

**PROGRAMMATIC AGREEMENT
BETWEEN
THE U.S. ARMY CORPS OF ENGINEERS
AND
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
PLACER VINEYARDS SPECIFIC PLAN PROJECT
PLACER COUNTY, CALIFORNIA**

WHEREAS, the Sacramento District, United States Army Corps of Engineers (Corps), under the authority of Section 404 of the Clean Water Act (33 U.S.C. § 1344), may issue individual permits, nationwide permit authorizations, and a regional general permit authorizing the discharge of dredged or fill material (the Undertakings) associated with development or construction projects (the Projects) within the proposed Placer Vineyards Specific Plan (PVSP). These Projects include individual development projects and related off-site infrastructure in Placer County, California, as shown in the map in Appendix 1; and

WHEREAS, project proponents (Applicants or Permittees) shown in Appendix 2 have submitted or may submit Section 404 permit applications to the Corps for fill authorizations related to their Projects and serve as Concurring Parties to this Programmatic Agreement (PA); and

WHEREAS, the Undertakings are expected to include a Regional General Permit, under which certain infrastructure-related Projects will be authorized by the Corps, as well as Nationwide Permits or Individual Permits; and

WHEREAS, it is the intent of the Corps, the California State Historic Preservation Officer (SHPO), and the Applicants to provide for the uniform treatment of, and to address the cumulative effects to, Historic Properties through the implementation of this PA; and

WHEREAS, the United Auburn Indian Community has been contacted and afforded the opportunity to participate in the Section 106 consultation process and this PA; and

WHEREAS, the Advisory Council on Historic Preservation (ACHP) was afforded an opportunity to comment or participate in the development of this PA and declined in a letter dated 15 May 2013; and

WHEREAS, the individual Applicants will proceed with Project-specific development independently of one another with a potential build-out of 20 or more years within the PVSP; and

WHEREAS, the Corps has determined that the Projects may have an adverse effect on Historic Properties that are either included in, or are eligible for inclusion in, the National Register of Historic Places (NRHP) and has consulted with the SHPO pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA) 16 U.S.C. § 470f, and all applicable regulations; and

WHEREAS, the remaining identification, evaluation, determination of effect, and resolution of adverse effects will be carried out separately by each Applicant under the authority of the Corps, which will continue as lead federal agency for each consultation phase; and

WHEREAS, this PA, its Historic Property Management Plan (HPMP; Appendix 3), and subsequent Historic Property Treatment Plans (HPTs), provide for the means by which the remaining identification, evaluation, and resolution of adverse effects to Historic Properties will occur throughout the term of this PA; and

WHEREAS, this agreement addresses all phases and segments of development under the PVSP, including off-site infrastructure; and

WHEREAS, the Signatories of this PA commit to a cooperative relationship and timely review of documentation generated under this PA; and

WHEREAS, the definitions set forth in 36 C.F.R. § 800.16 are incorporated herein by reference and apply throughout this PA; and

WHEREAS, the definitions for Signatory Parties set forth in 36 C.F.R. § 800.6(c)(1), and the definitions for Concurring Parties set forth in 36 C.F.R. § 800.6(c)(3) are incorporated herein by reference and apply throughout this PA; and

WHEREAS, pursuant to Section 106 of the NHPA, the Corps is responsible for the implementation of the Stipulations included herein, and as Signatories to this PA, the Corps and SHPO have the authority to enforce, amend, and terminate this PA; and

WHEREAS, compliance with this PA and subsequent amendments will be included as a condition of any Section 404 Permits issued by the Corps under the PVSP;

NOW, THEREFORE, the Corps and the SHPO agree that the proposed Undertakings shall be implemented in accordance with the following Stipulations in order to take into account the effects of the Undertakings on Historic Properties and to satisfy the Corps' Section 106 responsibilities for all individual aspects of the Undertakings.

STIPULATIONS

The Corps shall ensure that the following measures are carried out.

Stipulation 1 Professional Qualifications Standards

The Corps shall ensure that historic, architectural, and archaeological work conducted pursuant to this PA is carried out by, or under the direct supervision of a person or persons meeting qualifications set forth in the Secretary of the Interior's Professional Qualification Standards (36 C.F.R. § 61) for the appropriate discipline.

Stipulation 2
PVSP Area of Potential Effects

- A. The Corps has determined and documented the PVSP Area of Potential Effects (APE) for the Undertakings in consultation with SHPO. The APE is shown in Appendix 1 and is described as being located in portions of: Section 1 of T 10N, R 04E; Sections 1 through 14 of T 10N, R 05E; Sections 6 through 10 and 16 through 18 of T 10N, R 06E; Sections 35 and 36 of T 11N, R 04E; Sections 31 through 36 of T 11N, R 05E; and Section 31 of T 11N, R 06E, Mount Diablo Base Meridian. The APE is generally bounded by the Sutter County line to the north, Pleasant Grove Road to the west, the Placer County line on the south, and Dry Creek on the east. Off-site infrastructure elements of the PVSP extend east of Dry Creek, towards the City of Roseville. A Regional General Permit is being sought for the entire PVSP APE plus related off-site infrastructure.
- B. The PVSP is comprised of multiple Projects for which specific individual or other Section 404 Permit applications have been submitted, or may be submitted, to the Corps. The Applicants are currently designated as shown in Appendix 2. If additional applications are received by the Corps during the lifetime of this PA within the boundaries of the PVSP APE and are participants in the PVSP, then the Corps will ensure compliance with applicable sections of this PA. As Applicants are added or removed from the PVSP, the table in Appendix 2 will be modified and Signatories to this PA shall be notified in writing accordingly. New Applicants shall be offered an opportunity to be Concurring Parties to this PA, but this will not require an amendment to the PA.
- C. The PVSP APE includes all areas within the boundaries specified in Stipulation 2A where effects could occur from construction of the Projects listed in Appendix 2. Future project design changes may require redefining the PVSP APE and the development projects within the APE. Each Section 404 Permit application, including development projects within the PVSP and on- and off-site infrastructure areas, shall have its own Permit APE determined by the Corps. If some of the Projects are merged or segregated, the Undertaking will be defined as the area to which a specific Section 404 Permit application applies. The Corps shall consult with SHPO within thirty (30) days to amend the boundaries of the Permit APE.
- D. Amendment to either the PVSP or Permit APEs, by agreement of the Signatories, shall not require amendment of this PA. Permit APEs shall not extend beyond the Section 404 permit area, as determined by the Corps in consultation with the SHPO.
- E. In accordance with the terms of this PA, the Corps shall consult with SHPO and the ACHP, pursuant to 36 C.F.R. § 800 or applicable regulations for any individual Undertaking covered by this PA.

Stipulation 3
Historic Property Management Plan

- A. The Corps shall develop an HPMP, which provides the framework by which remaining identification, evaluation of eligibility, determinations of effect, and resolution of adverse

effects to Historic Properties will occur. The HPMP shall prescribe measures to identify and resolve adverse effects by property type or classification, such as, but not limited to, historic railroads, structures, mine tailings, ditches, and foundations, and prehistoric archaeological sites. The HPMP shall be appended to this PA (Attachment 2) and will form the basis of subsequent Historic Property Treatment Plans (HPTPs) that may be required for one or more Permit APEs in order to resolve adverse effect to Historic Properties associated with a specific Undertaking.

1. Identification and evaluations of eligibility shall follow the procedures and guidelines set forth in the HPMP (Appendix 3) and evaluate relative to Criteria A, B, C, and D of the National Register of Historic Places. Any variances from the methods of identification or evaluation specified herein or in the HPMP shall be approved in advance of implementation through the development of a written research design and work plan that describes the alternate methods and provides justifications or the variances. The research design shall be submitted to the Corps for review and comment. The Corps shall submit the research design for concurrent review to the SHPO.
- B. The Corps shall submit the HPMP to the SHPO and appropriate concurring parties for review and comment. Reviewers shall have thirty (30) calendar days after receipt of the HPMP to provide comments to the Corps. The Corps shall ensure that any comments received during this time period are taken into account and incorporated into the Final HPMP. If no comments are provided within thirty (30) calendar days, then the Corps may proceed.
- C. The Corps shall ensure that the HPMP is implemented for all Undertakings under the PVSP and that any HPTPs developed for individual Undertakings will be carried out in accordance with applicable sections of the HPMP.
- D. Any party to this PA may propose an amendment to the HPMP. Such amendment will not require amendment of this PA. Disputes regarding amendments proposed hereunder shall be resolved through consultation between the PA parties. The time frames for such consultation shall be consistent with those established under Stipulation 3B. If the dispute is resolved within this time frame, the Signatories shall proceed in accordance with the terms of that resolution. If the dispute is not resolved within this time frame, no amendment to the HPMP will occur.

Stipulation 4

Development and Review of Project-Specific Historic Property Treatment Plans

- A. The Corps shall apply the Criteria of Adverse Effect pursuant to 36 C.F.R. § 800.5(a) (1) to all Historic Properties within the Permit APE that will be affected by the Undertaking. Findings of Effect (FOE) shall be made in consultation with the SHPO and other interested parties. Separate FOEs shall be produced for each development project listed in Attachment 1.

- B. The Corps shall submit the FOE to the SHPO and appropriate concurring parties for review and comment. Reviewers shall have thirty (30) calendar days after receipt of the FOE to provide comments to the Corps. The Corps shall ensure that any comments received during this time period are taken into account and incorporated into the final FOE as appropriate. If no comments are received within thirty (30) days, then the Corps may proceed.
- C. As directed by the HPMP, the Corps shall develop a property-specific HPTP for each individual APE, which provides the site-by-site actions required to resolve adverse effects to individual Historic Properties. The HPTPs shall be appended to the HPMP.
- D. The Corps shall submit each HPTP to the SHPO and appropriate concurring parties for review and comment. Reviewers shall have thirty (30) calendar days after receipt of the HPTP to provide comments to the Corps. The Corps shall ensure that any comments received during this time period are taken into account and incorporated into the final HPTP as appropriate. If no comments are received within thirty (30) days, then the Corps may proceed.
- E. If the HPTPs are revised as a result of comments, the Corps shall afford the SHPO and appropriate concurring parties thirty (30) calendar days after receipt of the HPTPs to review and comment on the revised documents. If no comments are received within thirty (30) calendar days, The Corps may finalize the HPTP.
- F. Once the Signatories determine that an HPTP is adequate, the Corps shall issue authorization to proceed with the implementation of the HPTP. Project-specific Memoranda of Agreement are not required.
- G. If a specific development project includes a portion of an eligible historic district, the SHPO will not approve the HPTP for that development project until all HPTPs of other development projects containing a portion of said district have been approved unless mutually agreed upon by the Signatories in writing.
- H. The Corps shall ensure that any comments received during this time period are taken into account and, where feasible, incorporated into the final documents. The Corps shall make every effort to resolve disputes that may arise from conflicting comments by the Signatories or concurring parties via telephone conversations or other informal means of communication. In the event that disputes are not easily remedied, the Corps shall resolve them in accordance with Stipulation 13.
- I. Final drafts of the HPTPs will be provided to SHPO and the ACHP.

Stipulation 5

Technical Reports

- A. The results of the implementation of the HPTPs shall be documented in a comprehensive confidential technical report(s) that follow the guidelines of the Secretary of the Interior and the California Office of Historic Preservation.

- B. The Corps shall ensure that the technical reports are submitted to the SHPO and appropriate concurring parties for review and comment. The signatories, concurring parties, and Tribes will have forty-five (45) days upon receipt of each report to submit written comments to the Corps. Review by Native American tribes or individuals shall be in accordance with Stipulation 8. The SHPO will have ten additional days to consider the comments of other parties to the consultation and review. The Corps shall ensure that any comments received during this time period are taken into account and, where feasible and appropriate, incorporated into the final reports.

Stipulation 6 Annual Reporting and Notification

- A. Upon commencement of cultural resources work under this PA by each Applicant, the cultural resources consultant for that Applicant, meeting the requirements of Stipulation 1, shall notify the Corps in writing to report the projected work under the PA. Upon completion of the fieldwork phase, the cultural resources consultant shall notify the Corps, in writing, of the status of work completed under the PA and an outline of uncompleted tasks to date. If the fieldwork portion of work has not been completed within five (5) years of commencement, then the consultant shall notify the Corps of the status in writing.
- B. The Corps shall prepare and circulate among the Signatory and Concurring Parties to this PA an Annual Report documenting the activities carried out pursuant to this PA. The Corps shall submit the Annual Report to the PA Signatories and Concurring Parties within forty-five (45) days of the anniversary of this PA's execution. The Annual Report is to present a summary of actions taken under the PA, all findings and determinations, accomplishments, public objections, and inadvertent effects. The PA Signatory and Concurring Parties will review the Annual Report to determine the effectiveness of the PA as an alternative to the standard Section 106 consultation procedures under 36 C.F.R. § 800. Annual reporting will be in effect until the PA has been terminated or expired.

Stipulation 7 Permissions to Proceed With Authorized Activities

The Applicants shall be permitted to proceed with authorized activities under the Permit following compliance with all pertinent requirements of the permit conditions and, with respect to cultural resources, under any of the following terms:

- A. the Corps and SHPO have determined that there are no cultural resources within the Permit APE or associated infrastructure segment; or
- B. the Corps and SHPO have determined that there are no Historic Properties within the Permit APE, development phase, or infrastructure segment; or

- C. the Corps, after consultation with the SHPO and interested persons, has resolved adverse effect to affected Historic Properties for the Permit APE, development phase, or infrastructure segment, and:
1. the data collection phase of the resolution of adverse effect has been completed; and
 2. the Corps has accepted a summary of the data collection performed and a reporting schedule for that work.

The Applicant shall submit to the Corps a written notification of intent to carry out authorized activities under the Permit at least 30 days prior under the applicable terms in Stipulation 7A, 7B, or 7C.

Stipulation 8

Project-Specific Public and Native American Involvement

- A. In consultation with the appropriate Native American tribes, the Corps will identify Historic Properties of traditional religious and cultural importance.
- B. The Corps shall seek comments from all potentially interested Native American tribes in light of the guidance provided in National Register Bulletin 38 in making determinations of eligibility for any Traditional Cultural Properties as these are defined in National Register Bulletin 38. Those Native American tribes or individuals need not be concurring parties to this PA. All reviewers shall have thirty (30) calendar days after receipt to provide comments to the Corps. The Corps shall ensure that any comments received during this time period are taken into account and, where feasible and appropriate, incorporated into the final reports. If after thirty (30) days' notice to the Native American tribes and no response is received, the Corps shall repeat the notification with a fifteen (15) day response period. If no response from Native American tribes is received following two requests for comments, then the Corps may proceed. However, requests for consultation with the Corps shall be considered throughout the life of the PA.
- C. Pursuant to 36 C.F.R. § 800.6(c)(2)-(3), the Corps shall consider requests by others to become concurring parties to this PA. Upon receipt of a request of a third party to become a concurring party to this PA, the Corps shall consult with SHPO within thirty (30) days. New applicants for Section 404 permits under the PVSP, not currently named in Appendix 2, shall be automatically named as concurring parties. A decision to add a concurring party to this PA shall not require an amendment to this PA.
- D. The interested public, in addition to Native American tribes, will be invited to provide input on the identification, evaluation, and proposed treatment of Historic Properties. Depending on the specific nature of the Undertaking, this will be done through letters of notification, public meetings, and site visits.
- E. The Corps shall make a reasonable and good-faith effort to ensure that the Native American individuals and tribes identified as concurring or interested parties will be

invited to participate in the development and implementation of the terms of this PA. Tribes who are named as concurring parties, or other tribes who specifically request to do so, shall be afforded an opportunity to review inventory reports, evaluation plans and reports, and development of the resolution of adverse effect for those Historic Properties within each APE that are either exclusively or partially affiliated with prehistoric or ethnographic resources. Reviewers shall respond in a timely manner and no later than thirty (30) calendar days from the receipt of the document. Failure by any reviewer to comment within this time period shall not preclude the Corps from proceeding or allowing draft reports to be finalized. The Corps shall ensure that all Native American reviewers shall expeditiously receive copies of all final survey and evaluation reports.

Stipulation 9

Modifications and Additions to Off-Site Infrastructure

Upon the addition or modification of any Project under the PVSP, the Corps and SHPO shall consult on the need to modify the APE for the PVSP. If the elements are found to be part of the PVSP APE and not under a separate Undertaking subject to other federal agency jurisdiction, then they shall be subject to the provisions of this PA. If off-site infrastructure elements are found not to be part of the APE, then the additions will be subject to 36 C.F.R. § 800 and/or applicable regulations.

Stipulation 10

Discovery of Unanticipated Historic Properties

If potentially National Register-eligible resources are discovered or inadvertently affected during construction, ground disturbing activities will cease until the provisions of 36 C.F.R. § 800.13(a) are met. The Corps will submit written notification describing the circumstances of the discovery to the SHPO within two working days (e.g., letter or email notification). The Corps will provide the SHPO and the ACHP an opportunity to review and comment on proposed treatment. The SHPO has two working days to respond by telephone and/or email following initial contact by the Corps.

Stipulation 11

Curation

The Corps will ensure that all cultural materials and associated records resulting from identification, evaluation, and treatment efforts conducted under this PA shall be properly maintained until analyses specified in the HPTP are complete. Should the Applicants agree or be required by an HPTP to curate the cultural materials and associated records after all analysis is completed, they shall be curated in conformance with 36 C.F.R. § 79.

Stipulation 12
Treatment of Human Remains and Associated Objects

The Corps will ensure that Native American human remains, grave goods, items of cultural patrimony, and sacred objects encountered during the Undertaking are treated in accordance with the requirements of Section 7050.5 of the California State Health and Safety Code, Section 5097.98 of the California Public Resources Code, Assembly Bill 2641, and other state and federal laws, as applicable.

Stipulation 13
Dispute Resolution

A. Resolving Objections

1. Objections from PA Parties

- a) Should any party to this PA object at any time in writing to the manner in which the terms of this PA are implemented, to any action carried out or proposed with respect to the implementation of the PA, or to any documentation prepared in accordance with and subject to the terms of this PA, the Corps shall immediately notify the other parties to this PA of the objection, and shall request their comments on the objection be provided within 15 days following receipt of the Corps' notification, and proceed to consult with the objecting party for no more than 30 days to resolve the objection. The Corps will honor the request of the other parties to participate in the consultation and will take any comments provided by those parties into account.
- b) If the objection is resolved during the 30-day consultation period, the Corps may proceed with the disputed action in accordance with the terms of that resolution.
- c) If, after initiating such consultation, the Corps determines that the objection cannot be resolved through consultation, the Corps shall forward all documentation relevant to the objection, including the Corps' proposed response to the objection, to the ACHP, with the expectation that the ACHP will, within 30 days after receipt of such documentation, do one of the following:
 1. advise the Corps that the ACHP concurs in the Corps' proposed response to the objection, whereupon the Corps will respond to the objection accordingly. The objection shall thereby be resolved; or
 2. provide the Corps with recommendations, which the Corps will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or
 3. notify the Corps that the objection will be referred for comment, pursuant to 36 C.F.R. § 800.7(c), and proceed to refer the objection and comment. The Corps shall take the resulting comment into account in accordance with 36 C.F.R. § 800.7(c)(4) and Section 110(l) of the NHPA (16 U.S.C. § 470h-2(l)). The objection shall thereby be resolved.

- d) Should the ACHP not exercise one of the foregoing options within 30 days after receipt of all pertinent documentation, the Corps may assume the ACHP's concurrence in its proposed response to the objection and proceed with implementation of that response. The objection shall thereby be resolved.
- e) The Corps shall take into account any ACHP recommendation or comment provided in accordance with this stipulation, with reference only to the subject of the objection. The Corps' responsibility to ensure all actions are carried out under this PA, that are not the subject of the objection, shall remain unchanged. Activities under this PA or permit that are not subject to the objection shall be permitted to proceed.

2. Objections from the Public

- a) At any time during the implementation of the terms of this PA, should an objection pertaining to such implementation be raised by a member of the public, the Corps shall immediately notify the other parties to this PA in writing of the objection and take the objection into consideration. The Corps shall consult with the objecting party and, if the objecting party so requests, with the other parties to this PA, for no more than 15 days. Within 10 days following closure of this consultation period, the Corps will render a decision regarding the objection and notify all parties to this PA of its decision in writing. In reaching its decision, the Corps will take into account any comments from the consulting parties regarding the objection, including the objecting party. The Corps' decision regarding the resolution will be final. The objection will thereby be resolved.
- b) The Corps may authorize any action subject to objection under this Stipulation to proceed after the objection has been resolved in accordance with the terms of this Stipulation.
- c) The Corps shall provide all parties to this PA and the ACHP, when the ACHP has issued comments hereunder, and any parties that have objected, with a copy of its final written decision regarding any objection addressed pursuant to this Stipulation.
- d) The Corps' responsibility to carry out all actions required by this PA that are not the subject of the dispute shall remain unchanged. Activities under this PA or permit that are not subject to the objection shall be permitted to proceed.

Stipulation 14

Amendments, Noncompliance, and Termination

- A. If any Signatory believes that the terms of this PA cannot be carried out or are not being met, or that an amendment to its terms should be made, that Signatory will immediately consult with the other Signatory to consider and develop amendments to this PA pursuant to 36 C.F.R. § 800.6(c)(7). The amendment process culminates in the issuance of an amended PA, which replaces the previous PA on its effective date. Amendments to the PA will only become effective upon approval of all the Signatories.

- B. If this PA is not amended as provided for in this stipulation, any Signatory may propose termination of the PA. The party proposing termination of the PA will provide the other Signatories and concurring parties with an explanation in writing of the reasons for proposing termination in accordance with 800.6(c)(8). Within seven calendar days following receipt of such notification, the parties shall consult for up to forty-five (45) days to seek alternatives to termination. Should such consultation result in agreement on an alternative to termination, the parties shall proceed in accordance with the terms of that agreement. Concurring parties may not terminate or amend this PA.
- C. In the event of termination of this PA, the Corps shall comply with the provisions of 36 C.F.R. § 800 and/or applicable regulations for all Undertakings covered by this PA.

Stipulation 15 **Duration of the PA**

- A. Upon the expiration of ten (10) years following execution of this PA by the Signatory parties, this PA shall automatically terminate and have no further force or effect. In such event, the Corps shall notify the other PA parties in writing and, if it chooses, shall reinitiate consultation to review the terms of the PA in accordance with 36 C.F.R. § 800 and/or applicable regulations. If the PA should be terminated because the Undertaking no longer meets the definition of an “Undertaking” set forth in 36 C.F.R. § 800.16(y), Stipulation 14C shall apply.
- B. This PA will be in effect through the Corps’ implementation of the Undertakings, and will terminate and have no further force or effect when the Corps, in consultation with SHPO, determines that the terms of this PA have been fulfilled in a satisfactory manner and/or Corps involvement in the project has ended. The Corps will provide the SHPO and concurring parties with written notice of its determination and of termination of this PA.
- C. The Corps shall be responsible for monitoring the work being performed under this PA, including ensuring that all mitigation documentation is incorporated into the HPMP, as amended. The Corps is responsible for initiating consultations with SHPO in advance of expiration of this PA, in accordance with Stipulation 14, above. The Corps may delegate day-to-day communication between the Corps and parties to this PA, but remains responsible for findings and decisions made under this PA.
- D. If the PA has not been, or is not expected to be, fully implemented within ten (10) years of the anniversary date of the execution of this PA, and if the PA has not been terminated, then the signatories shall initiate consultation no less than 365 days prior to the expiration of this PA to reconsider its terms. Reconsideration may include a continuation (extension) of the PA as originally executed, amendment, or termination.

Stipulation 16
Effective Date

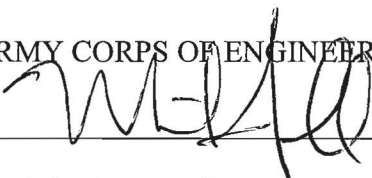
This PA shall take effect on the date that it has been fully executed by the Corps and the SHPO.

EXECUTION of this PA by the Corps and the SHPO, its transmittal to the ACHP, and subsequent implementation of its terms, evidence that the Corps has afforded the ACHP an opportunity to comment on the Undertaking and its effects on Historic Properties, that the Corps has taken into account the effects of the Undertaking on Historic Properties, and that the Corps has satisfied its responsibilities under Section 106 of the National Historic Preservation Act and applicable implementing regulations for all aspects of the Undertaking.

SIGNATORIES:

U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT

By: _____



Date: _____

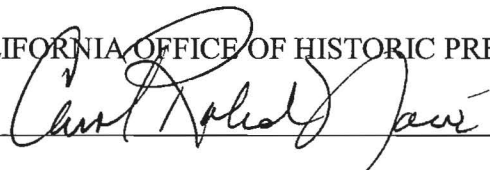
7 Aug 2014

Name: Michael S. Jewell

Title: Chief, Regulatory Division

CALIFORNIA OFFICE OF HISTORIC PRESERVATION

By: _____



Date: _____

9-16-2014

Name: Carol Roland-Nawi

Title: California State Historic Preservation Officer

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AND
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
PLACER VINEYARDS SPECIFIC PLAN PROJECT
PLACER COUNTY, CALIFORNIA**

CONCURRING PARTY:

COUNTY OF PLACER

By: _____ Date: _____

Name: _____

Title: _____

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PLACER COUNTY, CALIFORNIA**

CONCURRING PARTY:

PLACER VINEYARDS DEVELOPMENT GROUP, LLC

By: 

Date: 7-31-14

Name: rick longdon

Title: PRESIDENT

and

By: 

Date: 7-31-14

Name: BOB SHATTUCK

Title: MANAGEMENT COMMITTEE MEMBER

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PLACER COUNTY, CALIFORNIA**

CONCURRING PARTY:

UNITED AUBURN INDIAN COMMUNITY

By:  _____

Date: AUG 27 2014

Name: _____

Title: _____

Appendix 1

PVSP Area of Potential Effects

Location: J:\GIS Maps\2001-196 Placer Vineyards\Site_Vicinity\2014_LUV_aerial_all.mxd (DIV)-dwg 5/29/2014

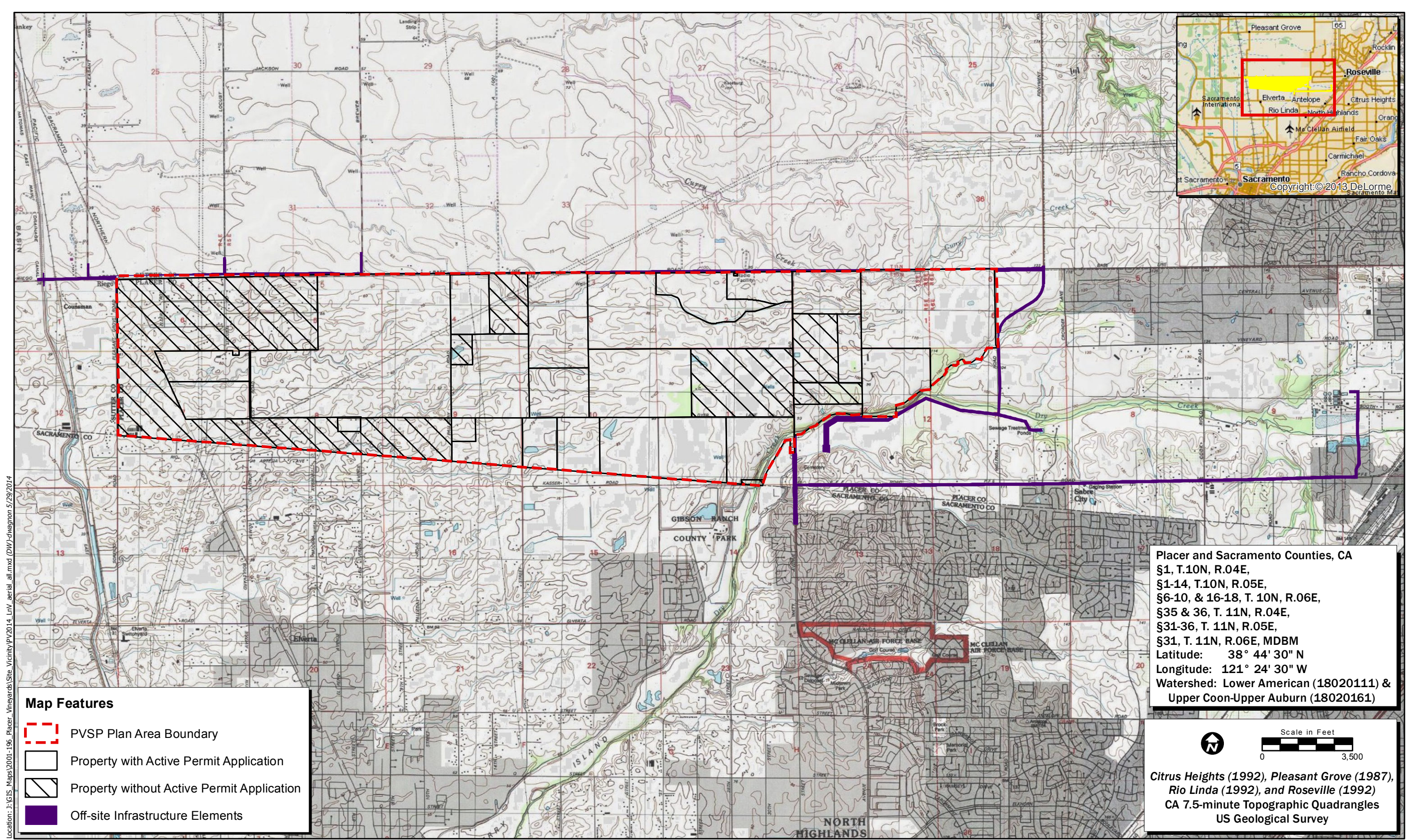


Figure 1. Placer Vineyards Specific Plan Location and Vicinity

Appendix 2

Current Applicants

Development Projects	Applicants (Subject to Change)	USACE ID#
Infrastructure (will be subdivided into multiple permits)	Placer Vineyards Development Group, LLC. c/o: Kent MacDiarmid The MacDiarmid Company 1079 Sunrise Avenue, Suite B-317 Roseville, California 95661 Phone: 916-772-3680	PN 199900737
1A. Doyle	PLACER 400 INVESTORS, LLC, a California limited liability company c/o: Ron Bertolina, Esq. AKT Investments, Inc. 7700 College Town Drive, Suite 101 Sacramento, California 95826	200500090
1B. Hodel	Hodel Family Enterprises, LP., a California limited partnership c/o: Christine Jordon and Rebecca Beach Hodel Family Enterprises, LP 7314 Quail Road Fair Oaks, California 95628 Phone: 916-927-1126	200500089
2. Mourier 135	John L. Mourier III, a Trustee of the Mourier Family Revocable Lifetime Trust, UTA dated April 13, 1978 c/o: Steve Schnable John Mourier Construction, Inc. 1430 Blue Oaks Boulevard, Suite 190 Roseville, California 95747 Phone: 916-969-2842	200600578
3. Watt x Baseline	Baseline & Watt, LLC, a California limited liability company c/o: Phillip Harvey Petrovich Development 5046 Sunrise Boulevard, Suite 1 Fair Oaks, California 95628 Phone: 916-768-1238	200501181
4A. Placer Vineyards 179a	B and W 60, L.P., a California limited partnership c/o: Ted Messner Evergreen Commercial 1755 Creekside Oaks Drive, Suite 290 Sacramento, California 95833 Phone: 916-648-1100	200501073
4B. Placer Vineyards 179b	Placer 536, a California limited partnership c/o: Jack Sioukas and Sotiris Kolokotronis JAS Development 2277 Fair Oaks Boulevard, Suite 295 Sacramento, California 95825 Phone: 916-761-6431	200600578
6. Placer Vineyards C	Frances E. Shadwick, a married woman as her sole and separate property; Ellen G. O'Looney and John P. O'Looney, as Trustees of the John P. O'Looney and Ellen G. O'Looney 1991 Living Trust, dated October 9, 1991; and Susan K. Pilarsky, a married woman as her sole and separate property, each as to an undivided one-third (1/3) interest, as tenants in common c/o: Fran Shadwick 7811 Feldspar Court Citrus Heights, California 95610 Phone: 916-725-1807 Susan Pilarski 1272 Palmerston Loop Roseville, California 95678	200500598

Development Projects	Applicants (Subject to Change)	USACE ID#
7. Placer Vineyards 356	<p>BHT II NORTHERN CAL I, a Delaware limited liability company c/o: Steven J. Kessler West Coast Housing Partners, LLC 3027 Townsgate Road, Suite 250 Thousand Oaks, California 91361</p> <p>BHT II Northern Cal 1, LLC c/o: Rick Langdon West Coast Housing Partners, LLC 3130 W. Main Street, Suite A-2 Visalia, California 93291</p>	200500088
8. Placer Vineyards B	<p>Spinelli Investments, LLC, a California limited liability company, as to an undivided 50% interest and c/o: Donna Miller 2250 Coronet Drive San Jose, California 95124</p> <p>Millspin Investments, LLC, a California limited liability company, as to an undivided 50% interest c/o: Joan Williams Millspin Investments 2318 Starbright Drive San Jose, California 95124 Phone: 408-371-2846</p>	200500597
9A. Placer Vineyards A(a)	<p>Placer 1 Owners' Receivership c/o: Elli M. A. Mills Court Appointed Receiver 5401 Longley Lane, Suite 42 Reno, Nevada 89511 Phone: 775-424-2805</p>	200500535
9B. Placer Vineyards A(b)	<p>Placer 1 Owners' Receivership c/o: Elli M. A. Mills Court Appointed Receiver 5401 Longley Lane, Suite 42 Reno, Nevada 89511 Phone: 775-424-2805</p>	200600582
10. Dyer 240	<p>Frank Stathos, individual c/o: Frank Stathos 7700 College Town Drive, Suite 201 Sacramento, California 95826</p>	200500018
11. PGG Properties	<p>P.G.G. Properties, a General Partnership c/o: Gus Galaxidas 7700 College Town Drive, Suite 201 Sacramento, California 95826 Phone: 916-425-6897</p>	200500044
12A. Placer Vineyards 290, Parcel 1	<p>IL Centro, LLC, a California limited liability company c/o: Robert or Mike Musolino 8775 Sierra College Boulevard, Suite 400 Roseville, California 95661</p>	200500230
12B. Placer Vineyards 290, Parcel 2	<p>PLACER 102, LLC, a California limited liability company c/o: Gus Galaxidas 7700 College Town Drive, Suite 201 Sacramento, California 95826 Phone: 916-425-6897</p>	200500230
14. D.F. 80	<p>DF Properties, a California corporation c/o: Ken Denio and Jeff Ronten D.F. Properties, Inc. 2013 Opportunity Drive, #140 Roseville, California 95678 Phone: 916-782-704</p>	200400893

Development Projects	Applicants (Subject to Change)	USACE ID#
15. Placer Vineyards 200	Palladay Greens, LLC, a California limited liability company c/o: Tony Gallas 11448 Ski Slope Way Truckee, California 96161 Phone: 916-769-6787	200500233
16. Placer Vineyards 88	Placer Vineyards Development Group, LLC, a California limited liability company c/o: Bob Shattuck Lennar Communities 1420 Rocky Ridge Drive, Suite 320 Roseville, California 95661 Phone: 916- 746-8500	200600581
17. Gulley 20	J.A. Sioukas Family Partnership, L.P., a California limited partnership c/o: Jack Sioukas JAS Developments, Inc. 2277 Fair Oaks Boulevard, Suite 295 Sacramento, California 95825 Phone: 916-648-1100	200500025
19. Placer Vineyards 815	Lennar Winncrest, LLC, a Delaware limited liability company c/o: Bob Shattuck Lennar Communities 1420 Rocky Ridge Drive, Suite 320 Roseville, California 95661 Phone: 916-746-8500 Baseline A&B Holding, LLC, A California limited liability company c/o: Julie Hanson 1700 Eureka Road, Suite 150C Roseville, California 95667 Phone: 916-774-6622	200300670
21. Pan de Leon	John Petros PandeLeon and Nicholas PandeLeon and Contilo K. PandeLeon, as Joint Tenants c/o: Gus Galaxidas 7700 College Town Drive, Suite 201 Sacramento, California 95826 Phone: 916-425-6897	200500754
23. Fong	PMF5C, LLC Candace Fong 3009 65 th Street Sacramento, California 95820	200500042
24. Capri	Nicolas PandeLeon and Contilo K. PandeLeon, as Trustees of the PandeLeon Family Trust dated May 18, 1999, as to an undivided 25% interest; Nick J. Pantis, as Trustee of the Nick J. Pantis Revocable Trust dated July 1, 2003, as to an undivided 25% interest; Nick Galaxidas, a married man as his sole and separate property, as to an undivided 12.5% interest; Constantino Galaxidas and Stelene D. Galaxidas, as Trustees of The Galaxidas Family Trust dated May 21, 2007, as to an undivided 25% interest; and Anna Galaxidas, as Trustee of the Anna Galaxidas Living Trust, UTA dated July 5, 2007, as to an undivided 12.5% interest. c/o: Gus Galaxidas 7700 College Town Drive, Suite 201 Sacramento, California 95826 Phone: 916-425-6897	200500091

Appendix 3

Historic Property Management Plan

**Historic Properties Management Plan
Placer Vineyards Specific Plan
Placer County, California**

ECORP Project No. 2001-196.1

Prepared for:
Placer Vineyards Development Group, LLC

and

US Army Corps of Engineers,
Sacramento District

Prepared by:
Lisa Westwood, RPA and Roger Mason, Ph.D., RPA
ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, California 95677

July 2014



MANAGEMENT SUMMARY

The project proponents for the Placer Vineyards Specific Plan Project (PVSP) are seeking authorization to fill waters of the United States from the Sacramento District of the US Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. The proposed Undertaking is the issuance of one or more permits by the Corps and, accordingly, requires compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800.

Based on initial information generated by numerous cultural resources consultants over a period of about 50 years, the Corps concluded that Historic Properties, as defined in 36 CFR 800.16(l)(1), are located within the PVSP Area of Potential Effects (APE). The Corps further concluded that, based on development plans submitted to the Corps, Historic Properties will be affected by this Undertaking and that additional consultation will be required to assess and resolve effects. They based this finding on the completion of inventories and partial evaluations to date that document the presence of previously recorded cultural resources within the PVSP APE.

In accordance with 36 CFR 800.14, and in consideration of the uncertainty of final project development plans (to be finalized during the course of build-out), the fact that there are multiple applicants with projects on different schedules, and the regional nature of the cultural resources, the Corps, in consultation with the California Office of Historic Preservation (OHP), concluded that a PA is the appropriate method for satisfying its responsibilities under Section 106 of the NHPA for phasing the remaining inventory, evaluation, and finding of effect. Likewise, the EIS will rely on the execution of a PA to meet the requirements of NEPA. The methods and protocols by which the remaining identification, evaluation, and resolution of adverse effect are detailed in this HPMP, which is required by Stipulation 2 of the PA.

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1.0 INTRODUCTION AND DESCRIPTION OF THE UNDERTAKING

1.1 Description of the Undertaking

The project proponents for the Placer Vineyards Specific Plan Project (PVSP) are seeking authorization to fill waters of the United States from the Sacramento District of the US Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. The proposed Undertaking is the issuance of one or more permits by the Corps and, accordingly, requires compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800.

The PVSP consists of the phased construction of extensive residential and commercial development of a total of approximately 5,230 acres of property plus 235 acres of off-site improvements located in western Placer County, west of Roseville, California. The development of the project area is being guided by a Specific Plan, for which an Environmental Impact Report (EIR) was previously prepared and certified for compliance with the California Environmental Quality Act (CEQA). An Environmental Impact Study (EIS) is currently in preparation for compliance with the National Environmental Policy Act (NEPA). The development of projects within the Specific Plan Area (PVSP) will be phased over a period of approximately 30 years.

1.1.1 Location

The project area consists of a total of 5,465 acres of property located in portions of Sections 6 and 7 of Township 10 North, Range 6 East and Sections 1 through 12 of Township 10 North, Range 5 East, Mount Diablo Base and Meridian. The PVSP spans approximately 6 miles east to west and up to 2 miles wide, north to south. It is located in Placer County and is depicted on the 1987 Pleasant Grove, 1992 Roseville, 1992 Rio Linda, and 1992 Citrus Heights USGS 7.5' topographic quadrangle maps (Figure 1). The PVSP is bounded on the north by Baseline Road, on the south by the Sacramento and Placer County line, on the west by Pleasant Grove Road and the Sutter and Placer County line, and on the east by Dry Creek and Walerga Road.

1.1.2 Participating Properties

There are currently 22 applicants that are part of the 5,230-acre "on-site" PVSP, composed of private landowners and developers that own specific parcels (projects) within the PVSP. These applicants, who collectively account for 3,744 acres of the PVSP, will all proceed with development under the guidelines of the Specific Plan and its EIR and EIS, but on their own schedules and under separate permits from the Corps. Ultimately, these applicants will construct a combination of residential use projects, office/business park/commercial use projects, public facilities and services, religious facilities, public schools, parks, roadways, Special Planning Areas, and open spaces. A handful of non-participating landowners are situated within the PVSP, constituting approximately 1,486 total acres that are not being developed at this time. If, in the future, such landowners become participating members in the PVSP, they too will be subject to the terms of this HPMP and related compliance documentation.

1.1.3 Off-site Infrastructure

In addition to the residential development permit applicants, there will be a single application submitted for a Section 404 regional general permit for the 235 acres of off-site infrastructure improvements. These improvements are primarily composed of roadways, and water and sewer main alignments that, once constructed, will connect the participating properties to the regional water and wastewater facilities in Roseville. It is expected that the 235 acres will be constructed in phases over the course of full-build out.

Location: J:\GIS Maps\2001-196 Placer Vineyards\Site_Vicinity\2014_LUV_aerial_all.mxd (DIV)-dwgmon 5/29/2014

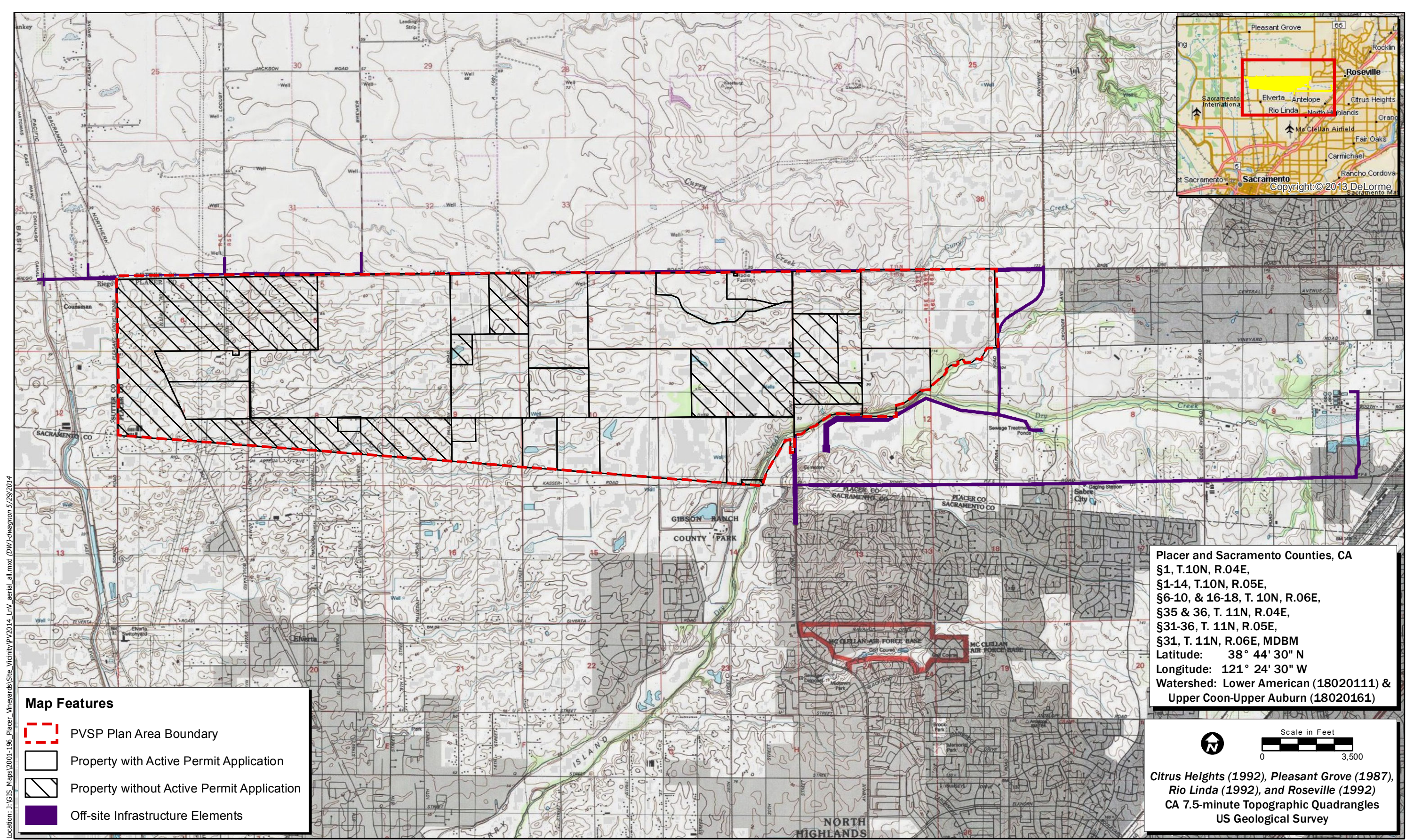


Figure 1. Placer Vineyards Specific Plan Location and Vicinity

1.2 Regulatory Context

Issuance of a 404 Permit by the Corps constitutes a federal Undertaking, and as such, is subject to compliance with the provisions for the treatment of cultural resources contained within Section 106 of the NHPA and its implementing regulations in 36 CFR Part 800 *et seq.* The goal of the NHPA is to develop and maintain a high-quality environment that serves to identify the adverse effects of the actions of a proposed project and to either avoid or resolve those adverse effects where feasible.

Eligibility for inclusion in the NRHP is recognized when a cultural resource meets at least one of four criteria that define eligibility for listing on the NRHP (36 CFR 60.4) and retains sufficient integrity. Cultural resources eligible for listing on the NRHP are considered Historic Properties under 36 CFR Part 800.

The Section 106 consultation process for the PVSP is governed by a Programmatic Agreement (PA), which, among other things, stipulates preparation of this Historic Properties Management Plan (HPMP).

1.2.1 Undertaking Area of Potential Effects

The Area of Potential Effects (APE) of the PVSP consists of the horizontal and vertical limits of the project, and includes the area within which adverse effects to Historic Properties could occur as a result of the project. This includes, but is not limited to: archaeological sites and districts; historic-era buildings, structures, and rural historic landscapes; and ethnographic and prehistoric landscapes. In accordance with 36 CFR Part 800.4(1) and as defined in §800.16(d), the horizontal and vertical APEs have been established for the entire PVSP as follows.

The horizontal PVSP APE consists of all areas where activities associated with the project are proposed, and in the case of the current project, equals the project area subject to a 404 permit. This includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, access roads, paving, and other elements described in the official project description. The horizontal APE includes 5,230 acres of property plus 235 acres of related off-site infrastructure improvements. The PVSP includes individual project developments, related on-site infrastructure, parks, open space, and some non-participating parcels. Off-site infrastructure improvements include the widening of Baseline Road along the southern margin of the PVSP and for distances of about 1,000 feet east and west of the PVSP; improvements to Watt Road for about 1,000 feet south of the PVSP; expansion of several intersections; and installation of underground utilities along several roadway corridors. The APE also includes construction rights-of-way corridors of up to 200 feet wide, in addition to the footprints of the infrastructure improvements.

The horizontal APE for the PVSP has been defined in consultation with SHPO and is located in portions of Section 1 of T 10N, R 4E; Sections 1 through 14 of T 10N, R 5E; Sections 6 through 10 and 16 through 18 of T 10N, R 6E; Sections 35 and 36 of T 11N, R 4E; Sections 31 through 36 of T 11N, R 5E; and Section 31 of T 11N, R 6E, Mount Diablo Base Meridian. The APE is generally bounded by the Sutter County line to the north, Pleasant Grove Road to the west, the Placer County line on the south, and Dry Creek on the east. Off-site infrastructure elements of the project extend east of Dry Creek, towards the City of Roseville. The horizontal APE measures a total of 5,465 acres and is illustrated in Figures 1 and 2.

The vertical APE is described as the vertical range of depth and height to which excavations for project foundations and facilities will extend, respectively. Thus, the vertical APE includes all subsurface areas where archaeological deposits could be affected and includes the areas above ground that could affect the integrity of historic districts or traditional cultural properties. The subsurface vertical APE varies across the project; grading for building pads, recreational facilities, roads, and infrastructure would require average cuts and fills over the PVSP of approximately 1 to 2 feet. Limited portions of the PVSP would have cuts and fills up to approximately 6 feet. Backbone utilities within the roads would have trenches that range in depth from 3 to 25 feet from future finished grade. In most cases, the depth of excavation in the PVSP would be less than 6 feet below ground surface. With respect to the infrastructure improvements, the maximum vertical APE could

be as much as 25 feet below existing ground surface in order to accommodate deep utility trenching as needed; however, subsurface excavation along utility corridors generally would extend no more than 6 feet below surface. In this area, much older hardpan is typically encountered at about 3 feet below surface, and therefore, the likelihood of encountering deeply buried archaeological deposits is low.

The maximum height of buildings and signage, which could impact the physical integrity and integrity of setting of cultural resources, including districts, cultural landscapes, and traditional cultural properties, is up to 75 feet above the surface, which is the maximum height of planned structures. Therefore, the vertical APE ranges from 75 feet above surface to 25 feet below surface.

The APE described above pertains to the entire area covered by a regional general 404 permit for the PVSP. Within this, there will be a number of individual 404 permit applications submitted for each development project area controlled by one of the 22 applicants, and for each area where infrastructure will be constructed (on- and off-site infrastructure areas). Once a permit is issued for any given applicant within the PVSP, the action becomes a federal Undertaking and, therefore, is subject to the PA and this HPMP. The APEs that cover the area affected by an individual permit application within the PVSP are known as Permit APEs.

1.3 Purpose and Application of the Historic Properties Management Plan

Based on initial information generated by numerous cultural resources consultants over a period of about 50 years, the Corps concluded that Historic Properties, as defined in 36 CFR 800.16(l)(1), are located within the PVSP APE. The Corps further concluded that, based on development plans submitted to the Corps, Historic Properties will be affected by this Undertaking and that additional consultation will be required to assess and resolve effects. They based this finding on the completion of inventories and partial evaluations to date that document the presence of 43 previously recorded cultural resources within the PVSP APE. These are summarized in Section 2.0.

The cultural resources investigations across the APE are non-uniform in coverage and compliance. In accordance with 36 CFR 800.14, and in consideration of the uncertainty of final project development plans (to be finalized during the course of build-out), the fact that there are multiple applicants with projects on different schedules, and the regional nature of the cultural resources, the Corps, in consultation with the California Office of Historic Preservation (OHP), concluded that a PA is the appropriate method for satisfying its responsibilities under Section 106 of the NHPA for phasing the remaining inventory, evaluation, and finding of effect. Likewise, the EIS will rely on the execution of a PA to meet the requirements of NEPA. As required by Stipulation 3 of the PA, the methods and protocols by which the remaining identification, evaluation, and resolution of adverse effect are detailed in this HPMP.

Because the PA and this HPMP collectively serve to identify, evaluate, and resolve adverse effects to Historic Properties within the PVSP, individual Memoranda of Agreement (MOA) will not be developed for each Permit APE with an adverse effect. Instead, resolution of adverse effect will be dictated by a project-specific Historic Property Treatment Plan (HPTP), which will be negotiated and approved by the signatories to the PA in advance of project approval.

1.3.1 Overview and Organization of the Historic Properties Management Plan

This HPMP is organized into the following sections.

- Section 1, Introduction and description of the Undertaking, including an overview of the regulatory context
- Section 2, Previous Cultural Resources Investigations
- Section 3, Context, including environmental and cultural contexts
- Section 4, General Standards and Procedures, including qualifications, permits, rights of entry, and curation

- Section 5, Identification and Evaluation Standards and Procedures
- Section 6, Native American Consultation Procedures
- Section 7, Assessment of Effects
- Section 8, Resolution of Adverse Effects, including preparation of Historic Property Treatment Plans and procedures for inadvertent discoveries

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code §6250 *et seq.*) and California's open meeting laws (The Brown Act, Government Code §54950 *et seq.*) protect the confidentiality of Native American cultural place information. Under Exemption 3 of the federal Freedom of Information Act (5 USC 5), because the disclosure of cultural resources location information on federal lands is prohibited by the Archaeological Resources Protection Act of 1979 (16 USC 470hh), it is also exempted from disclosure under the Freedom of Information Act. Likewise, the Information Centers of the California Historical Resources Information System maintained by the Office of Historic Preservation prohibit public dissemination of records search information. In compliance with these requirements, and because it is an attachment to the PA, this HPMP was prepared without confidential site location information or consultation details.

1.4 Personnel

This HPMP was prepared by Lisa Westwood, RPA and Roger Mason, RPA, with contributions from Nikki Polson of the US Army Corps of Engineers. Some content was extracted from the EIS, currently in preparation for the PVSP.

Lisa Westwood is a Registered Professional Archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeologist. She has 18 years of cultural resource management, contract archaeology, museum curation, and teaching experience in northern and central California, southern Utah, New Mexico, and the Midwest. She holds a B.A. degree in Anthropology and an M.A. degree in Anthropology (Archaeology). Currently, she serves as Cultural Resources Manager for Northern California for ECORP, as principal investigator and task manager for all cultural resources studies north of Fresno. Her technical areas of expertise include advanced Section 106 compliance and consultation, preparation and negotiation of agency agreement documents, human bone (osteological) identification and analysis, historical archaeology, and lithic debitage identification. She is well versed in impact assessment and development of mitigation measures for CEQA and Section 106 projects. Ms. Westwood provides expertise to agencies and private developers in managing their cultural resources compliance needs for highly complex projects. She recently developed, and is now implementing, a similar complex Programmatic Agreement for a large, 20-year, multi-applicant specific plan project in Sacramento County, which will impact several large historic districts that overlap multiple properties, and requires advanced Section 106 expertise.

Roger Mason meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeologist and is a Registered Professional Archaeologist. He has a B.A. in Anthropology and a Ph.D. in Anthropology (Archaeology). He is the author of over 200 reports dealing with cultural resource surveys, evaluations, and mitigation programs in California. He has extensive project experience with the cultural resources requirements of CEQA and Section 106 of the NHPA. Dr. Mason is adept at formulating prehistoric contexts and research questions to be employed in evaluating whether prehistoric sites are eligible under NRHP Criterion D and CRHR Criterion 4. He has been Principal Investigator for test and evaluation programs in southern and central California and has also prepared and supervised implementation of data recovery plans for many prehistoric sites. He has prepared cultural resources sections of EIRs, EIR/EISs, Proponent's Environmental Assessments (PEAs), and California Energy Commission Staff Assessments.

1.5 Roles and Responsibilities

Because the Project will affect waters of the United States, the Applicants will be required to meet the requirements of Section 404 of the Clean Water Act by obtaining permits from the Corps. Because federal permits are required, the projects qualify as federal Undertakings for the purposes of Section 106 of the NHPA. The Corps is the federal agency responsible for carrying out the Section 106 consultation process, which includes consulting with the SHPO on determinations of eligibility, findings of effect, and treatment of adversely affected Historic Properties. The Corps will also consult with the Advisory Council on Historic Preservation (ACHP) if they wish to participate, with the County of Placer, and with federally-recognized Native American groups.

As discussed above, a PA has been developed to implement the Section 106 process. The PA stipulates that identification, evaluation, finding of effect, and resolution of adverse effect (treatment) will be carried out separately for each Permit APE. Technical reports will be prepared and, in some cases, research designs or plans are required before technical studies commence. The Corps and SHPO will review all research designs, plans, and technical reports, and will consult with external groups, agencies, and individuals on the findings and recommendations of each technical report as appropriate. Approval by these agencies is necessary before proceeding to the next step in the process, as stipulated by the PA. This HPMP provides direction and standards for the technical studies stipulated by the PA.

2.0 PREVIOUS CULTURAL RESOURCES INVESTIGATIONS

2.1 Previous Records Searches and Literature Reviews

Several records searches for the PVSP and associated off-site infrastructure improvements were conducted by Ric Windmiller at the North Central Information Center, California State University, Sacramento in 1999, 2005, and 2008. Record searches for the off-site infrastructure improvements APE in Sutter County were conducted in 2005, 2008 and 2012 at the Northeast Information Center, California State University, Chico. As required by Corps guidelines, the complete records search was repeated in 2012 in support of the EIS (Windmiller *et al.* 2012). The purpose of the record searches was to determine the extent and findings of previous cultural resources inventories and assessments within the project area and vicinity. In addition to the official records and maps of archaeological sites and surveys in Placer and Sutter counties, the following historic references were reviewed:

- Properties listed on the NRHP;
- California Historical Landmarks (1996 and updates);
- California Points of Historical Interest (1992 and updates);
- Directory of Properties in the Historical Resources Inventory (1999);
- Caltrans Historic Bridge Inventory (1987, 2000, 2006); and
- Historic Spots in California (1990).

2.2 Previous Archaeological Surveys

The results of the records search indicate that all of the PVSP was surveyed for cultural resources between 1999 and 2012, but some properties within the PVSP have not been surveyed using current Corps or professional standards. Previous surveys include:

- Palumbo, 1965: site recording along Dry Creek for Master's Thesis research
- Peak and Associates, 1979: survey of the transmission line route that crosses properties 12A, 13, 14, and 19
- Peak and Associates, 1982: survey of Property 2

- Far Western Anthropological Research Group, 1986: survey of the transmission line right of way, including areas not surveyed by Peak and Associates in 1979
- Foothill Archaeological Services, 1988: inspection of property 19
- Derr, 1991
- Windmiller, 1999-2000: inspection of properties 7, 9, 10, 11, 15, 16, 17, 19, and 21
- Windmiller, 2001: inspection of properties 12A and 12B
- Peak and Associates, 2004: inspection of property 8
- Windmiller, 2005: inspection of properties 1A, 1B, 3, 5C, 6, 23, and 24
- Far Western Anthropological Research Group, 2006: inspection of portions of property 7 during a PG&E corridor survey
- Windmiller, 2009 and 2012: revisits to previously documented sites (not all sites were revisited due to lack of access rights)

Results of previous cultural resources records searches, inventories, and evaluations in the permit APEs between 1965 and 2009 are summarized in a 2009 technical report (Windmiller *et al.* 2009). In most areas, survey was confined to surface examination. However, terrace areas along creeks and stream banks were considered likely to be sensitive for the presence of prehistoric archaeological resources. In these areas, archaeologists periodically scraped the ground surface in an effort to identify obscured deposits. Ground surface visibility within the Permit APEs ranged from poor to good. Some areas were obscured by agricultural crops or other vegetation. Nearly the entire ground surface in the PVSP has been disturbed to some extent by cultivation or development.

Proposed off-site infrastructure routes and areas were subjected to archaeological inspections either in 2005 or in 2008 (Windmiller *et al.* 2009), as summarized in Table 1. For some of the proposed off-site infrastructure areas, archaeological surveys were confined to existing road rights-of-way (ROW), as access permission for survey of the entire APE had not been granted. In other cases, all or part of the proposed improvement location lies within one or more of the permit APEs and could not be inspected completely.

Table 1 – Cultural Resources Assessment of Proposed Infrastructure Improvement Locations

Proposed Improvement	Survey Coverage	Survey Limitations
<i>Intersection Improvements</i>		
Riego/E. Natomas	Levee and some adjacent field margins (Windmiller <i>et al.</i> 2005, 2012)	Confined to levee in part of area; access limitations
Baseline Road/Pleasant Grove Road (north)	Inspected both sides of Pleasant Grove Road and portions of Baseline Road (Windmiller <i>et al.</i> 2005, 2012)	No access outside of existing ROW; Baseline Road inspection limited by road hazard
Baseline Road/Pleasant Grove Road (south)	Inspected both sides of Pleasant Grove Road and portions of Baseline Road (Windmiller <i>et al.</i> 2005, 2012)	No access outside of existing ROWs; Baseline Road inspection limited by road hazard
Baseline Road/ Elder Street	Inspected along Elder Street (Windmiller <i>et al.</i> 2009, 2012)	Baseline Road hazardous; Elder Street residential yards fenced
Baseline Road/ Locust Street	Completely inspected (Windmiller <i>et al.</i> 2005, 2012)	Limited ground visibility Baseline E of Locust
Baseline Road/ Newton Street	Completely inspected (Windmiller <i>et al.</i> 2009, 2012)	W side of Newton fenced

Proposed Improvement	Survey Coverage	Survey Limitations
Baseline Road/ Brewer Road	Completely inspected (Windmiller <i>et al.</i> 2009, 2012)	Dry grass obscured ground surface in many locations
Road Widening		
Baseline Road	Most of extent inspected within 200' ROW (Windmiller <i>et al.</i> 2005, 2012)	Some access limitations and ground visibility generally poor
Watt Avenue	Most of extent inspected within 200' ROW (Windmiller <i>et al.</i> 2005, 2012)	Very limited visibility some areas
Dyer Road widening and extension	Completely inspected; all within PVSP participating parcels (Windmiller <i>et al.</i> 2009, 2012)	Ground visibility poor
Road Construction		
18 th Avenue	Completely inspected; entirely within a participating parcel (Windmiller <i>et al.</i> 2009, 2012)	Ground visibility moderate
16 th Street	Completely inspected (Windmiller <i>et al.</i> 2009, 2012)	One non-participating property adjoins, but adjacent ROW visible across fence
East Dyer Lane	Almost completely inspected (Windmiller <i>et al.</i> 2009, 2012)	Non-participating property adjoins small part of alignment
Utilities		
Potable Water Line Option A	Completely inspected (Windmiller <i>et al.</i> 2005, 2012)	Precise alignment not marked; may vary slightly
Recycled Water Line	Bare ground areas inspected (Windmiller <i>et al.</i> 2009, 2012)	Most within built environment with no visibility
Six Recycled and Potable Water Tank Locations	Completely inspected: all within PVSP areas (Windmiller <i>et al.</i> 2009, 2012)	Ground visibility moderate
Force Main, Watt Avenue to Dry Creek WWTP	Most inspected (Windmiller <i>et al.</i> 2005, 2012)	Some limitations due to active construction
Gravity Sewer Line, E Dyer Lane to Watt Avenue/PFE Road lift station	Northern portion within PVSP area inspected (Windmiller <i>et al.</i> 2009, 2012)	No access permission for alignment off site south of Dry Creek or for lift station site
Force Main TL from lift station to existing force main east of Walerga Road	Not inspected; records search only	No access permissions
Force Main from western extension of Dyer Road to proposed lift station at Locust Road	Inspected as part of PVSP survey; entirely within participating area (Windmiller <i>et al.</i> 2009, 2012)	Ground visibility moderate

2.2.1 Prior Efforts to Identify Potential Buried Archaeological Resources

According to the EIS, there is potential for as-yet undocumented buried archaeological resources in the PVSP area. There are areas of recently (during the Holocene) deposited alluvium, which may have covered archaeological resources that were formerly on or near the ground surface. Alluvium could have been deposited during flood episodes by Curry Creek, a perennial water course that traverses the northern portion

of the project area, and Dry Creek, another perennial water course that runs along the southwestern margin of the PVSP area. The PVSP area also includes several intermittent stream courses, scattered vernal pools, ponds, and other seasonal wetlands, all of which could have been depositional environments.

Based on a geoarchaeological assessment (Cogstone 2010) of the Sierra Vista Specific Plan area, located immediately to the north of the PVSP, recent alluvium in this area typically is only about three feet deep, and is underlain by hardpan of an age that substantially predates human occupancy of the region. The potential for deeply buried cultural deposits therefore is low. Dry Creek, the largest water course in the area, likely has flooded and meandered to some extent during the Holocene. There is some potential for shallowly buried archaeological deposits along Dry Creek and Curry Creek. However, previous investigations of archaeological sites in the PVSP along Dry Creek indicate only surficial or shallow archaeological deposits.

In summary, areas along Dry Creek and its major tributaries should be considered to be sensitive for the potential presence of buried prehistoric cultural deposits. Any such buried cultural deposits are likely to be shallow (less than three feet below the surface) and therefore, detectable through traditional pedestrian survey methods.

2.3 Previous Built Environment Resource Identification and Assessment

An architectural history assessment was conducted in 1999 and 2000 in the permit APEs to identify buildings and structures more than 45 years of age (Windmiller *et al.* 2000). A reconnaissance of the rest of the PVSP area, including off-site infrastructure areas, was carried out by driving along accessible roads. Likely locations of historic-period buildings and structures within the project area were identified based on historic maps and other data, and sites where historic structures were indicated as a result of archival research were inspected on the ground.

In 2005, an architectural historian formally recorded and evaluated each of the identified historic structures located within the permit APEs (Windmiller *et al.* 2005). Each historic structure was revisited, and site records were updated in 2008 and 2012 (Windmiller *et al.* 2009, 2012). In addition, buildings and a cemetery within the linear routes for proposed infrastructure improvements were identified from aerial photos. All buildings and structures so identified were visited by an architectural historian, and buildings and structures older than 45 years were fully documented.

2.4 Previous Native American Consultation Efforts

In conjunction with each of the prior cultural resources inventories for the PVSP, Windmiller (2000) contacted the NAHC first in 1999 to conduct searches of their Sacred Lands Files for Sacred Sites and/or Traditional Cultural Properties. In each case, the NAHC indicated that no sacred lands or traditional cultural properties have been identified in the PVSP APE. The NAHC also supplied a list of appropriate Native American tribal and cultural group contacts for the PVSP area. As part of each cultural resources identification effort, letters were written to each identified Native American contact, inquiring about any concerns with respect to potential traditional cultural properties, burial sites and/or archaeological sites. Each letter was followed up with a phone call.

In 2009, Windmiller (2009) contacted 15 Native American groups or individuals by mail and phone. Five of the contacts responded. Two had no specific comments regarding cultural resources that could be affected by the PVSP; one indicated that he would like to visit the project area, but that it was outside his group's traditional territory; two respondents expressed concerns about the potential to affect Native American cultural resources and requested copies of archaeological technical reports and site records. They also asked that a tribal monitor be funded by the project to be present during future cultural resources studies and during ground-disturbing activities.

In 2012, Windmiller (2012) again contacted the NAHC to request a Sacred Lands File search and an updated list of Native American contacts for the PVSP area in Placer and Sutter counties. The search did not indicate the presence of Native American cultural resources in the project vicinity. This 2012 consultation with the NAHC resulted in a list of eight Native American contacts (Table 2). Windmiller contacted each organization or individual by letter and phone, described the project, and asked for any information on known or suspected sites of Native American importance. Four of the contacts responded. One requested information on how to formally request Consulting Party status with the Corps and one requested that the Shingle Springs Band of Miwok Indians be included as a Consulting Party for the project under NHPA Section 106. One respondent asked that, if any Native American human remains or grave goods are found, they be treated in accordance with California law. The United Auburn Indian Community of the Auburn Rancheria (UAIC) requested to receive any archaeological reports on the project so that the Tribe could determine whether the proposed project could affect cultural resources of importance. The Tribe also requested to receive project environmental documents so that the Tribe may comment. The Tribe stated that the Tribe's Preservation Committee has identified cultural resources in the project area and requested a project area visit to confirm the location of such sites (Windmiller *et al.* 2012). As a result, the Corps contacted the UAIC on June 14, 2012, and received another request to review relevant cultural resources reports. The UAIC also requested a coordination meeting. The Corps met with representatives of the UAIC on September 21, 2012 and provided them with the requested materials. Consultation is ongoing.

Table 2 – Native American Organizations and Individuals Contacted in 2012

Name	Organization
Mr. Nicholas Fonseca Chairperson	Shingle Springs Band of Miwok Indians, Shingle Springs
Mr. John Tayaba Formerly, Vice Chair	
Mr. Daniel Fonseca Director of Cultural Resources	
Mr. David Keyser Chairperson	United Auburn Indian Community of the Auburn Rancheria, Auburn
Mr. Marcos Guerrero, R.P.A. Tribal Preservation Committee	
Mr. Gregory S. Baker Tribal Administrator	
Ms. Rose Enos, Auburn	None
Ms. April Wallace Moore, Colfax	None

Source: Windmiller et al. 2012

2.5 Current Inventory of Cultural Resources

Previous research within the PVSP resulted in the identification of 44 cultural resources within the PVSP (Table 3). These include: 29 archaeological sites; five isolates; nine historic-period residences; and one historic-period structure. Records of all cultural resources sites identified within the PVSP and its infrastructure are provided in one or more of the technical reports previously prepared for the PVSP (Windmiller *et al.* 2000; 2005; 2009; or 2012). It is possible that further study of portions of the PVSP, through implementation of the PA, will result in the identification of additional resources.

The following table also presents the status of eligibility to the NRHP for each resource. Those that have yet to be evaluated for eligibility are listed as such, either because of access issues or incomplete evaluation

efforts. Most of the resources were previously evaluated for significance under California Register of Historical Resources (CRHR) criteria by Windmiller (2009), but were not evaluated relative to NRHP criteria. Methods and results of former evaluations of significance and eligibility are provided in the technical reports (Windmiller 2000; 2005; 2009; and 2012) and in the EIS (in preparation).

Table 3 – Cultural Resources Inventory and Eligibility for Previously-recorded Resources within the APE

Site Designation	Description	Eligible for the NRHP?
<i>"On-site" PVSP APE</i>		
5606 Straight Road	1950s residence	No
8875 Watt Avenue	1930s ranch complex	No
CA-PLA-46	Prehistoric bedrock mortars and stone tools	To be determined
CA-PLA-47	Prehistoric midden site	Yes
CA-PLA-69	Buried prehistoric archaeological deposit	Yes
CA-PLA-80	Prehistoric lithic scatter	To be determined
CA-PLA-82	Prehistoric deposit with groundstone, chipped stone, and formal stone tools	Yes
CA-PLA-944H	Early 20 th century barn foundation	To be determined
CA-PLA-945H (P-31-1135)	19 th century trash scatter	No
CA-PLA-946H	Sacramento Northern Railroad Grade	No
CA-PLA-947H	Concrete reservoir	No
CA-PLA-948	Prehistoric scatter of stone tools	Yes
PV-ISO-01	Mid-20 th century pipe scatter	No
PV-ISO-02	Early-20 th century road grader	No
DR-5	Isolated prehistoric pestle and mano	To be determined
P-31-1137	1955 McClellan Air Force Base Outer Runway Beacon Shed	No
P-31-2901	Isolated prehistoric mano	No
P-31-3303	Historic Elder Road	No
P-31-3307 and P-31-3311	Historic Pallady Road / Watt Avenue	No
P-31-3310	Isolated prehistoric obsidian biface fragment	No
Spinelli-1	Archaeological remnants of a 20 th century farm complex	No
Spinelli-2	Remnants of a 20 th century outbuilding	No
<i>"Off-site" Infrastructure Improvements APE</i>		
CA-PLA-1986H	1926 residence at 4300 PFE Road	To be determined
CA-PLA-1998	Prehistoric campsite	To be determined
CA-PLA-67	Prehistoric campsite	To be determined
CA-PLA-75	Prehistoric campsite	To be determined
CA-PLA-76	Prehistoric campsite	To be determined
CA-PLA-77	Prehistoric campsite	To be determined

Site Designation	Description	Eligible for the NRHP?
CA-PLA-81	Prehistoric campsite	To be determined
CA-SUT-87H (CA-PLA-946H)	Sacramento Northern Railroad Grade	No
CA-SUT-85H / CA-SAC-463H	Natomas East Main Drainage Canal Levee and Reclamation District 1000 Rural Historic Landscape	Yes
P-31-2603	Late 19 th – early 20 th century Union Cemetery*	No
P-31-2604	House at 8640 Watt Avenue	No
P-31-2606	House at 8720 Watt Avenue	No
P-31-2607	House at 8724 Watt Avenue	No
P-31-2608	House at 8718 Watt Avenue	No
P-31-3302	1910 House on Baseline Road	No
P-31-3305	1950s Stolenberg Farm	No
P-31-3306	Historic Brewer Road	No
P-31-3308	Historic County Acres Road	No
P-31-3309	Eagle Hotel Site	To be determined
P-31-3312	Historic Walerga Road	No
P-51-141	Historic Locust Road	No
Bridge #19C0084	Watt Avenue at Dry Creek Bridge	No

*although not historically significant, the cemetery includes human remains, which are protected from disturbance by state law.

3.0 CONTEXT

3.1 Environmental Context

The PVSP area is located west of Roseville, in Placer County near the eastern margin of the Sacramento Valley. Situated in a Mediterranean climate, characterized by cool, wet winters and hot, dry summers, the PVSP area consists of gently rolling topography covered with non-native grasslands. Curry Creek, a perennial water course, traverses the northern portion of the project area, and Dry Creek, another perennial, runs along the southwestern margin of the PVSP. There is dense riparian vegetation in some areas along these creeks including willows, cottonwoods and a few oaks. There is a stand of (non-native) eucalyptus trees in the southeastern part of the PVSP. There are also several intermittent stream courses, as well as scattered vernal pools, ponds, and other seasonal wetlands.

The majority of the PVSP area is undeveloped and historically has been used primarily for dry farming and cattle grazing operations, with associated rural residences, although some areas in the western part of the PVSP have been graded used for rice cultivation. The western area of the PVSP also has two large areas with non-participating properties and is characterized by semi-rural residential development, most postdating the 1950s.

3.1.1 Regional Surface Geology and Geomorphology

According to the U.S. Department of Agriculture, Soil Conservation Service (1980), 11 soil units, or types, have been mapped within the PVSP. These include:

- (104) Alamo-Fiddymment Complex, 0-5% slopes;
- (140) Cometa sandy loam, 1 to 5 percent slopes;
- (141) Cometa-Fiddymment Complex, 1 to 5 percent slopes;

- (142) Cometa-Ramona sandy loams, 1 to 5 percent slopes;
- (146) Fiddymment loam, 1 to 8 percent slopes;
- (147) Fiddymment-Kaseberg loams, 2 to 9 percent slopes;
- (174) Ramona sandy loam, 0 to 2 percent slopes;
- (182) San Joaquin-Cometa sandy loam, 1 to 5 percent slopes;
- (193) Xerofluvents, occasionally flooded;
- (194) Xerofluvents, frequently flooded;
- (195) Xerofluvents, hardpan substratum; and
- (198) water.

These surface alluvial soils are typically only approximately three feet deep in the vicinity of the PVSP (Cogstone 2010). Geoarchaeological studies in the immediate vicinity, which included an assessment of geological records and of soil exposures in creek channels just north of PVSP, indicate that soils consist entirely of late Pleistocene sediments—Riverbank Formation deposits, deposited 300,000 to 100,000 years before present, and Turlock Formation deposits, dating to 700,000 to 500,000 years before present. Sandstone base rock and hardpan in the vicinity are overlain by up to 1 meter of topsoil, consisting of decomposed Pleistocene sedimentary soils (Cogstone 2010).

3.2 Cultural Context

3.2.1 Prehistoric Archaeology

A commonly held belief is that human occupation of California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 years BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted probably consisted mostly of large species still alive today. Bones of extinct species have been found, but cannot definitely be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and floral foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978).

Around 8,000 years BP, there was a shift in focus from hunting towards a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 5,000 years BP, is sometimes referred to as the “Millingstone Horizon” (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to before 8,000 years BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

Evidence from archaeological sites dating from approximately 5,000 years BP indicates a continuation from the previous period of reliance on both plant gathering and hunting, with more specialized adaptation to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Flaked-stone tools became more refined and specialized, and bone tools were more common. The introduction of the bow and arrow into the region sometime around 1,000 years BP is indicated by the presence of small projectile points (Wallace 1978; Elsasser 1978; Moratto 1984).

The earliest evidence of the prehistoric inhabitants of the region surrounding the project area comes from a single, deeply buried site in the bank of Arcade Creek, north of Sacramento, containing grinding tools and large, stemmed projectile points. The points and grinding implements suggest an occupation date of sometime between 8,000 and 5,000 BP (Wallace 1978). However, it was not until after about 5,500 BP, in the Late Archaic Period, when people began to move into the San Joaquin and Sacramento Valleys in any significant numbers. This earliest permanent settlement of the Delta region of the Sacramento River is called

the Windmill Tradition and is known primarily from burial sites containing relatively elaborate grave goods (Ragir 1972; Wallace 1978). The Windmill Tradition reflects the amplification of cultural trends begun in the Middle Archaic, as seen in the proliferation of finished artifacts such as projectile points, shell beads and pendants, and highly polished charmstones. Stone mortars and pestles, milling stones, bone tools such as fishhooks, awls, and pins, are also present. It is probable that people during this time subsisted on deer and other game, salmon, and hard seeds. They also were apparently the first Californians to discover the process for leaching the tannins out of acorns, thus making them edible by humans. Based on linguistic evidence, it has been suggested that the Windmill culture was ancestral to several historic tribes in the Central Valley, including the Penutian-speaking Nisenan (Elsasser 1978). The Windmill Tradition lasted until about 3,000 BP.

Around 3,000 BP, subsistence strategies in the Delta region became noticeably more “focal,” with a clear increase in the reliance on acorns and salmon (Elsasser 1978). Culturally, this has been dubbed the Cosumnes Tradition (3,700 to 1,000 BP), and appears to be an outgrowth of the Windmill Tradition (Ragir 1972). People in this time continued to occupy knolls or similar high spots above the floodplain of the Sacramento River and the terraces of tributaries such as the Cosumnes and American Rivers, flowing out of the foothills of the Sierra Nevada Mountains located to the east. Populations increased and villages became more numerous than before, with more milling tools and specialized equipment for hunting and fishing. Trade appears to have increased, with burials containing larger amounts of seashell and obsidian. Burial styles, too, became more varied, with the addition of flexed interments along with the extended ones of the Windmill period. Projectile points found embedded in the bones of excavated skeletons suggest that warfare was on the rise, possibly as a result of increased competition over available resources and trade (Beardsley 1954; Lillard *et al.* 1939; Ragir 1972).

The next, and final, discrete prehistoric culture is the Hotchkiss Tradition (1,000 to 181 BP [AD 1769]) that persisted until the arrival of European settlers in central California (Beardsley 1954; Ragir 1972). During this period, use of acorns and salmon reached its peak, along with hunting of deer. Diet was supplemented with the addition of waterfowl, hard seeds, and other resources. Large sedentary villages along the lower Sacramento and San Joaquin Rivers, and their tributaries and delta were common. The size and density of these settlements suggest a further increase in population from Cosumnes times. Trade goods were plentiful, and burials exhibit a marked stratification of society with wide differences in the amount and variety of funerary objects. Cremation of the dead appears, along with the flexed inhumations of the previous period (Ragir 1972). While ornamental or ritual artifacts, such as large, fragile projectile points and trimmed bird bone increase during this period, milling tools are rare or absent. Shell beads are found in large numbers, and there are numerous utilitarian artifacts of bones such as awls, needles, and barbed harpoon points. Polished charmstones are rare during this time, but ground stone pipes become more abundant. In addition, fired and unfired clay objects begin to appear.

Palumbo (1966) studied 32 prehistoric archaeological sites along Dry Creek between Roseville, on the east, and the American Basin on the west. Four of the sites studied by Palumbo are located within the PVSP area: CA-PLA-46, -47, -80 and -82. She concluded that these and 24 other sites she studied in the drainage represented temporary/seasonal camps, while four other sites, none of which is on the PVSP project area, appear to represent permanent villages. Palumbo noted that site density apparently was greater in the upper (eastern) part of the Dry Creek drainage than in its lower reaches.

Archaeological evidence suggests that sedentary villages were established in the western Sierra by around 1 A.D. Utian populations appear to have occupied the Sacramento Delta and the hills on the eastern and western sides of the Sacramento Valley as much as 2,000 years prior to this time. The Berkeley Pattern, a cultural florescence sometimes referred to as the Middle Horizon, apparently grew out of cultural interchange or fusion between Utian speakers and the Hokan and Yukian speakers resident around San Francisco Bay. Palumbo suggested that large stemmed projectile points found at Dry Creek sites may represent a Late Period cultural trait that persisted from Middle Horizon times. These dating inferences are somewhat speculative, however, as there has been little substantive archaeological investigation in the project vicinity

during the past several decades, and no absolute dating of any of the Dry Creek sites.

3.2.2 Ethnographic Context

Ethnographically, the project area is in the southwestern portion of the territory occupied by the Penutian-speaking Nisenan. The territory extended from the area surrounding the current City of Oroville on the north to a few miles south of the American River in the south. The Sacramento River bounded the territory on the west, and in the east, it extended to a general area located within a few miles of Lake Tahoe. As a language, Nisenan (meaning “from among us” or “of our side”) has three main dialects— Northern Hill, Southern Hill, and Valley Nisenan, with three or four subdialects (Kroeber 1976; Placer County 1992; Shipley 1978; Wilson and Towne 1978). The Valley Nisenan lived along the Sacramento River, primarily in large villages with populations of several hundred each. Between there and the foothills, the grassy plains were largely unsettled, used mainly as a foraging ground by both valley and hill groups (Placer County 1992). Individual and extended families “owned” hunting and gathering grounds, and trespassing was discouraged (Kroeber 1976; Wilson and Towne 1978). Residence was generally patrilocal, but couples actually had a choice in the matter (Wilson and Towne 1978).

Politically, the Nisenan were divided into “tribelets,” made up of a primary village and a series of outlying hamlets, presided over by a more-or-less hereditary chief (Kroeber 1976; Wilson and Towne 1978). Villages typically included family dwellings, acorn granaries, a sweathouse, and a dance house, owned by the chief. The chief had little authority to act on his or her own, but with the support of the shaman and the elders, the word of the chief became virtually the law (Wilson and Towne 1978).

Subsistence activities centered around the gathering of acorns (tan bark oak and black oak were preferred), seeds, and other plant resources. The hunting of animals such as deer and rabbits, and fishing were also an important part of normal subsistence activities. Large predators, such as mountain lions were hunted for their meat and skins, and bears were hunted ceremonially. Although acorns were the staple of the Nisenan diet, they also harvested roots like wild onion and “Indian potato,” which were eaten raw, steamed, baked, or dried and processed into flour cakes to be stored for winter use (Wilson and Towne 1978). Wild garlic was used as soap/shampoo, and wild carrots were used medicinally (Littlejohn 1928). Seeds from grasses were parched, steam dried, or ground and made into a mush. Berries were collected, as were other native fruits and nuts. Game was prepared by roasting, baking, or drying. In addition, salt was obtained from a spring near modern-day Rocklin (Wilson and Towne 1978).

Hunting of deer often took the form of communal drives, involving several villages, with killing done by the best marksmen from each village. Snares, deadfalls, and decoys were used as well. Fish were caught by a variety of methods including use of hooks, harpoons, nets, weirs, traps, poisoning, and by hand (Wilson and Towne 1978).

Trade was important, with goods traveling from the coast and valleys up into the Sierra Nevada Mountains and beyond to the east, and vice versa. Coastal items like shell beads, salmon, salt, and Foothill pine nuts were traded for resources from the mountains and farther inland, such as bows and arrows, deer skins, and sugar pine nuts. In addition, obsidian was imported from a variety of sources to the north (Wilson and Towne 1978).

The Spanish arrived on the central California coast in 1769 and by 1776 the Miwok territory bordering the Nisenan on the south had been explored by José Canizares. In 1808, Gabriel Moraga crossed Nisenan territory, and in 1813, a major battle was fought between the Miwok and the Spaniards near the mouth of the Cosumnes River. Though the Nisenan appear to have escaped being removed to missions by the Spanish, they were not spared the ravages of European diseases. In 1833, an epidemic—probably malaria—ragged through the Sacramento Valley, killing an estimated 75 percent of the native population. When John Sutter erected his fort at the future site of Sacramento in 1839, he had no problem getting the few Nisenan survivors to settle nearby. The discovery of gold in 1848 at Sutter’s Mill, near the Nisenan village of Colluma

(now Coloma) on the South Fork of the American River, drew thousands of miners into the area, and led to widespread killing and the virtual destruction of traditional Nisenan culture. By the Great Depression, no Nisenan remained who could remember the days before the arrival of the Euro-Americans (Wilson and Towne 1978).

3.2.3 Historic Context

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and four presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated the majority of the California region during this period. The purpose of the missions and presidios was to establish Spanish economic, military, political, and religious control over the Alta California territory. This included the forced movement of much of the native population to the missions where they were converted to Catholicism (Castillo 1978; Cleland 1941). The nearest missions to the Delta region were Mission San Rafael established near San Rafael in 1817 and Mission San Francisco Solano, established in Sonoma in 1823 (Castillo 1978).

Although the Spanish had made forays into the Central Valley since about 1769, it was not until 1808 that Captain Gabriel Moraga explored and named the Sacramento area. The Spanish took little interest in the area and did not establish any missions or settlements in the Central Valley. California became part of Mexico in 1822 when Mexico achieved its independence from Spain. In 1827, American trapper Jedediah Smith traveled along the Sacramento River and into the San Joaquin Valley to meet other trappers of his company who were camped there, but no permanent settlements were established by the fur trappers (Thompson and West 1880).

After Mexico became independent from Spain in 1822, the Mexican government closed the missions in the 1830s. Former mission lands were granted to soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or “ranchos” (Robinson 1948). The rancho owners lived in towns, such as San Francisco or Monterey, or in an adobe house on the rancho. The Mexican Period includes the years 1822 to 1848.

John Sutter, a European immigrant, built a fort at the confluence of the Sacramento and American Rivers in 1839 and petitioned the Mexican governor of Alta (Upper) California for a land grant which he received in 1841. Sutter built a flour mill and grew wheat near the fort (Bidwell 1971). Gold was discovered in the flume of Sutter's lumber mill at Coloma on the South Fork of the American River in January 1848 (Marshall 1971). That same year, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). California became a U. S. territory in 1848 and a state in 1850. The discovery of gold initiated the 1849 California Gold Rush, bringing thousands of miners and settlers to California.

The first substantial non-native population incursions into the region were triggered by the discovery of gold in the Sierra foothills in 1848, at which time the city of Sacramento was laid out and a major population influx into the region began. During the Gold Rush, numerous claims were worked along the American River, five miles east of the Specific Plan area. However, the streams running through the Specific Plan area were not exploited because they did not cross gold-bearing deposits; for this reason, the Roseville area did not experience the population boom that occurred in Sacramento and extended into the Sierra foothills. The Roseville area provided some agricultural support of the burgeoning Gold Rush population, but thin soils and a paucity of water supported only marginal farming and ranching in the project area. During this period, much of the land that makes up the Specific Plan area was given by the United States government to the (new) State of California, or to the railroads. There was some private settlement of these areas by the 1860s, however. The project vicinity was used primarily for grazing and dry farming of crops such as wheat and hay. The historic archaeological record for this area would be expected to include a relatively sparse scattering of late 19th and 20th century residences, farm and ranch support buildings, and ancillary features such as privy pits, wells, windmills, cisterns, fence lines and corrals.

The development of regional and interstate railroads was very important in the history of the Roseville area. The Central California Railroad (CCRR) line was built from Folsom to Lincoln in 1861 and the Central Pacific Railroad was built from Sacramento to Newcastle in 1864. The place where the Central Pacific Railroad crossed the CCRR was called Junction and later became Roseville. The Central Pacific Railroad was completed from Newcastle to Promontory Point, Utah, in 1869 where it connected with the Union Pacific Railroad to become part of the first transcontinental railroad. The Central Pacific Railroad became part of the Southern Pacific Railroad system in 1889 (Robertson 1998). The Sacramento Northern Railroad, an electric interurban line (the route of which forms part of the western boundary of the Specific Plan area) was completed from Chico to Sacramento in 1907 and the route from Sacramento to Oakland was completed in 1913 (Robertson 1998). The line carried passengers until about 1940, and freight into the 1950s using diesel locomotives. After this time, the line operated as a series of branch lines, most only sporadically or seasonally, and some segments were removed entirely. The railroad alignment lies along the western margin of Parcels 23 and 24 in the project APE. Although traces of the berm can be found, most of its remnants have been substantially altered by past grading (Windmiller *et al.* 2005).

Other important industries in this part of the Sacramento Valley have included granite and gravel extraction and the development of large-scale reclamation and irrigation projects. However, there is no evidence of mineral extraction activities within or adjacent to the PVSP area. A part of Reclamation District 1000 is in the western part of the PVSP area in the American Basin along the east bank of the Sacramento River.

The Western Area Power Administration (WAPA), a federal agency, constructed an extensive network of high voltage power lines throughout the Sacramento Valley, starting in the 1930s, to carry hydroelectric power generated at the northern California dams of the Central Valley Project throughout the region. The Elverta-Roseville line, constructed in 1955, runs across the western end of the Specific Plan area (Parcels 23 and 24). The WAPA facilities are continuously maintained and upgraded to modern standards and do not retain historic characteristics.

Many roadways in the Sacramento Valley follow routes established as early as the 1850s. Baseline Road, which runs along the northern edge of the Specific Plan area, appears on the 1892 and 1929 GLO Plats but, on these maps, the roadway extends westward from Roseville only to Fiddymont Road, at the northeastern corner of the Specific Plan area (Windmiller *et al.* 2005). Baseline Road now continues along the northern boundary of the Specific Plan area and is a modern paved road. Several roads that cross or extend into the Specific Plan area north to south run along historic road routes, but all have been fully modernized and exhibit no historic characteristics except for the routes themselves.

3.2.4 Predicted Property Types

Predictive modeling of cultural resources allows for the development of research themes and questions, guidelines for treatment, and an overall compliance framework that can be applied in a consistent manner across all Permit APEs and over time. Based on the results of the records search and in consideration of the cultural context discussed above, the following property types are expected to occur within the PVSP.

Prehistoric Archaeological Sites. Prehistoric archaeological sites have prehistoric artifacts and features. They may be divided into residential and non-residential sites.

Residential sites (camps, residential bases, villages) have fire-affected rock (indicating overnight stays) and have a variety of types of flaked stone and ground stone tools, as well as debitage. Subsistence waste (burned animal bone, charred seeds, nuts, or organic residue on ground stone tools) is usually present.

Non-residential sites lack fire-affected rock and have a limited number and variety of tools. Debitage may be present. Non-residential sites are called locations by Binford (1980) and are places where a limited number of activities occurred, such as processing acorns or seeds (bedrock milling sites or sites with mostly ground stone tools) or maintaining or manufacturing flaked stone tools during hunting trips (sites consisting mostly

of debitage).

Prehistoric Isolates. Prehistoric isolates consist of one or two prehistoric artifacts, which may or may not be *in situ* (in primary context). In some cases, isolates indicate the presence of more extensive subsurface archaeological deposits. In other cases, particularly where the isolate is not in primary context, the presence of an isolate may indicate a more extensive prehistoric site in the vicinity, or simply reflects the general sensitivity of the area.

Historic Archaeological Sites. Historic archaeological sites consist of artifacts and features from the historic period (at least 50 years old) which may be on the surface or subsurface. Historic artifacts can include domestic refuse (food containers such as cans and bottles, ceramic and glass vessels for preparing and serving food and beverages, utensils, food waste, cosmetic and grooming items [perfume and cosmetics jars, combs brushes, mirrors], and clothing fasteners, among other things), building material (brick, concrete, concrete blocks, lumber, window glass, water and sewer pipe, nails, screws, bolts, and other metal fasteners), auto parts and oil cans, tools, and other miscellaneous items. Historic features include privies, pits, wells, and structure foundations. Features can contain historic artifacts as well.

Historic archaeological sites can be classified as:

- refuse dumps along roads or drainages with domestic refuse and/or building material;
- refuse dumps and deposits of domestic refuse and/or building material associated with a farmstead, ranch, residence, or commercial establishment;
- features and dumps/deposits associated with a historic-period farmstead, ranch, residence, or commercial establishment; or
- one or more features only, such as foundations or privies.

Dumps along roads or drainages are a separate property type because they usually lack historical context. They usually cannot be associated with any persons or families for which there is historical information. Such sites are usually not eligible for the NRHP or CRHR.

Historic Buildings and Structures. This property type includes buildings and structures that are at least 50 years old, including houses, garages, barns, outbuildings, corrals, fences, watering troughs for animals, irrigation features (standpipes, canals, ditches, drains), dams, reservoirs, levees, utility poles and towers, buildings and structures associated with airports, commercial buildings, industrial buildings, religious buildings, government buildings, and military buildings. These are resources of the built environment, which have extant structure.

Historic buildings and structures may also have historic archaeological material associated with them (refuse dumps/deposits and features). Such properties should be recorded as one resource with multiple property types. Properties originally recorded as only consisting of historic buildings and structures should be investigated to determine if they also contain historic archaeological sites.

Transportation Structures and Facilities. Structures and facilities associated with transportation include roads, highways, bridges, railroad grades and tracks, airfields and runways that are at least 50 years old. Linear features may have since been paved over or graded, but may retain their original alignments, thereby possessing some aspects of integrity.

Historic Isolates. Historic isolates consist of one or two historic artifacts, as well as abandoned vehicles, trailers, tractors, and other farm implements that are at least 50 years old. Like prehistoric isolates, discussed above, historic-era isolates may or may not be in primary context. In some cases, historic isolates indicate the presence of more extensive subsurface archaeological deposits, or represent the location of a former historic structure or activity. In other cases, particularly where the isolate is not in primary context, the presence of an isolate may indicate a more extensive historic archaeological site in the vicinity, or simply

reflects the general sensitivity of the area.

In addition, it is possible that traditional cultural properties (TCPs), ethnographic landscapes, and rural cultural landscapes could occur in the PVSP area. A traditional cultural property “is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1998). An ethnographic landscape is defined as a cultural landscape, composed of natural and cultural features, which an associated population defines as a heritage resource. A rural historic landscape is defined as “a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features” (McClelland *et al.* 1999). TCPs and cultural landscapes are generally identified in consultation with members of the community, including, but not limited to, Native American tribes and individuals, historical societies, and local residents. TCPs and cultural landscapes may or may not exhibit noticeable signs of their presence unless called out by those who identify with them as being cultural resources. TCPs may include natural landforms, such as mountain peaks, rivers, or ridge tops. Cultural landscapes may include historic homesteads, ranching and grazing lands, or agricultural facilities and fields that have persisted for generations.

4.0 GENERAL STANDARDS AND PROCEDURES

The PA for the Placer Vineyards Project will be implemented minimally over a 20-year period or more. Because numerous cultural resources consultants are expected to perform work under the PA, and because all work under the PA needs to conform to a common research design and work plan, it is critical that the same set of standards and guidelines be used.

There are numerous standards and guidelines that currently apply to cultural resources management. While modifications to these standards are expected to occur over the lifetime of the PA, and should be incorporated into work carried out under the PA, the fundamental standards for professional cultural resources management will always apply.

These fundamental standards and guidelines include:

- Section 106 of the NHPA and its implementing regulations at 36 CFR Part 800;
- the Corps’ Sacramento District, Regulatory Division Guidelines for Compliance with Section 106 of the NHPA (Appendix A);
- Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (February 1990), published by the California Office of Historic Preservation;
- Instructions for Recording Historical Resources (March 1995), published by the California Office of Historic Preservation;
- standards for curation of archaeological collections in 36 CFR Part 79;
- ethical and professional standards of the Society for California Archaeology and the Society of American Archaeology; and
- Secretary of Interior’s Standards and Guidelines for the identification, evaluation, and treatment of archaeological and historical resources as appropriate.

In certain instances, where the California Department of Transportation (Caltrans) will provide local assistance funding, additional requirements will apply, which may be implemented outside of the PA and this HPMP. These are specified in the 2003 *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 Highway Program in California*, as amended and

the Caltrans Standard Environmental Reference, Volume 2.

The following sections present the specifications for project work that meet the standards and guidelines above. These specifications are also based on standard practice by the National Park Service for similar projects. Deviation from any standards, guidelines, or work plan specifications must be approved by the Corps in advance of implementation, in accordance with the PA. The Corps may, at its discretion, consult with SHPO on such deviations to ensure that implementation does not compromise the goals and intentions of the PA.

4.1 Professional Qualifications

All Principal Investigators responsible for work under the PA shall meet the Secretary of the Interior's Professional Qualification Standards that pertain to the particular area of study. These standards are published in 36 CFR Part 61 and state:

The qualifications define minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved. In the following definitions, a year of full-time professional experience need not consist of a continuous year of full-time work but may be made up of discontinuous periods of full-time or part-time work adding up to the equivalent of a year of full-time experience.

Table 4 presents the standards for each specialization that may be required in order to implement this HPMP. The Secretary of the Interior's Professional Qualification Standards allow for lead agencies to use some discretion in the combination of education and experience required for each specialty. Consultants who may not definitively meet the standards presented in the following table must obtain approval from the Corps prior to carrying out work under this HPMP and the PA.

Table 4 – Professional Qualification Standards

Specialty	Minimum Education	Minimum Experience
History	graduate degree in history or closely related field; or a bachelor's degree in history or closely related field	at least two years of full-time experience in research, writing, teaching, interpretation, or other demonstrable professional activity with an academic institution, historic organization or agency, museum, or other professional institution; or substantial contribution through research and publication to the body of scholarly knowledge in the field of history.
Archaeology (Prehistoric)	graduate degree in archaeology, anthropology, or closely related field	at least one year of full-time professional experience or equivalent specialized training in archaeological research, administration or management; at least four months of supervised field and analytic experience in general North American archaeology; demonstrated ability to carry research to completion; and at least one year of full-time professional experience at a supervisory level in the study of archaeological resources of the prehistoric period.

Specialty	Minimum Education	Minimum Experience
Archaeology (Historic)	graduate degree in archaeology, anthropology, or closely related field	at least one year of full-time professional experience or equivalent specialized training in archaeological research, administration or management; at least four months of supervised field and analytic experience in general North American archaeology; demonstrated ability to carry research to completion; and at least one year of full-time professional experience at a supervisory level in the study of archaeological resources of the historic period.
Architectural History	graduate degree in architectural history, art history, historic preservation, or closely related field, with coursework in American architectural history, or a bachelor's degree in architectural history, art history, historic preservation or closely related field	at least two years of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or substantial contribution through research and publication to the body of scholarly knowledge in the field of American architectural history.
Architecture	a professional degree in architecture or a State license to practice architecture	at least two years of full-time experience in architecture
Historic Architecture	a professional degree in architecture or a State license to practice architecture or at least one year of graduate study in architectural preservation, American architectural history, preservation planning, or closely related field	at least one year of full-time professional experience on historic preservation projects. Note: graduate study or experience shall include detailed investigations of historic structures, preparation of historic structures research reports, and preparation of plans and specifications for preservation projects.
Field and Laboratory Technicians	a Bachelor's degree in anthropology or archeology	at least six months of full-time experience pertinent to their project responsibilities (e.g., excavation or survey, laboratory analysis of historic or prehistoric artifacts, etc.).
Specialists (geoarchaeology, physical anthropology, paleoethnobotany, ethnography, etc.)	a graduate degree in the specialized discipline	a demonstrated ability to carry research to completion, and have at least 24 months of professional experience and/or specialized training.

4.2 Permits and Rights of Entry

Private parcels within the PVSP will require rights-of-entry prior to fieldwork. Consultants who seek to gain access to private property must contact the respective land owner(s) at least 72 hours in advance and obtain written authorization to enter for a specific period of time. Written permission may include an email or letter. Consultants must carry a copy of the written authorization while in the field.

Private landowners have the right to place conditions on access, which may include on-site notification of tenants or residents, restriction of time of day or ranges of dates to accommodate active agricultural

activities, restriction on types of vehicles, or the surrender of gate keys immediately upon completion of fieldwork. Such restrictions must be included in the written authorization or access agreement. However, restrictions placed upon consultants by any private landowner that hinder their ability to carry out the provisions of the PA or this HPMP will result in non-compliance and a possible delay to permit issuance.

Consultants carrying out fieldwork exclusively within public rights-of-way do not require access agreements or rights of entry to those public areas.

4.3 Curation

Archaeological specimens, including their associated documentation (i.e., field notes, photographs, maps, and all environmental materials such as pollen, soils, sediments, bone, and shell) shall be curated using the standards set out in 36 CFR Part 79. All collected artifacts will be stored at a facility approved by either the Corps or SHPO. Should a curation facility meeting the standards in 36 CFR Part 79 not be available to accept collections, the Corps shall identify a suitable repository that provides for the best preservation of collections.

Archaeological items and materials from privately-owned lands that will be returned to the landowner should be maintained by the Principal Investigator in accordance with 36 CFR Part 79 standards until analysis of them, including any analysis specified in an HPTP, is complete.

Native American human remains, grave goods, items of cultural patrimony, and sacred objects encountered during the undertaking that are located on state or private land shall be treated in accordance with the requirements of Section 7050.5 of the California State Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Assembly Bill 2641. If such material is located on federal land, it will be treated in accordance with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) and the Archaeological Resources Protection Act (ARPA).

5.0 IDENTIFICATION AND EVALUATION STANDARDS AND PROCEDURES

5.1 Research

The Corps requires that all records searches be no more than one year old at the time of submission to the Corps (Attachment A). All archival research carried out as part of identification efforts for a particular Permit APE should begin with a record search at the North Central Information Center (NCIC) located at the California State University, Sacramento. The NCIC is a clearinghouse that contains previous cultural resource reports, site records, historic maps, text, and lists of historically important sites, buildings, districts, and other locations.

The records search should include a 0.5-mile radius around each Permit APE. If the records search radius extends into an adjacent county not under the jurisdiction of the NCIC, then the consultant shall conduct an additional records search for the portion of the records search radius that falls outside of the NCIC's holdings. Based on the current PVSP area, this is likely only to affect radii that extend into Sutter County, which is maintained by the Northeast Information Center (NEIC).

In addition to the site records and reports on file at the NCIC, the *Office of Historic Preservation's Historic Property Data File for Placer County* (HPDF), on file at the NCIC, should be consulted to obtain an inventory of evaluated resources from the historic period. The California Historical Resource Status Codes (OHP 2004, plus updates) for each inventoried resource in the records search radius should be consulted to determine if the resource has been determined eligible for, or listed on, the NRHP or the CRHR.

In addition to information from the records search at the NCIC, the following sources should be consulted:

- *California Inventory of Historic Resources* (March 1976)
- The National Register Information System website (NPS 2011)
- *California Historical Landmarks* (OHP 1996, 2012)
- *Historic Spots in California* (Kyle 2002)
- Historic GLO land patent records available on the BLM's General Land Office Records website (BLM 2012)
- BLM plat maps that show the land as originally surveyed into sections in the nineteenth century, as well as land grant boundaries. Houses and other buildings are sometimes shown (<http://www.blm.gov/ca/forms/mtp/index.html>)
- DataQuick property profiles or local county assessor office records to obtain year-built information for buildings and structures (DataQuick 2012)
- Caltrans Bridge Local and State Inventories (Caltrans 2012a, Caltrans 2012b)
- *Handbook of North American Indians* (Wilson and Towne 1978) for lists and maps of nearby Native American villages
- Local historical societies
- Historical aerial photographs and historical maps to provide information on the past land uses of the property and locations of historical buildings.

In addition to research using the records listed above, historical texts, maps, and photographs may be found at the following repositories:

- Sacramento Archives and Museum Collection Center (SAMCC): Clearinghouse of historic information with a large archival collection of texts, maps, county, and city records for the Sacramento area.
- Sacramento County Historical Society: Works directly with the SAMCC to provide historic information for the Sacramento area.
- Sacramento Room at the Sacramento Central Library: Contains historic texts, maps, and records of the Sacramento area.
- California State Library: Contains historic texts and records for all regions within California.

All archival research efforts, regardless of outcome, should be documented on forms indicating:

- Name of repository and any personnel assisting in the research
- Date research was conducted
- Individual conducting the research
- What sources were consulted/viewed

Documentation of research efforts may also be in the form of written correspondence with the repository or society, or as a conversation log showing the times of correspondence and a record of all correspondence.

The reporting of records search results within technical reports must include the title and author of each report, its NCIC report number, author, and date. In addition, technical reports must include an accounting of all previously-recorded resources within the records search radius, and whether or not each is located within the Permit APE.

As part of the identification efforts, the California Native American Heritage Commission (NAHC) should be requested to carry out a Sacred Lands File search. The NAHC holds files containing information about sacred lands and other cultural resources of importance to Native Americans. The NAHC will also provide lists of Native American contacts that may be able to provide information about Native American cultural resources in and near the APE.

5.2 Survey and Site Recording

All surveys must be carried out using *Secretary of the Interior's Standards for the Identification of Historic*

Properties (NPS 1998) and in accordance with this HPMP. Surveys must be systematic and pedestrian, using parallel transects no more than 15 meters apart, unless wider transect widths are approved in advance by the Corps and SHPO through development of a research design, in accordance with the PA. Vehicular, ATV, or horseback surveys are not permitted for survey or identification; however, consultants who are only using such means to transport themselves to a site location for a site-specific investigation may utilize any method of transportation that is acceptable to the private landowner, if applicable.

Site recording shall include any physical evidence of human activities over 45 years old. Any cultural resource that contains at least three artifacts in a 10-square-meter area or consists of one or more features should be considered a site. Any indications of cultural presence in the APE that fail to meet the definition of a site should be recorded as isolates or noted on a location map.

Site recording shall be carried out using the most current revision of the California Office of Historic Preservation's (OHP) DPR 523 series Historical Resources Inventory forms following the *Instructions for Recording Historical Resources* (OHP 1995). A site datum (permanent, unmovable object) should be established and mapped in relation to each site. UTM coordinates should be taken at the datum location using a Global Positioning System (GPS) unit with at least 5-meter accuracy and using the mapping datum that corresponds to the USGS topographic quad (either NAD 83 or NAD 27 CONUS). The site boundaries, and any other features, concentrations, or artifacts shown on the sketch map should be mapped using a handheld survey grade GPS receiver, and sketched as necessary to document their presence.

Digital images will be taken of all aspects of the field investigation in either JPG or BMP format. Photographs will be cataloged and labeled, and accompanied by a photographic log. Each resource, including sites, buildings, structures, linear features, and isolates, should be photographed from several angles in order to identify their location in relation to the surrounding environment, including all features and any diagnostic artifacts mentioned in the site record.

For previously recorded resources, the Principal Investigator shall update site records to reflect any changes since the previous recording. If the previous survey of the property is more than two years old, all sites in the survey area will be revisited and updates will be made on DPR 523 forms, if necessary, in accordance with the Corps' guidelines (Attachment A). Site sketch and location maps shall accurately delineate site boundaries.

Survey or inventory reports for all required surveys of a permit APE shall be prepared in a manner consistent with the "Secretary of the Interior's Standards and Guidelines for Identification" (48 FR 44720-23; NPS 1998) and take into account the National Park Service's publication, "The Archeological Survey: Methods and Uses" (1978: GPO stock #024-016-00091). Survey reports shall include background cultural information about the survey area, the results of the records search, the Sacred Lands File search, and other research, the field survey methods and results, a description of all cultural resources identified in the survey area, and recommendations for sites that will need to be evaluated. DPR 523 site records for all cultural resources in the survey area will be attached as an appendix to the survey report.

If a Principal Investigator for a particular Permit APE wishes to rely on a previous survey where methods were used that do not conform to the methods required in this HPMP, or if the PI wishes to use filed methods other than those prescribed above for a field survey, the PI should write a research design that provides justification for use of the alternate methods, as stipulated in the PA. The research design will be submitted to the Corps for review. If the alternate methods in the research design are not approved by the Corps, the area will be surveyed or re-surveyed using the methods prescribed above.

5.3 Evaluation

5.3.1 *Properties Exempt from Evaluation of Eligibility*

Buildings, structures, and facilities less than 45 years old at the time of study are exempt from evaluation as modern resources, unless determined to be of exceptional significance and meet Criterion Consideration (g) of the NRHP (*A property achieving significance within the past 50 years* and is thereby subject to the guidance in *National Register Bulletin 22* (Sherfy and Luce 1979, rev. 1998). Historic archaeological sites that consist of refuse dumps containing only surface items that are less than 45 years old are also exempt from evaluation.

5.3.2 Evaluation Criteria and Plans

All evaluations of eligibility shall be carried out relative to the NRHP eligibility criteria set forth in 36 CFR Part 60.4. For historic and prehistoric archaeological sites, all four criteria may be applicable. In all cases where evaluation of eligibility of cultural resources cannot be ascertained from survey-level data alone, the PI shall prepare an Evaluation Plan (EP) to guide evaluation of cultural resources within the Permit APE. EPs will be consistent with the "Secretary of the Interior's Standards and Guidelines for Evaluation" (48 FR 44723-26; NPS 1998). Separate EPs will be developed to address different categories of potentially eligible resources (prehistoric archaeological sites; historic archaeological sites; buildings, structures, and facilities; and districts) within a Permit APE, but may be reported in a single document.

For resources that were previously evaluated, but no determination of eligibility was made by a federal agency, the PI should review the evaluation report to assess whether the methods used met the standards for evaluation in this HPMP. If they do, then the PI should submit the previous evaluation report to the Corps for review. If the Corps finds the report to be adequate, the Corps will make a determination of eligibility for the evaluated resources. If the PI or the Corps finds the report to be inadequate or noncompliant, then the PI will prepare and implement an approved EP.

An EP should be prepared according to the type of site or resource that is being evaluated. The EP should take into account accessibility, function, and type of site. The EP should provide the prehistoric context or historic context, as appropriate for the resources being evaluated. For archaeological sites, research topics or questions from this HPMP that could be addressed using data from the sites must be used. Additional research topics or questions may be appropriate, as information and data from the site is gathered. The EP will also provide the field methods to be used to determine the boundaries and data potential of the resource. Archival research and fieldwork for evaluation cannot begin until the EP has been approved by the Corps.

5.3.3 Subsurface Testing of Prehistoric and Historic Archaeological Sites

Prior to the initiation of subsurface excavation, the PI shall review utility maps, when appropriate, to determine what areas lack subsurface integrity due to utility trenches or past earth-moving activities. The PI shall utilize USA (Underground Service Alert) North services (<http://www.usanorth.org/>; 1-800-227-2600) to assist in the identification of subsurface utility lines, in accordance with State law.

Any archaeological testing shall be limited to disturbing no more than 5% of the surface area of the resource or four cubic meters, whichever is less without additional SHPO consultation and shall be just sufficient to determine a site's eligibility for inclusion in the NRHP. If the evaluation of significance through archaeological testing cannot be ascertained from less than 5% impact, then the variance must be approved in advance by the Corps in consultation with the SHPO.

It is recommended that shovel test pits (STPs) be first used to ascertain the presence and distribution of subsurface cultural material and to define subsurface boundaries. STPs should be placed systematically at regular intervals across the site. The interval will be defined and justified in the EP. The boundary of subsurface material will have been defined when there is at least one negative STP beyond each positive STP in the direction away from the site center. STPs should be excavated in 20-cm levels. STPs should be excavated until there is at least one sterile level, although it may not be practical to excavate an STP more than 80 cm deep because the narrow width of deeper STPs restricts the angle through which the shovel

handle can move. To determine whether cultural deposits extend beyond 80 cm, hand-auguring is recommended.

If STPs indicate there is subsurface cultural material, one or more hand-excavated units should be placed. The number and size of units will be based on parameters specified in the EP. Units for subsurface testing should be excavated in arbitrary 10 cm levels unless cultural stratigraphy is evident. Unique stratigraphy must be profiled to scale. Stratigraphic levels will be described in terms of their soil color (use a Munsell soil color chart) and sediment grain size (classified as clay, silt, sand, or gravel). Once stratigraphic levels have been defined during testing, they can be used during excavation of units during data recovery, if applicable. All units must be excavated into culturally sterile sediments. Alternate definitions of sterile may be proposed and justified in the EP, especially in consideration of the potential for deeply buried deposits. Units that extend below 153 cm (5 feet) shall be stabilized with appropriate shoring equipment per OSHA trench safety standards. All excavated material should be screened using mesh no larger than ¼ inch. Prehistoric sites will require, at minimum, a sample screened using 1/8 inch mesh. All cultural material recovered from the screens should be placed in bags labeled with the proper provenience.

Exploratory backhoe trenching may be appropriate to locate historic-period features. However, once a feature is encountered, use of the backhoe will stop and the feature will be further investigated using hand excavation.

All materials recovered during the archeological excavations shall have some form of horizontal and vertical provenience control that will be attached to the material through all phases of recovery and analysis. Horizontal control shall be referenced from a primary datum point permanently affixed on, or set into the ground so that it will not be altered or destroyed. Secondary provenience data, such as unit datum corners, may be used as long as their location is referenced to the primary site datum. The locations of features, burials, or artifacts discovered in situ, shall be recorded in three dimensions from the excavation unit datum. All distances, depth, and height information shall be recorded in metric units. The provenience of both cultural and non-cultural material shall be documented in the form of notes and other recording methods as deemed necessary and appropriate, such as charts, graphs, maps, profiles, and photo-documentation (unless specifically objected to by any consulting party). Recording of datum proveniences using GPS units with at least 5-meter accuracy is required and sub-meter accuracy is recommended.

Topographic maps of the site will be prepared using at least a 1-meter contour interval and shall not be schematic or illustrative only. Maps or map overlays shall depict all archeological features, excavation units, STPs, relevant environmental features, and infrastructure.

The following documentation should be prepared during all excavation work: (1) general site photographs taken before, during, and at the completion of excavation work; (2) specific photographs (color transparency or digital, and black-and-white) of at least one wall of every excavation unit and all features; (3) excavation records and field notes for each unit, level, and feature; (4) individual feature records; (5) scale profile drawings of unit walls with associated Munsell soil color readings; and (6) photograph record forms, field catalog forms, and sample artifact catalog forms (may be combined with field catalog forms).

At the end of each day of excavation, each open unit should be covered to prevent wildlife from falling in or entering the open unit. The following measures should be used depending on the situation:

- Cover units with ½-inch or thicker plywood at the end of the work day. If this is not possible and/or there are no large animals on the property (cows, horses, etc.), leave unit open and place a 2-by- 4 or 2-by-6 in the unit leaning against one side wall to allow exit by any small animals that may fall into unit.
- Fences can be used to prevent animal access to an area with several open units. Steel posts with strands of barbed wire will keep large animals out.
- In trenches, a shallow ramp should be left at one end to allow animals to exit.

Upon completion of fieldwork, the work areas, back-dirt piles, and physical settings of the sites must be returned to a state similar to that which existed at the onset of the fieldwork. All flagging shall be removed at end of project.

5.3.4 Evaluation Reports for Archaeological Sites

Evaluation reports for archaeological sites will provide a prehistoric or historic context for the resource(s) evaluated, the methods employed, the results of archival research, the results of subsurface testing, and an evaluation of the resource using all four NRHP eligibility criteria, A, B, C, and D (see Section 5.3.2). More specifically, when applying Criterion D, the data recovered during the subsurface testing should be analyzed to determine whether it can be used to address the research topics and questions in Section 5.4. If the data is sufficient to address several of the research topics, and the site possesses sufficient integrity, the site will be evaluated as eligible under NRHP Criterion D (potential to yield information important in prehistory). The Principal Investigator will assess whether the types and quantity of data are sufficient, whether the number of addressable research topics or questions is sufficient to assess the site as eligible, and whether the site possesses sufficient integrity. Archaeological sites may also be evaluated under NRHP Criterion A for its association with significant historical events or a pattern of events or a historic trend that made a significant contribution to the development of a community. Prehistoric sites meeting this criterion may represent a pattern in establishment or termination of prehistoric interaction/trade with neighboring tribal groups, pattern of settlement, or changing mobility, for example. Archaeological sites may also be eligible under NRHP Criterion B (association with significant historical persons) using the historic context. Archaeological sites may also be eligible under NRHP Criterion C (for distinctive prehistoric architecture, or rock art for example). Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.5 Evaluation of Potential Traditional Cultural Properties

A traditional cultural property "is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (Parker and King 1998). Potential traditional cultural properties will be evaluated using the guidance in National Register Bulletin 38 (Parker and King 1998) and in consultation with the appropriate traditional cultural groups and the Corps. Traditional cultural groups may include, but are not limited to, Native American tribes and individuals, Chinese community members, and generational farming and agriculture families. Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.6 Evaluation of Historic Buildings, Structures, and Facilities

Historic buildings, structures, and facilities must be evaluated by a qualified individual who meets the applicable Secretary of the Interior's Professional Qualification Standards (see Section 4.1). Evaluation reports will contain a historic context based on archival research and a description of the architectural or engineering characteristics of the building, structure, or facility. The building, structure, or facility will be evaluated under NRHP Criterion A (association with significant historical events) and NRHP Criterion B (association with significant historical persons) based on the historic context. The building, structure, or facility will be evaluated under NRHP Criterion C (embodies distinctive architectural or engineering characteristics) using the description of the architectural or engineering characteristics of the building, structure, or facility. Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.7 Rural Historic Landscapes

A rural historic landscape is defined as “a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features” (McClelland *et al.* 1999). Potential rural historic landscapes must be evaluated by a Historian or Architectural Historian who meets the Secretary of the Interior’s Professional Qualification Standards (see Section 4.1) and will be evaluated using the guidance in National Register Bulletin 30 (McClelland *et al.* 1999). Evaluation reports for rural historic landscapes will contain a historic context based on archival research and a description of the landscape characteristics of the rural historic landscape. Rural historic landscapes can be evaluated under all four NRHP eligibility criteria. Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.8 Ethnographic Landscapes

The National Parks Service (NPS) initially identified ethnographic landscapes within the grouping of four types of “historical landscapes” (historic site, historic vernacular, historic designed, and ethnographic). The NPS defined ethnographic landscapes as: “A landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, sacred religious sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components” (National Park Service 2000).

The NPS’s Applied Ethnography program believed the initial definition of ethnographic landscapes to be too broad, thus expanded the definition to include: “a relatively contiguous area of interrelated places that contemporary cultural groups define as meaningful because it is inextricably and traditionally linked to their own local or regional histories, cultural identities, beliefs and behaviors. Present-day social factors such as people’s class, ethnicity, and gender may result in the assignment of diverse meanings to a landscape and its component places” (Evans *et al.* 2001).

As with TCPs, ethnographic landscapes are identified, defined, and recognized by the members of the cultural groups who are historically associated with the landscape rather than professional archaeologists and historic preservation professionals. Ethnographic landscapes can exist without depending on NRHP eligibility criteria. Unlike other cultural landscapes where significance is based on criteria set out by the NPS, the significance of ethnographic landscapes is determined by the importance the landscapes have had on the history and culture of the group or community associated with the landscape.

An ethnographic landscape “is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1998). Potential ethnographic landscapes will be evaluated using the guidance in National Register Bulletin 38 (Parker and King 1998) and in consultation with the appropriate traditional cultural groups and the Corps. Traditional cultural groups may include, but are not limited to, Native American tribes and individuals, Chinese community members, and generational farming and agriculture families. Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.9 Prehistoric Landscapes

A prehistoric landscape falls under the NPS’s definition of a “cultural landscape” which includes several types of historic landscapes. The NPS defines a historic landscape as: “a geographic area, including both natural and cultural resources, including the wildlife or domestic animals therein, that has been influenced by or reflects human activity or was the background for an event or person significant in human history” (Melnick

1984).

Prehistoric landscapes are similar to ethnographic and historic landscapes, in that they may include the natural and cultural resources within a designated area. But unlike ethnographic landscapes, they do not contain landscape features associated with cultural practices or beliefs of a living community which have been passed down from generation. Prehistoric landscapes may consist of prehistoric travel routes, quarry sites, or groups of sites associated by archaeological deposits and/or features within a geographic region.

Evaluation reports for prehistoric landscapes will provide a prehistoric or historic context for the resource(s) evaluated, the methods employed, the results of archival research, the results of subsurface testing, and an evaluation of the resource using all four NRHP eligibility criteria, A, B, C, and D (see Section 5.3.2). More specifically, when applying Criterion D, the data recovered during the subsurface testing should be analyzed to determine whether it can be used to address the research topics and questions in Section 5.4. If the data is sufficient to address several of the research topics, and the landscape possesses sufficient integrity, the landscape will be evaluated as eligible under NRHP Criterion D (potential to yield information important in prehistory). The Principal Investigator will assess whether the types and quantity of data are sufficient, whether the number of addressable research topics or questions is sufficient to assess the site as eligible, and whether the landscape possesses sufficient integrity. Archaeological districts may also be evaluated under NRHP Criterion A for their association with significant historical events or a pattern of events or a historic trend that made a significant contribution to the development of a community. Prehistoric districts meeting this criterion may represent a pattern in establishment or termination of prehistoric interaction/trade with neighboring tribal groups, pattern of settlement, or changing mobility, for example. Archaeological districts may also be eligible under NRHP Criterion B (association with significant historical persons) using the historic context. Archaeological districts may also be eligible under NRHP Criterion C (for distinctive prehistoric architecture, for example). Evaluation reports must be reviewed and approved by the Corps. When the evaluation report has been approved, the Corps will make a determination of eligibility and seek concurrence by the SHPO.

5.3.10 Archaeological Districts

Archaeological districts are defined as "A significant concentration, linkage, or continuity of sites important in history or prehistory" (Keller and Keller, n.d.). Examples of historic archaeological districts may consist of ranches, farms, mining landscapes, and historic town sites that contain a subsurface element. The same criteria is applied to prehistoric districts, which may consist of interconnected village sites, temporary camping sites, and a combination of archaeological sites, ethnographic landscapes, and/or traditional cultural properties. Evaluation reports for archaeological districts will follow the same process as prehistoric landscapes, above.

5.4 Research Topics and Questions

The California Office of Historic Preservation requires the use of a research design that "should present important research questions recognized for the region and relevant to the study, based on previous research" (OHP 1989:9). Research questions serve to guide research methods and to assess the potential for the recovery of scientifically valid data, ethnographic background, or oral history that are likely to satisfy any of the four NRHP criteria. Sources of data sought in the evaluations of eligibility shall be selected by the Principal Investigator, using professional judgment, as appropriate for the nature and type of the resource being evaluated and may vary according to NRHP criterion and resource. Sources may include, but are not limited to: archaeological data; architectural style; records, maps, and historical accounts in the archival record; oral history information; and ethnographic and prehistoric contexts.

5.4.1 Prehistoric Sites

Research topics for the prehistoric sites in the Project APE include activities and site function, internal site organization, subsistence patterns, and chronology and temporal patterning. The following research themes and questions exemplify those that may be appropriate for prehistoric sites under multiple criteria. The Principal Investigator shall apply any of these – or develop new questions – as deemed appropriate for the resource on an individual basis.

Activities and Site Function. Collecting site function and activities data is an important research theme in regard to explaining the past. Cultural material and feature data could explain the relationship between humans and their environment. Research questions include:

1. Is there a full range of activities represented, such as would be characteristic of a habitation site, or is there only a limited set of activities characteristic of a location? For example, are activities limited to resource procurement, or do they represent more permanent occupation?
2. Is there evidence of flaked stone tool use?
3. Is there evidence of flaked stone tool manufacturing?
4. Is there evidence of food processing?
5. Is there evidence of food preparation and cooking?
6. Is there evidence of overnight stays?
7. Is there evidence for flaked stone tool production and what techniques were used?
8. Is there evidence for ceremonial activity?
9. Do the site activities suggest a contribution to broad settlement patterns or mobility patterns?

Data requirements to address these questions include tools classified functionally and debitage classified technologically. If subsurface features (hearths, ovens) are present, the type and number of features will also help address these questions.

Internal Site Organization. Habitation sites are often composed of features that can be ascribed to living, food processing, refuse, religion or ceremonial functions, and many other aspects of prehistoric society. Identification of such features, and analysis of the internal site organization, can give insight into the social organization. Pertinent research questions can include:

1. Are there distinct manufacturing, processing, food preparation, or ceremonial areas within the site?
2. Were male and female activities carried out in different areas of a site?
3. If bedrock milling features are present, are distinct activity areas associated with each outcrop containing bedrock milling features, or was a single activity area used by everyone using any of the bedrock milling features at the site?
4. Does the arrangement of the features within the site suggest a broader prehistoric community design or sense of planning?

Data requirements include maps of the spatial distribution of tools, debitage, subsistence remains, and features. If the site is small and there are few categories that do not vary spatially, this domain cannot be addressed.

Subsistence Patterns. How prehistoric populations acquired food and water is a fundamental question studied by archaeology. While reflections of subsistence patterns are found in various features within habitation sites, such as hearths and midden despoths, reconstruction of subsistence systems often require information from multiple sites. These kinds of patterns may be indicative of eligibility under Criterion A. Research questions include:

1. Where were the food procurement locations utilized by the occupants of the site?

2. What resources were brought to the sites, and were they processed, prepared, or consumed at the site?
3. Is there evidence for specialization or intensification of resource use?
4. Are subsistence strategies narrowly focused on a few resources, or are they broad-based?
5. Do subsistence strategies change through time?
6. Can changes in the natural or cultural environment account for change?
7. Do the site activities suggest a contribution to broad subsistence patterns or mobility patterns?

Specialization would be indicated by large numbers of the remains of a few species. Intensification would be indicated by reliance on resources that require greater amounts of labor to procure or process. Data categories necessary to address these questions include faunal remains, protein and blood residue analysis, artifact use-wear analysis, and landscape-site associations.

Chronology and Temporal Patterning. In order for archaeologists to study cultural similarities and differences in cultures of the past, they must first put sites in temporal order. Patterns may be indicative of eligibility under Criterion A.

1. Can the site be assigned to a particular period, complex, or phase?
2. Were the sites used at the same time as other nearby sites or sequentially?
3. Were the sites used continuously for a short or long period of time?
4. Were there periods of time when the sites were not used (continuous occupation or periodic abandonment)?
5. What portions of local chronological sequences are represented by cultural resources in the Project Area?
6. What are the chronological ranges for particular projectile point types?
7. Can we identify chronological patterns in lithic raw material procurement practices or flaking technologies? If so, can these be used to date sites lacking other diagnostic artifacts?
8. Do significant correlations exist between the timing of climatic shifts and technological innovations?
9. Do the sites suggest a contribution to broad cultural change?

Chronological dating of sites often relies on the presence of subsurface material rather than surface material alone. Substantial subsurface material combined with a necessary degree of site integrity and preservation may aid in the dating of the archaeological site. Sites most likely to contribute to this theme include habitation sites that may contain thermal features, refuse deposits, and stratified middens. These sites may contain stone artifacts, such as projectile points, with temporally indicative stylistic characteristics. Also, charcoal, animal bone, and shell may be dated by radiocarbon assay. Some indication of the time range (relative dating) for obsidian artifacts may be obtained from measurement of obsidian hydration rinds.

Trade and Exchange. Archaeological information about trade and exchange comes mostly from exotic lithic and shell materials. These are materials with no known local source that must have been obtained from elsewhere through trade or exchange. One of the most studied exotic materials is obsidian. Obsidian found in archaeological sites in this area usually comes from a known source of obsidian, such as Bodie Hills or Mt. Hicks on the eastern side of the Sierra Nevada Mountains or Napa Valley and Borax Lake in the coastal mountains. Each obsidian source has a unique trace element composition which can be compared to the trace element composition of the obsidian artifact from a site. Patterns of trade and exchange may contribute to broader patterns of cultural change, mobility, and political settings that should be considered under NRHP Criterion A as well.

1. Obsidian from which sources were traded into the project area and when?
2. What inferences about mode of exchange can be made between the site area and the source area(s)?
3. Do exotic artifacts present at the site reflect inter-tribal relationships or broad patterns of mobility or settlement?

Because the chemical composition of all the obsidian sources are known, the origins of the obsidian found in PVSP sites can be determined using x-ray fluorescence or neutron activation analysis. Whether obsidian arrived in the PVSP area as finished artifacts or raw material and inferring the mode of exchange (direct access, down the line trade, exchange through middlemen, etc.) requires data from a regional study (Hughes and Milliken 2007). However, information from the obsidian artifacts from the PVSP area can contribute to such a regional study. Samples of obsidian that can be sourced, using either neutron activation analysis, X-ray fluorescence, and in some cases, visual indicators, are needed. These samples should also be large enough to provide good surfaces for hydration measurement, so that a relative date (time period) can be obtained for use of the obsidian.

5.4.2 Historic Archaeological Sites

Material from rural archaeological sites from the nineteenth and early twentieth centuries can provide information about the developing domestic economy of farmsteads and ranches, changes in socio-economic status, and changes in the spatial organization of activities within the farmstead. Early settlers may have been relatively self-sufficient, producing most food for their own consumption on the farm. Over time they may have increasingly participated in the developing market economy, exchanging their agricultural products for manufactured goods obtained from towns. Some farmers/ranchers may have specialized in a single crop or product and ceased to produce food for domestic consumption, obtaining all food from stores in the nearest town. The socio-economic status of rural residents may also have changed, based on increased access to markets for their agricultural products and changing commodity prices. By about 1920, most rural residents fully participated in the national economic system and agriculture had become mechanized. For the period after about 1920, there is little information that historical archaeology can provide about rural ranching and farming that is not already known from historical sources.

Research topics include:

1. Self-sufficiency versus participation in a market economy. Were food and household items produced on the farm or obtained from local, regional, or national sources? Did the degree of self-sufficiency decrease over time?
2. Socio-economic status. What was the socio-economic status of rural residents, as reflected in material possessions? Did socio-economic status change over time?
3. Organization of activities. What was the spatial organization of activities within the farmstead and did this change over time in conjunction with increased production for the market?

More specific research questions should be developed based on the historic context for the resource being evaluated.

Data categories necessary to address the research topics and questions include artifacts from before 1920 classified functionally. Technological attributes will provide a date range. Features, such as foundations, wells, privies, pits, walls, and fences will provide information on the organization of activities.

5.5 Documentation

5.5.1 DPR 523 Forms

DPR 523 form sets will be completed when recording archaeological sites during survey. Forms will be completed following the guidance in *Instructions for Recording Historical Resources* (OHP 1995). Temporary field numbers should be assigned to sites that do not yet have a primary number and trinomial. At a minimum for archaeological sites, the primary record, archaeological site record, sketch map, and location map will be completed. Other forms should be added as applicable. When updating the record for a previously-recorded site, continuation sheets are acceptable, if there is already an accurate primary record on file at the NCIC. If the existing DPR or site form is outdated or inaccurate, the appropriate forms should be

completed to rectify the situation. For example if the site boundary or distribution of features in the site has changed, a new sketch map would be required. Upon completion of subsurface testing, the results of testing should be added to the DPR 523 form set for the site. The locations of the STPs and units should be shown on the sketch map.

For buildings, structures, and facilities, a primary record, sketch map, and location map should be completed during survey. The Building, Structure and Object (BSO) DPR 523 form may be completed by the Architectural Historian during evaluation, or may be completed by another qualified professional.

All completed DPR 523 forms should be sent to the NCIC as soon as possible, so that they can assign primary numbers and trinomials (if appropriate), which will then be included in the technical reports in place of the temporary numbers assigned in the field.

5.5.2 Cataloging and Analysis

All artifacts will be cleaned and sorted as appropriate by provenience first, and then by material class. Materials will be stabilized as necessary to protect from deterioration. All artifacts and other samples collected from these sites will be fully cataloged. Catalog numbers will be assigned in numerical order once artifacts are properly sorted and shall use a binomial scheme (site number, hyphen, catalog number).

Catalog information will be entered into a Microsoft Excel spreadsheet (or other database with the capability of exporting data into Excel) and either typed or printed on computer-generated tags and inserted into archival-quality artifact bags. References to artifacts and other samples in the draft and final report and appendices must be by permanent catalog number. Below is the minimum information required for each specimen in the catalog:

- Site number (P# or Trinomial, or both)
- Field site number
- Provenience/collection unit
- Accession number
- Catalog number
- Object name
- Object description
- Material of manufacture
- Form (object type)
- Quantity
- Measurements (when needed, e.g. weight, length, circumference)
- Conservation and condition
- Cataloger name and date collected
- Location in temporary repository
- State and county
- UTM coordinates
- Remarks

All information will be entered into a database, along with each artifact's provenience, a catalog number, and any other pertinent information. All artifacts will be placed in archival quality 4-mil plastic zip bags with acid-free card stock paper tags labeled with archival ink. Artifact identification and analysis shall be carried out so that the recorded attributes and artifact types can be used to address the research topics and questions in this HPMP. The recovered artifacts will be identified and cataloged by qualified archaeologists. Each artifact will be examined to identify the material, artifact type, manufacturer (if applicable), function, and approximate date. A representative sample of diagnostic artifacts, not to exceed 20 percent of the total diagnostic artifact collection, will be documented using photography, illustration, or a comparable method of recording.

A form will be completed for all artifacts and samples sent to outside labs for analysis. The form will provide the catalog number of the artifact or sample, the artifact or sample type, the contact information for the laboratory where the sample was sent, the type of analysis requested, and the date sent. It should also be noted if the sample will be returned or destroyed during analysis. If returned, a date will be provided on the returned form.

5.5.3 Cultural Resources Inventory Report

The results of each study carried out under the PA will be documented in a technical report that provides at a minimum, an environmental and cultural context, methods employed, results, and recommendations for further work. Reports of subsurface testing will include a discussion of the field and laboratory methods employed, describe the recovered artifacts, and provide a site map showing the locations of STPs, units, and features, along with the site boundary. A catalog of the recovered artifacts will be provided in a report appendix. Information from the analysis of the recovered artifacts will be used to assess whether the research topics and questions presented in Section 5.4 can be addressed and to evaluate the site under NRHP Criterion D.

Results of the cultural resources study should be presented in an Archaeological Resource Management Report (ARMR) format which follows the California Office of Historic Preservation, Department of Parks and Recreation *Recommended Contents and Format* (OHP 1990). The report should include:

- Cover Letters
- Title Page
- Table of Contents
- Management Summary/Abstract
- Undertaking Information/Introduction
- Environmental Setting
- Cultural Context/History
- Research Design/Project Description
- Methods
- Results
- Discussion/Interpretation/Evaluation
- Management Considerations
- References
- Appendices
- Confidential Appendices

Not all sections listed are applicable to each kind of report. Different sections will be included depending on whether the report is a survey report, a supplemental survey report, or an evaluation report. Exceptions to the standards and format presented in this HPMP are allowable if previous technical reports are determined compliant by the Corps or through a pre-approved research design.

In accordance with the access agreements of the California Historical Resources Information System (CHRIS), one complete unbound copy of each technical report must be submitted to the appropriate Information Center within 60 days of completion, regardless of the status of project approval.

Technical reports that contain confidential archaeological site or TCP data shall be labeled "Confidential" on the report cover. Each consultant must make a good faith effort to ensure that confidential site information is not distributed publically.

5.5.4 Mapping and Spatial Data

Positional Data. Site mapping will use a GPS with 5 meter or greater accuracy and locations will be shown on 1:24,000 topographic maps for survey. Site location data shall be overlaid on project development plans and wetland delineations for the Corps to make a Determination of Effect.

Required Recorded Features. Each consultant team for a Permit APE is expected to record the external boundary of each site, and thoroughly fill out all attribute data. Features may be recorded as a point, line or polygon in the GPS unit. Individual artifacts and/or site boundaries smaller than 5 square meters in size may be recorded as individual points. Linear site boundaries with consistent widths (such as ditches, fence lines, roads) may be recorded as line features. All other site boundaries will be recorded as closed/complete polygon features. The appropriate feature type should be selected by the archeologist in the field.

Attribute Data. Data dictionaries (e.g., Trimble) or data collection forms (e.g., ArcPAD) are designed to simply, efficiently, and without redundancy, describe features (landscape, biological, cultural, or historical). A data dictionary or form organizes data into types or 'themes' and reduces user error when entering values. It is an efficient use of time and energy to employ this type of data collection, and it standardizes the data collected by different consultants. A Trimble data dictionary file (.ddf) is provided in Attachment B.

GIS Data Standards. Once field-collected data have been differentially corrected and post-processed, it must be exported to a modern standard GIS file type (i.e. shapefile or geodatabase).

GIS Data Coordinate System Information. As GPS systems utilize ITRF00 and commonly display coordinates in WGS84, this project will utilize a standard coordinate system for all project-wide data storage and analysis. All digital geospatial data should be in Universal Transverse Mercator Zone 10 North Projection (UTM10 North) on the datum described on the applicable USGS 7.5' Quad.

A data dictionary is designed to ensure continuity of nomenclature between consultants and is provided in Attachment B.

6.0 NATIVE AMERICAN CONSULTATION PROCEDURES

6.1 General Consultation Procedures

The Corps has initiated government-to-government consultation with the Shingle Springs Band of Miwok Indians and the United Auburn Indian Community of the Auburn Rancheria (see Section 2.5). The Corps will determine if any other federally-recognized Native American organizations wish to participate in government-to-government consultation about the PVSP project. The general consultation procedures are presented below.

6.1.1 Initial Outreach

The Principal Investigator for each Undertaking shall first contact the California Native American Heritage Commission (NAHC) to request a search of the Sacred Lands File and list of contacts. Upon receipt of the results, the Principal Investigator shall send by mail or email a project notification letter to each contact named by the NAHC. The notification letter shall, at minimum, include a boundary map of the APE subject to the Undertaking and a brief description of the project, and the name and contact information to whom comments should be addressed. No sooner than one week following the delivery of the project notification letters, the Principal Investigator shall attempt, up to two times, to reach each contact by phone or email to verify receipt of the project notification letter and solicit comments. All non-written correspondence shall be documented in a log or appropriate record of conversation, which includes both successful and non-successful attempts to contact each individual.

Copies of the written correspondence and logs shall be forwarded to the Corps with the applicable technical report in order for the Corps to follow-up and continue with government-to-government consultation. Should a more immediate response be warranted, the Principal Investigator shall forward correspondence to the Corps immediately upon receipt.

6.1.2 Meetings

At the discretion of the Corps, responding or requesting members of the Native American community contacted initially by the Principal Investigator shall be invited to participate in a project meeting or field tour of the APE, or both. The invitation to meet shall be sent by the Corps either in writing or by email two weeks prior to the anticipated meeting date to reasonably accommodate schedules. All meetings and tours shall be documented by a roster of attendees and meeting minutes.

6.1.3 Solicit Written Comments

The Corps shall contact each respondent or interested party to request written comments, following a field tour, or meeting, or the invitation to attend such (if declined). Written comments may be submitted either by email, fax, handwritten letter, or formal comments on tribal letterhead, at the discretion of the commenting party. The Corps shall allow 30 days for written comments to be submitted to the Corps. Upon request, the Corps may extend the comment period for another 30 days to accommodate tribal schedules. After 60 days, the Corps shall evaluate the body of information received.

6.1.4 Evaluate Information

Within 15 days of the conclusion of the comment period specified in Section 6.1.3, the Corps shall acknowledge by email or letter to each commenting party its receipt of the written comments for the Undertaking and copy the SHPO and Principal Investigator. The Corps shall review and evaluate the written comments to determine:

- 1) if the comments provide specific information about potential adverse effects to previously known or unknown historic properties within the APE for the specific Undertaking;
- 2) if the comments suggest a change to the NRHP eligibility of resources within the APE for the specific Undertaking;
- 3) if additional research is warranted and would lead to important information prior to the Undertaking as opposed to being carried out as part of any resolution of adverse effect;
- 4) if the information presented is both credible and consistent with applicable National Register Bulletins and guidance; and
- 5) if further consultation is necessary in order to come to a decision on the Undertaking.

Within 30 days of initiating its evaluation of written comments, the Corps shall notify the commenting parties and SHPO of the results of its evaluation and allow 30 days for the recipients to respond to its findings. After 30 days, if no comments are received, then the Corps may proceed.

If comments are received after the prescribed comment period, then the Corps shall evaluate those comments, but is not obligated to halt the project review and approval process in the meantime. Evaluation and notification of determinations following the receipt of late-arriving comments shall follow the same procedure above.

6.2 Native American Organizations as Concurring Parties

The Corps may invite the Native American organizations that are participating in government-to-government

consultation to serve as Concurring Parties under the terms of the PA. The Concurring Parties will be given the opportunity to review and comment on all technical reports and Section 106 documents required by the PA and this HPMP. Adding Concurring Parties to the PA shall not trigger an amendment to the PA. Comments on each report or document should be sent to the Corps within 30 days of receipt, as specified in the PA. The Corps will send comments received to the PI(s) responsible for the report or document being reviewed.

6.3 Native American Organizations and Individuals as Non-Concurring Parties

Native American organizations and individuals that do not qualify for government-to-government consultation can request status as a Consulting Party. Consulting Parties may also be able to review reports and documents.

7.0 ASSESSMENT OF EFFECTS

The PI for a Permit APE will prepare a Finding of Effect (FOE) document for the historic properties (resources that were determined eligible for the NRHP) in the permit APE, as required by Stipulation 4 of the PA and regulations (36 CFR 800.5) implementing Section 106 of the National Historic Preservation Act. The FOE may be combined with an Evaluation of Eligibility report if sufficient information exists for the Corps to make a determination of effect. The Finding of Effect document will include a project description, a summary of public outreach efforts, a summary of the results of identification and evaluation, a description of the historic properties, and a discussion of the Project's effects on each historic property. The effects will be illustrated with an exhibit overlaying the boundary of the historic property on the Project development plan.

The criteria of adverse effect will be applied and it will be explained why the effect on the historic property would or would not be adverse. As defined in the Section 106 regulations (36 CFR Part 800.5):

An adverse effect is found when an undertaking 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. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

The Finding of Effect document will be sent to the Corps for review. The Corps will send a letter to the SHPO that contains the Corp's Finding of Effect and transmits the approved Finding of Effect document to the SHPO for concurrence.

8.0 RESOLUTION OF ADVERSE EFFECTS

Adverse effects to historic properties will be resolved (mitigated) by redesigning project components to avoid historic properties or by treating historic properties through development and implementation of a Historic Properties Treatment Plan (HPTP), which shall stipulate the appropriate actions to resolve adverse effect. The HPTP will contain a project description including construction activities that will affect historic properties, a summary of the identification and evaluation efforts, a summary of the finding of effect, a description of the historic properties to be treated, the prehistoric or historic context of the historic properties, and a treatment plan for each historic property that will be adversely affected. Treatment may include, but is not limited to, an archaeological data recovery plan, ethnographic study, Historic American Building Survey (HABS) documentation, or cultural landscape documentation. Treatment for buildings, structures, and facilities can consist of HABS/HAER recording, documentation of oral and archival history, historic markers, exhibits, and interpretive brochures or publications. The methods used to resolve adverse effect shall be appropriate for the type of resource and NRHP criterion for which it is eligible. Each HPTP will be reviewed by the Corps, the SHPO, and appropriate Concurring Parties (per the PA).

8.1 Treatment

Avoidance is the preferred treatment method for all historic properties. The project proponent for a specific permit APE shall, if feasible, redesign the development project to place historic properties in open space. This could include converting a lot that had been planned for residential development to open space designation or redesigning a road to curve around a historic property.

Buildings, structures, and facilities that will be avoided and preserved, rehabilitated, restored, or reconstructed should be treated in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 38; NPS 1998). The Standards define these treatments as follows:

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.

Rehabilitation is defined as the act or process of making possible an efficient compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its

historic location.

Data recovery, if appropriate, will consist of preparation and implementation of a data recovery plan (DRP). The preparation and implementation of a data recovery plan (DRP) will be required in the HPTP. The DRP will contain:

- Description of the site
- Prehistoric or historic context of the site
- Research topics or questions that data from the site can address, based on the evaluation report
- Field methods, including the number and placement of excavation units
- Sorting, cataloging, and analysis methods for the proposed investigation
- Data recovery report outline
- Curation plan
- Schedule

The requirements for excavation and documentation of units in Section 5.3.3 and the requirements for cataloging and analysis in Section 5.5.2 will be included in the DRP.

The preferred resolution of adverse effects for TCPs is avoidance. If avoidance is not feasible, treatment for eligible TCPs that will be adversely affected will be specified in the HPTP. The treatment will be planned and implemented in consultation with the organization(s) or individual(s) that identified the TCP and the Corps. Treatment may include the documentation discussed in National Register Bulletin 38 (Parker and King 1998). Any treatment will take into account requests for confidentiality from the traditional cultural groups consulted as part of TCP identification.

The preferred resolution of adverse effects for a rural historic or ethnographic landscape, or an archaeological district is avoidance. If avoidance is not feasible, treatment for eligible rural historic landscapes that will be adversely affected will be specified in the HPTP. The treatment will be planned and implemented in consultation with the Corps. Treatment may include Historic American Landscape Survey (HALS) recording, which could use some combination of large format photography, aerial photography, and aerial or ground-based LIDAR, as well as documentation of oral and archival history, historic markers, exhibits, and interpretive brochures or publications.

8.2 Inadvertent Discoveries

The HPTP shall include a plan for inadvertent discoveries during construction. The plan will include:

- Procedures for construction monitoring, including Native American monitors, as appropriate
- A Worker Education Program
- Definition of inadvertent discoveries that would require treatment
- Discussion of the authority to halt construction and under what circumstances
- Flagging and fencing measures
- Notification procedures
- Testing and evaluation procedures
- Data recovery plan and implementation (see Section 8.2)
- Plan for discovery of human remains

The plan for discovery of human remains should incorporate the following legal and procedural guidelines. In the event that evidence of human remains is discovered, construction activities within 100 feet of the discovery will be halted or diverted and the construction supervisor, the PI, and the Corps will be notified. State law requires that the discovery of human remains be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (AB 2641). If the Coroner determines the remains are Native American, the

Coroner notifies the Native American Heritage Commission which then designates a Native American Most Likely Descendant (MLD) for the project (Section 5097.98 of the Public Resources Code). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB 2641).

In the absence of an HPTP, where any given Undertaking will not have an adverse effect on Historic Properties, the Corps shall require an unanticipated discovery protocol as a condition of the permit or approval. The protocol shall address unanticipated discovery of all cultural resources, including but not limited to the presence of human remains.

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LIST OF ATTACHMENTS

Attachment A – Corps' Guidelines

Attachment B – Data Dictionary

ATTACHMENT A

Corps' Guidelines



GUIDELINES FOR COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

March 24, 2014

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG.

Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to take into account the effects of their undertakings on Historic Properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Therefore, prior to the issuance or authorization of any permit under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act, the U.S. Army Corps of Engineers, Sacramento District, Regulatory Division (Corps) must consider the effect the permit may have on Historic Properties. Historic Properties may include prehistoric or historic districts, sites, buildings, structures, objects, sacred sites, and traditional cultural places, that are included in, or eligible for inclusion in, the National Register of Historic Places.

In order to comply with the NHPA, the Sacramento District Regulatory Division has prepared these guidelines to assist applicants, their consultants, and the Corps in minimizing time and effort preparing submittals to the State Historic Preservation Officer and expediting the review process. Reports not meeting the minimum guidelines will be returned to the applicant or consultant for revision.

In addition to standard professional reporting requirements, consultants should address the following elements in the preparation of cultural resources reports submitted to the Corps for compliance with Section 106 of the NHPA. It is important that the cultural resources consultant establish a working relationship with the Regulatory Project Manager, and/or District Archeologist, prior to preparing a cultural resources report. The cultural resources report must be a stand-alone document and not dependent on other reports associated with a project.

- **Project Description.** Include a complete and specific project description identifying purpose, acreage, location (including construction, staging, and access areas), construction methods, construction phasing (if any), and the elements of project construction, such as pipelines, roads, housing, etc., that have potential to affect historic properties. Such elements may include the portions of the project that will be altered, the parts that will remain unchanged, the visual impact of the project's various components, and the location and depth of ground disturbance that will occur as a result of the project's implementation.
- **Define Undertaking.** Issuance of the permit is the undertaking. Include a statement that "since the project would affect waters of the United States, the project proponent must meet requirements of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, and therefore, is seeking a permit from the U.S. Army Corps of Engineers, Sacramento District." Include a statement regarding what federal agency has been designated the lead federal agency for compliance with Section 106 of the NHPA if more than one federal agency is involved.
- **Area of Potential Effect (APE)/Permit Area.** The Corps shall define the APE/Permit Area for the project. Describe the horizontal and vertical (depth of ground disturbance) area of direct and indirect effects. Include a discussion on viewshed for the built environment, when appropriate. A viewshed APE may be different than a geographic APE and will require photographs looking toward and looking from the affected structure(s) as well as an analysis of how the viewshed was determined.

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☐ **Maps.** Include a vicinity map, a page-size U.S.G.S map showing the anticipated APE/Permit Area, and a high quality large-scale map (1 inch = 200 feet) showing the proposed project development, and the approved or preliminary waters of the United States delineation.

☐ **Literature Review.** Include a records check that is not over one year old from the appropriate records repository, as well as review of other pertinent material including, but not limited to gray literature, Sanborn maps, historic topographical maps, historic aerial photographs, or other sources outside the records check. Additional information from local sources such as historical societies and public libraries, when available, should be provided. Include records of previous surveys and previously identified historic properties, when appropriate. Include sources for identification of submerged resources, when appropriate. Describe past and current land uses in a site-specific historical context statement.

☐ **Field Methodology.**

☐ Provide a detailed narrative on the field methodology, including field dates, the number and/or the names of the people on the survey, as well as the qualifications of the crew chief, and the field conditions. Also include the rationale for how the field methodology is appropriate relative to both the project's potential effects on historic properties and the field conditions at the time of the inventory.

☐ Identify whether the entire Permit Area was subject to a uniform field methodology, and, if not, describe where and how variations to the primary field methodology occurred. Include a map of variations to the primary field methodology, as appropriate.

☐ Specifically address both surface and subsurface identification efforts. Reference any applicable state and/or Federal standards under which the survey was conducted.

☐ Resources identified in field inventories completed more than 2 years old must be re-examined, and if necessary rerecorded, to determine site integrity and project effect.

☐ Describe potential for subsurface archeological remains. Include statement on how that determination was made, i.e., soils maps, field observation, geotechnical explorations, etc.

☐ **Native American Coordination.** Must be current, as Tribal contacts are subject to change. Letters to Tribes, both those with and without Federal recognition, and/or interested Native American individuals must be followed by telephone/email or other reasonable attempts to engage responses. Documentation of contacts and responses must be included. Lack of response must also be documented. Note, communication between consultants and Tribes or Native American individuals is considered coordination. Federally-recognized Tribes are sovereign nations and may require more formal government-to-government consultation if they so wish. The Corps will direct such consultation.

☐ **Other Interested Party Coordination.** Interested parties are individuals or entities which have expressed and demonstrated a viable interest in a proposed project. Letters to interested parties must be followed by telephone/email or other reasonable attempts to engage responses. Coordination must be current and documentation of contacts and responses must be included. Lack of response must also be documented. Note, communication between consultants and interested parties is considered coordination. Interested parties may request to become consulting parties and must submit their request in writing to the Corps.

☐ **Findings.**

☐ Provide a detailed description of all cultural resources identified within the APE. Provide a detailed description of all previously identified historic properties located within close proximity of the APE, as appropriate. Include all applicable data forms and/or site records as an appendix to the report.

☐ **Maps.** Include a high quality large-scale map (1 inch = 200 feet) showing the proposed project development overlaying the approved or preliminary waters of the United States delineation and the cultural resource locations, including isolates. Cultural resource locations and boundaries on the map are to be drawn to scale and not represented as symbols.

☐ **Photographs.** Must include high quality color photographs of each cultural resource identified and also include photographs showing the environmental setting, where appropriate.

☐ **Recommendation of Eligibility of a property for listing on the National Register of Historic Places (NRHP).** Unless otherwise determined, consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) is the sole responsibility of the Corps. Consultation with the SHPO towards compliance with Section 106 should begin early in the process. Normally, the Corps makes the final decision on eligibility with concurrence from the SHPO, thus the consultant must be clear whether this has occurred in the past (provide date of SHPO concurrence letter) or whether the eligibility recommendation is the consultant's recommendation.

Eligibility recommendation:

☐ Must be completed for each prehistoric or historic site, district, building, structure, or object found within the APE; and

☐ Must include an historic context statement in accordance with National Park Service, National Register Bulletin 15, and other appropriate National Register bulletins; and

☐ Must address whether a cultural resource is or is not eligible for the NRHP under all four of the criteria, and must consider the issue of integrity of each resource. A concise, rational argument for, or against eligibility must accompany each recommendation.

☐ **Eligibility Testing Plan.** If the eligibility of a cultural resource is in question, the consultant can submit a draft eligibility testing plan with the survey report to the Corps. It may be appropriate to include Tribes or Native American individuals, or other interested parties, in development and execution of the eligibility testing plan. The SHPO and the Corps will review and comment on or approve the eligibility testing plan for the specific sites and will advise the consultant when the testing plan may be implemented. After testing is complete, a testing report shall be submitted to the Corps so that the Corps may consult with the SHPO regarding the eligibility of the cultural resource.

☐ **Recommendation of Effect of the undertaking on cultural resources identified as historic properties.**

☐ For each cultural resource identified as an historic property, the consultant must discuss the specific proposed project impacts and define the effect within the Advisory Council on Historic Preservation framework at 36 CFR § 800.4(d), and, where, appropriate, 36 CFR § 800.5. Describe how much of the historic property would be affected. After the effect on each historic property is defined, the consultant must make an effect recommendation for the overall undertaking.

- **Adversely Affected Historic Properties.** A Historic Properties Treatment Plan (HPTP) and Memorandum of Agreement (MOA) will be required for adversely affected historic properties. These are sometimes combined as a second step in the Section 106 process, subject to advance SHPO approval. Typically, the MOA is developed by the Corps, though the applicant or consultant may develop the MOA with prior approval, and in consultation with the Corps. The HPTP will be developed by the applicant or consultant and is submitted through the Corps to the SHPO and ACHP with the MOA. Such documents can be provided on CDs and should be capable of being edited and not overly formatted.
- **Monitoring Plan.** In the instance where a cultural resource determined eligible for listing on the National Register of Historic Places is located within the Corps' APE/Permit Area, but will be avoided by the project, the consultant should submit a proposed avoidance and monitoring plan for review and comment on or approval by SHPO and the Corps. The approved monitoring plan shall be implemented at the instruction of the Corps.
- **Professional Qualifications.** Principal Investigators must meet the Secretary of the Interior's Standards for Professional Qualifications (48 FR 44738-44739) in the discipline germane to a particular resource type. For example, prehistoric archeologists should not identify and evaluate built environment resources without the oversight of an historian or architectural historian, nor should the reverse occur. Provide the identification and qualifications for those participating in the survey and evaluation of resources.
- **Report Format.** Include an Abstract which summarizes the project and findings. Include a table of contents and section headings that identify project purpose, project description, literature review, field methodology, and the remaining categories identified in the paragraphs above, in addition to background statements and any other information the consultant believes will aid in the identification, evaluation, and effect determination of the project on historic properties. Section headings are very important as they assist the reader in locating the appropriate subjects. Two complete copies of each report must be submitted.

ATTACHMENT B

Data Dictionary

GPS Data Dictionary

"CR_Point", point, "", 1, seconds, 2, Code
"Site Information", caption, "Site Information"
"Name", text, 50, required, "Resource Name", normal, AAAA-####, Label1
"Field_ID_Num", text, 25, normal, "Field ID Number", normal
"Trinomial", text, 25, normal, "Trinomial", normal
"General Information", caption, "General Information"
"Site_Iso_Elm", menu, required, "Site or Isolate", normal
 "Site"
 "Isolate"
 "Element of District"
"District", menu, normal, "District", normal
 "N/A", default
 "Undetermined"
 "Other (Add Note)"
"Resource Information", caption, "Detailed Resource Information"
"Age", menu, required, "Resource Age", normal
 "Prehistoric"
 "Historic"
 "Modern"
 "Multi-Component"
"Category", menu, required, "Resource Category", normal, Label2
 "Other (Note)"
 "Site Boundary"
 "Concentration"
 "Feature"
 "Artifact"
 "Locus"
"Type", menu, required, "Resource Type", normal
 "Other (Note)"
 "Biface"
 "Block Shatter"
"Bone",
 "Avian"
 "Faunal"
 "Fish"
"Bottle-Glass"
"BRM"
"Cairns"
"Can"
"Charcoal"
"Ceramic"
"Drainage"
"Drift Mine"
"FAR"
 "Flake"
"Foot Path"
"Ground Sluicing Feat"
"Hammerstone"
"Knife"
"Locus"
"Manuport"

"Metal Rope/Cable"

"Metate"

"Mining Feat (Other)"

"Mortar"

"Penstocking"

"Rock Cairn"

"Rock Hearth"

"Tool"

"Utilized Debitage"

"Well"

"Label", text, 50, normal, "Resource Label", normal

"Note", text, 100, normal, "Note", normal

"Other Features", caption, "Other Feature Information"

"Other", text, 100, normal, "Reference Feature", normal

"CR_Line", line, "", 1, seconds, 1, Code

"Site Information", caption, "Site Information"

"Name", text, 50, required, "Resource Name", normal, AAAA-####, Label1

"Field_ID_Num", text, 25, normal, "Field ID Number", normal

"Trinomial", text, 25, normal, "Trinomial", normal

"General Information", caption, "General Information"

"Site_Iso_Elm", menu, required, "Site or Isolate", normal

"Site"

"Isolate"

"Element of District"

"District", menu, normal, "District", normal

"N/A", default

"Undetermined"

"Other (Add Note)"

"Resource Information", caption, "Detailed Resource Information"

"Age", menu, required, "Resource Age", normal

"Prehistoric"

"Historic"

"Modern"

"Multi-Component"

"Category", menu, required, "Resource Category", normal, Label2

"Other (Note)"

"Site Boundary"

"Feature"

"Artifact"

"Concentration"

"Locus"

"Type", menu, required, "Resource Type", normal

"Other (Note)"

"Berm"

"Bone",

"Avian"

"Faunal"

"Fish"

"Ditch/canal(lined)"

"Ditch/canal(earthen)"

"Fence"

"Ditch"

- "Road Segment"
- "Drainage"
- "Foot Path"
- "Locus"
- "Biface"
- "Block Shatter"
- "BRM"
- "Charcoal"
- "FAR"
- "Flake"
- "Hammerstone"
 - "Knife"
 - "Manuport"
 - "Metate"
 - "Mortar"
- "Shell"
 - "Tool"
 - "Utilized Debitage"
 - "Rock Cairn"
 - "Rock Hearth"
 - "Well"
- "Label", text, 50, normal, "Resource Label", normal
- "Note", text, 100, normal, "Note", normal
- "Other Features", caption, "Other Feature Information"
- "Other", text, 100, normal, "Reference Feature", normal
- "CR_Poly", area, "", 1, seconds, 1, Code
 - "Site Information", caption, "Site Information"
 - "Name", text, 50, required, "Resource Name", normal, AAAA-####, Label1
 - "Field_ID_Num", text, 25, normal, "Field ID Number", normal
 - "Trinomial", text, 25, normal, "Trinomial", normal
 - "General Information", caption, "General Information"
 - "Site_Iso_Elm", menu, required, "Site or Isolate", normal
 - "Site"
 - "Isolate"
 - "Element of District"
 - "District", menu, normal, "District", normal
 - "N/A", default
 - "Undetermined"
 - "Other (Add Note)"
 - "Resource Information", caption, "Detailed Resource Information"
 - "Age", menu, required, "Resource Age", normal
 - "Prehistoric"
 - "Historic"
 - "Modern"
 - "Multi-Component"
 - "Category", menu, required, "Resource Category", normal, Label2
 - "Other (Note)"
 - "Site Boundary"
 - "Feature"
 - "Artifact"
 - "Concentration"
 - "Locus"

"Type", menu, required, "Resource Type", normal

"Other (Note)"

"Biface"

"Block Shatter"

"Bottle-Glass"

"BRM"

"Bucket Ln Drdge Tail"

"Cabin Site"

"Camp Site"

"Can"

"Ceramic"

"Charcoal"

"Dam"

"Drag Ln Drdge Tail"

"Drainage"

"Dry Land Drdge Tail"

"FAR"

"Bone"

"Avian"

"Faunal"

"Fish"

"Flake"

"Foot Path"

"Foundation"

"Ground Sluicing Feat"

"Hammerstone"

"House Site"

"Hydraulic Mine Scar"

"Knife"

"Locus"

"Manuport"

"Metate"

"Mill Site"

"Mining Feat (Other)"

"Mortar"

"Multiple (Note)"

"Other Scatter (Note)"

"Placer Mine Tailings"

"Prospect Pit"

"Quartz Mine"

"Rock Cairn"

"Rock Hearth"

"Tool"

"Utilized Debitage"

'Shell"

"Well"

"Label", text, 50, normal, "Resource Label", normal

"Note", text, 100, normal, "Note", normal

"Other Features", caption, "Other Feature Information"

"Other", text, 100, normal, "Reference Feature", normal

"CR_Test", point, "", 1, seconds, 1, Code

"Site_Name", text, 30, required, normal

"Test_Type", menu, normal, normal, Label1

"STP"

"Test Unit"

"Number", text, 30, normal, normal, Label2

"Datum_Corner", menu, normal, normal

"NW"

"NE"

"SW"

"SE"

"Size", text, 30, normal, normal

"Depth_cm", numeric, 1, 0.0, 1000.0, 0.0, normal, "Depth in Centimeters", normal

"Comments", text, 100, normal, normal
