plans (i.e., Plans, Specifications, and Estimates)
- Resident Engineer (RE), as special instructions to the RE’s Pending File
- A copy of these instructions to CSO

#### ***Posting of Archaeological ESAs***

Physically identifying ESAs (also called posting) with temporary fencing, staking, signage, or other physical barriers may be necessary to guarantee protection of an ESA during construction. Environmentally Sensitive Area protective measures are taken when failure to



do so likely would result in damage to a resource because of its proximity to a construction area. Environmentally Sensitive Area protective measures also are taken if the resource is of unusual sensitivity. When such damage is unlikely, these measures may not be desirable because they may draw attention to the resource.

The PQS decides:

- Which ESAs need to be posted
- How they are to be posted (e.g., signs, staking, or fencing)
- Who will be responsible for posting the ESAs

The ESA information must be:

- Included in the contract's Standard Special Provisions (SSPs) or Non-Standard Special Provisions (NSSPs) and mapped on the plans
- Included in the RE's Pending File
- Explained to the RE by environmental staff at a pre-construction strategy meeting
- *The construction contractor does not need to know the nature of the resource being protected*

Compliance under Section 106/PRC 5024 is jeopardized if ESAs are violated, regardless of whether protected sites are damaged during the violation. Damage to archaeological sites may result in additional archaeological work that necessitates construction delays. When damage occurs, the PQS prepares a construction impacts report. The Project PQS sends signed copies of this report to Headquarters Division of Construction and to the CSO Chief.

Exhibit 5.13 provides guidance on completing the construction impacts report. Violation of ESAs must be reported to CSO and SHPO when they occur and documented in the 106 PA/5024 MOU Annual Report.

## **5.7 Resolution of Adverse Effects**

### **5.7.1 Introduction**

When Caltrans cannot avoid adverse effects, Caltrans must consult with the SHPO and/or THPO and other consulting and interested parties, as appropriate, to resolve them through mitigation. These measures should be commensurate to the scope of the project, the

project's effect on the historic property, and the type and significance of the historic property being affected.

Caltrans PQS of the relevant specialty should oversee the development and review of mitigation measures for specific property types. Mitigation for buildings and other built environment historic properties must be reviewed by architectural historians who meet the PQS standards for Principal Architectural Historian. Exhibit 5.14 provides specific information on methods for data recovery on historic-era archaeological sites.

Caltrans memorializes mitigation measures for Section 106 undertakings in a memorandum of agreement (MOA) or programmatic agreement (PA), which is negotiated between and executed by the SHPO and Caltrans Headquarters (see Chapter 2 Section 2.3.10). Under the 5024 MOU, Caltrans proposes mitigation measures in the FOE. CSO approves adverse effect findings and proposed mitigation measures for most 5024-only projects. However, when a project will adversely affect a Caltrans-owned historical resource that is on the Master List, Caltrans must consult with the SHPO regarding the effects and proposed mitigation, pursuant to the 5024 MOU. When a Section 106 undertaking may affect Caltrans-owned properties, in accordance with 5024 MOU Stipulation III, Caltrans may use the Section 106 process to concurrently comply with PRC 5024. Mitigation implemented in a Section 106 MOA or PA also satisfies Caltrans' PRC 5024 mitigation responsibility (see Chapter 2 Section 2.8.9 for further information).

Data recovery (Phase III) excavations are the traditional form of mitigation for adverse effects to archaeological properties eligible under Criterion D. However, the ACHP, the SHPO, and Caltrans encourage the development of creative and innovative mitigation, particularly measures that have a public benefit component. Examples of creative mitigation for archaeological resources include information panels at public access points, parks, and roadway lookouts; publications and presentations oriented to the general public; classroom activities and teaching aids; outreach and collaborative work with tribal and descendent communities; analysis of underreported collections; and syntheses of existing collections. Recent ACHP comment on the USACE Feather River West Levee Project in Sutter and Butte County notes that data recovery is not a *required* form of mitigation for adverse effects under Criterion D. While Caltrans encourages data recovery when a project will adversely affect an eligible archaeological site with important data, mitigation should

always be an outcome of careful consideration and consultation with stakeholders and tribal governments and representatives.

### **5.7.2 Archaeological Data Recovery (Phase III)**

When Caltrans cannot avoid adverse effects to an archaeological site eligible under Criterion D, Caltrans can mitigate, or partly mitigate, the effects through a research and excavation program designed to recover important archaeological data. Phase III studies are generally more detailed and intensive than Phase II evaluative studies, though the process is similar: research, fieldwork, laboratory analysis, and reporting of study results. Where Phase II studies should be designed to recover only enough information to evaluate a site and support an assessment of effects for a specific project, Phase III studies should be designed to recover as much important non-redundant data from the affected deposits as feasible. However, Phase III studies may build on the results of previously completed Phase II studies, which can considerably reduce the necessary scope and effort. Under Section 106, the 106 PA and the 5024 MOU, data recovery is only a form of mitigation for adverse effects and not a minimization measure or a condition to support a FNAE.

Data recovery can resolve specific adverse effects from a single project. Phase III excavations should thus be confined to the project's ADI/PAL unless otherwise supported in a Data Recovery Plan or Phase III Proposal. Similarly, previous data recovery efforts within an archaeological deposit do not automatically preclude the potential for adverse effects from a current project, as different project footprints and intra-site variability may allow for new effects. The project PQS should include detailed information supporting any use of previous data recovery efforts in designing current Phase III studies.

Data Recovery is guided by a Data Recovery Plan (DRP), Phase III Proposal, or a broader treatment plan that includes the elements of a Phase III Proposal. The Data Recovery Report documents the results of the Phase III study and details the site's contribution to broader regional, state, and national research, completing that aspect of Section 106 compliance and/or CEQA mitigation commitments. Increasing emphasis is being given to the importance of disseminating the results of data recovery programs beyond professional archaeological audiences, directly to the interested groups, including tribal and descendant communities, as well as the general public.

Some of the methods that have been used to achieve the goal of public outreach include:

- Public visits and media coverage during data recovery excavations
- Presentations to school, avocational, Native American, and local community groups
- Preparation of exhibits, web sites, booklets, and videos
- Incorporation of Native American and descendant communities' oral histories into both archaeological reporting and public outreach

Such public involvement measures must take into account confidentiality and safety requirements. In addition, Exhibit 2.16 provides external report and public presentation procedures.

### **5.7.2.1 Data Recovery Plan**

A DRP is a basic plan that outlines the research objectives, general field and lab methods, approach to public outreach and consultation, reporting schedule, additional resource protections, and any other conditions that will complete the resolution of adverse effects for a project. It is prepared as an attachment to the Finding of Effect or MOA/PA for Section 106 undertakings, and as part of the HRCR for state-only projects. A DRP should include the content noted in Attachment 6 of the 106 PA. Exhibit 5.6 has the DRP format and content guidelines.

The DRP can serve to demonstrate that the objectives and scope of a proposed Phase III study are sufficient to resolve the adverse effects of the project. If a relatively simple and non-contentious project causes only adverse effects that can be resolved through data recovery, a DRP may suffice as a stand-alone document to guide the effort through the final reporting and resolution of adverse effects. However, SHPO/THPO consultation on a more detailed plan, such as a Phase III Proposal or treatment plan, is usually necessary for large or complex projects. Chapter 2 Sections 2.3.9 and 2.3.10 provide further guidance on consulting with CSO and SHPO on resolution of adverse effect and MOAs.

For PRC 5024-only projects, District PQS may propose Standard Mitigation Measures (SMM) to mitigate adverse effects to Caltrans-owned archaeological resources, which involves preparing a DRP in accordance with 5024 MOU Attachment 6. Caltrans should include any alternative measures negotiated with Indian tribes or other interested parties that ascribe religious or cultural values to the affected historical resource.

The DRP must be peer reviewed prior to approval and distribution in accordance to Exhibit 2.13 and Exhibit 5.6. When applicable, permitting agencies such as BLM or the USFS should be given a copy of the draft DRP for review and any comments incorporated.

### **5.7.2.2 Data Recovery (Phase III) Proposal**

The Phase III Proposal includes a full research design, detailed field methods, and any necessary mapping. The Phase III Proposal may incorporate relevant portions of a Phase II study, if one occurred, and the DRP; alternatively, these documents can be included as attachments to the proposal if they have been adequately developed. Field and laboratory procedures will follow those defined in the proposal, with appropriate allowances for unexpected conditions or problems that may arise. In some cases, such as when a long period of time has elapsed since completion of the DRP, it may be necessary to develop substantially new content for the Phase III Proposal. In that case, further consultation under an MOA may be required. Exhibit 5.7 contains the Data Recovery Proposal format and content guidelines.

When applicable, permitting agencies such as BLM or the USFS should be given a copy of the draft Phase III Proposal for review and any comments should be incorporated. PQS also should inform the project biologist of the proposed Phase III activities to ensure that no impacts to significant biological resources would result from archaeological excavation.

The Phase III Proposal must be peer reviewed prior to approval and distribution. Exhibit 2.14 Table B provides information about the distribution of data recovery documents.

### **5.7.2.3 Treatment and Management Plans**

When a project necessitates multiple forms of adverse effect resolution and/or conditions for resource protection, or when a project may cause adverse effects but has been phased due to access restrictions or multiple alternatives, Caltrans can combine the procedures for implementing all or some of the necessary compliance measures into a single plan. These plans are often referred to as cultural resource management plans, historic properties treatment plans, or archaeological treatment plans, depending on the content and purpose. When a plan includes procedures for data recovery, it should include all the elements of a Phase III Proposal and is subject to the same review requirements. Consider any confidentiality concerns when preparing plans that may require review by other parties,

especially those that include sensitive Native American cultural or archaeological information.

#### **5.7.2.4 Data Recovery Report**

The Data Recovery Report presents the contributions the Phase III study has made toward creating a more complete picture of regional, state, and national history and prehistory. Future avenues for research should also be identified. While archaeological survey and evaluation reports primarily are intended for review agencies, Data Recovery Reports are also directed to those interested in the research and excavation results, including tribes, descendant communities, and archaeological professionals. For this reason, more flexibility is appropriate in the way in which data recovery results are presented. Exhibit 5.8 provides Data Recovery Report format and content guidelines. Modifications of these guidelines that would facilitate appropriate dissemination of the study results may be considered, but confidentiality concerns of all interested parties may need to be addressed.

As part of complete reporting, an updated archaeological site record should be prepared, documenting any changes in the understanding of the site resulting from the Phase III studies. The PQS sends a copy of this updated record to the appropriate CHRIS Information Center.

#### **5.7.2.5 Timing of Data Recovery**

Due to the nature of project funding, schedules, and site access limitations, the data recovery process may not occur as one continuous series of events. If resolution of adverse effects is required, an executed MOA or PA, signed by both Caltrans DEA and the SHPO, must be completed prior to issuing the final environmental document (FED) for the project. However, it is not necessary to finish mitigation measures, including Phase III studies, prior to executing the agreement.

The MOA/PA must include any proposed mitigation measures, as well as detailed schedules for their delivery and opportunities for consultation or comment by the consulting parties. Phase III fieldwork typically commences after the final approval of the project's FED, but it must be completed before the beginning of any project activities that may affect the historic property. If documentation beyond a DRP is necessary to guide the Phase III study, it must be provided for consultation and comment prior to beginning the fieldwork. After successful completion of the fieldwork, the District provides notification of completion in

accordance with the MOA/PA. Submittal of this report signals that construction can begin. Typically, the Data Recovery Report itself is produced during or after project construction. Exhibit 2.3 provides estimated time frames for completing Data Recovery from initiation of the field study to the final report.

#### **5.7.2.6 Curation**

The DRP, Phase III Proposal, or treatment/management plan should include a detailed curation strategy to guide the final disposition of any materials that are recovered during Phase III studies. The selected curation facility will also have specific guidelines to follow. The final disposition of these materials should be made in consultation with the relevant consulting parties. Recovered materials are to be curated at an appropriate repository in accordance with 36 CFR Part 79 *Curation of Federally Owned and Administered Archaeological Collections* and OHP's *Guidance for the Curation of Archaeological Collections*.

#### **5.7.2.5 Other Data Recovery Commitments**

Some data recovery programs include public information elements such as site visits, lectures, exhibits, or publications. The steps taken to fulfill these commitments, and the degree of success in meeting their objectives, should be documented for all parties to the data recovery program, including CSO, SHPO/THPO, tribal groups, and descendant communities or other interested parties. Appropriate means of documentation of outreach may include memoranda, letters, or formal reports. Exhibit 2.16 has the Caltrans policies regarding the external distribution of reports and public presentations.

### **5.8 Construction Monitoring and Post-Review Discoveries**

#### **5.8.1 Effective Monitoring**

Despite Caltrans' efforts to identify archaeological properties, significant archaeological resources may be uncovered as ground disturbing activity occurs at a known site, at a previously inaccessible location, or a previously unknown resource. A Caltrans or consultant archaeologist may be assigned to monitor construction work for the purpose of identifying and evaluating such newly discovered resources. Monitoring is not a substitute for adequate pre-construction identification efforts. Monitoring plans are often combined with ESA Action Plans (see Exhibit 2.11)

Effective monitoring requires that the archaeological monitor work closely with the Caltrans PQS, the Caltrans' and contractor's field personnel, and, in some cases, with Native American monitors. All participants need to understand clearly:

- The nature of the archaeological concerns at the location
- Various participants' responsibilities
- Construction schedules and procedures
- The chain of command for dealing with any new archaeological discoveries

A monitoring plan should discuss chain of command and decision thresholds for what constitutes an archaeological property.

### **5.8.2 Planning for Post-Review Discovery**

If construction activities have the potential to impact previously unknown archaeological resources, or known resources in an unanticipated manner, Caltrans uses a discovery or inadvertent effects plan to guide the field response. This plan may be necessary despite a thorough identification effort when the project area is sensitive for buried deposits, or when a full inventory isn't possible due to access restrictions or the existence of multiple alternatives. The plan will be included as an attachment to a finding of No Adverse Effect, MOA, or project-specific PA and will be submitted to CSO for review. For Section 106 projects, CSO will forward the plan to SHPO in accordance with 106 PA Stipulation X and Stipulation XV.A. Exhibit 5.11 has guidance on effective monitoring and planning for post-review discoveries.

### **5.8.3 Post-Review Discovery – No Plan in Place**

When a discovery occurs and there is no plan in place, Caltrans must follow 106 PA Stipulation XV.B/5024 MOU Stipulation XIV.B. Exhibit 5.12 and 5.13 provide guidance on the procedures to use when there is a post-review discovery without a plan in place. Caltrans cannot rely on Stipulation XV.B/XIV.B if the project will impact known historic properties or historical resources or is likely to impact unknown buried resources.

### **5.8.4 Safety Concerns While Monitoring**

Safety is a particularly important concern during construction. The archaeological monitor must be adequately aware of the operating methods of heavy equipment, adjacent traffic conditions, safety policy with respect to exposed cuts and trenches, and hazardous



materials potentially present at the site. Section 5.3.5.2 above has guidance on field safety. If significant archaeological remains are encountered, it may be necessary temporarily to divert construction work away from the location of the finds, to allow the finds to be properly assessed, documented, and/or recovered. The monitor contacts the Resident Engineer who will redirect any construction work. Because delays may cause serious impacts to the construction schedule, the archaeological monitor should have a clear understanding of the thresholds for such discoveries.

### **5.8.5 Recovery of Artifacts During Construction**

Contingency arrangements may include having the appropriate excavation gear available at the site and having a plan to mobilize additional archaeological assistance.

Any archaeological specimens that are recovered will require analysis, reporting, and curation. In part for this reason, it is not recommended to recover materials that do not have interpretive significance, or that are redundant with specimens previously documented for the site.

There is no standard Caltrans format to report on construction monitoring. The amount of documentation that is appropriate will vary. At a minimum, the monitor should prepare a memorandum to the file documenting that the mandated monitoring was performed. The memorandum should include the following information:

- Archaeological monitors and their qualifications
- Dates of monitoring
- Portions of the project area for which monitoring was done
- Conditions of work
- Results in terms of any archaeological remains encountered
- Any other relevant observations

If significant artifacts or features are encountered and are either documented or recovered, a more formal and extensive report is appropriate, following the general guidelines of the Data Recovery Report (Exhibit 5.8). This report should be appended to a Construction Impacts to Cultural Resources Report (Exhibit 5.13) if the reporting is not otherwise guided by existing project documents.

## **5.9 Special Considerations for Excess Property Disposal, Maintenance, and Encroachment Permit Projects**

### **5.9.1 Excess Property Disposal**

Transfers or relinquishments of a Caltrans-owned historical building or structure out of state ownership rarely have a federal nexus but are subject to compliance with the 5024 MOU regardless of whether the action is exempt from CEQA. These actions are assigned to Project PQS for review under the applicable law. An archaeological survey may be needed to identify archaeological resources within the property to be transferred.

For archaeological sites that were not previously evaluated, report in the HRCR what is known about any sites on the parcel to be transferred or relinquished, based on the pre-field research and field review. If possible, Caltrans needs to conclude, based on all available information, whether the site(s) potentially meets National Register or CHL criteria, or whether it can be assumed National Register/CHL eligible for purposes of the transfer project. At a minimum, the site(s) need to be recorded on a DPR 523A Primary Record.

SHPO recognizes that the cost of evaluating previously unevaluated archaeological sites can be very expensive and exceed what would be a reasonable and good faith effort to evaluate them, whether to conduct test excavations to determine National Register/CHL eligibility needs to be considered on a case-by-case basis and will depend on what is already known about the resource through conducting background research and initial surveys (Chapter 4 Sections 4.5 and 4.6). Information about the resource would include tribal consultation on cultural values. Similarly, the conditions for transferring archaeological sites may vary on a case-by-case basis and might include measures to ensure future evaluations to confirm National Register or CHL eligibility.

The transfer or relinquishment may have no effect, no adverse effect or an adverse effect depending on whether Caltrans-owned archaeological resources are present, who the new owner will be, and any known or reasonably anticipated plans for the property once transferred or relinquished.

If the property is to be transferred or relinquished to another state agency or a federal agency, the effect finding for the project would likely be No State-owned Historical Resources Affected as future actions affecting the property would be still be subject to protections under state or federal laws governing the actions of public agencies.

If the property to be transferred or relinquished will be transferred to a local or private owner and is designated by a Certified Local Government (CLG) under its preservation ordinance, and the ordinance provides protection of the resource's character-defining features, the project would qualify as a No Adverse Effect with Standard Conditions under Stipulation X.B.1.c of the 5024 MOU, as discussed in Section 5.6.3.2 above. The designation must be completed prior to Caltrans transferring or relinquishing the resource.

Projects that involve archaeological properties that are to be transferred or relinquished to a non-CLG local governments or a public or unknown owner have the potential to be an adverse effect. A FNAE under Stipulation X.B.2 of the 5024 MOU may be appropriate if protective measures are imposed, such as designation of the historical resource under a preservation ordinance, resolution from the local government committing it to recognize the resource as historic and designate it under a preservation ordinance, or transferring the historical resource with a historical covenant/conservation easement.

If a potentially significant archaeological site has been identified that Caltrans is considering National Register/CHL eligible for purposes of the transfer, the resolution would include a commitment that prior to any ground-disturbing activity, a qualified archaeologist will conduct an appropriate level survey to determine whether the site might be eligible for the National Register or is a historical resource under CEQA, and if so, the municipality will commit to using appropriate measures to protect the site, as outlined in CEQA PRC 21083.2.

Conservation easements are defined in California under the Civil Code 815.1 as

“...any limitation in a deed, will, or other instrument in the form of an easement, restriction, covenant, or condition, which is or has been executed by or on behalf of the owner of the land subject to such easement and is binding upon successive owners of such land, and the purpose of which is to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition.”

“Conservation easement” can be considered an umbrella term for a number of different documents that legally bind an owner to preserve something, in this case the historical resource. Such documents include but are not limited to historical covenants, city resolutions, and relinquishment agreements, in addition to conservation easement as an instrument in and of itself.

Historical covenants, conservation easements, or other historic preservation agreements must have adequate restrictions or conditions to ensure preservation of the property's significant historic features and to monitor the covenant. This transfer document also includes a list or description of the historical resource's significant features that are to be protected by the new owner. The organization or agency that Caltrans seeks out as a potential covenant or easement holder, therefore, must have a board of directors and staff or consultants with practical knowledge of the approaches in the SOIS, and have the capability, in perpetuity, of carrying out responsibilities under the covenant. Because the holder of the covenant or easement will incur costs to carry out its responsibilities under that document, Caltrans should expect to pay a service fee or endowment, which is subject to negotiation between Caltrans and the candidate organization or agency.

Exhibit 2.17 contains additional information on historical covenants. Caltrans PQS may contact the PRC 5024 Branch Chief in CSO for examples of historical covenants.

When an adverse effect cannot be avoided (e.g., Caltrans is unable to obtain historical covenants or other protective agreements, or protective measures would not be sufficient to protect the resource due to known or reasonably foreseeable future use of the property), Caltrans makes a finding of Adverse Effect in accordance with Stipulation X.C of the 5024 MOU and proposes measures to mitigate the adverse effect.

### **5.9.2 Maintenance Projects**

Maintenance projects (and routine maintenance activities) that have the potential to affect Caltrans-owned resources are subject to compliance with the 5024 MOU regardless of any federal nexus and/or CEQA responsibility. Maintenance operations with the greatest potential for impacts to archaeological resources are activities that involve the removal, grading, and filling of material, and trenching within the Caltrans right-of-way. District maintenance staff are responsible for informing district cultural staff of projects and maintenance activities and ensuring compliance with applicable laws.

### **5.9.3 Encroachment Permits**

Encroachment permit projects with potential to affect Caltrans-owned resources are subject to compliance with the 5024 MOU in addition to any federal nexus and/or CEQA responsibility. PQS must review encroachment permit applications involving ground-disturbing activities to determine whether there are archaeological concerns and if so, if an

archaeological survey is needed. The decision to survey is based on the nature of the proposed activity and the sensitivity of the location for archaeological resources. Caltrans may conduct the survey or require the applicant to complete it.

If archaeological resources are identified, the permit holder must submit a proposal of archaeological work to be performed to the DEBC for PQS review. The PQS reviews the proposed work to determine whether it meets Caltrans standards. Compliance with the 5024 MOU and/or CEQA or any applicable federal historic preservation laws must be completed before the permit is issued. Each permit is issued with General Provisions and Special Provisions that the permit holder must fully carry out. The General Provisions include the requirement that the permit holder must “cease work” in the vicinity of any archaeological resources that are revealed and notify the Permit Engineer immediately of such a find. PQS or a qualified archaeologist retained by the permit holder must evaluate the situation and make recommendations to the Permit Engineer concerning continuation of work. Special Provisions may further address archaeological concerns. The DEBC may be called upon to inspect the work under a permit.