

# **Appendix E**

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Cultural Survey Reports

# Cultural Resources Survey Report

Winters Gas Operations  
Technical Training Center  
Winters, Yolo County, CA

October 2014, Final



## Document Information

Prepared for Pacific Gas and Electric Company  
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Project Number PM 31077129

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Date October 6, 2014  
Final

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## Summary of Findings

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Pacific Gas and Electric Company (PG&E) is proposing to install a gas operations technical center in Winters, Yolo County, California. The proposed Winters Gas Operations Technical Training Center Project (the Project) would include the construction of a 35-acre academy that would be used to train PG&E employees and first responders in carbon monoxide and leak investigation along with a variety of skills related to engineering, construction, and maintenance. In order to identify any archaeological and historic architectural resources within the project Area of Potential Impact (API), Cardno ENTRIX archaeologists and an architectural historian conducted research that included a literature search for previously recorded resources, pedestrian surveys of the API for archaeological and architectural resources, and an intensive inventory and evaluation of all identified architectural resources. No archaeological or historic architectural resources were located in the API as a result of these efforts; however, surveying did lead to the identification of a single historic period ranch that includes eight historic period elements (two residences, a barn, and five associated outbuildings) constructed 45 or more years ago located just outside/adjacent to the API. The property had not been previously inventoried or evaluated, which is done herein under the consideration of potential indirect effects to the property as a result of the construction of the Gas Operations Technical Center. A detailed discussion and evaluation of this multicomponent historic period property is included in this report and a California Department of Parks and Recreation (DPR) 523 Form is included as **Appendix C** to this report. None of the historic period elements inventoried and evaluated as part of this study are recommended as eligible for listing in the California Register of Historical Resources (CRHR), and none appear to be a historical resource for the purposes of the California Environmental Quality Act (CEQA). Please also note that remaining parcels in the API, the Jordan parcels (038-070-028;-029;-030;-031;-32), did not contain any historic period buildings, structures, or objects, with only a modern utility box noted at the site.

# 1 Introduction

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Cardno ENTRIX was contracted by Pacific Gas and Electric Company (PG&E) to review the McClish and Jordan parcels located in the town of Winters, Yolo County, California for the Winters Gas Operations Technical Training Center Project (the Project). The purpose of this technical report is to inventory the Project Area of Potential Impact (API), prepare a context for the evaluation of cultural resources, and to evaluate any buildings and/or structures 45 years old or older that are located in the API. This study is being conducted for compliance with the California Environmental Quality Act (CEQA) and to analyze any potential resources within the project area for potential listing on the California Register of Historic Resources (CRHR). Background research and field surveys for archaeological and architectural resources were conducted within the API. No archaeological or historic architectural resources were located in the API as a result of these efforts; however, research and intensive field survey documented a historic period ranch complex adjacent to the API with the potential for indirect effects by the Project on the McClish parcels (APN 038-070-037;-038; and -039). The McClish parcels are comprised of eight associated historic period buildings and structures as well as fallow agricultural acreage. The ranch complex is inventoried and evaluated herein, and documented on a DPR 523 site record, which is included as **Appendix C** to this report.

## 1.1 Project Location

The proposed Winters Gas Operations Technical Training Center is located on West Grant Avenue in Winters, Yolo County, California. The project is depicted on **Figure 1** of the United States Geological Survey (USGS) Winters Topographic Quadrangle map, Township 8 North, Range 1 West, Section 22. The project is located on approximately 35+ acres of land that will be used for the development of the gas operations technical training center.

### 1.1.1 Area of Potential Impact for Cultural Resources

The Area of Potential Impact (API) for this California Environmental Quality Act (CEQA) Project includes the area within which the Project may directly or indirectly cause changes to the character of a historic resource, in the case of CEQA. The 35+ acre API includes three parcels owned by McClish (APN 038-070-38 and -39) and four parcels owned by Jordan (APN 038-070-28, -29, -30, -31, and -32), as well as a storm drain easement through the McClish (APN-038-070-38) parcel. (**Appendix A**). The vertical impacts of the project are anticipated to be approximately nine feet deep (removing ~10,000 cubic yard of material) for the excavation of a storm water pond in the southeastern portion of the APE and six feet deep (removing ~18,000 cubic yards of material) for an interim storm water drainage channel along the western boundary of the APE. Due to the flat topography of the site, all other construction activities for the project are expected to require excavations between two and three feet in depth. A discussion of buried site potential is included in Section 3 below. For the purposes of identifying architectural resources, the API for the Project includes all areas that may be directly or indirectly impacted by the Project.

## 1.2 Project Description

The proposed project is a gas operations technical center which will house an academy where PG&E would train employees and first responders in carbon monoxide and leak investigation along with a variety of skills related to engineering, construction, and maintenance of natural gas facilities. Details of the design and construction of the technical center include creation of a learning center, flow lab module, commercial driver training tarmac, equipment training center, storm water pond and interim drainage channel, crane certifications, T&D construction, city lift stations, cold pits, hydraulic testing area, pipeline inspection area, well head simulation, and cathodic protection training areas. The design also includes

improvements to Timber Crest Road and a drainage easement west of the proposed facility (see **Appendix A** for design details). The main learning center will encompass an area of 44,317 square feet and the flow lab module will encompass an area of 17,000 square feet for a total building area of 61,317 square feet.

As previously mentioned, the entire project area is 35+ acres. Ground disturbance will include clearing and grubbing of the entire site prior to construction. Rough grading is anticipated to be approximately 2 feet across the entire site for a total of 80,000 cubic yards of soil. There will be an additional ~10,000 cubic yards of soil removed for the proposed storm water pond up to nine feet deep and ~18,000 cubic yards of soil removed for the proposed channel up to six feet deep. Fine grading will take place for the building pads (78,263 square feet); barrier curb (10,045 linear feet); landscape areas (276,500 square feet); and paving areas (448,294 square feet). Soil stabilization with a lime treatment will take place for the building pads and landscape excavation areas.

## **1.3 Regulatory Context**

### **1.3.1 State Regulations**

#### **1.3.1.1 *CEQA and Cultural Resources***

CEQA applies to all discretionary projects undertaken or subject to approval by the State's public agencies (California Code of Regulations [CCR] 14(3) §15002(i). CEQA states that it is the policy of the State of California to:

Take all action necessary to provide the people of the state with...historic environmental qualities...and preserve for future generations examples of the major periods of California history (California Public Resources Code [PRC] §21001(b)(c). A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (CCR 14(3) §15064.5(b).

The CEQA Statute and Guidelines includes procedures for identifying, analyzing, and disclosing potential adverse impacts to historical resources, which include all resources listed in or formally determined eligible for listing in the California Register of Historic Resources (CRHR) or local registers.

CEQA requires that historical resources, which include architectural resources, prehistoric, and historic-era archaeological resources, be taken into consideration during the CEQA planning process (CCR 14.3 § 15064.5; PRC §21083.2. If feasible, substantial adverse change to the significance of historical resources must be avoided, or the effects mitigated (CCR 14(3) § 15064.5 (b)(4). The significance of an historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historic resource that convey its historical significance and that justify its eligibility for the CRHR.

#### **1.3.1.2 *California Public Resources Code***

As part of the determination made pursuant to §21083.2 the lead agency shall determine whether the project may have a significant effect on archaeological and historic architectural resources.

CEQA defines a "historical resource" as a resource that meets any of the following criteria:

- > A resource listed in, or determined to be eligible for listing in the CRHR (PRC §5024.1, CCR 14.3, §4850 et seq.);
- > A resource included in a local register of historical resources, as defined in PRC §5020.1(k);
- > A resource identified as significant (e.g., rated 1-5) in a historical resource survey meeting the requirements of PRC §5024.1(g); or

- > Determined to be a historical resource by a project's lead agency, as defined in PRC §5020.1(j) or §5024.1 (CCR 14.3 §15064.5(a)(4).

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource (CCR 14.3 §15064.5(a)(3).

If the cultural resource in question is an archaeological site, CEQA requires that the lead agency first determine if the site is a historical resource as defined in the CCR 14.3 §15064.5[a]. If the archaeological site can be defined as a historical resource, then potential adverse impacts must be considered in the same manner as a historical resource, rather than as a unique archaeological site (see below). If that archaeological site does not qualify as a historical resource, but does qualify as a unique archaeological site, then the archaeological site is treated in accordance with PRC §21083.2.

CEQA defined a "unique archaeological resource...[as] an archaeological artifact, object, site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets on or more of the following criteria:

1. Contains information needed to answer important scientific research questions, and that there is a demonstrable public interest in that information.
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC §21083.2[g]).

If an impact to a historical resource or unique archaeological resource is significant, CEQA requires feasible measures to minimize the impact. Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have on the resource. Generally, the use of drawings, photographs, and/or displays does not mitigate the physical impact on the environment caused by demolition or destruction of an architectural resource.

### **1.3.1.3 California Register of Historical Resources**

The CRHR is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR helps government agencies identify and evaluate California's cultural resources, and indicates which properties are to be protected, to the extent prudent and feasible, from substantial adverse change (PRC §5024.1(a). Any resource listed in, or eligible for listing in, the CRHR, is to be considered during the CEQA process.

A cultural resource is evaluated under four CRHR criteria to determine its historical significance. A resource must be significant in accordance with one or more of the following criteria (as defined in §15064.5[a][3]):

1. Is associated with events that have made a significant contribution to the broad pattern of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

CRHR criteria are tied to CEQA, as any resource that meets the above criteria, and retains sufficient historic integrity (see criteria below), is considered a historical resource under CEQA.

In addition to meeting one or more of the above criteria, the CRHR requires that sufficient time must have passed to allow a “scholarly perspective on the events or individuals associated with the resource.” Fifty years is used as a general estimate of the time needed to understand the historical importance of a resources (CCR 14(11.5 §4852 (d)(2)). The California Office of Historic Preservation (OHP) recommends documenting and taking into consideration in the planning process, any cultural resource that is 45 years or older (Office of Historic Preservation 1995).

The CRHR also requires an eligible resource to possess integrity, which is defined as “the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association” (CCR §4852(c)).

Resources that are significant, meet the age guidelines, and possess integrity will generally be considered eligible for listing in the CRHR.

#### **1.4 Personnel Qualifications**

Mr. Joshua Peabody, M.A. (16 years of experience) served as Principal Investigator and Project Manager for the Project. Ms. Michelle C. Cross, M.A. (14 years of experience, Registered Professional Archaeologist) and Ms. Polly Allen, M.S. (15 years of experience) authored this document serving as both report preparers and researchers. Ms. Cross and Ms. Allen function in the capacity of Senior Archaeologist and Senior Architectural Historian, respectively. Ms. Erin Mick, B.A. (5 years of experience) and Mr. Joe Fayer, B.A. (8 years of experience) conducted the cultural resource survey and authored the initial Cultural Resources Constraints Report (CRCR) for the Project.

## 2 Study Methods

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### 2.1 Records Search and Literature Review

A background literature and document search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University, Rohnert Park, California on November 11, 2013. The search area consisted of the API and a ¼-mile search radius around the API. The records search reviewed the following sources:

- > Previously recorded sites
- > Reports of previous studies
- > California Historical Landmarks
- > NRHP
- > CRHR
- > OHP Historic Properties Directory
- > Historic Spots in California (Hoover et al. 2002)
- > General Land Office plat maps showing the study area
- > County historical maps

Additionally, as part of the research methodology for this study, a Ms. Allen undertook intensive research at local repositories, including California State Library, Yolo County Archives, Sacramento Public Library, UC Davis Shields Library, and Yolo County Recorder's Office. In addition, research included review of historic period survey and topographic maps, periodicals, and census records. To supplement the historic record, members of the McClish family were interviewed regarding the development of the property, including Laurie McClish, Gwen McClish Bertinoia, and Martin Newkom. Lastly, standard contextual sources of information were reviewed, in order to develop an appropriate historic context for the property.

### 2.2 Results of Records Search

The background literature and document search did not identify any cultural resources within the API; however, four previously recorded cultural resources were identified within a ¼-mile of the API (see **Figure 2**):

- > **P-57-544**: an isolated artifact located in an agricultural field west of the API, and south of Highway 128.
- > **P-57-545**: an isolated artifact located in an agricultural field west of the API, and south of Highway 128.
- > **P-57-546**: historic trash scatter including discarded farming equipment located in agricultural field west of the API, and south of Highway 128.
- > **P-57-547**: historic tractor of unknown make located in an agricultural field west of the API, and south of Highway 128.

An additional historic-era resource is noted in Study 40502. This resource consists of the Hostetler Segment of the Willow Canal. The canal segment runs parallel to the northern edge of the API.

A Primary Record was completed for the resource; however, it has not been assigned a Primary Number designation for listing in the CHRIS. It was evaluated at the time of its recordation and found to be "not

eligible for the CRHR.” The canal also does not qualify as a “unique archaeological resource” under CEQA (Windmiller 2013).

The records search indicated that most of the API had not been previously studied for cultural resources, but two studies, S-11740 and S-40502 followed the route of the Willow Canal along the northern edge of the API. An additional seven studies have been conducted within the ¼-mile search area.

### **2.3 Organization Contacts**

Cardno ENTRIX contacted the California Native American Heritage Commission (NAHC) on February 6, 2013, and requested a search of their Sacred Lands database and a list of contact information for local Native American representatives (see **Appendix B**). A response was received from the NAHC on February 13, 2014 stating that there are no known Sacred Lands within the project area and providing a list of Native American groups and individuals who may have additional information about the Project (see **Appendix B**). Additional outreach will be conducted by the lead permitting agencies if applicable.

Additionally, as part of the research methodology of this study, a Cardno ENTRIX Architectural Historian undertook outreach and research at local agencies and organizations in order to determine if any parties had information regarding any historical resources present in the API. Contacts included the City of Winters City Manager’s Office, the Yolo County Archives, Yolo County Historical Society, and the Yolo County Recorder’s Office.

## 3 Setting

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The following cultural setting for the study area provides the backdrop against which resources are evaluated for inclusion in the CRHR. The environment and geomorphology of the region addresses the nature of environmental change and the effects that landscape evolution has had on the formation and preservation of the archaeological record. The prehistoric context describes the prehistoric archaeology of the Sacramento Valley and the study area for the Project. The ethnohistoric context describes the lifeways, settlement, and subsistence of prehistoric and contact period Native Americans who inhabited the study area. The historic context provides background for the region and describes the early history of the region and the specific study area.

### 3.1 Natural Environment

#### 3.1.1 Biotic Environment

Yolo County encompasses a portion of the Sacramento Valley and the eastern edge of the Inner North Coast Ranges. These subregions vary in topography, climate, and plant communities. The eastern and southern portions of the County are located on the relatively level valley floor. The north-central County encompasses the Dunnigan Hills, and the western portion rises into the Blue Ridge and Rocky Ridge of the inner north Coast Ranges.

Yolo County has a Mediterranean climate characterized by hot, dry summers and temperate, wet winters. However, the County comprises two distinct climate zones. During the summer, temperatures generally average a high of 95° F and a low in the mid-50s. Winter temperatures average a high in the 50s, and low of 38 to 40° F. Average annual precipitation ranges from 17 inches in the northeast to 34 inches along the western part of the County. In spite of these distinctions, the biological communities in Yolo County are distributed primarily based on the location of water resources and agricultural development.

The study area is dominated by agricultural lands that include dry pasture (primarily grazed annual grassland) and agricultural crop lands. Non-native grasses and forbs dominate these dry pasture areas and include nonnative wild oats (*Avena* spp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barleys (*Hordeum* spp.), and nonnative forbs. Dry pasture is used primarily to graze livestock. The majority of the irrigated cropland acreage include six crop types: alfalfa, tomatoes, rice, wheat, orchards, and sunflower.

Agricultural lands and the wildlife they support are described below. The air space over alfalfa and irrigated pastures provide foraging habitat for aerial insectivores such as barn and cliff swallows. Raptors including the Swainson's hawk forage for mice and voles in alfalfa and irrigated pasture. California ground squirrels (*Spermophilus beecheyi*) often occur in agricultural landscapes and construct their burrows along the edges of pastures and on berms along the edges of fields. Burrowing owls use old ground squirrel burrows for shelter and as nesting sites and large raptors such as red-tailed hawks feed on the squirrels themselves.

#### 3.1.2 Geology/Buried Site Sensitivity

The nearest perennial water source to the project area is Putah Creek which is approximately 300 meters south of the API. The API is located on an alluvial fan with slopes 0-2% and the landform age is noted as Quaternary non-marine terrace. The potential for buried resources in the project area is moderate due to the alluvial nature of the soils and the ability for it to support stable and possibly buried prehistoric landforms that have the potential to contain archaeological materials.

## 3.2 Prehistory

The earliest archaeological investigations in central California were conducted at sites in the Sacramento-San Joaquin Delta region by avocational archaeologists. The first published accounts of this work documented investigations in the Stockton and Lodi vicinities (cf., Schenck and Dawson 1929). These initial reports were primarily descriptive, and were followed by more systematic investigations in the 1930s by Sacramento Junior College (e.g., excavations at CA-SAC-127, SAC-126, and SAC-107). Archaeologists from the University of California, Berkeley were also excavating sites in the lower Sacramento Valley and Delta regions at this time. This work provided the foundation for the subsequent development of chronological frameworks for central California prehistory.

The 1930s-era research identified distinct temporal periods in central California prehistory, and provided the basis for a chronological sequence of archaeological cultures for the region (cf., Lillard et al. 1939). Lillard et al. (1939), however, assumed that the cultural periods in the sequence were direct antecedents of each other, and that cultures from the Delta region spread to other areas of central California. Beardsley (1954) later documented similarities in artifact assemblages between sites in the Delta and San Francisco Bay regions, and refined the earlier cultural succession model to produce what ultimately became known as the Central California Taxonomic System (CCTS). The CCTS was divided into temporal-cultural units that included: components, which represent discrete occupational episodes at a site; facies, which represent a series of closely related components; provinces, which are composed of related facies; and horizons, which are broad cultural units composed of a series of temporally and geographically discrete components. Three horizons, Early, Middle and Late, were identified for the archaeological cultures in central California.

The CCTS and other early archaeological research concentrated on material culture (e.g., burial practices) and the development of chronologies based on differences in the composition of assemblages. Issues related to subsistence, settlement strategies, social organization, and trade received minimal or no attention. Indeed, the CCTS was designed to provide a means of ordering archaeological cultures in central California, but the model, particularly the creation of widespread sequences of cultural succession, was immediately questioned in a series of papers by Gerow (1954, 1974a, 1974b; Gerow with Force 1968). Indeed, potential problems with the scheme were highlighted by radiocarbon data showing that some Early and Middle Horizon sites were at least partially contemporaneous and not part of a wide spread developmental sequence. These issues with the CCTS led Frederickson (1973, 1974) to propose a new taxonomic system for central California. He addressed the inadequacies of the CCTS by recognizing specific adaptive modes or patterns (i.e., specific economic and/or technological characteristics that are restricted in space, but do not imply a temporal sequence). Frederickson (1973) defined five patterns (i.e., Windmill, Berkeley, Borax Lake, Augustine, and Houx) for the North Coast Ranges, the San Francisco Bay and the lower Sacramento Valley, and assigned them to six periods: Paleo-Indian (10,000 to 6,000 B.C.); Lower, Middle, and Upper Archaic (6,000 B.C. to A.D. 500); and Upper and Lower Emergent (A.D. 500 to 1800). The most relevant patterns to the archaeology of the project area are the Windmill, Berkeley, and Augustine Patterns. The Windmill Pattern or Early Horizon extended from 3,000 to 1,000 B.C., the Berkeley Pattern or Middle Horizon from 1,000 B.C. to A.D. 500, and the Augustine Pattern or Late Horizon from A.D. 500 to the historic period.

The Early Horizon in central California is characterized by the Windmill Pattern, which appears to have been centered in the Cosumnes District of the Delta region. Windmill lithic assemblages include relatively large stemmed projectile points primarily made of chert and slate, which suggest the use of dart, atlatl, and spear technologies. Baked clay objects, such as pecan-shaped line or net weights, are also common in the Delta region possibly because sources of toolstone are scant. Fishing implements in Windmill artifact assemblages include trident bone spear tips and two types of bone hooks (Bennyhoff 1950; Ragir 1972). A milling technology is not usually well represented in Windmill artifact assemblages, but does include mano and metate grinding implements. The generally higher proportion of projectile points to grinding implements in Windmill artifact assemblages suggests an emphasis on

hunting rather than the processing of plant resources. Indeed, the identification of both terrestrial and aquatic faunal remains at many sites indicates a broad based hunting strategy that includes a wide variety of resources. Trade appears to be focused primarily upon acquisition of ceremonial and ornamental objects, which were generally obtained in finished form rather than as raw material. Windmillier mortuary patterns are characterized by: burial of the dead in both intra-village grave plots and in non-midden cemeteries beyond habitation areas; a ventral extension of the body orientated toward the west and occasionally a dorsal extension of the body orientated toward the west; and the inclusion of abundant grave goods. In addition, the presence of artifacts made of exotic materials, such as obsidian, shell and quartz, in Windmillier assemblages suggests that by 4,000 B.C. an extensive trade network existed in central California (cf. Fredrickson 1973). This time period may represent the arrival of Utian populations in central California, while the successive Berkeley Pattern marks the eastward expansion of ancestral Miwok groups from the San Francisco Bay area.

The Middle Horizon is characterized by the Berkeley Pattern. Berkeley Pattern lithic assemblages suggest the continued use of dart and atlatl technologies, and primarily consist of non-stemmed projectile point forms. Obsidian, however, rather than other types of toolstone appears to be the favored material for the manufacture of projectile points. A baked clay industry begins to fluoresce at this time, which includes spool-shaped net weights for either fishing or fowling (Ragir 1972). Bident bone spears (unbarbed and single unilateral barbed) also were in use during this period for acquiring fish resources (Bennyhoff 1950). Milling technology is generally well represented in Berkeley Pattern artifact assemblages and primarily includes minimally shaped cobble mortars and cobble pestles, but also the mano and metate. A generally higher proportion of grinding implements to projectile points in Berkeley Pattern artifact assemblages suggests an emphasis on the processing of plant resources, especially acorns, rather than hunting. Berkeley Pattern mortuary patterns are characterized by: burial of the dead within habitation areas of a site; a flexed position of the body with variable orientations; sprinkling powdered red ochre over burials (Lillard et al. 1939:78); minimal amounts of grave goods, which generally include utilitarian or ornamental objects, but also may include objects (e.g., quartz crystals, charmstones, and bone whistles) which are similar to the contents of "shaman's kits" as described in the ethnographic record (Hughes 1994:44); and the inclusion of bird and animal bone, occasionally articulated portions of skeletons, with the dead. The number of sites and the depth of deposits at Berkeley Pattern sites suggest a larger population in comparison with the earlier Windmillier Pattern. The Berkeley Pattern also exhibits inter- and intra-regional variation, which seems to suggest gradual expansion rather than abrupt population replacement (Fredrickson 1973:116-133). This time period appears to reflect a gradual change in technology and economic emphasis due to population expansion and assimilation of different cultural groups.

The Late Horizon, highlighted by the Augustine Pattern, is characterized by a change in technology and subsistence strategies. Bow and arrow technology is introduced, as evidenced by a growing increase in the number of small projectile points in Augustine Pattern lithic assemblages. Mortar and pestle implements continue to be used, with acorns becoming the dominant staple. Fish harpoons, with unilaterally or bilaterally placed barbs in opposed or staggered positions, appear in Phase I of the Late Horizon, but their use is abandoned by early Phase II. This is in sharp contrast to most other elements of Phase I, which tend to be refined and/or elaborated through time and continue into Phase II of the Late Horizon (Bennyhoff 1950:316). Trade also expands and intensifies at this time, with the acquisition of both exotic finished goods and raw materials. Augustine Pattern mortuary patterns are characterized by: either cremation or burial of the dead within habitation areas of a site; pre-interment grave pit burning; a flexed position of the body with variable orientations; and a differential distribution of grave goods with more items being associated with cremations compared to subsurface burial. Indeed, cremations may have been reserved for relatively wealthy and prestigious individuals.

The work of Lillard, Fenenga, Heizer, and Ragir in the lower Sacramento River Valley is significant in the development of archaeology in the Central Valley of California. The research of Ragir is particularly relevant due to its impact on the Central California Taxonomic System (CCTS) originally presented by

Beardsley (1954). The CCTS attempted to organize a cultural sequence for the area of central California from the interior to the coast. Ragir's work corrected and refined aspects of the CCTS and facilitated future research of its temporal sequence and cultural units. The CCTS and its refinement is a dominant theme in the archaeology of Central California, and research in the Lower Sacramento River Valley has played a significant part in its development.

### 3.3 Ethnography

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. The project area is within the ethnographic territory of the Southern Wintun or Patwin, who are members of the widespread Penutian language family, which was prevalent throughout California during the late prehistoric and historic era (e.g., A.D. 1800) (Johnson 1978:350). Primary sources on the Patwin include the ethnographic accounts of Kroeber (1925, 1932), Powers (1877), McKern (1922, 1923), and the testimony of Princess Isidora, wife of Chief Solano (Sanchez 1930). There are also other secondary publications and overviews of the Patwin (cf., Cook 1976; Johnson 1978).

Patwin are the southernmost division of Wintuan groups, a distinction primarily based on linguistic variation. Patwin are members of California Penutian linguistic stock, and they occupied the southwest portion of the Sacramento Valley, from the lower hills of the eastern North Coast Ranges to the Sacramento River, and from Princeton south to San Pablo and Suisun Bays. Patwin are comprised of numerous different tribal groups with separate dialects, but anthropologists usually separate Patwin into two primary subdivisions: Hill Patwin and River Patwin. A few ethnographers also identify Southern Patwin, but there is scant data regarding this group and their territory (cf., Cook 1976; Powers 1877). Indeed, Powers (1877: 218) states that he did not identify any living Native Americans in Southern Patwin territory and Kroeber (1932) included Southern Patwin, whose territory encompassed Solano County and lower Putah Creek (Cook 1976:11), with River Patwin. Regardless, Patwin culture appears to be relatively similar between the groups and Kroeber (1932:255) states that the geographic variation across Patwin territory only produced "minor cultural divergences of custom within the overall uniformity of the group". Hill Patwin occupied the lower, eastern slopes of the southern North Coast Range and River Patwin occupied the west side of the lower Sacramento River below the mouth of the Feather River and the lower reaches of Cache Creek and Putah Creek in the Sacramento Valley. They were comprised of three dialect groups: Colusa or Koru'; Grimes or Saka; and Knights Landing or Yo'doi districts (Kroeber 1932:259).

Information specifically addressing Patwin political and social organization is scant, particularly for River Patwin. Indeed, Kroeber (1932) considered existing data regarding Patwin social and political organization to be "unsatisfactory." Regardless, there is sufficient ethnographic data to provide a description of Patwin culture. Patwin were organized into tribelets, which were usually composed of a principal village and a few satellite settlements. Tribelets were small, autonomous, and sometimes bounded by the limits of a small drainage. Each tribelet had a head chief and each village had a chief who administered its economic and ceremonial activities. The position of chief was usually inherited through the male line, but village elders occasionally chose some chiefs. The chief possessed political, ceremonial, and economic powers and enjoyed high prestige (McKern 1922:246). He was the "commissioner" of crops, determined annual harvesting times, allocated lands to family groups, organized resource expeditions (e.g., hunting and wood gathering), and served as the primary distributor of resources (McKern 1922).

Patwin subsistence relied on hunting, fishing, and gathering a wide variety of plant resources that were located within their territory. Acorns were a major part of their diet, and were obtained from hill and mountain oaks communally owned by the tribelet (Johnson 1978:355). Other easily gathered resources included blackberries, elderberries, wild grapes, new tule shoots, roots and bulbs, honey, salt (acquired from burning salt grass), and tobacco (Kroeber 1932:280). Kroeber's (1932:276) informants, however, did not report a familiarity with many plants (e.g., buckeye, hazelnut, manzanita, Brodiaea sp.) that are

dietary staples among other Native American groups. It is possible that the geographic distribution of many of these plants did not extend into Patwin territory. Ethnographic records indicate that large game (e.g., deer, tule elk, antelope) was captured using nets or were shot using bows-and-arrows (Johnson 1978:355). Indeed, Kroeber (1932:279) reports that two men would hold a wide meshed net while other hunters would drive deer into it, and waterfowl (e.g., ducks, geese, mudhens, quail) were also captured using nets. Fish were also a prime resource for River Patwin, and certain fishing sites were privately owned (Kroeber 1932: 277 278; McKern 1922: 248). Fish (e.g., salmon, sturgeon, perch, chub, sucker, hardhead, pike, and trout) and other riverine resources (e.g., turtles and mussels) were caught with bone fishhooks, nets, seines, and weirs. Food resources were generally stored in bins and granaries, which were made of sticks set into the ground and roofed with tules.

Patwin manufactured a variety of utilitarian and ceremonial/luxury items, including baskets, stone tools, mortars and pestles, shell beads, and clothing. Shell beads were manufactured for personal adornment and as a medium of exchange. Clothing was generally minimal, and “men went without any covering, women wore skirts or aprons of tule or shredded bark” (Johnson 1978:358; Sanchez 1930:39). Other clothing included fur blankets (e.g., rabbit pelts) and leather robes, which were sewn together using bone needles and strings of wild hemp. River Patwin also built tule balsa boats to facilitate river travel and acquisition of fish resources (Johnson 1978:357).

Patwin traded for various commodities and subsistence resources using clamshell disc beads as a medium of exchange (Hughes 1994:66; Kehoe 1981:381). The worth of disc beads was determined by the length of the string of beads rather than by the quality of individual beads. Initially, River Patwin obtained finished shell beads from Hill Patwin, who obtained them from their Pomo neighbors. In the historic period, however, River Patwin traded for whole shells from the Pacific coast and made beads themselves (Johnson 1978:352). Obsidian was obtained from sources in the southern North Coast Ranges, primarily Napa Valley (Johnson 1978:352). Johnson (1978:352) suggests that not all external relationships were friendly, particularly with the Napa Valley region, and that conflicts with Napa Valley groups probably affected the ability of River Patwin to acquire obsidian from the area.

### **3.4 Historic Period**

#### **3.4.1 Early History**

Central California supported among the densest populations in North America (Kehoe 1981:378). Cook (1976:13) estimated population densities of River Patwin at about 500 persons per village at Euroamerican contact. Hill Patwin, similar to the neighboring Pomo and Wappo in many respects, were less populous with 200 persons per settlement (Cook 1976:14). Kroeber (1925:35) states that prior to contact Wintuan peoples (e.g., the Wintu, Nomlaki and Patwin) totaled nearly 12,000 individuals. Indeed, Cook (1976:8, 19) suggests that at ethnographic contact the banks of the Sacramento River “were studded with a series of villages that held almost the entire population of the region”, and the Sacramento Valley had a population density of approximately 3.35 persons per square mile.

Mission registers provide the earliest historic accounts of Patwin. Several missions, including Mission San Jose, established in 1797, and Mission Dolores and Mission Sonoma, established in 1823, bordered Patwin territory. Consequently, Euroamerican contact with Patwin occurred by at least 1800 (Johnson 1978:351). Spanish and mission influence reached as far north as Putah Creek, although Kroeber (1925:357) states that direct Spanish contact centered on Clear Lake and eastward beyond Cortina Creek. Regardless, Bennyhoff (1961) reports that Mission Dolores and Mission San Jose actively sought Patwin converts from “southern villages.”

The influx of European and Spanish explorers and settlers during the 1830s and 1840s rapidly changed Patwin demography. The second quarter of the nineteenth century encompasses the Mexican Period (ca. 1821-1848) in California. This period is an outgrowth of the Mexican Revolution, and its accompanying social and political views, which affected the mission system across California. In 1833, the missions were

secularized and their lands divided among the Californios as land grants called ranchos (Beck and Haase 1974). These ranchos facilitated the growth of a semi-aristocratic group that controlled the larger ranchos. Local Native American populations, who were essentially used as forced labor, accomplished work on many of these large tracts of land. Indeed, Native American groups across California were forced into a marginalized existence as peons or vaqueros on large ranchos (e.g., Canada de Capay, which encompasses the project area).

Simultaneously with the exploration of the Central Valley and the flanks of the Sierra Nevada, trails were being blazed across the plains and mountains facilitating the westward migration of Euroamericans. Groups such as the 1841 Bartleson-Bidwell Party and the 1844 Stevens-Murphy Party typify these early immigrants. The commencement of the Mexican-American War in 1846 also affected the exploration and development of California, including the identification of new trails across the Sierra Nevada. The exploits of the Mormon Battalion and the establishment of the Mormon Emigrant Trail highlight these activities. The discovery of gold at Sutter's Mill in Coloma in 1848, however, was the catalyst that caused a dramatic alteration of both Native American and Euroamerican cultural patterns in California. Once news of the discovery of gold spread, a flood of Euroamericans entered the region, and gravitated to the area of the "Mother Lode". Initially, the Euroamerican population grew slowly, but soon exploded as the presence of large deposits of gold was confirmed in the Sacramento area. The population of California quickly swelled from an estimated 4,000 Euroamericans in 1848 to 500,000 in 1850. Sacramento, established in 1848 by John A. Sutter, Jr., also reflected regional changes in population, and was incorporated as a city in 1850 (Hoover et al. 2002). The discovery of gold and the large influx of Euroamerican immigrants had a positive effect on the growth and economic development of Sacramento, but a negative effect on Native American cultures. Indeed, the discovery of gold in California marked the beginning of a relatively rapid decline of both Native American populations and culture.

The lower Sacramento Valley and Delta region was an area severely impacted by western settlement. Surviving Patwin in the region either became partly assimilated into white culture or were placed on small reservations (Johnson 1978:351). Various population estimates attest to the rapid and almost total decline of indigenous people. Indeed, diseases introduced by Euroamericans resulted in the annihilation of nearly 75% of the native population (Heizer 1960). The decreased population is reflected in the 1972 U.S. Bureau of Indian Affairs census, which lists only 12 native Patwin (Johnson 1978). The former character and the decline of Patwin culture is illuminated by Princess Isidora Solano, wife of Chief Francisco Solano, who dictated her memoirs in 1874 at the age of 90 (Sanchez 1930). She recounts the exploits of Francisco Solano, chief of the Suisunes, Topaytos, Yoloitos and Chuructos and an important ally of General M. Guadalupe Vallejo, and describes the abundance of resources (e.g., salmon) in the region prior to the arrival of "the white man", and also highlights the effects of the "white man" on Patwin culture (Sanchez 1930).

The latter half of the nineteenth and early twentieth century witnessed an ongoing and growing immigration of Euroamericans into the area, which was accompanied by regional cultural and economic changes. These changes are highlighted by the agricultural development of the area and cities such as Winters, Woodland, and Sacramento, which rapidly expanded around an increasingly dense network of agricultural development and transportation networks that provide access to growing regional, state, and national markets.

### **3.4.2 Late Nineteenth Century Development of Winters**

The town of Winters was laid out in 1875 on former lands of the Rancho Rio de los Putos land grant, an approximately 17,000 acre grant that encompassed present-day Winters and the lands bordering Putah Creek in both Yolo and Solano Counties (LSA 2009: 520). The Rio de los Putos land grant was given to William Wolfskill in 1842, and was largely managed and farmed by his brother John Wolfskill for much of the nineteenth century. During this period, thousands of acres of the rancho lands were utilized for a

variety of grains, fruits, nuts, and vines, establishing the foundation for the region's rich diversity in agricultural production (Nelson N.D.: 16).

By the 1870s, large portions of the Wolfskill lands had been sold to farmers and land speculators, including Theodore Winters, whose land was ultimately developed as the town of Winters. The rapid transfer of land was in large precipitated by the development of the Vaca Valley Railroad, which had constructed an extension that terminated at present-day Winters in 1875. With the completion of the rail line, the railroad company established the town site, which became a central hub for agricultural shipments from the increasingly active farmsteads surrounding the area (LSA 2009).

In 1880, the nascent town of Winters had a population of 523, most of whom were engaged in farming or a related activity. By this time, the area was both an important grain shipping center and an increasingly active fruit growing area. These expanding agricultural sectors were greatly bolstered by the railroad, which provided a readily accessible outlet to markets across the region, state, and nation. By the mid-1880s the lands surrounding Winters were referred to as the, "fruit belt," with thousands of acres of intensively planted orchards. An article from the Sacramento Daily Union in 1887 proclaimed the area, "the finest fruit and grain lands in the state, and it is claimed with reason, the world," a sentiment that found vocal support among the region's speculators, landholders, and burgeoning farming community.

### **3.4.3 Early Project Site Development**

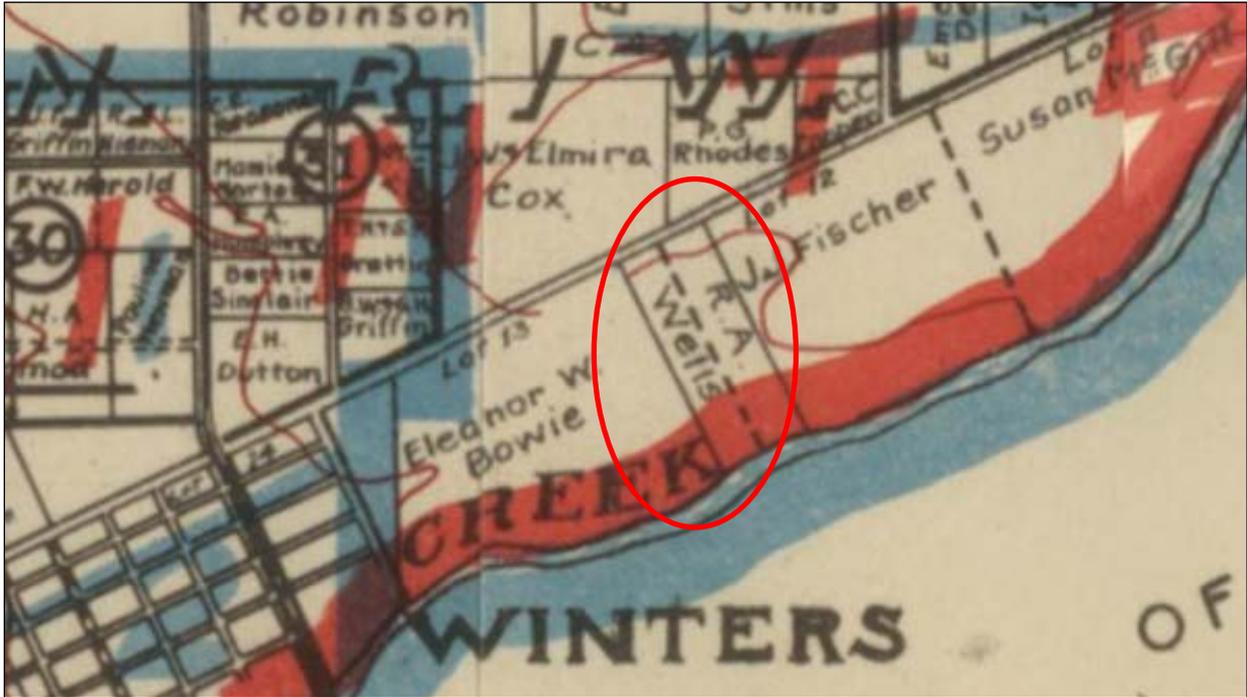
As Winters became an established fruit growing region, large numbers of settlers purchased farmsteads in the periphery of the growing town. Initially, much of the land was retained in somewhat sizeable landholdings, with common holdings including hundreds of acres. By 1900, however, the area had been increasingly subdivided, with 20, 40, and 60 acre holdings common, most of which were planted in orchards (P.N. Ashley 1900). The subject property at 29711-29719 East Grant Avenue (McClish Ranch) is representative of this general land use evolution, with the land transitioning from rancho to small farmstead in the course of several decades.

Like much of the land surrounding Winters, the lands of present-day McClish Ranch were originally part of Rancho Rio de los Putos. Research did not indicate what, if anything, was cultivated on this subject property during this period, however it may have been utilized in some agriculturally-related capacity. By the 1880s, the subject parcel, along with hundreds of acres of surrounding land including the current Jordan parcel, had been sold to Henry A. Hill, whose family owned approximately one thousand acres of discontinuous land around Winters, much of it purchased from Wolfskill (De Pue 1879). The Hill family had arrived in Yolo County in the 1850s from Kentucky, with the brothers engaged in farming as well as commercial activities around Winters (United States Federal Census 1850-1900). By 1900, the Hill family had sold their lands and dispersed. After this, the present-day McClish parcel was cleaved off from the larger holdings and sold as a forty acre site to successive orchardists (P.N. Ashley 1900). Between 1900 and 1920, as many as three owners held the property, demonstrating a notable transience that seemed to typify the area during this early, rapid period of development. Indeed, plat maps from the period attest to rapid turnover, with agricultural lands changing hands with striking rapidity (Ashley 1909; Dingle 1915). This transience likely stemmed from both fluctuations in the farming industry and the concurrent growth of cities such as San Francisco and Oakland, which drew farmers from the hinterlands in increasing numbers.

During this period of ongoing transition, it is likely that the subject parcel was planted with orchards; however, historic period maps indicate that the property did not contain any documented standing structures (US Geological Survey 1916). Instead, records indicate that owners lived on other parcels in the vicinity, with the orchard at the subject site existing as an ancillary investment property (United States Federal Census 1900-1910). Thus, while the ranch was actively utilized during this early agricultural development period, it was not developed with built environment features but was instead solely a working agricultural landscape.

### 3.4.4 Twentieth Century Project Site Development

The first documented structures in the project area occurred in the 1920s, with the initial development of the present-day McClish farmstead. The site was purchased by a young couple, Rutherford A. Wells and Elizabeth Wells, who appear to have been newly engaged in farming. The couple appears to have developed the residence and several outbuildings, working the property as an orchard. Prior to moving to Winters, R.A. hailed from Ventura, California, where he resided with foster parents, John and Luella Graham. Elizabeth was from neighboring Woodland, where she had resided with mother Madge Porter, a widowed music teacher (United States Federal Census 1900-1920). As depicted below, the 40-acre parcel was surrounded by several sizeable holdings along Putah Creek, with a large number of similarly modest parcels scattered around the immediate vicinity (Proctor 1926).



**Plate 1. Map Depicting Parcels**

The farmstead was modest in scale, with a small barn, several shed-style outbuildings, and a small residence. The complex typified such construction in the region, with virtually all of the surrounding farmsteads developed in a similar type and manner. As discussed in detail in the accompanying DPR 523 that is included as Appendix B, interviews with McClish descendants indicate that the residential dwelling, which is of a modest Tudor Cottage design, may have been constructed from a kit assembly. While research and inspection were unable to confirm this, such construction was relatively common during the era, with kit homes shipped by rail across the country in both rural and suburban locations. From 1910 to 1940, the Sears Company shipped as many as 100,000 such dwellings across the country. The residences were designed to be economical and relatively simple to erect, and were designed according to prevailing sentiments of public taste. Some of the most common designs from the 1920s included bungalow style dwellings as well as English-themed design similar to that of the subject property (McClish 2014; Stevenson 1986:9).

Despite this substantial capital improvement, Wells sold the property in 1933 to James and Elizabeth McClish, moving with his wife and young children to Berkeley where he became engaged in the building trades (Yolo County Recorder's Office 1933: Document 2036; United States Federal Census 1940). In contrast to the brief tenure of the subject parcel's earliest residents, the McClish family continuously

owned the 40-acre farmstead from 1933 to the present. At the time of purchase, the McClish's were a young family, with a year-old son, Gale. Prior to purchasing the farmstead, the couple lived in Richmond, with James working as an electrician and Elizabeth a teacher. Upon moving to the property the couple had two more children, Donald and Nancy. According to family members, Donald took over management of the farm in later years, with James McClish dying in 1994 and Elizabeth in 1993 (United States Federal Census 1930-1940; McClish 2014; U.S. Social Security Death Index 1994).

Prior to the 1960s, the family farmed almonds and apricots, with orchards filling the entirety of the site's productive acreage. During this period, James McClish also owned and operated other farmland around Winters, which was also primarily devoted to orchards. According to family members the orchards at this subject site were removed in the 1960s, as economic factors and shifts in agriculture dictated a conversion to row crops. This conversion was common throughout the Winters region in the middle decades of the twentieth century, with substantial acreage in fruit orchards converted to nut production or diversified crops including tomatoes, grains, alfalfa, and rice (LSA 2009; McClish 2014). By 1963, Yolo County's primary crop types were small grains such as barley and wheat, replacing the primacy of the "Winters Fruit Belt," and farms like that of the McClish' (Yolo County 2002: 2-1).

In addition to the notable changes in land use patterns at the site in the latter decades of the twentieth century, there were a number of changes to the farmstead's buildings and structures. According to family members, James McClish constructed a rear addition on the residence in the 1940s, as the family grew in size. The addition expanded the kitchen, added a bathroom, and allowed for attic access via a new interior stairwell leading to the roof. In addition, James added a second dwelling in the late 1940s, which housed family members. Accompanying these residential changes, the family appears to have added a number of utilitarian structures to the site, including several corrugated metal sheds. This ongoing evolution is typical of such farmsteads, as evolving agricultural mandates and family requirements dictate ongoing physical alteration (McClish 2014).

### **3.4.5 Modern Period**

In 2012, the population of Winters approached 7000. While the town is still an agricultural hub for the surrounding region, it is characterized by an increasingly diversified base that includes extensive industrial, commercial, and residential development (City of Winters 2011). Further, the town is increasingly integrated into the larger metropolitan area, with a number of bedroom-community residents purchasing property and increased connectivity from the construction and expansion of Interstate 505 in the latter half of the twentieth century. As such, the once relatively well-defined boundary between town and country has been blurred, with residential subdivisions extending from the historic downtown core. One such subdivision was developed immediately west of the McClish parcel in the 1990s, with intensive residential construction immediately adjacent to the ranch's outbuildings.

Currently the site is occupied by James McClish's granddaughter, Laurie McClish. There are no agricultural operations at the site, and almost all of the farming-related structures are vacant and unutilized but for storage, with most in substantial disrepair. All of the early twentieth century orchards have been removed, with only a few remnant non-commercial citrus trees surrounding the main residence. Most recently, the land was leased to tenant operators who cultivated tomatoes, however this was discontinued in the last decade. This trajectory mirrors that of many other parcels in the vicinity, including that of the neighboring Jordan parcel, with the primacy of orchards ceding to row crops and, of late, residential and industrial development from an expanding Winters (McClish 2014).

## 4 Field Survey

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### 4.1 Archaeology Methods

On December 31, 2013, Cardno ENTRIX Cultural Resources Specialists conducted a field survey of the API (**Figure 3**). The survey consisted of walking systematic parallel transects spaced 5-10 meters apart. During the survey, the Cultural Resources Specialists looked for indicators of past human activity, such as stained midden soils, stone artifacts, historic artifacts, dietary shell and bone, and unnatural depressions or mounds. Surface visibility at the time of the survey was fair, approximately 25%. The ground was covered with riparian vegetation. Ground scrapes were performed intermittently to improve surface conditions.

### 4.2 Architectural Resources Methods

Site documentation for this project included intensive level survey of the project API. All built environment resources were documented during the course of survey on December 31, 2013, with all resources that appeared to be from the historic period (45 years of age or older) fully photo documented and recorded in the field. Digital photo documentation included documentation of all sections of the building or structure as well as detailed photographs of any important features. In addition, recorders documented contextual views of the subject resources, in order to properly assess the setting of the resources. In addition to intensive survey, Cardno ENTRIX staff conducted several informal interviews with residents, including descendants of long-term owner James McClish. These interviews focused on the physical development of the site, including additions and alterations to buildings and any ongoing construction within the area. All architectural documentation was overseen by an Architectural Historian meeting the Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61).

### 4.3 Survey Findings

#### 4.3.1 Archaeology

No previously recorded archaeological sites were identified within the API and no archaeological materials were observed during the field survey. There is a moderate potential to encounter buried archaeological sites in the API based on the alluvial make-up of the soils in the API. The general topography of the API would allow for the development of a stable land forms prehistorically (*paleosols*), which would have been necessary for prehistoric habitation. The result of the survey for archaeological resources was negative.

#### 4.3.2 Architectural Resources

No historic architectural resources were identified in the API; however, the McClish Ranch, at 29711-29719 East Grant Avenue (APN 038-070-037;-038;-039), was identified just outside and adjacent to the API (see **Figure 4**). The ranch property includes eight historic period elements, with two residences, a barn, and five associated outbuildings (see **Figure 4**). All of the resources were documented and evaluated on a single DPR 523 Form, as all were associated elements of a singly-owned property. The parcels in the API did not contain any historic period buildings, structures, or objects, with only a modern utility box noted at the site.

The following section includes a summary description and evaluation statement for all documented historic period properties. The properties were evaluated under the criteria of both the CRHR and the NRHP, which are summarized below.

#### 4.3.2.1 Evaluation Criteria

The criteria for significance under the CRHR is codified in California Public Resources Code Section 5024.1 and summarized below. In order to be eligible for the CRHR and considered a historical resource a property must be:

- > Criterion 1: Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- > Criterion 2: Associated with the lives of persons important to local, California or national history (Criterion 2).
- > Criterion 3: Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- > Criterion 4: Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

Please note that the criteria for significance under the NRHP (codified in 36 CFR Section 60.4) mirrors that of the CRHR, with the same significance criteria but for a naming convention of A, B, C, and D in place of the CRHR's numeric system. This study evaluated under both the NRHP and CRHR.

In addition to possessing significance under one or more of the criteria for listing, a property must convey integrity, which is assessed by seven aspects: materials, workmanship, design, setting, feeling, association, and location. These aspects of integrity allow a property to convey its historic associations, with otherwise significant properties not eligible for listing without sufficient retention of integrity.

##### 4.3.2.1.1 Resource Summary

The McClish Ranch property included eight historic period built environment resources. For clarity in documentation, each of the buildings was given a Structure Number, with Structures 1-8. In addition to these structures is a single modern period shed (circa 1990s) which was documented as Structure 9 but not evaluated. A description of each is included below, with more detailed description and photographic documentation included in **Appendix B**.

- > **Structure 1** is a 1 ½ story 1920s Tudor-Cottage style residence that fronts East Grant Avenue / Highway 128. The home is fronted by a small circular drive and surrounded by a mature landscaped yard, containing a variety of ornamental trees including London Plane, along with several citrus trees. The residence is characteristic of a modest Tudor Cottage style, with a complex cross gable roof with flared eaves and areas of decorative bargeboard. The foundation of the building is concrete, the roof is sheathed in composition shingles, and the building is framed in clapboard siding with stucco-treated board and batten detailing in the gable ends. A large 1940s addition extends from the south side of the building.
- > **Structure 2** is a vehicular garage associated with the main residence. The building is of a utilitarian design, with a front gable roof and overhead-hung sliding doors centered upon the north side. The doors are of a wood panel design, with six-light fixed windows. The building is partially sheathed in wood siding, with some areas appearing to be sheathed in replacement vinyl.
- > **Structure 3** is a small secondary residence that stands to the south of the primary residence. The building was constructed in the 1940s for extended family members. The wood frame, side gable building is sheathed in clapboard siding and is approximately 800 square feet in size, with a sloping shed roof overhang on the east side.

The remainder of the structures are utilitarian buildings related to the agricultural operations of the property. The buildings appear to have been developed from the 1920s to the 1940s and were utilized as processing and storage areas for the almond and apricot operations at the ranch, as well as for miscellaneous storage and operational uses. The buildings are clustered to the south of the residential

structures (see Figure 4 for resource Map). Many are highly deteriorated, with missing windows, roof sheathing, and compromised framing members. At present, a modern subdivision stands immediately to the west of the complex.

- > **Structure 4** is an approximately 3000 square foot wood-sided barn. The building is in a highly deteriorated state, with compromised structural elements, siding, and roofing. The building is a three bay structure, with a large two-story central bay flanked by a single-story side bay and shed roof open-air extension. As designed, the central bay was accessed by overhead hung wood doors, however the doors have since been removed and the barn is open to the air. The roof is sheathed in corrugated metal. In the eastern portion of the barn, trees have grown through the roof.
- > **Structure 5** is an open-air shed that stands to the south of the barn. The lean-to roof is highly deteriorated, with much of the sheathing missing and the wood framing compromised. Mature trees grow through the roof of the structure. The building is sheathed in a mixture of vertical and horizontal milled lumber, all of which is highly deteriorated.
- > **Structure 6** is a utilitarian side gable shed. The roof is sheathed in corrugated metal. Overhead hung sliding metal doors line the building. A small window with a metal grate is also located on the east side of the building. The shed has a concrete foundation and concrete floor. On the east side of the building, faint outlines of painted words and letters are visible. "MONUMENTS" is the most visible, with outlines of other letters present but not legible. According to the granddaughter of the original property owner, her grandfather bought this shed from another property in Winters, and had it moved onto its current location, although she was unsure of the date of this activity.
- > **Structure 7** is a side gable shed that stands to the south of Structure 6. The walls are sheathed in vertical milled lumber and the roof is sheathed in corrugated metal. In areas of the roof the metal is peeling away, exposing the underlayers of the roof system. Sliding metal doors line the north, south and east sides of the building. The west side of the building features a ribbon window in original wood framing.
- > **Structure 8** is a shed located equidistant between the residential cluster of buildings and Structures 4-7 and appears to be of a more recent construction than the structures to the south. The small shed is sheathed entirely in corrugated metal. The building features a side gable main body with a shed roof extension that is partially open to the air. Two overhung sliding metal doors line the east and west sides of the building. The shed has a concrete foundation.
- > **Structure 9** is a small modern open-air shed that stands on a concrete pad.

#### 4.3.2.1.2 Resource Evaluation

While the multicomponent historic period property is generally reflective of the agricultural development of Winters and Yolo County, it lacks direct associations under all of the criteria for significance of the CRHR. In addition, with the mid-twentieth century removal of all associated orchards and the ongoing alterations of the property's buildings, the property cannot convey integrity to any potentially significant period. As such, it appears that the subject parcel is not eligible for listing on the CRHR. Additionally, the property does not appear eligible for any local listing as a cultural resource, as defined in Winters Municipal Code (Chapter 17.108.020), which largely follows that of the CRHR.

Under CRHR Criterion 1, the modest agricultural property does not convey distinctive themes relating to the agricultural, social, or economic development of Winters or Yolo County. Like much of the land in the area, the property was part of a former land grant holding, which was gradually subdivided throughout the closing decades of the nineteenth century. As was common in the Winters region during the historic period, the property was planted with a mixed orchard for much of the twentieth century. This land use pattern typified the region and does not convey distinctive facets of Winters' or Yolo County's agricultural development.

Further, with the late twentieth century removal of the orchards, the property no longer retains integrity to convey any potentially significant associations to any of these historical themes of development.

Under CRHR Criterion 2, the property does not appear to be associated with any individuals who made significant contributions to the historical development of Winters or Yolo County. Although the lands were a very small component of the Wolfskill rancho, there is no evidence in the historic record that these 40 acres have any direct or important ties to the Wolfskill family. Following subdivision, the property was associated with as many as six owners, most of whom appear to have resided elsewhere and solely utilized the parcel for ancillary agricultural operations. As such, the property cannot convey any direct associations with these individuals. While the McClish family does hold direct and long-term associations to the property, the family's association with the property does not appear significant under this Criterion. Both within the community of Winters and Yolo County as a whole, agricultural development has been defined by multigenerational farm families like that of the McClish Ranch, and their associations to the property do not appear to be representative of important or significant themes of development.

The subject property does not appear to have significant associations under CRHR Criterion 3, nor does it appear to have sufficient integrity to convey any potential significance under this Criterion. As a modest agricultural farmstead, the property does not embody distinctive characteristics of a type, period, or method of construction; nor do the buildings represent the work of a master. Rather, the ranch typifies residential and agricultural development from the period, with modest utilitarian outbuildings and residential structures that were adapted and added over time to support the changing mandates of the farm. The various outbuildings and barn are of a ubiquitous and common utilitarian design. Further, most are physically compromised to such an extent that integrity of material, workmanship, design have been undermined. While Structure 1, the main residence, does bear some interest as a potential kit house, this potential association does not merit considerations under this Criterion both because of a lack of overall significance and a lack of integrity. If a kit house, the cottage-style dwelling was one of up to 100,000 that were erected across the country, and was erected in the late-stages of the kit house era. The form of the building is reminiscent to some of Sear's most common and well documented 1920s models, including the Riverside, the Wilmore, and the Jewel (Stevenson 1987). The building has been altered substantially since construction, with a large addition changing the overall floorplan and exterior envelope and a number of material changes including the replacement of associated fixtures and features. As such, the structure does not appear to convey either sufficient significance or integrity to be an important representative of this potentially-associated construction typology. This evaluation is in keeping with others that have addressed potential kit house representatives, which have largely found that strong material integrity and historical significance within a larger social or economic context is necessary for consideration for listing.

The property does not appear likely to yield significant informational associations under (CRHR) Criterion 4. The associated outbuildings and barn are of an exceedingly common design that is well represented in both the historic record and extant landscape of Winters and Yolo County. Similarly, the residential structure does not seem to be an important source of information regarding the history of either the region or housing construction in general. If a kit house, the overall type is well-represented in the historic record, with archives and repositories containing detailed blue prints of catalogue offerings. Further, because both the interior and exterior of the building were altered after construction, the residence does not retain sufficient integrity to yield informational potential regarding any standardized plans. The original configurations, floor plan, and material have been altered and as such significant informational potential is unlikely.

As previously discussed, in addition to a lack of significance under any of the listed criteria, the property lacks sufficient integrity of materials, workmanship, design, setting, feeling, and association. Alterations and deterioration have undermined the physical integrity of the property, with a significant loss of historic material, design, and workmanship evident throughout. In addition, removal of the original orchards coupled with encroachment of residential development has undermined integrity of setting, feeling, and association. As an assemblage, the property is unable to convey notable association as a late nineteenth or early twentieth century orchard.

## 5 Conclusions

---

### 5.1 Archaeological Resources

As described above, the NWIC records search, literature review, and survey did not identify any archaeological resources with the API. The buried site sensitivity analysis conducted for the project concluded that the API has a moderate sensitivity for buried archaeological resources. It is possible, that the Project-related ground disturbing activities might encounter unrecorded sites or deposits that were not observable on the ground surface during the survey.

If subsurface cultural resources, such as chipped or ground stone, historic debris, buildings foundations, or human bone, are inadvertently uncovered during ground disturbing activities, it is recommended that work stop in that area and within 150 feet of the find until a PG&E CRS and/or its assigned qualified archaeologist can assess the significance of the find, and, if warranted, develop appropriate treatment measures in consultation with PG&E, Yolo County, and any other applicable agencies.

### 5.2 Architectural Resources

Survey for this project included comprehensive documentation of all built environment features directly and indirectly impacted by the Project. It does not appear that any of the historic period built environment resources surveyed as part of this study are eligible for listing on either the CRHR, nor do they appear eligible for local listing. As such, it does not appear that there are any historical resources for the purpose of CEQA in the Winters Gas Operations Technical Training Center Project API. Please refer to the DPR 523 in **Appendix C** for detailed inventory and evaluation.

## 6 References Cited

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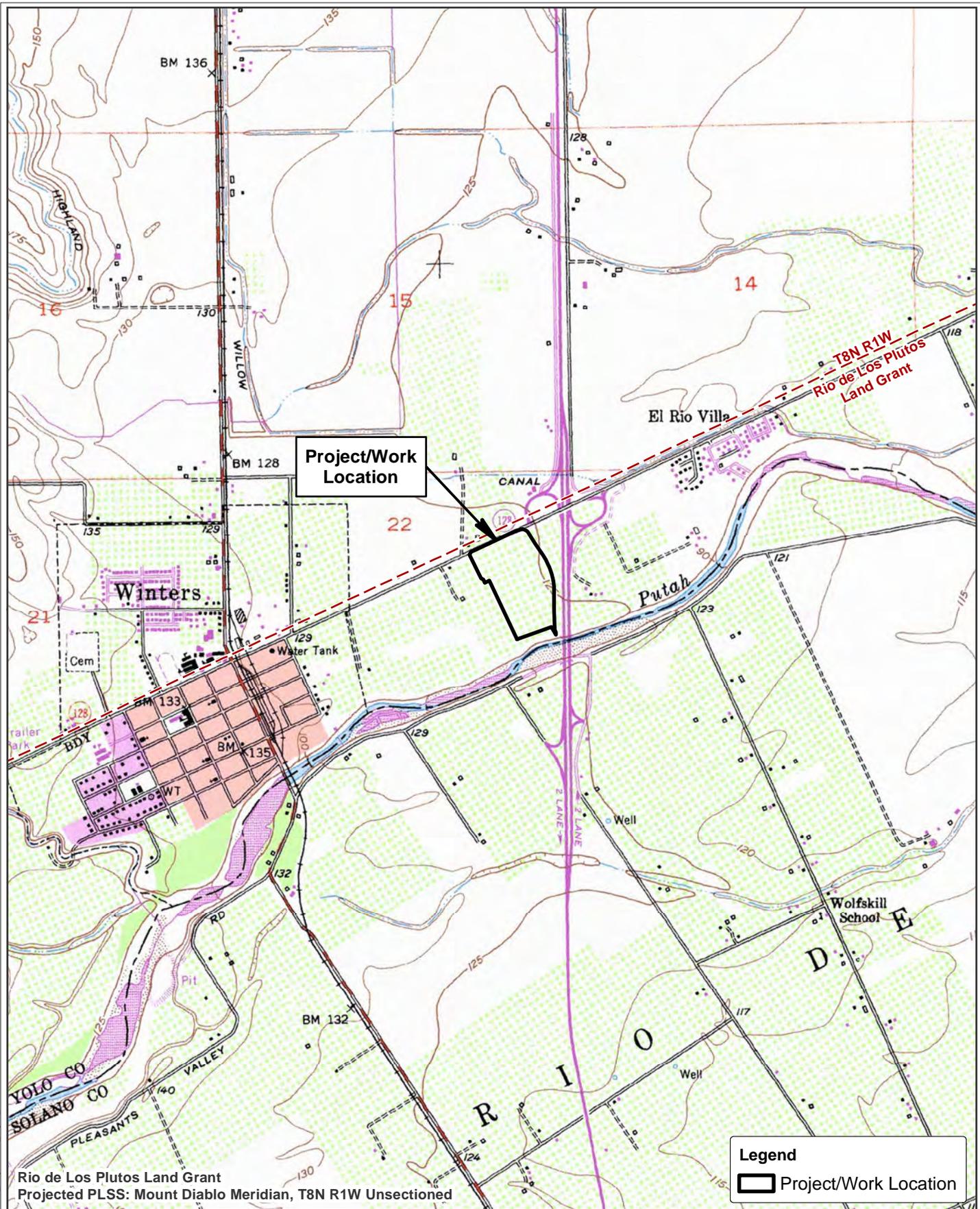
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Cultural Resources Survey  
Report for the Fairfield Gas  
Operations Technical Training  
Center Project

# Figures



**Legend**

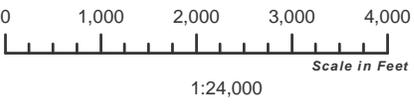
Project/Work Location

Rio de Los Plutos Land Grant  
 Projected PLSS: Mount Diablo Meridian, T8N R1W Unsectioned



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 Universal Transverse Mercator (UTM)  
 North American Datum of 1983 (NAD83)  
 Zone 10 North  
 Linear Unit: Meter

Map Date: 08 | 21 | 14  
 Proj. No. E313931440



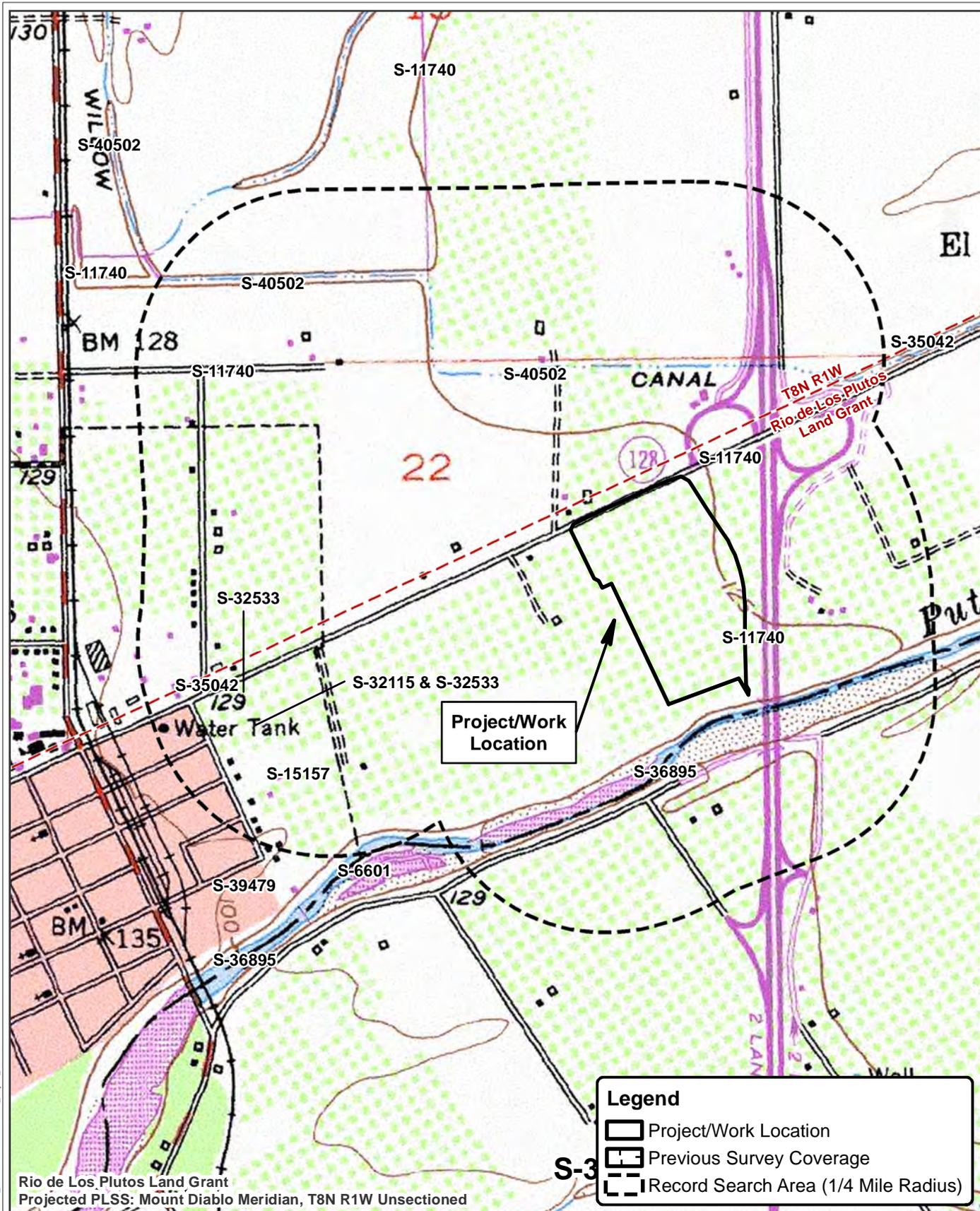
PACIFIC GAS AND ELECTRIC  
**WINTERS GAS OPERATIONS  
 TECHNICAL TRAINING CENTER**



**FIGURE 1**

**Project Location Map**

Path: C:\TRANSFER\T02\E313931440\map\Winters\_Proj\_Location\_8by11\_03.mxd



Rio de Los Plutos Land Grant  
 Projected PLSS: Mount Diablo Meridian, T8N R1W Unsectioned

**Legend**

-  Project/Work Location
-  Previous Survey Coverage
-  Record Search Area (1/4 Mile Radius)



Map Projection:  
 Universal Transverse Mercator (UTM)  
 North American Datum of 1983 (NAD83)  
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 Linear Unit: Meter

Map Date: 08 | 21 | 14  
 Proj. No. 31030211

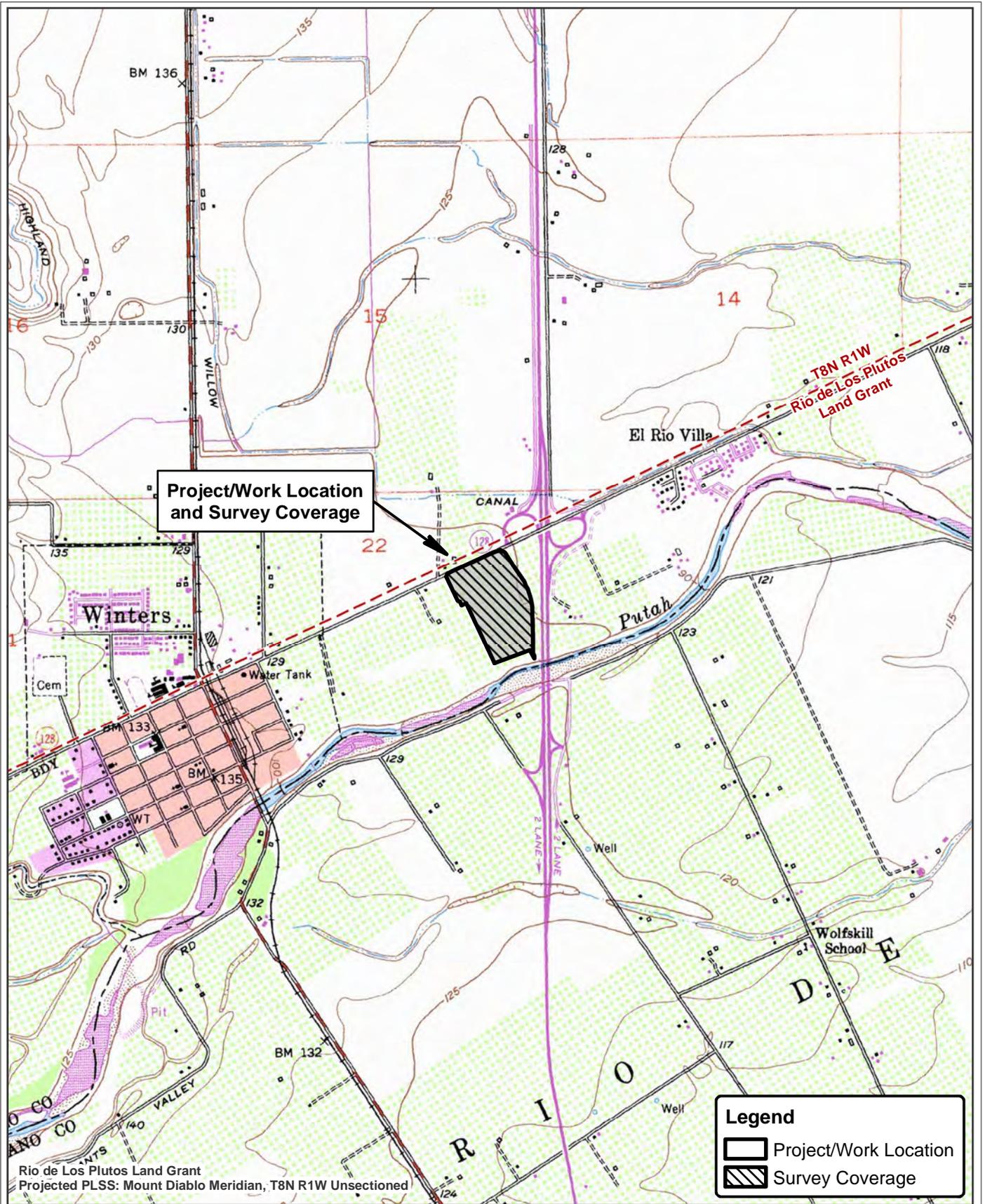
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PACIFIC GAS AND ELECTRIC  
 WINTERS GAS OPERATIONS  
 TECHNICAL TRAINING CENTER

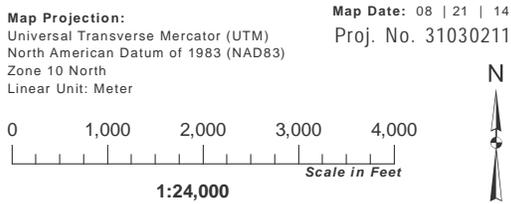
 **FIGURE 2**

**Records Search Results Map**

C:\\_TRANSFER\02E13931440\map\Winters\_RecordsSearchResults\_8by11\_03.mxd



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**PACIFIC GAS AND ELECTRIC  
WINTERS GAS OPERATIONS  
TECHNICAL TRAINING CENTER**



**FIGURE 3**

**Survey Coverage Map**

C:\TRANSFER\02\0313931440\map\Winters\_Resource\Location\_Bbyr11\_09.mxd



Rio de Los Plutos Land Grant  
 Projected PLSS: Mount Diablo Meridian, T8N R1W Unsectioned

**Legend**

- Project/Work Location
- Cultural Resource



Map Projection:  
 Universal Transverse Mercator (UTM)  
 North American Datum of 1983 (NAD83)  
 Zone 10 North  
 Linear Unit: Meter

Map Date: 08 | 21 | 14  
 Proj. No. 31030211

0 100 200  
 1:1,200 Scale in Feet

PACIFIC GAS AND ELECTRIC  
**WINTERS GAS OPERATIONS  
 TECHNICAL TRAINING CENTER**



**FIGURE 4**

**Resources Location Map**

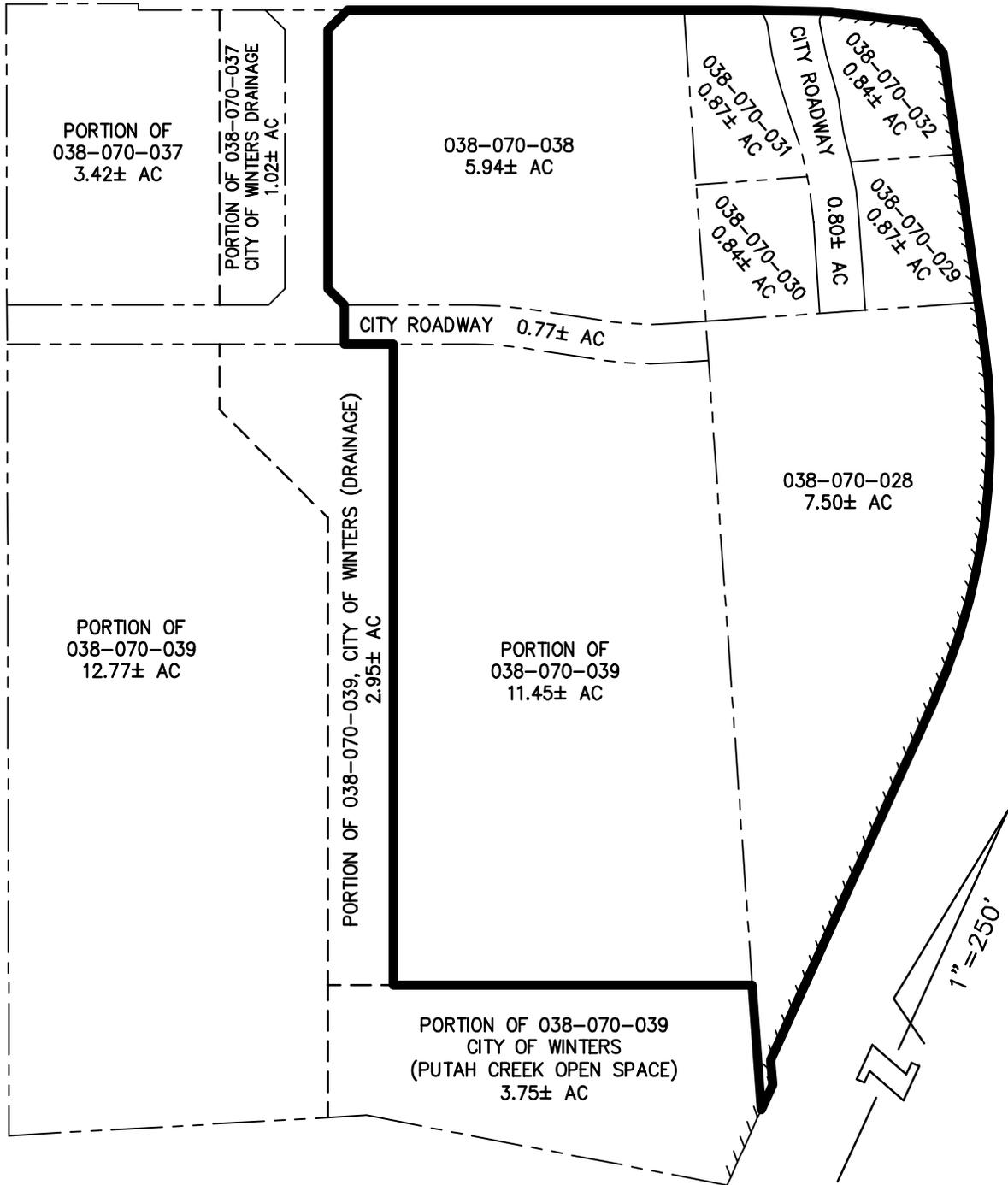
Cultural Resources Survey Report  
for the Winters Gas Operations  
Technical Training Center Project,  
Winters, Yolo County, CA

APPENDIX

A

WINTERS GAS OPERATIONS  
TECHNICAL TRAINING CENTER  
DESIGN PLANS

EAST GRANT AVENUE (CA HWY 128)

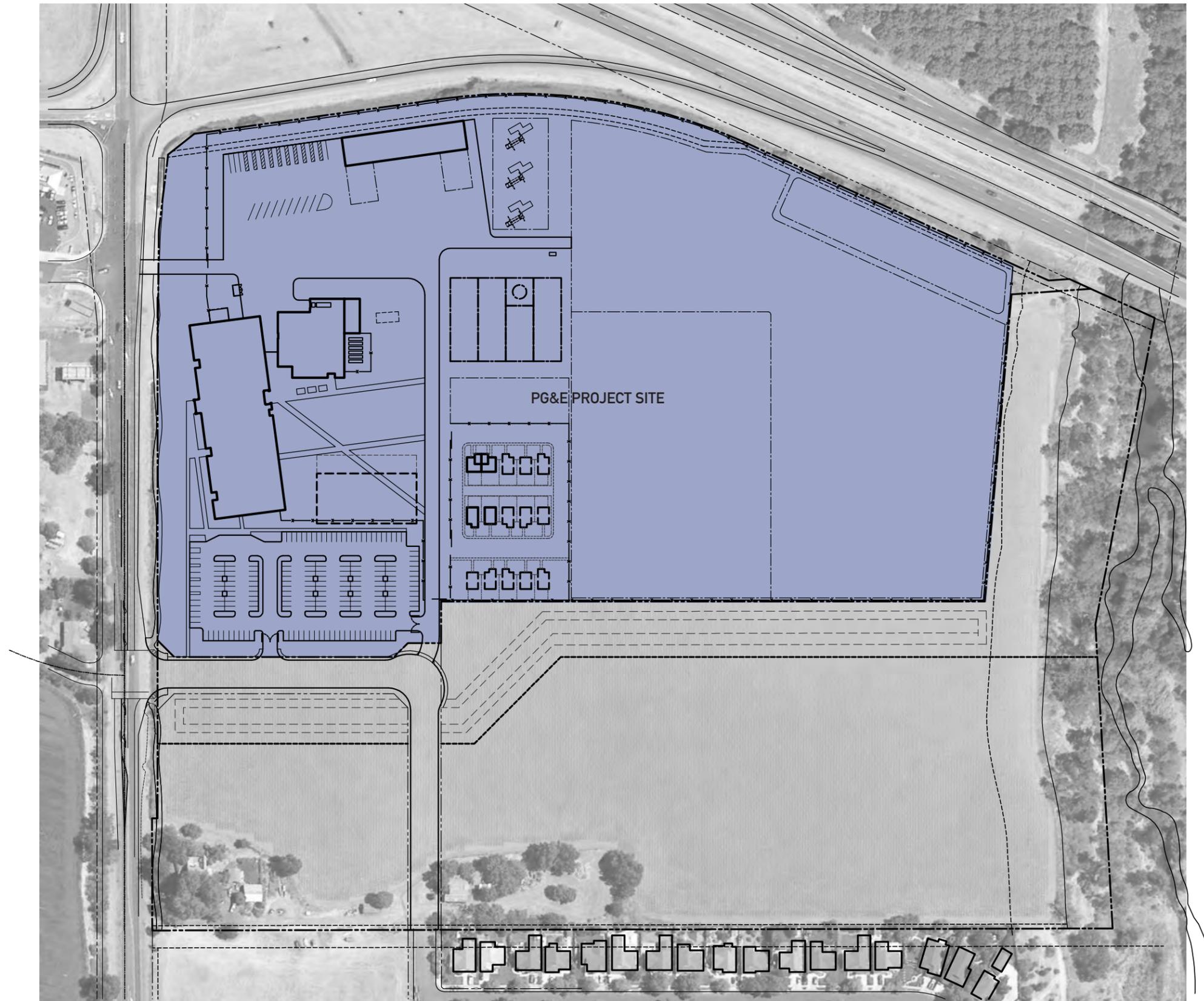


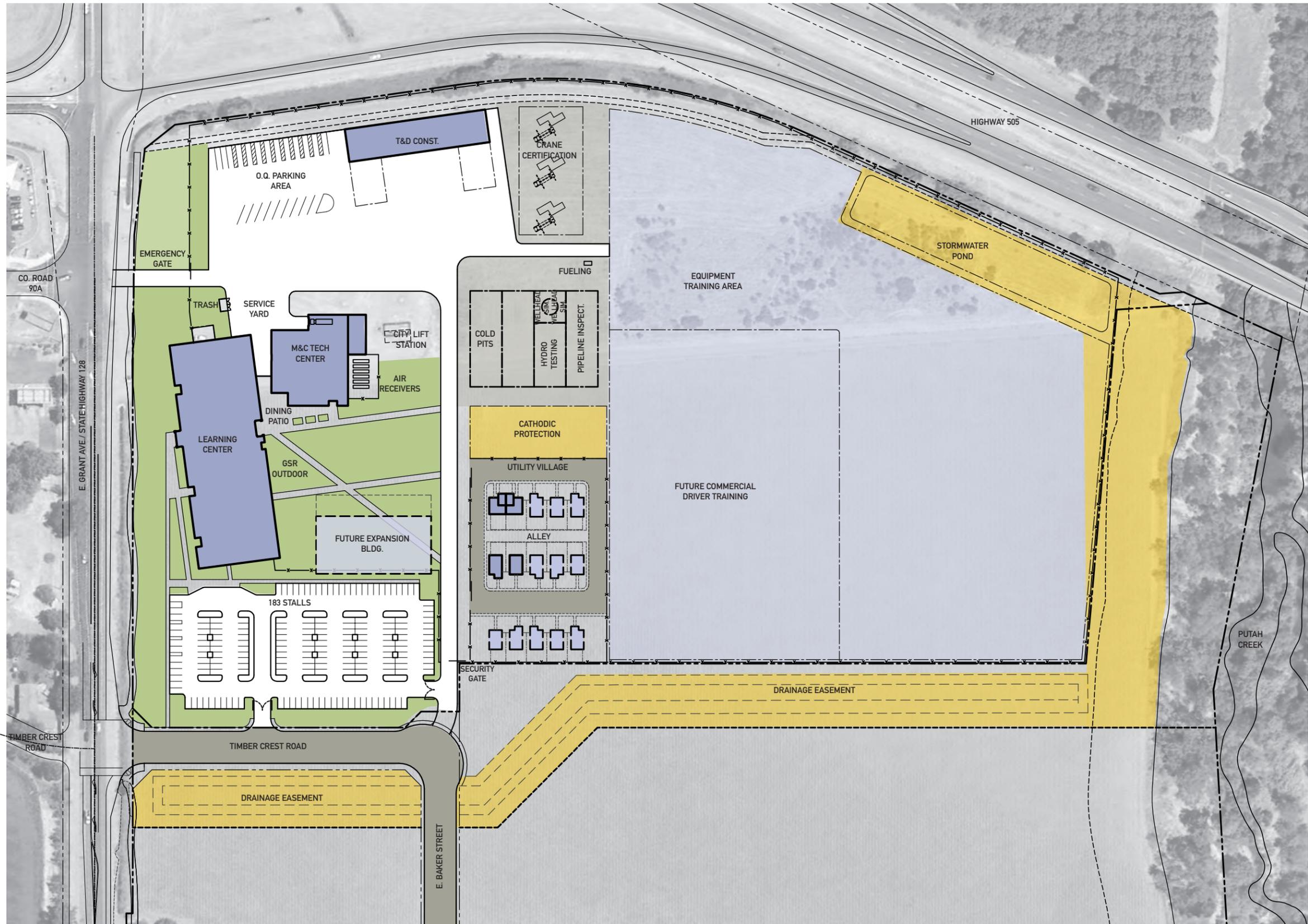
PG&E – WINTERS, GRANT AVENUE  
DEVELOPMENT AREA TOTAL: 29.87± ACRES



980 9TH ST  
SUITE 1770  
SACRAMENTO, CA 95814  
916-556-5800  
916-556-5899 (FAX)

JULY 9, 2014





Cultural Resources Survey Report  
for the Winters Gas Technical  
Training Center Project, Winters,  
Yolo County, CA

APPENDIX

B

NATIVE AMERICAN OUTREACH

**Michella Rossi**

---

**From:** Michella Rossi  
**Sent:** Thursday, February 06, 2014 8:59 AM  
**To:** nahc@pacbell.net  
**Subject:** 1 Sacred Lands Request For Yolo County  
**Attachments:** Fig1\_Winters\_ProjLocation\_020414.pdf

**To Whom It May Concern,**

**Please see request below and respond at your earliest convenience.**

**Thank You!**

**Sacred Lands File & Native American Contacts List Request**

**NATIVE AMERICAN HERITAGE COMMISSION**

915 Capitol Mall, RM 364  
Sacramento, CA 95814  
(916) 653-4082  
(916) 657-5390 – Fax  
[nahc@pacbell.net](mailto:nahc@pacbell.net)

Project: Winters Gas Training Facility Project, Yolo County

Project Description: Construct a New Gas Training Facility

County: Yolo

USGS Quadrangle

Name: Winters, Calif. Quadrangle

Township 8N Range 1W Section(s) section 22

Company/Firm/Agency: Cardno ENTRIX

Contact Person: Michella Rossi

Street Address: 701 University Ave. Suite 200

City: Sacramento, CA

Zip: 95825

Phone: 916-386-3864

Email: [Michella.Rossi@cardno.com](mailto:Michella.Rossi@cardno.com)

Michella Rossi  
STAFF SCIENTIST  
CARDNO ENTRIX



Phone (+1) 916-923-1097 Fax (+1) 916-386-3841 Direct (+1) 916-386-3864  
Address 701 University Avenue, Suite 200, Sacramento, CA 95825 USA  
Email [michella.rossi@cardno.com](mailto:michella.rossi@cardno.com) Web [www.cardno.com](http://www.cardno.com) - [www.cardnoentrix.com](http://www.cardnoentrix.com)

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**NATIVE AMERICAN HERITAGE COMMISSION**

1550 Harbor Blvd.  
West Sacramento, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



February 13, 2014

Michella Rossi  
Cardno ENTRIX  
701 University Ave, Suite 200  
Sacramento, CA 95825

via Fax: 916-386-3841

Number of Pages: 2

Re: Winters Gas Training Facility project, Yolo County

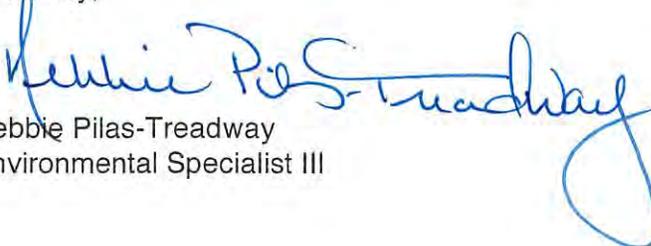
Dear Ms. Rossi,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3713.

Sincerely,



Debbie Pilas-Treadway  
Environmental Specialist III

Native American Contacts  
Yolo County  
February 13, 2014

Kesner Flores  
PO Box 1047  
Wheatland , CA 95692  
calnagpra@hotmail.com  
925-586-8919  
Wintun / Patwin

Cortina Band of Indians  
Charlie Wright, Chairperson  
PO Box 1630  
Williams , CA 95987  
(530) 473-3274 - Voice  
(530) 473-3301 - Fax  
Wintun / Patwin

Yocha Dehe Wintun Nation  
Marshall McKay, Chairperson  
P.O. Box 18  
Brooks , CA 95606  
(530) 796-3400  
(530) 796-2143 Fax  
Wintun (Patwin)

Yocha Dehe Wintun Nation  
Leland Kinter, Native Cultural Renewal Committee  
P.O. Box 18  
Brooks , CA 95606  
lkinter@yochadehe-nsn.gov  
(530) 979-6346  
(530) 796-3400 - office  
(530) 796-2143 Fax  
Wintun (Patwin)

Yocha Dehe Wintun Nation  
Cynthia Clarke, Native Cultural Renewal Committee  
P.O. Box 18  
Brooks , CA 95606  
(530) 796-3400 - office  
(530) 796-2143 Fax  
Wintun (Patwin)

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Winters Gas Training Facility project, Yolo County

Cultural Resources Survey Report  
for the Winters Gas Technical  
Training Center Project, Winters,  
Yolo County, CA

APPENDIX

C

DPR-523 SITE RECORDS

State of California – The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 6Z

Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 18

\*Resource Name or # (Assigned by recorder) 29711-29719 East Grant Avenue

**P1. Other Identifier:** McClish Ranch

\*P2. Location:  Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*a. County Yolo

\*b. USGS 7.5' Quad Winters, California; Portion of Rancho Rio De Los Putos

c. Address 29711-29719 East Grant Avenue City Winters, CA Zip 95694

d. UTM: (give more than one for large and/or linear resources) Zone 10; 590719 mE/ 4264992 Mn (GPS)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

APN 038-070-037; -038; -039

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The site is a 40 acre farmstead located approximately one-half mile from downtown Winters, California. The site includes a 1920s primary residence with associated garage; a 1940s secondary dwelling; an early twentieth century wooden barn; and five small utilitarian sheds of varying ages and material. The structures are grouped on the west side of the property, with a fallow field stretching to the west of the building compound. Historically, the ranch housed almond and apricot orchards, however the orchards have since been removed and no agricultural operations are extant at the site. In addition to the named buildings, some debris is scattered around the site, including automobiles and other farm implements. The property is surrounded by residential subdivisions to the west, East Grant Avenue to the north, Interstate 505 to the east, and Putah Creek to the south. See Continuation Sheet for detailed description and evaluation of the property.

\*P3b. Resource Attributes: (List attributes and codes) HP33 – Farm/Ranch

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



**P5b. Description of Photo:** (View, date, accession #) **Photograph 1: Overview of residential compound, camera facing north (12/31/2013).**

\*P6. Date Constructed/Age and Sources:

Historic  Prehistoric  Both

Circa 1920s (Owner Correspondence, Topographic Maps, County Records).

\*P7. Owner and Address:

McClish / Newkom Family  
29711-29719 East Grant Avenue  
Winters, CA 95694

\*P8. Recorded by: (Name, affiliation, address)

Erin Mick, Joe Fayer, and Polly Allen  
Cardno Entrix

700 University Avenue

Sacramento, CA 95825

\*P9. Date Recorded: December 31, 2013

\*P10. Survey Type: (Describe) Intensive

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Cardno Entrix, "Cultural Resources Survey Report for the Winters Gas Operations Technical Training Center Project, Winters, Yolo County, CA" August 2014.

\*Attachments: NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record

District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record

Other (list) \_\_\_\_\_

DPR 523A (1/95)

\*Required Information

**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*Resource Name or # (Assigned by recorder) 29711-29719 East Grant Avenue

B1. Historic Name: McClish Ranch

B2. Common Name: McClish Ranch

B3. Original Use: Apricot and almond ranch B4. Present Use: Residential dwelling, fallow agricultural lands

\*B5. Architectural Style: Tudor Cottage, utilitarian outbuildings

\*B6. Construction History: (Construction date, alteration, and date of alterations) Original building permits do not appear to be on file in Yolo County or Winters, however available topographic and aerial records and interviews with McClish family descendants indicate that the property was developed in the 1920s, with construction of the primary residence, garage, and barn during this period (Structures 1, 2, and 4). The secondary dwelling (Structure 3) and some of the utilitarian sheds (5, 6, 7, 8) were added in later decades (1930s-1950s) by the McClish family to accommodate agricultural operations at the site. Major alterations to the property include an addition to the primary residence that was completed by James McClish in the 1940s, and construction of Structure 3 in the 1940s. Additionally, the removal of associated orchards in the 1960s has altered the setting of the property.

\*B7. Moved?  No  Yes  Unknown Date: Unknown Original Location: McClish descendants state that one outbuilding (Structure 5) was moved to the site from an unknown Winters location. No other buildings are thought to have been moved.

\*B8. Related Features: None

B9. Architect: Unknown b. Builder: Unknown

\*B10. Significance: Theme Agricultural Development Area Winters, Yolo County

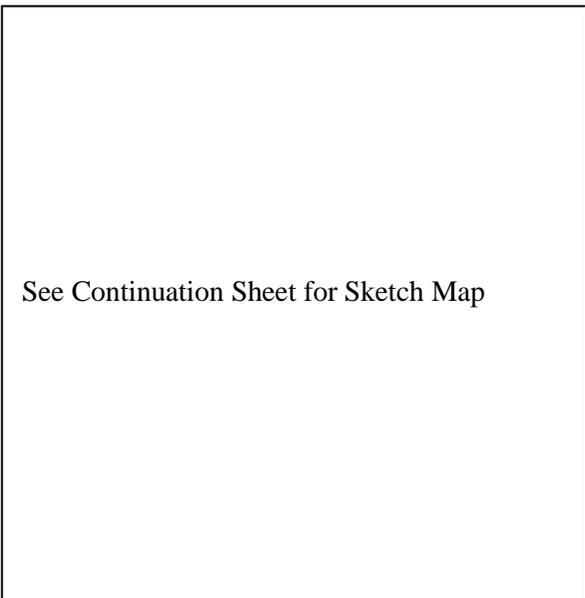
Period of Significance 1920-1965 Property Type Farm/Ranch Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The McClish Ranch property at 29711-29719 East Grant Avenue in Winters, California does not appear eligible for individual listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP), nor does it appear to be a contributor to any potential CRHR or NRHP historic district. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act Guidelines (CEQA), using the criteria outlined in Section 5024.1 of the California Public Resources Code, and does not appear to be a historical resource for the purpose of CEQA. In addition, the property does not appear to be a cultural resource under the provisions of City of Winters Municipal Code Chapter 17.108: Historical Preservation. See Continuation Sheet for full evaluation and contextual information.

B11. Additional Resource Attributes: (List attributes and codes) \_\_\_\_\_

\*B12. References: Yolo County Recorder's Office; United States Federal Census Records; Houses By Mail (National Trust For Historic Preservation); History of Yolo County (Gregory, 1913); Yolo County: Land of Changing Patterns (Larkey, 1987); Yolo County 2030 General Plan Environmental Impact Report; David Rumsey Map Collection; Sears Archives; Historical Resources Information System Northwest Information Center; Records of City of Winters City Manager's Office; Winters' Architectural Heritage (Historic Environment Consultants, 1983) Oral interviews with Laurie McClish, Gwen McClish Bertinoia, and Martin Newkom; please see continuation sheets for additional references.



B13. Remarks:

\*B14. Evaluator: Polly Allen

\*Date of Evaluation: February 5, 2014

(This space reserved for official comments.)

### **P3a. Description (continued):**

For clarity in documentation, the nine named structures have been assigned structure numbers: Primary Residence: Structure 1, Garage: 2, Secondary Dwelling: 3. Barn: 4, Secondary Sheds: 5, 6, 7, 8, and 9.

**Structure 1** is a 1 ½ story Tudor-Cottage style residence that fronts East Grant Avenue / Highway 128 (**Photographs 2, 3, 4, and 5**). The home is fronted by a small circular drive and surrounded by a mature landscaped yard, containing a variety of ornamental trees including London Plane, along with several citrus trees. The east side of the house is overgrown with encroaching vines, shrouding much of the eastern perimeter of the building.

The residence is characteristic of a modest Tudor Cottage style, with a complex cross gable roof with flared eaves and areas of decorative bargeboard. The foundation of the building is concrete, the roof is sheathed in composition shingles, and the building is framed in clapboard siding with stucco-treated board and batten detailing in the gable ends. The entry, which is centered in an articulated gable, is centered on the front of the building (north side) and is accessed by a low concrete stoop. The entry is of a circular arch design, with original framing intact (**Photograph 2**). Several pairs of windows flank the entry, all of which are wood frame four-over-four double hung with original members intact. All of the windows lining the building appear to be of this design and material. The east side of the building is punctuated by three sets of windows at the first level, with a steeply pitched cross gable featuring a large attic vent and board and batten detailing (**Photograph 3**). A brick chimney rises from the roof above this elevation. The south side of the building features a prominent addition (**Photographs 5 and 6**) that was added by James McClish in the 1940s. The addition has an irregular roofline and includes a rear porch with a secondary entry area, bathroom, and interior stairs to reach the original attic through a door opening to the roof. Several pairs of windows line the rear addition, all of which are of a similar design to those which line the main body of the building. The west side of the building (**Photograph 5**) features a number of rooflines, with a multiple-gabled main body dating from the original construction punctuated by the large irregular rear addition discussed above. A secondary entry lines this wall, which was added on with the rear addition. Pairs of windows line the west side, of the same design as those discussed previously, and the gable ends feature vents, with the larger gable featuring board and batten detailing.

During the site visit and in a follow-up interview, a McClish descendant stated that when her grandfather purchased the property in the 1930s he was informed by the previous owners that the property was a Sears Roebuck Kit House. Research and oral interviews undertaken for this project were unable to confirm this assertion, although the house does bear resemblance to some Sears kit house plans of the period. As part of this research both the Sears Archives and other publications on Sears plans were consulted, including the National Trust for Historic Preservation's, *Houses By Mail* collection of blueprints, and researchers were unable to find a matching blueprint for the property. Further, no identifiable markings on lumber or millwork were found, and all plumbing and fittings have been replaced (circa 1940s and onward) and as a result no identifiable Sears and Roebuck markings were noted on any interior fixtures. Thus, while the residence may be a kit house, it has not been confirmed and is not definitively of a Sears Roebuck design rather than that of another prefabricated company. Additionally, the 1940s McClish addition has altered the original plan of the building, which further precludes clear interpretation of the building as a potential kit house.

**Structure 2** is a vehicular garage associated with the main residence (**Photograph 7**). The building is of a utilitarian design, with a front gable roof and overhead-hung sliding doors centered upon the north side. The doors are of a wood panel design, with six-light fixed windows. The building is partially sheathed in wood siding, with some areas appearing to be sheathed in replacement vinyl. The roof rafters are exposed and the roof is sheathed in composition shingle. A utilitarian vent is centered at the top of the gable.

**Structure 3** is a small secondary residence that stands to the south of the primary residence (**Photograph 8**). The building was constructed by James McClish in the 1940s for extended family members. The wood frame, side gable building is approximately 800 square feet in size, with a sloping shed roof overhang on the east side. The building is sheathed in wood

### P3a. Description (continued):

clapboard and has a corrugated metal roof. Fenestration is minimal, with a centered entry flanked by six-over-six double hung vinyl windows, replacements to the original.

The remainder of the structures are utilitarian buildings related to the agricultural operations of the property. The buildings appear to have been developed from the 1920s to the 1940s and were utilized as processing and storage areas for the almond and apricot operations at the ranch, as well as for miscellaneous storage and operational uses. The buildings are clustered to the south of the residential structures (**Photograph 9** and **Sketch Map**). According to McClish family members the orchards were removed in the 1960s, and since then the buildings have not been in intensive use. As a result many are highly deteriorated, with missing windows, roof sheathing, and compromised framing members. At present, a modern subdivision stands immediately to the west of the complex.

**Structure 4** is an approximately 3000 square foot wood-sided barn (**Photograph 10**). The building is in a highly deteriorated state, with compromised structural elements, siding, and roofing. The building is a three bay structure, with a large two-story central bay flanked by a single-story side bay and shed roof open-air extension. As designed, the central bay was accessed by overhead hung wood doors, however the doors have since been removed and the barn is open to the air. The roof is sheathed in corrugated metal. In the eastern portion of the barn, trees have grown through the roof.

**Structure 5** is an open-air shed that stands to the south of the barn (**Photograph 11**). The building stands on a concrete pad, which extends outward from the structure and suggests that the area may once have been developed with a larger building which has since been demolished. The standing shed was likely a processing shed for almonds and apricots. The lean-to roof is highly deteriorated, with much of the sheathing missing and the wood framing compromised. Mature trees grow through the roof of the structure. The building is sheathed in a mixture of vertical and horizontal milled lumber, all of which is highly deteriorated.

**Structure 6** is a utilitarian side gable shed (**Photograph 12**). The building measures 600 square feet. The roof is sheathed in corrugated metal. Overhead hung sliding metal doors line the building. A small window with a metal grate is also located on the east side of the building. The shed has a concrete foundation and concrete floor. On the east side of the building, faint outlines of painted words and letters are visible. "MONUMENTS" is the most visible, with outlines of other letters present but not legible. According to the granddaughter of the original property owner, her grandfather bought this shed from another property in Winters, and had it moved onto its current location, although she was unsure of the date of this activity.

**Structure 7** is a side gable shed that stands to the south of **Structure 6** (**Photographs 13** and **14**). The shed is approximately 700 square feet in size. The walls are sheathed in vertical milled lumber and the roof is sheathed in corrugated metal. In areas of the roof the metal is peeling away, exposing the underlayers of the roof system. Sliding metal doors line the north, south and east sides of the building. The west side of the building features a ribbon window in original wood framing.

**Structure 8** is located equidistant between the residential cluster of buildings and Structures 4-7 and appears to be of a more recent construction than the structures to the south (**Photograph 15**). The small shed is sheathed entirely in corrugated metal. The building is approximately 600 square feet and features a side gable main body with a shed roof extension that is partially open to the air. Two overhung sliding metal doors line the east and west sides of the building. The shed has a concrete foundation.

**Structure 9** is a modern open-air shed that stands on a concrete pad. The structure was not photographed because of field safety concerns with dogs at site.

## B10. Significance (continued):

### Historic Context

The small farmstead at 29711-29719 East Grant Avenue was established in the 1920s by Rutherford A (R.A.) Wells and his wife Elizabeth, a young married couple who appear to have been newly engaged in farming. The couple appears to have developed the residence and several outbuildings, working the property as an orchard. Prior to moving to Winters, R.A. hailed from Ventura, California, where he resided with foster parents, John and Luella Graham. Elizabeth was from neighboring Woodland, where she had resided with mother Madge Porter, a widowed music teacher.<sup>1</sup>

At the time of this modest property's development, the agricultural lands around Winters were increasingly being settled and cultivated by small-scale farmers and orchardists. While a number of large landholders retained significant acreage throughout Yolo County, the lands surrounding Winters were largely divided into 20, 40, 60, and 80 acre lots, with much of this acreage planted with an array of fruit and nut trees. As depicted in **Figure 1**, in 1926 the Wells property was surrounded by several sizeable holdings along Putah Creek, with a large number of similarly modest parcels scattered around the immediate vicinity.<sup>2</sup>



**Figure 1:** Portion of *Official Map of Yolo County, California, 1926*

While the Wells appear to be the first family to erect a residence and structures at the site, the 40 acre subject parcel had been owned, and likely farmed, by several agriculturalists prior to their purchase. The lands were originally part of the approximately 17,000 acre Rancho Rio de los Putos, a Mexican land grant that encompassed the lands around Putah Creek and present day Winters. The land grant was given to William Wolfskill in 1842, and was managed and farmed by his brother John Wolfskill for much of the nineteenth century. During this period, thousands of acres of the rancho lands were

<sup>1</sup> *United States Federal Census Records 1900, 1910, 1920, 1930;*

<sup>2</sup> *Official Map of Yolo County, California, 1926* (Woodland: A.G. Proctor)

utilized for a variety of grains, fruits, nuts, and vines. Research did not indicate what, if anything, was cultivated on this subject property, however it was likely utilized in some agriculturally-related capacity during this early period.<sup>3</sup>

By the 1870s, large portions of the Wolfskill lands had been sold to farmers and land speculators, including Theodore Winters, whose land was ultimately developed as the town of Winters. In 1880, the nascent town of Winters had a population of 523, most of whom were engaged in farming. By this time, the area was both an important grain shipping center and an increasingly active fruit growing area. These expanding agricultural sectors were greatly bolstered by the newly constructed Vaca Valley Railroad, which terminated in Winters. By the mid-1880s the lands surrounding Winters were referred to as the, "fruit belt," with thousands of acres of intensively planted orchards. An article from the Sacramento Daily Union in 1887 proclaimed the area, "the finest fruit and grain lands in the state, and it is claimed with reason, the world," a sentiment that found vocal support among the region's speculators, landholders, and burgeoning farming community.<sup>4</sup>

By the 1880s, the subject parcel at 29711-29719 East Grant Avenue was part of a larger landholding held by Henry A. Hill, whose family owned approximately one thousand acres of discontinuous land around Winters. The Hill family had arrived in Yolo County in the 1850s from Kentucky, with the brothers engaged in farming as well as commercial activities around Winters. By 1900, the Hill family had sold their lands and dispersed, with this 40 acre parcel purchased by John H. Ormsby, an orchardist born in 1818 in Ohio. The Ormsby family owned the property for the next decade. In addition to this land, the family owned an 88 acre parcel directly to the north, which appears to have been where they resided. It is likely that the study property was planted with orchards at this time, however historic period maps indicate that the property did not contain any documented standing structures during this period. By 1909, the Ormsby family had sold the land to Ishmael J. Elliot, an orchardist from Winters. Like previous owners, it does not appear that Elliot developed structures at the site. Elliot died in 1913, after which the property appears to have been held by Marcus Wyatt, an established Winters banker.<sup>5</sup>

Thus, while the historic record indicates that the subject parcel of land was utilized for farming in some capacity from the latter half of the nineteenth century, it was not until Wells' purchase in the mid-1920s that the property appears to have been intensively developed with structural features. While research did not locate any original building permits on file with Yolo County or the City of Winters, it appears that Wells constructed the residence and garage (Structures 1 and 2), barn (Structure 4), and possibly several outbuildings. As discussed in the description section, the residence may have been built from a kit assembly, however blueprint research and material inspection has not been able to corroborate this claim. Despite this substantial capital improvement, Wells sold the property in 1933 to James and Elizabeth McClish, moving with his wife and young children to Berkeley where he became engaged in the building trades.<sup>6</sup>

In contrast to the brief tenure of the subject parcel's earliest residents, the McClish family continuously owned the 40 acre farmstead from 1933 to the present. At the time of purchase, the McClish's were a young family, with a year-old son, Gale. Prior to purchasing the farmstead, the couple lived in Richmond, with James working as an electrician and Elizabeth a teacher. Upon moving to the property the couple had two more children, Donald and Nancy. According to family members, Donald took over management of the farm in later years, with James McClish dying in 1994 and Elizabeth in 1993.<sup>7</sup>

<sup>3</sup> *Diseno del Rancho Rio de los Putos*, 1858

(United States District Court, Land Case 232 ND, accessed at <http://content.cdlib.org/ark:/13030/hb6t1nb3h3/>, February 4, 2014); Joann L. Larkey, *Yolo County: Land of Changing Patterns* (Northridge, California: Windsor Publications, 1987).

<sup>4</sup> *Yolo County 2030 General Plan Environmental Impact Report* (LSA Associates, Inc. prepared for Yolo County, 2009), 515; "Winters Fruit Belt," *Sacramento Daily Union*, Volume 58, No. 30, September 24, 1887.

<sup>5</sup> *Official Map of Yolo County, California* (San Francisco: De Pue and Company, 1879); *United States Federal Census Records 1870, 1880, 1890, 1900, 1910, 1920*; *Official Map of Yolo County, California* (Woodland: P.N. Ashley, 1900); *Winters Quadrangle* (Washington D.C.: United States Geological Survey); *Official Map of Yolo County, California* (Woodland: P.N. Ashley, 1909); *Official Map of Yolo County, California* (Woodland: A.G. Proctor, 1915).

<sup>6</sup> *United States Federal Census Records 1940*.

<sup>7</sup> Oral interviews with Laurie McClish, Gwen McClish Bertinoia, and Martin Newkom; *United States Federal Census Records 1940*.

Prior to the 1960s, the family farmed almonds and apricots, with orchards filling the entirety of the site's productive acreage. During this period, James McClish also owned and operated other farmland around Winters, which was also primarily devoted to orchards. According to family members the orchards at this subject site were removed in the 1960s, as economic factors and shifts in agriculture dictated a conversion to row crops. Most recently, the land was leased to tenant operators who cultivated tomatoes, however at present the land is fallow. This trajectory mirrors that of other parcels in the vicinity, with the primacy of orchards ceding to row crops and, of late, residential sprawl from an expanding Winters.<sup>8</sup>

In addition to the notable changes in land use patterns at the site in the latter decades of the twentieth century, there were a number of changes to the farmstead's buildings and structures. According to family members, James McClish constructed a rear addition on the residence (Structure 1) in the 1940s, as the family grew in size. The addition expanded the kitchen, added a bathroom, and allowed for attic access via a new interior stairwell leading to the roof. In addition, James added a second dwelling in the late 1940s, which housed his then-adult son Gale's family. Accompanying these residential changes, the family appears to have added a number of utilitarian structures to the site, including several corrugated metal sheds (Structures 6 and 8) as well as temporary utilitarian features including a metal frame corral (Structure 9). This ongoing evolution is typical of such farmsteads, as evolving agricultural mandates and family requirements dictate ongoing physical alteration. Currently the site is occupied by James McClish's granddaughter, Laurie McClish. There are no agricultural operations at the site, and almost all of the farming-related structures are vacant and unutilized but for storage, with most in substantial disrepair.

### Evaluation

While the subject parcel at 29711-29719 East Grant Avenue is generally reflective of the agricultural development of Winters and Yolo County, it lacks direct associations under all of the criteria for significance of the CRHR and NRHP. In addition, with the mid-twentieth century removal of all associated orchards and the ongoing alterations of the property's buildings, the property cannot convey integrity to any potentially significant period. As such, it appears that the subject parcel is not eligible for listing on the CRHR or the NRHP. Additionally, the property does not appear eligible for any local listing as a cultural resource, as defined in Winters Municipal Code (Chapter 17.108.020), which largely follows that of the CRHR and NRHP.

Under CRHR Criterion 1 (NRHP Criterion A), the modest agricultural property does not convey distinctive themes relating to the agricultural, social, or economic development of Winters or Yolo County. Like much of the land in the area, the property was part of a former land grant holding, which was gradually subdivided throughout the closing decades of the nineteenth century. As was common in the Winters region during the historic period, the property was planted with a mixed orchard for much of the twentieth century. This land use pattern typified the region and does not convey distinctive facets of Winters' or Yolo County's agricultural development. Further, with the late twentieth century removal of the orchards, the property no longer retains integrity to convey any potentially significant associations to any of these historical themes of development.

Under CRHR Criterion 2 (NRHP Criterion B), the property does not appear to be associated with any individuals who made significant contributions to the historical development of Winters or Yolo County. Although the lands were a very small component of the Wolfskill rancho, there is no evidence in the historic record that these 40 acres have any direct or important ties to the Wolfskill family. Following subdivision, the property was associated with as many as six owners, most of whom appear to have resided elsewhere and solely utilized the parcel for ancillary agricultural operations. As such, the property cannot convey any direct associations with these individuals. While the McClish family does hold direct and long-term associations to the property, the family's association with the property does not appear significant under this Criterion. Both within the community of Winters and Yolo County as a whole, agricultural development has been defined by

<sup>8</sup> Oral interviews with Laurie McClish, Gwen McClish Bertinoia, and Martin Newkom.

### **B10. Significance (continued):**

multigenerational farm families like that of the McClish Ranch, and their associations to the property do not appear to be representative of important or significant themes of development.

The subject property does not appear to have significant associations under CRHR Criterion 3 (NRHP Criterion C), nor does it appear to have sufficient integrity to convey any potential significance under this Criterion. As a modest agricultural farmstead, the property does not embody distinctive characteristics of a type, period, or method of construction; nor do the buildings represent the work of a master. Rather, the ranch typifies residential and agricultural development from the period, with modest utilitarian outbuildings and residential structures that were adapted and added over time to support the changing mandates of the farm. The various outbuildings and barn are of a ubiquitous and common utilitarian design. Further, most are physically compromised to such an extent that integrity of material, workmanship, design have been undermined. While Structure 1, the main residence, does bear some interest as a potential kit house, this potential association does not merit considerations under this Criterion both because of a lack of overall significance and a lack of integrity. If a kit house, the cottage-style dwelling was one of up to 100,000 that were erected across the country, and was erected in the late-stages of the kit house era. The form of the building is reminiscent to some of Sear's most common and well documented 1920s models, including the Riverside, the Wilmore, and the Jewel. The building has been altered substantially since construction, with a large addition changing the overall floorplan and exterior envelope and a number of material changes including the replacement of associated fixtures and features. As such, the structure does not appear to convey either sufficient significance or integrity to be an important representative of this potentially-associated construction typology. This evaluation is in keeping with others that have addressed potential kit house representatives, which have largely found that strong material integrity and historical significance within a larger social or economic context is necessary for consideration for listing.<sup>9</sup>

The property does not appear likely to yield significant informational associations under (CRHR) Criterion 4 (NRHP Criterion D). The associated outbuildings and barn are of an exceedingly common design that is well represented in both the historic record and extant landscape of Winters and Yolo County. Similarly, the residential structure does not seem to be an important source of information regarding the history of either the region or housing construction in general. If a kit house, the overall type is well-represented in the historic record, with archives and repositories containing detailed blue prints of catalogue offerings. Further, because both the interior and exterior of the building were altered after construction, the residence does not retain sufficient integrity to yield informational potential regarding any standardized plans. The original configurations, floor plan, and material have been altered and as such significant informational potential is unlikely.

As previously discussed, in addition to a lack of significance under any of the listed criteria, the property lacks sufficient integrity of materials, workmanship, design, setting, feeling, and association. Alterations and deterioration have undermined the physical integrity of the property, with a significant loss of historic material, design, and workmanship evident throughout. In addition, removal of the original orchards coupled with encroachment of residential development has undermined integrity of setting, feeling, and association. As an assemblage, the property is unable to convey notable association as a late nineteenth or early twentieth century orchard.

<sup>9</sup> *House in a Box: Prefabricated Housing in the Jackson Purchase Cultural Landscape Region, 1900 to 1960* (Kentucky Heritage Council, 2006); *Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places* (National Park Service, 2002).

**Photographs (continued):**



**Photograph 2:** Structure 1, facing south, December 31, 2013.



**Photograph 3:** Structure 1, camera facing west, December 31, 2013.

**Photographs (continued):**



**Photograph 4:** Structure 1, camera facing north, December 31, 2013.



**Photograph 5:** Structure 1, camera facing east, December 31, 2013.

**Photographs (continued):**



**Photograph 6:** Structure 1, rear addition detail, December 31, 2013.



**Photograph 7:** Structure 2, facing south, December 31, 2013.

**Photographs (continued):**



**Photograph 8:** Structure 3, facing east, December 31, 2013.



**Photograph 8:** Structure 3, facing north, December 31, 2013.

**Photographs (continued):**



**Photograph 11:** Assemblage of agricultural structures, facing north, December 31, 2013.



**Photograph 10:** Structure 4, facing northeast, December 31, 2013.

**Photographs (continued):**



**Photograph 11:** Structure 5, facing northeast, December 31, 2013.



**Photograph 12:** Structure 6, facing west, December 31, 2013.

**Photographs (continued):**



**Photograph 13:** Structure 7, facing west, December 31, 2013.

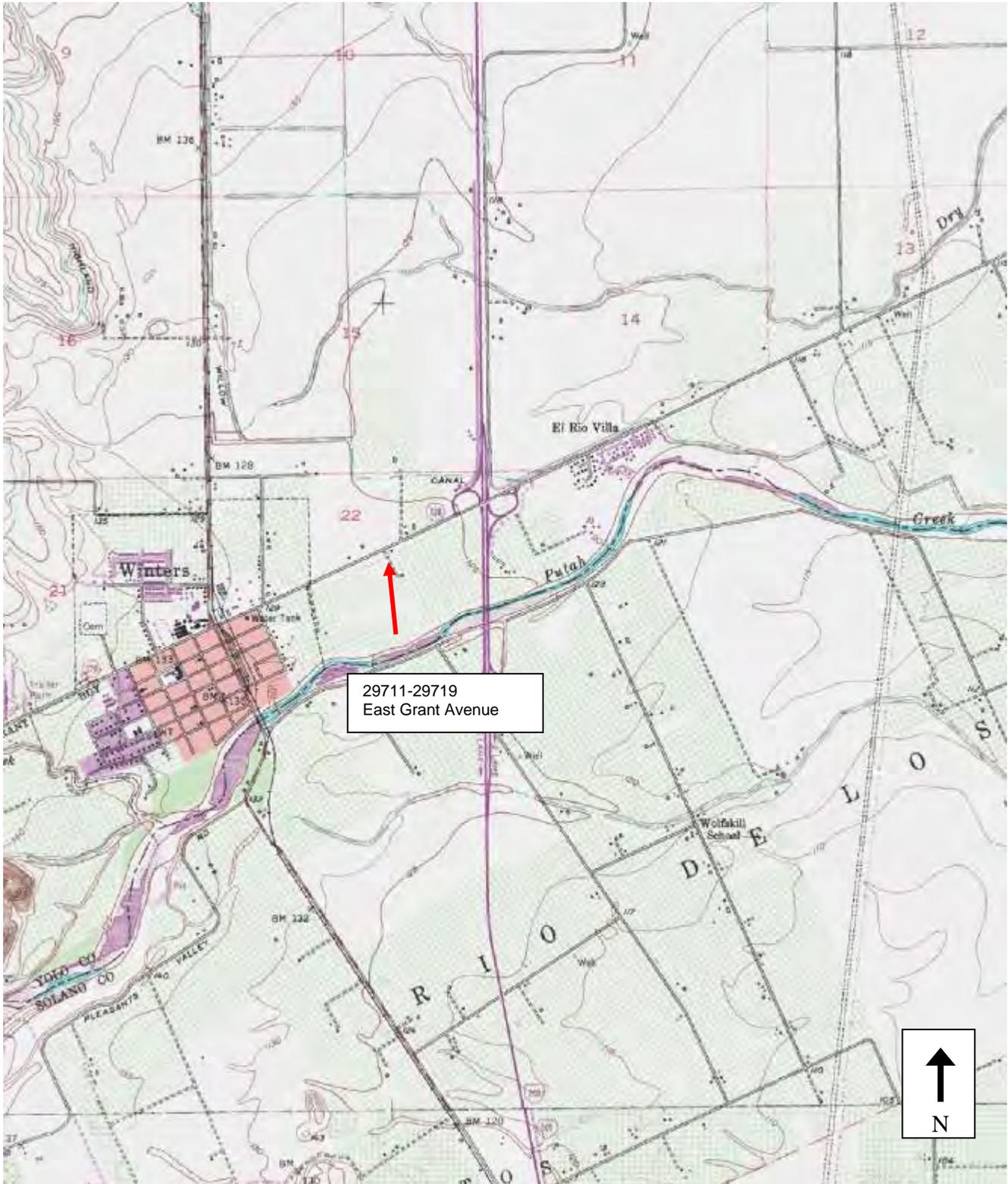


**Photograph 14:** Structure 7, facing southwest, December 31, 2013.

**Photographs (continued):**



**Photograph 15:** Structure 8, facing northeast, December 31, 2013.







**PALEONTOLOGICAL TECHNICAL STUDY FOR THE  
WINTERS GAS OPERATIONS TECHNICAL TRAINING  
CENTER PROJECT, WINTERS, YOLO  
COUNTY, CALIFORNIA**

**Prepared for:**

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**October 2014**

***Cogstone Project Number:*** 3007-01

***Type of Study:*** Paleontological Sensitivity Analysis

***Localities:*** None within 1 mile radius

***USGS Quadrangle:*** Winters 7.5'

***Total Area:*** 35.2 ac (30.5 ac for Project Site; 4.7 ac for Drainage Easement)

***Key Words:*** Pleistocene Riverbank and Modesto Formation undifferentiated, Putah Creek, mammoth, sloth

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Federal Certifications 8(a), SDB, 8(m) WOSB  
State Certifications DBE, WBE, SBE, UDBE

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## **EXECUTIVE SUMMARY**

The purpose of this study is to determine the potential Project-related effects on paleontological resources during construction of the proposed Pacific Gas and Electric Company (PG&E) Gas Operations Technical Training Center in the City of Winters, Yolo County, California. The proposed Project is on approximately 35.2-acres that are generally bounded by Interstate-505 to the east, Timber Crest Road to the east, East Grant Avenue to the north, and Putah Creek to the south. This study was required by the City of Winters to meet their responsibility as the lead agency under the California Environmental Quality Act (CEQA).

The Project will involve construction of multiple buildings that will house offices, classrooms, laboratory, dining, and covered training space; outdoor excavation training, commercial driver training, and crane certification areas; at grade vehicle and equipment parking areas; utility village; service yard; a storm water pond in the southeastern portion of the Project area; and an interim storm water drainage channel along the western boundary of the Project area. Excavation for the storm water pond is expected to be approximately nine feet deep and remove 10,000 cubic yards (cy) of material. Excavation for the drainage channel is expected to be approximately six feet deep and remove ~18,000 cy of material. Due to the flat topography of the site, other construction activities for the project are expected to only require excavations between two and three feet in depth.

The project area is mapped as undifferentiated late Pleistocene Modesto Formation and middle Pleistocene Riverbank Formation. According to the geotechnical report for the Project, the upper two to three feet of sediment over the majority of the Project area consists of soils disturbed by agricultural activities. A paleontological records search of the Project area was conducted by the University of California, Museum of Paleontology (UCMP). UCMP replied via email that no fossils are known from the Project area or a one mile-radius. Cogstone conducted additional searches of the UCMP online database, Paleobiology Database, Sierra College, and in scientific journals, technical studies, and State geological survey reports pertaining to the paleontology and geology of the Winters area. These searches were also negative for specimens within the Project area. However, they revealed that Pleistocene vertebrate fossils have been recovered from similar sediments throughout the Sacramento Valley, including the banks of Putah Creek, which borders the Project immediately to the south. Fossils recovered nearby include mammoth, sloth, and saber-toothed cat material.

Most earthmoving activities will be shallow, less than three feet deep, and will mostly be within sediments previously disturbed by agricultural activities. These excavations have little chance of impacting significant resources and monitoring is not recommended. Deeper excavations for the storm water pond and drainage channel have the potential to yield fossils meeting significance criteria and should be monitored if earthmoving activities are deeper than eight feet below the surface. Prior to the start of construction, earthmoving personnel should receive a paleontological sensitivity training detailing the types of fossils that may be encountered and procedures to follow if finds occur.

In the event that unanticipated paleontological resources are discovered during project construction activities, it is PG&E's best management practice that all work shall immediately be halted within 100 feet of the find until it can be evaluated by a Principal Paleontologist.

## INTRODUCTION

### PURPOSE OF STUDY

The purpose of this study is to determine the potential Project-related effects on paleontological resources during construction of a gas operations technical training center in Winters, California (Figure 1). This work was required by the City of Winters to meet their responsibility as the lead agency under the California Environmental Quality Act (CEQA).

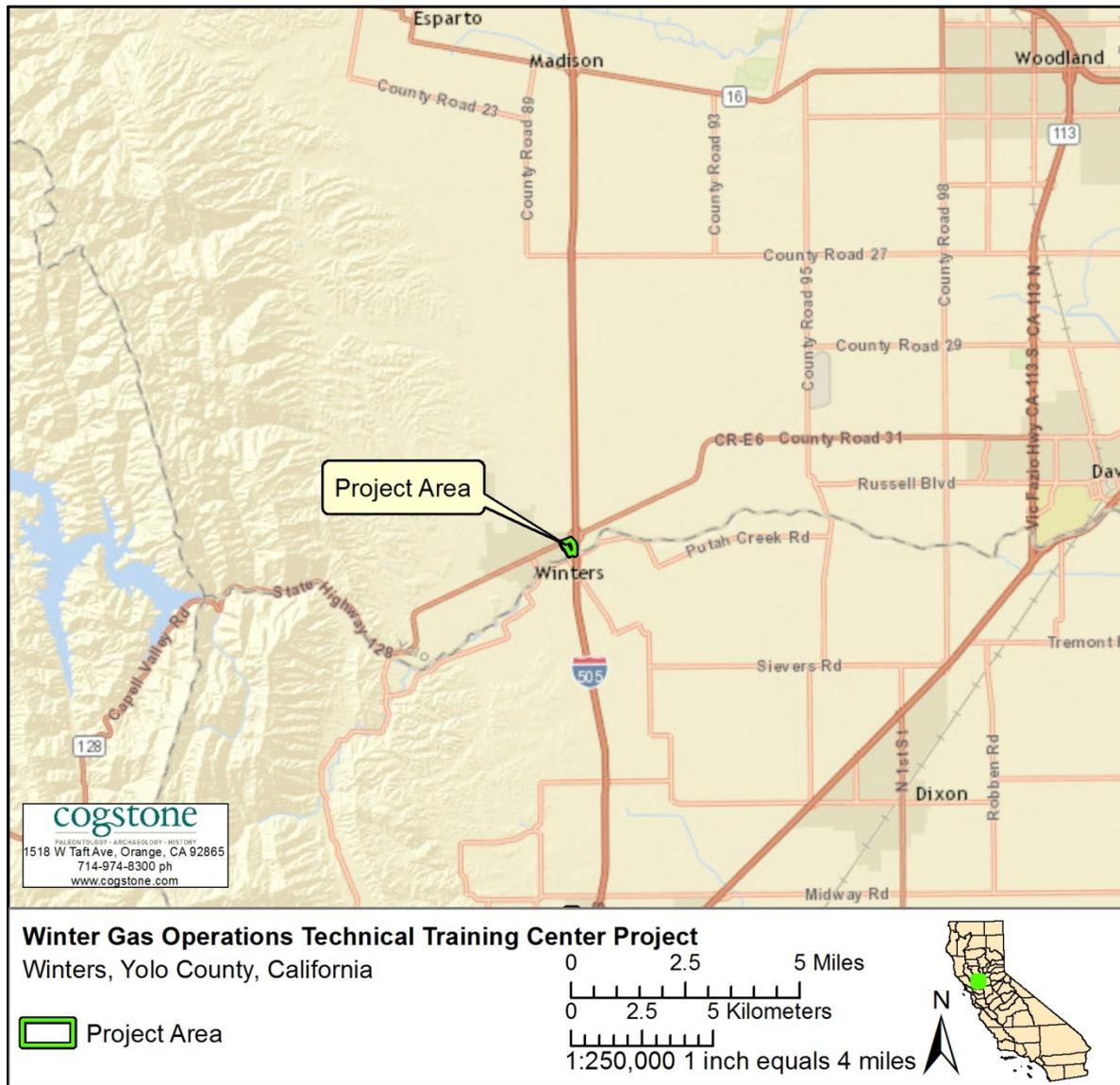


Figure 1. Project Vicinity

## **PROJECT DESCRIPTION**

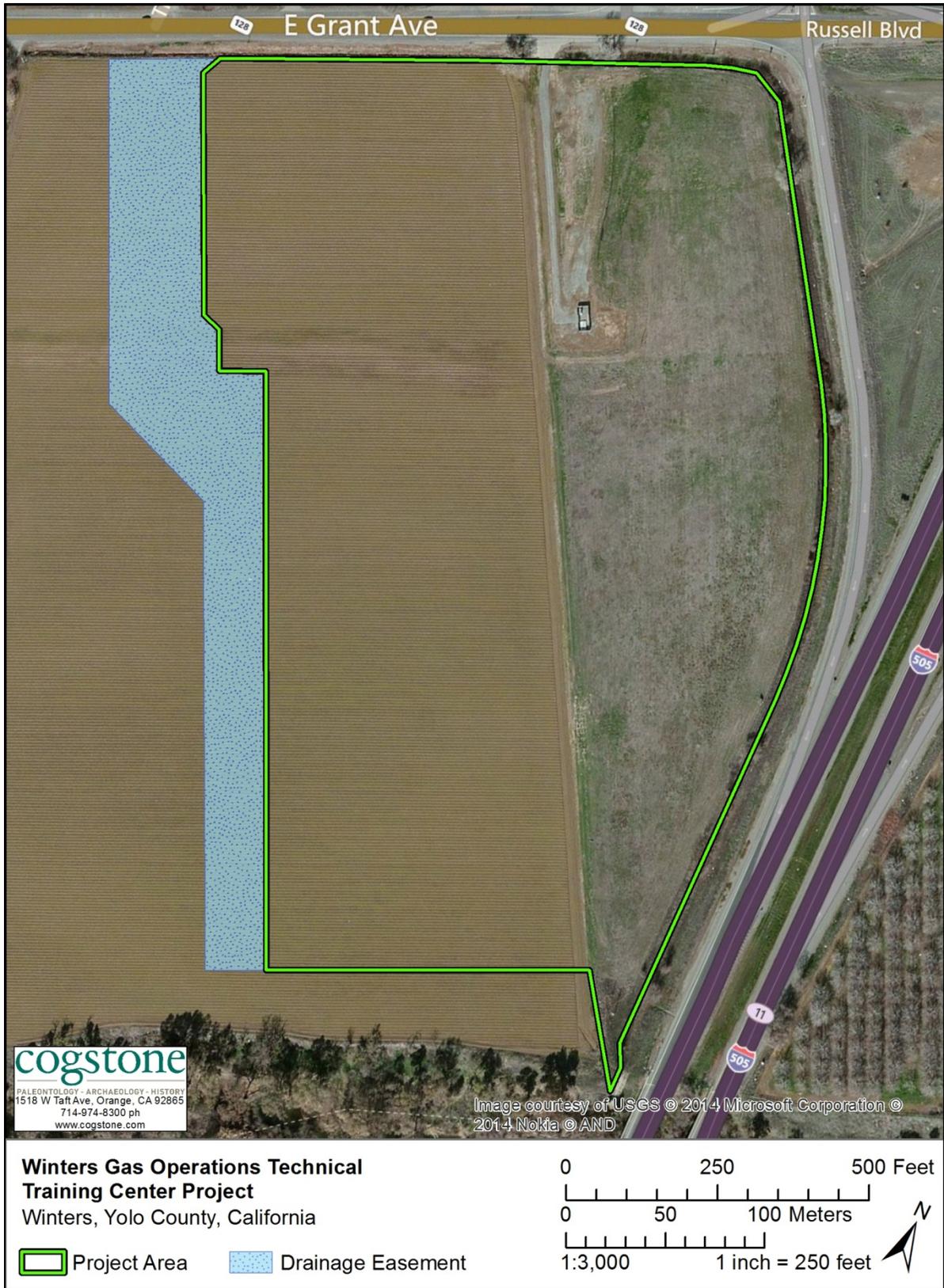
Pacific Gas and Electric Company (PG&E) proposes to install a Gas Operations Technical Training Center in the City of Winters, Yolo County, California. The proposed Project is on approximately 35.2-acres generally bounded by Interstate-505 to the east, Timber Crest Road to the east, East Grant Avenue to the north, and Putah Creek to the south. The Project is mapped on the United States Geological Survey (USGS) Winters 7.5 Minute topographic quadrangle map, in section 22, Township 8 North, Range 1 West of the Mt. Diablo Base Meridian (Figure 2).

The Project will involve construction of multiple buildings that will house offices, classrooms, laboratory, dining, and covered training space; outdoor excavation training, commercial driver training, and crane certification areas; at grade vehicle and equipment parking areas; utility village; service yard; a storm water pond in the southeastern portion of the Project area; and an interim storm water drainage channel along the western boundary of the Project area. Excavation for the storm water pond is expected to be approximately nine feet deep and remove 10,000 cubic yards (cy) of material. Excavation for the drainage channel is expected to be approximately six feet deep and remove ~18,000 cy of material. Due to the flat topography of the site, other construction activities for the project are expected to only require excavations between two and three feet in depth.

## **PROJECT PERSONNEL**

Cogstone Resource Management Inc. (Cogstone) conducted the paleontological study. Sherri Gust served as the Principal Investigator for the project, supervised all work, and edited this report and prepared the recommendations. Gust is a Qualified Principal Paleontologist and Registered Professional Archaeologist. She has an M.S. in Anatomy (Evolutionary Morphology) from the University of Southern California, a B.S. in Anthropology from the University of California at Davis and over 34 years of experience in California.

Courtney Richards prepared portions of this report. Richards has an M.S. in Biological Sciences with an emphasis in Paleontology from Marshall University, a B.S. in Earth and Space Sciences from the University of Washington, and over 2 years of experience in California. André Simmons prepared the GIS report maps. Simmons has a B.A. in Anthropology from California State University, Fullerton, cross-training in paleontology and over three years of GIS experience. Qualifications of key project personnel are provided (Appendix A).



**Figure 2. Location Map**

## **REGULATORY ENVIRONMENT**

This project is subject to state and local legislation and guidelines regarding paleontological resources. This protection covers all vertebrate fossils (animals with backbones) and any unique paleontological locality.

### **STATE LAWS AND REGULATIONS**

#### **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

California Environmental Quality Act (CEQA) (Chapter 1, Section 21002) states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. CEQA Guidelines (Article 1, Section 15002(a)(3)) states that CEQA is intended to: Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

Paleontological resources are explicitly afforded protection by CEQA, specifically in Appendix G, Section V(c), which addresses the potential for adverse impacts to unique paleontological resources, sites, or geological features. Under CEQA, the treatment of paleontological resources is usually conducted in accordance with guidance from the Society for Vertebrate Paleontology, the Bureau of Land Management, United States Forest Services, or other agencies. Treatment usually consists of identification, assessment, and mitigation for potential impacts to significant paleontological resources.

#### **PUBLIC RESOURCES CODE**

Public Resources Code (PRC) Section 5097.5 states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

## **BACKGROUND**

### **REGIONAL GEOLOGY**

The project area is located in the Sacramento Valley within the Great Valley Geomorphic Province. The Great Valley Province is a long, narrow northwest-trending alluvial valley that lies between the Sierra Nevada Range to the east and the Coast Ranges to the west (Wagner 2002). The Sacramento Valley is located in the northern portion of the Great Valley and is bounded by the Klamath Mountains to the north and the Stockton Arch to the south. This region formed as a forearc basin during the subduction of the Pacific plate underneath the North American plate. Valley sediments range from Jurassic to Holocene in age and record a history of alternating marine and terrestrial depositional environments (McPherson and Garven 1999).

### **STRATIGRAPHY**

The project area is mapped as undifferentiated late Pleistocene Modesto Formation and middle Pleistocene Riverbank Formation (Figure 3; Wagner et al. 1981). Although referred to as formations, these stratigraphic units are not lithostratigraphic formations, but allostratigraphic units in current usage (see North American Commission on Stratigraphic Nomenclature 1983). According to the geotechnical report for the Project, the upper two to three feet of sediment over the majority of the Project area consists of soils disturbed by agricultural activities. The geotechnical borings reveal that the Modesto and Riverbank sediments in the Project area primarily consist of fine grained sediments to depths of at least 20 feet (Wallace Kuhl & Associates 2014; pg. 4).

### **MODESTO FORMATION**

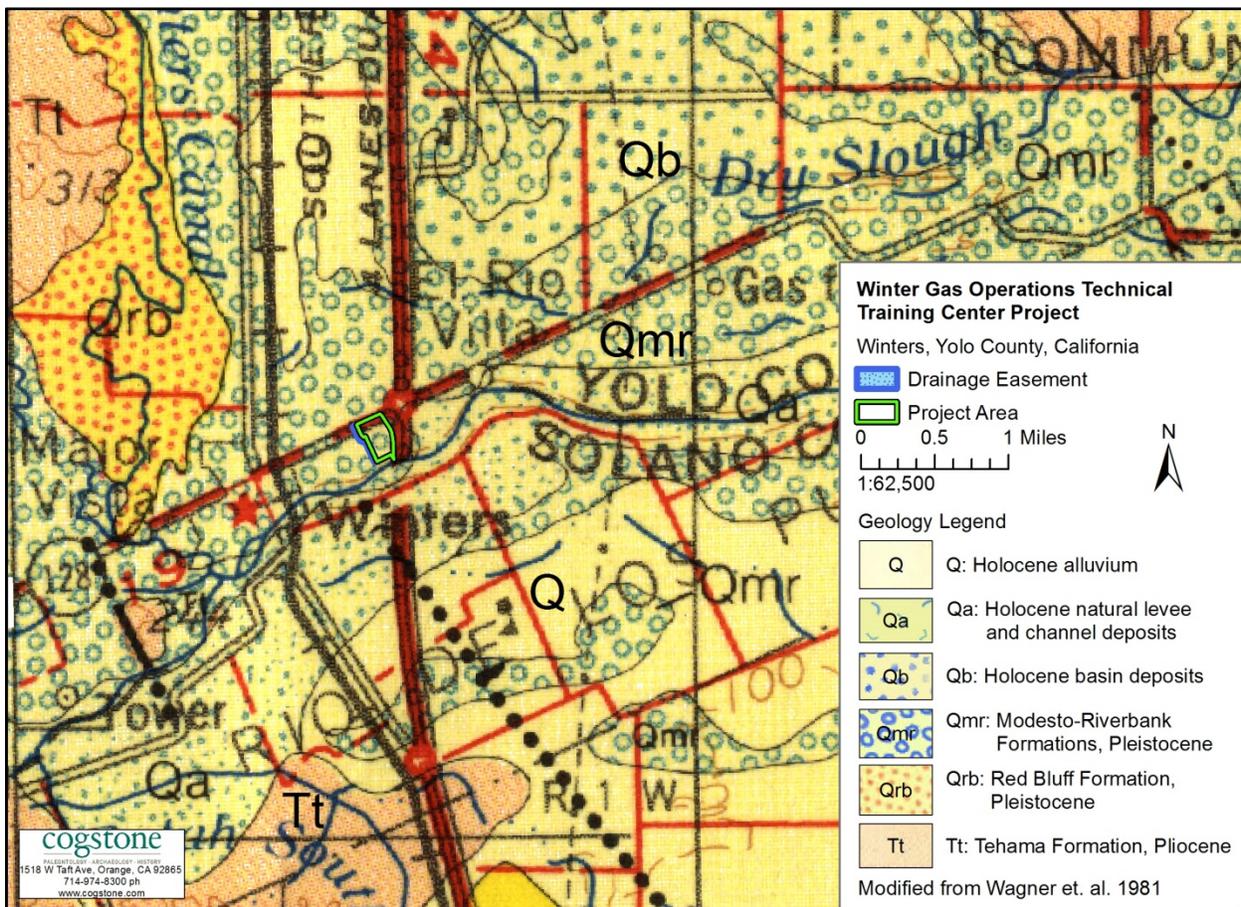
Modesto Formation is described as late Pleistocene (126,000 – 11,700 years ago) river terrace deposits, which has been divided into an informal upper and lower member. Both members lack erosion as they are some of the most recent terrace deposits in the area. Although both members consist of clays, sands, silts, and gravels typical of river deposits, the lower member contains soils of the pedogenic unit B horizon (Blake et al. 1999). At the type section the Modesto Formation consists of lenticular beds of silt and sand which are commonly crossbedded, suggesting that the sediments represent coalescing alluvial fans (Davis and Hall 1959).

### **RIVERBANK FORMATION**

The terrestrial Riverbank Formation was formed during the middle Pleistocene (781,000 to 126,000 years ago). It forms arkosic alluvial terraces and fans consisting of weathered, reddish gravel, sand and silt with some mafic igneous rock fragments. In the Sacramento Valley, the

Riverbank is broken into informal upper and lower members, which correspond with the upper and middle members of the San Joaquin Valley to the south (Helley and Harwood 1985).

The upper member of the Riverbank Formation is more widespread than the lower. It forms dissected, unconsolidated, dark-brown to red alluvial fans of gravel, sand, and silt with minor clay in the northwest and southeast regions of the Sacramento Valley. Like the upper member, the lower has exposures in the northwest and southeast areas of the valley, but is most extensive in and around the city of Sacramento. The lower member is more dissected and arkosic than the upper member and lacks clay (Helley and Harwood 1985). The Riverbank Formation is interpreted as glacial outwash from the Sierra Nevada Range (Atwater and Marchand 1980).



**Figure 3. Project Geology**

## KNOWN RESOURCES

A paleontological records search of the Project area was conducted by the University of California, Museum of Paleontology (UCMP). UCMP replied via email that no fossils are known from the Project area or a one mile-radius. The closest recorded UCMP locality is located 3.5 miles north of the Project in the Pliocene (5.33-2.59 million years ago) Tehama Formation, which is not mapped in the Project area (Finger 2014). Cogstone conducted additional searches of the UCMP online database, Paleobiology Database, Sierra College, and in scientific journals, technical studies, and State geological survey reports pertaining to the paleontology and geology of the Winters area. These searches were also negative for specimens within the Project area. However, they revealed that Pleistocene vertebrate fossils have been recovered from similar sediments throughout the Sacramento Valley, including the banks of Putah Creek, which borders the Project immediately to the south (UCMP 2014; PBDB 2014; SCPD 2014; Jefferson 1991; Dundas and Cunningham 1993).

Partial skeletons of two sloths (*Paramylodon harlani*) and a mammoth (*Mammuthus columbi*) were collected from the north bank of Putah Creek six miles to the east of the project area (UCMP V76199). This is one of six fossil localities located along the Creek in this area (UCMP V5430, V6911, V69182-V69184). In addition to mammoth and sloth material, a saber-toothed cat (*Smilodon*) canine was recovered from one of the Putah Creek localities (UCMP V5430; Dundas and Cunningham 1993; Jefferson 1991; UCMP 2014). Microfossils, including rodents (Rodentia) and snake (Serpentes), have also been recovered from the Modesto Formation in other parts of Yolo County (UCMP 2014). Depth of fossil recovery was not recorded with the exception of the sloth and mammoth material from UCMP V76199. That material was recovered from the bottom of the approximately 30 foot deep gully that Putah Creek is situated within (Dundas and Cunningham 1993).

## PALEONTOLOGICAL SENSITIVITY

Paleontological resources are considered to be significant if they are scientifically judged to provide important data concerning key research interests in the study of taxonomy, evolution, biostratigraphy, paleoecology, or taphonomy (PG&E 2013). Best current professional practice to characterize paleontological sensitivity utilizes the federal Potential Fossil Yield Classification (PFYC) system (Appendix B) which has a multi-level scale based on demonstrated yield of fossils. Vertebrate fossils are known to occur intermittently but with low predictability in the Modesto and Riverbank Formations resulting in a PYFC ranking of 3a or moderate (Table 1).

**Table 1. Potential Fossil Yield of Geological Deposits**

<b>PFYC ranking</b>	<b>5: very high</b>	<b>4: high</b>	<b>3a: moderate-patchy</b>	<b>3b: moderate-undemonstrated</b>	<b>2: low</b>	<b>1: very low</b>
<b>Rock Units</b>						
Modesto Formation			X			
Riverbank Formation			X			

## IMPACT ANALYSIS

### DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossil is a type specimen or member of a rare species;
2. The fossil is complete, or it includes an element different from, or more complete than, those already known for its species;
3. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
4. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
5. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
6. The fossils demonstrate unusual or spectacular circumstances in the history of life;
7. The fossils are unusually, uniquely, or exceptionally well preserved;
8. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are scientifically judged to provide important data concerning key research interests in the study of taxonomy, evolution, biostratigraphy, paleoecology, or taphonomy (PG&E 2013; Scott and Springer 2003; Scott et al. 2004). Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004)

## **SIGNIFICANCE EVALUATION**

The potential to impact any fossils varies with depth of impacts, previous disturbance, lithology and presence of non-fossiliferous sediments. Logistics of excavation also affect the possibility of recovering scientifically significant fossils since information on exact location, vertical elevation, rock unit of origin, and other aspects of context are critical.

Most earthmoving activities will be shallow, less than three feet deep, and will mostly be within sediments previously disturbed by agricultural activities. These excavations have little chance of impacting significant resources. Deeper excavations for the storm water pond and drainage channel have potential to yield fossils meeting significance criteria; especially if those excavations are more than eight feet deep.

## **CONCLUSIONS AND RECOMMENDATIONS**

No paleontological resources are known within the Project or a one mile radius. However, similar Pleistocene sediments in the vicinity of the Project area, including the banks of Putah Creek, and throughout the Sacramento Valley have produced significant paleontological resources. Additionally, the geotechnical borings reveal that the Modesto and Riverbank sediments in the Project area primarily consist of fine grained sediments to depths of at least 20 feet (Wallace Kuhl & Associates 2014; pg. 4), which increases the chance of fossil preservation. Shallow excavations will not require paleontological monitoring. Deeper excavations, currently limited to the storm water pond and drainage channel, should be monitored if earthmoving activities are deeper than eight feet below the surface. Prior to the start of construction, earthmoving personnel should receive a paleontological sensitivity training detailing the types of fossils that may be encountered and procedures to follow if finds occur.

In the event that unanticipated paleontological resources are discovered during project construction activities, it is PG&E's best management practice that all work shall immediately be halted within 100 feet of the find until it can be evaluated by a Principal Paleontologist.

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## **APPENDIX A: QUALIFICATIONS**

**SHERRI GUST**

Project Manager & Principal Investigator

## EDUCATION

1994 M. S., Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles  
1979 B. S., Anthropology (Physical), University of California, Davis

## SUMMARY QUALIFICATIONS

Gust has more than 34 years of experience in California, acknowledged credentials for meeting national standards, and is a certified/qualified principal archaeologist and paleontologist in all California cities and counties that maintain lists. Gust is an Associate of the Natural History Museum of Los Angeles County in the Vertebrate Paleontology and Rancho La Brea Sections. She is a Member of the Society of Vertebrate Paleontology, Society for Archaeological Sciences, Society for Historical Archaeology, the Society for California Archaeology and others. She has special expertise in the identification and analysis of human, animal and fossil bone.

## SELECTED PROJECTS

**Exposition Light Rail Transit Phase II, Exposition Rail Construction Authority/Los Angeles County Metropolitan Transportation Authority, sub to URS Corporation, Los Angeles.** Conducted paleontological assessment, including a field survey, for the extension of the Expo Light Rail system for 8 miles from Culver City to Santa Monica involving construction of seven stations. Managed paleontological and archaeological monitoring during construction. Quaternary old alluvial fan sediments deposited during the middle to late Pleistocene, between 800,000 to 11,000 years ago, were present in about a third of the project alignment. A vertebrate fossil locality known within the alignment was updated with the Natural History Museum. Principal Archaeologist and Paleontologist. 2009-Present

**Purple Line Extension (Westside Subway) Final EIS/EIR and Mitigation Plans, Los Angeles County Metropolitan Transportation Authority, Los Angeles.** The project involves construction of seven stations from the existing Purple Line at Wilshire/Western Avenue along Wilshire Boulevard to the Veterans Administration Hospital in Westwood for 8.6 miles. Completed the paleontology section and prepared the Paleontological Mitigation Plan (PMP) for the Final EIS/EIR. Prepared a separate Paleontological Mitigation Plan and MOA with the Natural History Museum for the Wilshire/Fairfax Station Exploratory Shaft. Supervised paleontological monitoring during shaft excavation. Completed supplemental Archaeology and Architectural Survey Reports for the FEIS/EIR. Project Manager/Principal Paleontologist. 2011-Present

**California State University, Long Beach, On-Call Archaeological Services, Long Beach, Los Angeles County.** Manages archaeological archaeological and Native American monitoring tasks for California State University, Long Beach. Principal Investigator for Archaeology. 2011-present

**Bloomington Affordable Housing, Related Companies, San Bernardino County Department of Land Use Services, San Bernardino County.** The proposed project is to develop and construct a 196-unit affordable housing apartment complex and community amenities. Oversaw cultural and paleontological record searches, Native American Sacred Lands file search, consultation with Native American tribes and individuals, and pedestrian field survey of the nine-acre project area or area of potential effect. Principal Investigator. 2013

**Arbor Green Affordable Housing Project, Affirmed Housing Group, Carson, Los Angeles County.** Provided project supervision and quality control during archaeological mitigation monitoring and prepared portions of Cultural Resources Monitoring Compliance Report. Arbor Green consists of a 40-unit, three-story affordable family housing development on a 1-acre parcel. Principal in Charge. 2013

**Fort Irwin, U.S. Army National Training Center/GSA Region 9, San Bernardino County.** Cultural Resources Inventory Survey and National Register Evaluation of Archaeology Sites. Supervised cultural resources inventory of 58 sq. km east of Goldstone in four survey blocks. Prepared overview of literature, research design and field evaluation guidelines. Directed survey, site recording and site evaluation to Section 106 standards. Principal Investigator/Project Manager. 2012-2013

## COURTNEY RICHARDS

Paleontologist and Assistant Field Director

### EDUCATION

- 2011 M.S., Biological Sciences, Marshall University  
2006 B.S., Earth and Space Science, University of Washington

### SUMMARY QUALIFICATIONS

Richards is a qualified paleontologist with research, field, and laboratory experience. She earned her Bachelor's degree in Earth and Space Science at the University of Washington and her Master's degree in Biological Sciences with a paleontology focus at Marshall University. Richards has published papers on dinosaur and marine reptile paleontology research. Richards has personal expertise in fossil salvage, stratigraphy, fossil preparation, database analysis and identification. She has over two years of professional experience in California.

### SELECTED PROJECTS

**Purple Line Extension (Westside Subway), Exploratory Shaft, Los Angeles County Metropolitan Transportation Authority, Los Angeles.** Assistant Field Director. Supervised and conducted paleontological monitoring and recorded stratigraphy during pre-construction drilling and excavation to a depth of 75' for a 36' by 18' exploratory shaft located in the La Brea Zone. 2012-present

**SR 91 HOV Project, Caltrans District 8, Riverside County.** Paleontology Technician. Performed paleontological monitoring of sensitive sediments during HOV lane construction along a 6-mile segment of SR-91 in Riverside County. 2012-present

**SANDAG San Diego River Bridge Double Track Project, San Diego County.** Paleontology Technician. Conducted a pedestrian survey and co-authored the subsequent paleontological technical report for the proposed construction of a new double track bridge across the San Diego River and the alignment of the track to each side of the bridge along a 1.1-mile long segment of the LOSSAN railroad corridor. 2013

**Pioneer High School Project, Los Angeles County.** Report Contributor. Prepared paleontology and geology sections of a combined archaeological and paleontological resources assessment report for a stadium improvement project at Pioneer High School in Whittier, CA. 2013

**East San Fernando Valley Transit Corridor, Los Angeles County Metropolitan Transportation Authority, Los Angeles County.** Paleontology Technician. Conducted a paleontological survey; co-authored paleontological assessment and existing condition reports for Metro's proposed project to construct a light railway and new bus lines from Sylmar to Sherman Oaks in the eastern portion of the San Fernando Valley. 2012-present

**Jackson Valley Rehabilitation Project, Caltrans District 10, Amador County.** Paleontology Technician. Performed paleontological monitoring of sensitive sediments during road widening along SR-88 near Ione, CA and co-authored the Paleontological Mitigation Plan and final monitoring report. 2012-2013

**Merced Freeway Project, Caltrans District 10.** Assistant Field and Lab Director. Alternated 2 week rotations performing direction of fossil recovery and field preparation of fossils for 5-mile segment of State Route 99 south of Merced. Some 128 localities and 1667 fossils recovered in five months of excavation for detention basins. Prepared fossils in lab and supervised matrix washing and microfossil sorting. Contributed to final report including preparation of stratigraphic columns. 2012.

**ANDRÉ-JUSTIN C. SIMMONS**  
Archaeologist and Cross-Trained Paleontologist

## EDUCATION

- 2010 B.A., Anthropology and History, California State University, Fullerton, graduated *cum laude*  
2007 A.A., History, Citrus College, Glendora, CA

## SUMMARY QUALIFICATIONS

Mr. Simmons is a qualified archaeologist and cross-trained paleontologist with experience in survey, monitoring, faunal analysis, excavation, and laboratory preparation and analysis. His key research interests include architecture and use of space among Paleoindians, the American Southwest, early historic and prehistoric California, and historical Mexico. He is GIS proficient and assists with digitizing and mapping with the use of advanced Trimble software. Simmons has more than 24 hours of paleontology training and has more than three years of experience as an archaeological and paleontological monitor for Cogstone.

## SELECTED PROJECTS

**Exposition Light Rail Phase 2 Project, Los Angeles County.** Archaeology & Paleontology Technician.

Conducted archaeological and paleontological monitoring along a 6.6-mile segment of the historic electric railroad known as the Santa Monica Air Line that is being replaced with a new light rail line. 2012-present

**SR 91 HOV Project, Caltrans District 8, Riverside County.** Paleontology Technician. Conducted

paleontological monitoring of sensitive sediments during HOV lane construction along a 6 mile segment of State Route 91 in the City of Riverside. 2013-present

**Vista Monitoring Project, San Diego County.** Archaeological & Paleontological Technician. Conducted

archaeological and paleontological monitoring during excavation for a new low income housing development located in Vista. 2014

**Pioneer High School Project, Los Angeles County.** GIS & Archaeology Technician. Conducted a cultural

resources records search, prepared GIS maps, and authored a resources assessment report for a stadium improvement project at Pioneer High School in Whittier. 2013

**SANDAG San Diego River Bridge Double Track Project, San Diego County.** GIS & Archaeology Technician.

Conducted a pedestrian survey and prepared GIS report maps for the proposed construction of a new double track bridge across the San Diego River and the alignment of the track to each side of the bridge along a 1.1-mile long segment of the LOSSAN railroad corridor. 2013

**Jackson Avenue Bridge Project, Riverside County.** Archaeology & Paleontology Technician. Conducted cultural

and paleontological monitoring during construction of a new bridge traversing Warm Springs Creek in the City of Murrieta, pursuant to the mitigation measures listed in the Mitigated Negative Declaration and associated Mitigation Monitoring Plan for the Project. 2013.

**Avalon Matsu Residential Development Project, Los Angeles County.** Archaeology & Paleontology Technician.

Conducted archaeological and paleontological resources mitigation monitoring during excavation for a residential condominium development project located on a 1.7-acre parcel in the City of Carson. 2013

**WECC Path 42, Southern California Edison, Riverside County.** GIS, Archaeology & Paleontology Technician.

Created GIS maps and conducted a cultural resources records search and field survey for a 14.5 mile transmission line segment near Thousand Palms. 2012-2013

**Eldorado-Ivanpah Transmission Project, Southern California Edison, Eldorado, NV to Ivanpah, CA.**

Paleontological Technician. Performed paleontological monitoring for project that involves construction of 195 miles of new transmission lines and associated fiber optic lines across BLM and private lands. 2012-2013

## **APPENDIX B. POTENTIAL FOSSIL YIELD CLASSIFICATION SYSTEM**

## POTENTIAL FOSSIL YIELD CLASSIFICATION SYSTEM

The Potential Fossil Yield Classification System (PFYC) System was developed by the United States Department of Agriculture (USDA) Forest Service and refined by the BLM (2007). It is utilized here as a best professional practice. Occurrences of paleontological resources are closely tied to the geologic units (i.e., formations, members, or beds) that contain them. The probability for finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Therefore, geologic mapping can be used for assessing the potential for the occurrence of paleontological resources.

Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. This classification is applied to the geologic formation, member, or other distinguishable unit, preferably at the most detailed mapable level. It is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment.

The PFYC system is meant to provide baseline guidance for predicting, assessing, and mitigating paleontological resources. The classification should be considered at an intermediate point in the analysis, and should be used to assist in determining the need for further mitigation assessment or actions.

The descriptions for the classes below are written to serve as guidelines rather than as strict definitions. Knowledge of the geology and the paleontological potential for individual units or preservational conditions should be considered when determining the appropriate class assignment. Assignments are best made by collaboration between land managers and knowledgeable researchers.

**CLASS 1 – VERY LOW.** Geologic units that are not likely to contain recognizable fossil remains. The probability for impacting any fossils is negligible. Assessment or mitigation of paleontological resources is usually unnecessary. The occurrence of significant fossils is non-existent or extremely rare.

This class includes:

- Units that are igneous or metamorphic, excluding reworked volcanic ash units.
- Units that are Precambrian in age or older.

### Class 1 Management notes:

- (1) Management concern for paleontological resources is generally low.
- (2) Assessment or mitigation is usually unnecessary except in rare or isolated circumstances.

**CLASS 2 – LOW.** Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils. The probability for impacting vertebrate fossils or scientifically significant invertebrate or plant fossils is low. Assessment or mitigation of paleontological resources is not likely to be necessary. Localities containing important resources may exist, but would be

rare and would not influence the classification. These important localities would be managed on a case-by-case basis. This class includes:

- Vertebrate or significant invertebrate or plant fossils not present or very rare.
- Units that are generally younger than 10,000 years before present.
- Recent aeolian deposits.
- Sediments that exhibit significant physical and chemical changes (i.e., diagenetic alteration).

Class 2 Management notes:

- (1) Management concern for paleontological resources is generally low.
- (2) Assessment or mitigation is usually unnecessary except in rare or isolated circumstances.

**CLASS 3 – MODERATE OR UNKNOWN.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential. This classification includes a broad range of paleontological potential. It includes geologic units of unknown potential, as well as units of moderate or infrequent occurrence of significant fossils. Management considerations cover a broad range of options as well, and could include pre-disturbance surveys, monitoring, or avoidance. Surface-disturbing activities will require sufficient assessment to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources. These units may contain areas that would be appropriate to designate as hobby collection areas due to the higher occurrence of common fossils and a lower concern about affecting significant paleontological resources. This class includes:

- Formations with sporadic known occurrences of vertebrate fossils - often marine in origin.
- Vertebrate fossils and scientifically significant invertebrate or plant fossils known to occur intermittently; predictability known to be low.
- Poorly studied and/or poorly documented formations. Potential yield cannot be assigned without ground reconnaissance.

Class 3 Management notes:

- (1) Management concern for paleontological resources is moderate; or cannot be determined from existing data.
- (2) Surface-disturbing activities may require field assessment to determine appropriate course of action.

**CLASS 3A – MODERATE POTENTIAL.** Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for hobby collecting. The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

**CLASS 3B – UNKNOWN POTENTIAL.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. The units in this Class may eventually be placed in another Class when

sufficient survey and research is performed. The unknown potential of the units in this Class should be carefully considered when developing any mitigation or management actions.

**CLASS 4 – HIGH.** Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. Surface disturbing activities may adversely affect paleontological resources in many cases. The probability for impacting significant paleontological resources is moderate to high, and is dependent on the proposed action. Mitigation considerations must include assessment of the disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access resulting in greater looting potential. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities. This class includes:

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops from cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

Class 4 Management notes:

- (1) Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action.
- (2) A field survey by a qualified paleontologist is often needed to assess local conditions.
- (3) Management prescriptions for resource preservation and conservation through controlled access or special management designation should be considered.
- (4) Class 4 and Class 5 units may be combined as Class 5 for broad applications, such as planning efforts or preliminary assessments, when geologic mapping at an appropriate scale is not available. Resource assessment, mitigation, and other management considerations are similar at this level of analysis, and impacts and alternatives can be addressed at a level appropriate to the application.

**CLASS 4A – HIGH AND EXPOSED.** Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two acres. Paleontological resources may be susceptible to adverse impacts from surface disturbing actions. Illegal collecting activities may impact some areas.

**CLASS 4B – HIGH AND UNEXPOSED.** These are areas underlain by geologic units with high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

**CLASS 5 – VERY HIGH.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at risk of human-caused adverse impacts or natural degradation. The probability for impacting significant fossils is high. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface disturbing activities will usually be necessary. On-site monitoring may be necessary during construction activities.

This class includes:

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops from cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

Class 5 Management notes:

- (1) Management concern for paleontological resources in Class 5 areas is high to very high.
- (2) A field survey by a qualified paleontologist is usually necessary prior to surface disturbing activities or land tenure adjustments. Mitigation will often be necessary before and/or during these actions.
- (3) Official designation of areas of avoidance, special interest, and concern may be appropriate.

**CLASS 5A – VERY HIGH AND EXPOSED.** Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two contiguous acres. Paleontological resources are highly susceptible to adverse impacts from surface disturbing actions. Unit is frequently the focus of illegal collecting activities.

**CLASS 5B – VERY HIGH AND UNEXPOSED.** These are areas underlain by geologic units with very high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has very high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity. [BLM 2007]

## *Memorandum*

**Date:** February 13, 2015  
**To:** Nate Lishman, Sr. Land Planner  
**From:** Stephanie Cimino, Sr. Cultural Resources Specialist  
**Subject:** Supplemental Cultural Resources Memo for the Winters Gas Operations Technical Training Center Project, Yolo County, California



### ***Pacific Gas and Electric Company***

#### **Introduction**

This memorandum is a supplement to Pacific Gas and Electric (PG&E) efforts to identify significant cultural resources within the Area of Potential Impact (API) for the Winters Gas Operations Technical Training Center Project (Project) in Winters, Yolo County, California (Attachment A).

It was brought to the attention of PG&E that potentially historic artifacts were exposed due to a recent fire on a parcel adjacent to the Project API. As this parcel is not part of the Project footprint, it has not been previously examined for the presence of cultural resources. In February 2015, PG&E surveyed the parcel which resulted in the recordation of two historic trash scatters. The resources do not appear to be historical resources for purposes of CEQA, and they will not be impacted by the Project.

#### **Cultural Resources Identification Efforts**

##### ***Pre-field***

A cultural resources inventory was completed for the Project in 2014 that included a records search, field survey, Native American outreach and evaluation of resources within and adjacent to the API (Cardno 2014). The inventory did not identify any cultural resources within the API. The inventory identified one historic-era resource immediately adjacent to the API consisting of a ranch complex at 29711-29719 East Grant Avenue. The property was determined to be not eligible for the California Register of Historic Resources (CRHR) (Cardno 2014).

Approximately 3.5 acres of additional work areas were added to the project in late 2014. Review of the 2014 records search and field survey of the work areas did not identify any resources within the expanded API (Cardno 2015).

In January 2015, PG&E Land Planner Nathan Lishman notified PG&E CRS Stephanie Cimino that potential historic resources had been observed near the API after a fire had burned through the area. The parcel affected by the fire is south of the API and is owned by the City of Winters (APN 038-070-039). Although the parcel will not be directly impacted by the Project, PG&E determined that the area should be surveyed to ensure there were no significant cultural resources that may be indirectly affected by the Project.

***Field***

Stephanie Cimino, M.S., examined portions of APN 038-070-039 on February 2, 2015. Ms. Cimino has 12 years experience in California archaeology and meets the Secretary of the Interior Standards for both archaeology and architectural history.

The parcel is adjacent to the north bank of Putah Creek and consists of a sloping bench overlooking the creek floodplain. Only the bench was subject to survey, as that was the portion affected by the fire and the portion adjacent to the Project (Attachment B). A pedestrian survey was conducted with transects spaced approximately five meters apart. Surface visibility varied between little ground surface due to riparian grasses, shrubs and trees, to nearly 100% percent surface visibility in the recently burned areas. The ground surface was examined for archaeological remains, while periodic trowel scrapes were used to look for indicators of buried archaeological deposits. Cut banks and tree fells were also examined for indicators of buried resources.

Two historic trash scatters were identified and recorded as a result of the field survey. No prehistoric resources were identified. Both sites were photographed and recorded on DPR 523 forms (Attachment C: Confidential). Brief site descriptions are provided below; for complete site information refer to the attached DPR 523 forms.

**GOTTC-1** is a mid-to-late 20th century trash scatter that appears to be a dump site associated with adjacent farmsteads and agricultural activities. The site contains concentrations of structural, domestic, agricultural and automotive debris, including milled lumber, concrete fragments, rolls of wire fencing, 55 gallon oil drums, tires, sheet metal, paint buckets, an electric fuse box with plug fuses (“Federal” brand), food cans and jars, and numerous miscellaneous cans and glass fragments. The few available diagnostic artifacts date the materials to c. 1950-1960s.

**GOTTC-2** is a sparse mid-to-late 20th century trash scatter that also appears to be a dumping area for adjacent farmsteads and agricultural activities. The site contains domestic, agricultural and automotive debris including terra cotta pipe

fragments, colorless glass food jar fragments, milk glass cold cream jars, a decorative glass vase, blue bottle glass fragments, sanitary cans, pull top cans, flower pot fragments, porcelain china fragments, paint buckets, wire fencing, and a car body part. Modern plastic trash is also present. Makers marks on the porcelain fragments date from c. 1900 to c. 1960.

### **Recommendations**

GOTTC-1 and GOTTC-2 do not appear to meet criteria for listing in any local, State, or federal historic register. The sites do not appear to have any subsurface component and the objects present were likely dumped or pushed to their current position. The sites are in poor condition due to the fire, contain little diagnostic material, and extensive research regarding 20<sup>th</sup> century agricultural communities in this region is readily available. The resources do not appear to be historical resources for purposes of CEQA, and they will not be impacted by the Project. No further cultural resources study is warranted.

In the event that additional concentrations of prehistoric or historic-period materials are encountered during Project work, the following procedures should be followed:

- Should any buried archeological materials be uncovered during Project implementation, such activities shall cease within 100 feet of the find and a PG&E Cultural Resources Specialist must be contacted immediately. The location of any such finds must be kept confidential and measures should be taken to ensure that the area is secured to minimize site disturbance and potential vandalism.
- Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human grave. If human remains are encountered, work should stop within 100 feet of the discovery and a PG&E Cultural Resources Specialist must be contacted immediately. The Cultural Resources Specialist will consult with the County Coroner. If human remains are of Native American origin, the County Coroner will notify the NAHC 24 hours of this determination.

### **References Cited**

Cardno ENTRIX

2014 Cultural Resources Survey Report, Winters Gas Operations Technical Training Center Winters, Yolo County, CA.

2015 Supplement for Additional Work Locations to the Cultural Resources Survey  
Report for the Winters Gas Operations Technical Training Center Project, City  
of Winters, Yolo County, CA.

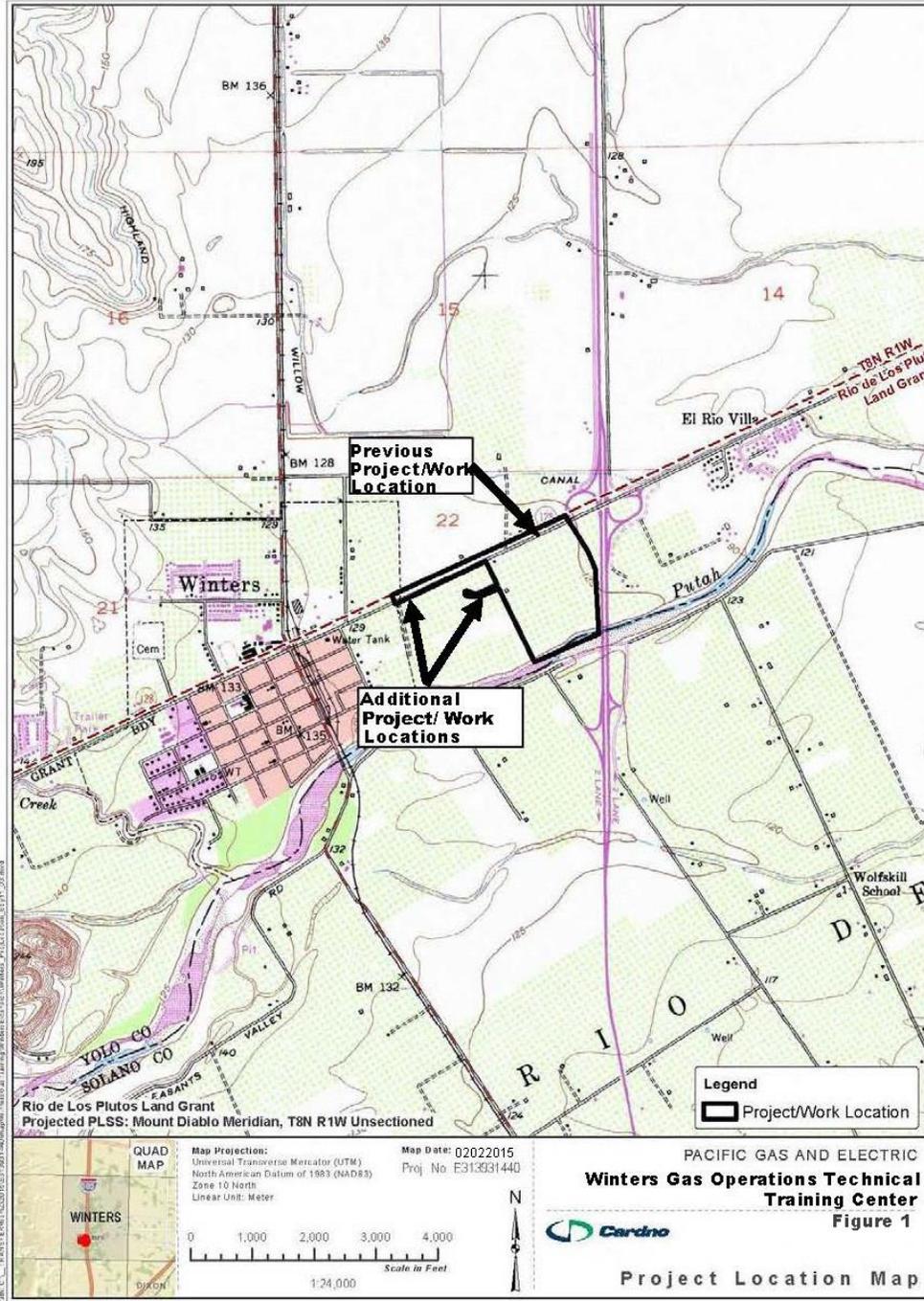
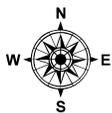


Figure 1 Project API.



0 0.0175 0.035 0.07 0.105 0.14

ETGIS Web Map



Attachment B - GOTTC - APN 038-070-039 - Survey Area

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Printed On: 2/13/2015



February 5, 2015

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**RE: Supplement for Additional Work Locations to the Cultural Resources Survey Report for the Winters Gas Operations Technical Training Center Project, City of Winters, Yolo County, CA**

In January 2015 PG&E asked Cardno Inc., to conduct a supplemental review of additional work areas for the above cited project. The proposed additional work locations to the Winters Gas Operations Technical Training Center Project are located on West Grant Avenue and East Baker Street in the Town of Winters, Yolo County, California. The Area of Potential Impact (API) for the additional project work locations consists of a total of up to 3.5 acres. The project is depicted on the United States Geological Survey (USGS) Winters 7.5-minute Topographic Quadrangle map, Township 8 North, Range 1 West, Section 22 (Figure 1).

This letter serves as a supplement to the cultural resources survey report for the Winters Gas Operations Technical Training Center Project. Cardno, Inc. utilized the previous records search and literature review and conducted new pedestrian surveys for the additional work locations. For background, regulatory context and other project information the reader is referred to the two reports identified below.

1. Cardno ENTRIX (2014). Winters Gas Operations Technical Training Center Project, Winters, Yolo County, CA.
2. Cogstone Resource Management Inc. (2014). Paleontological Technical Study for the Winters Gas Operations Technical Training Center Winters, Yolo County, CA.

### **Records Search and Literature Review**

A background literature and document search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University, Rohnert Park, California on November 11, 2013 for the Winters Gas Operations Technical Training Center Project. The search area consisted of the API and a ¼-mile search radius around the API which encompasses the current project API/additional project work locations. The records search reviewed the following sources:

- > Previously recorded sites
- > Reports of previous studies
- > California Historical Landmarks
- > NRHP
- > CRHR



- > OHP Historic Properties Directory
- > Historic Spots in California (Hoover et al. 2002)
- > General Land Office plat maps showing the study area
- > County historical maps

Additionally, as part of the research methodology for the Winters Gas Operations Technical Training Center Project, a Ms. Allen undertook intensive research at local repositories, including California State Library, Yolo County Archives, Sacramento Public Library, UC Davis Shields Library, and Yolo County Recorder's Office. In addition, research included review of historic period survey and topographic maps, periodicals, and census records. To supplement the historic record, members of the McClish family were interviewed regarding the development of the property, including Laurie McClish, Gwen McClish Bertinoia, and Martin Newkom. Lastly, standard contextual sources of information were reviewed, in order to develop an appropriate historic context for the project.

### **Results of Records Search**

The background literature and document search did not identify any cultural resources within the API; however, four previously recorded cultural resources were identified within a ¼-mile of the API (see Figure 2):

- > P-57-000544: an isolated apricot tree located in an agricultural field south and west of the API.
- > P-57-000545: an isolated apricot tree located in an agricultural field south and west of the API.
- > P-57-000546: historic trash scatter including discarded farming equipment located in agricultural field south and west of the API.
- > P-57-000547: historic tractor of unknown make located in an agricultural field south and west of the API.

The records search indicated that most of the API had been previously studied for cultural resources. The studies that fell within the API included Archaeological Surveys in Yolo County California: Chickahominy- Moody Slough Watershed Project (True, 1980) and a Cultural Resources Inventory of Caltrans District 4 Rural Conventional Highways in Butte, Colusa, Eldorado, Glenn, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, and Yuba Counties (Leach-Palm, 2008). An additional seven studies have been conducted within the ¼-mile search area.

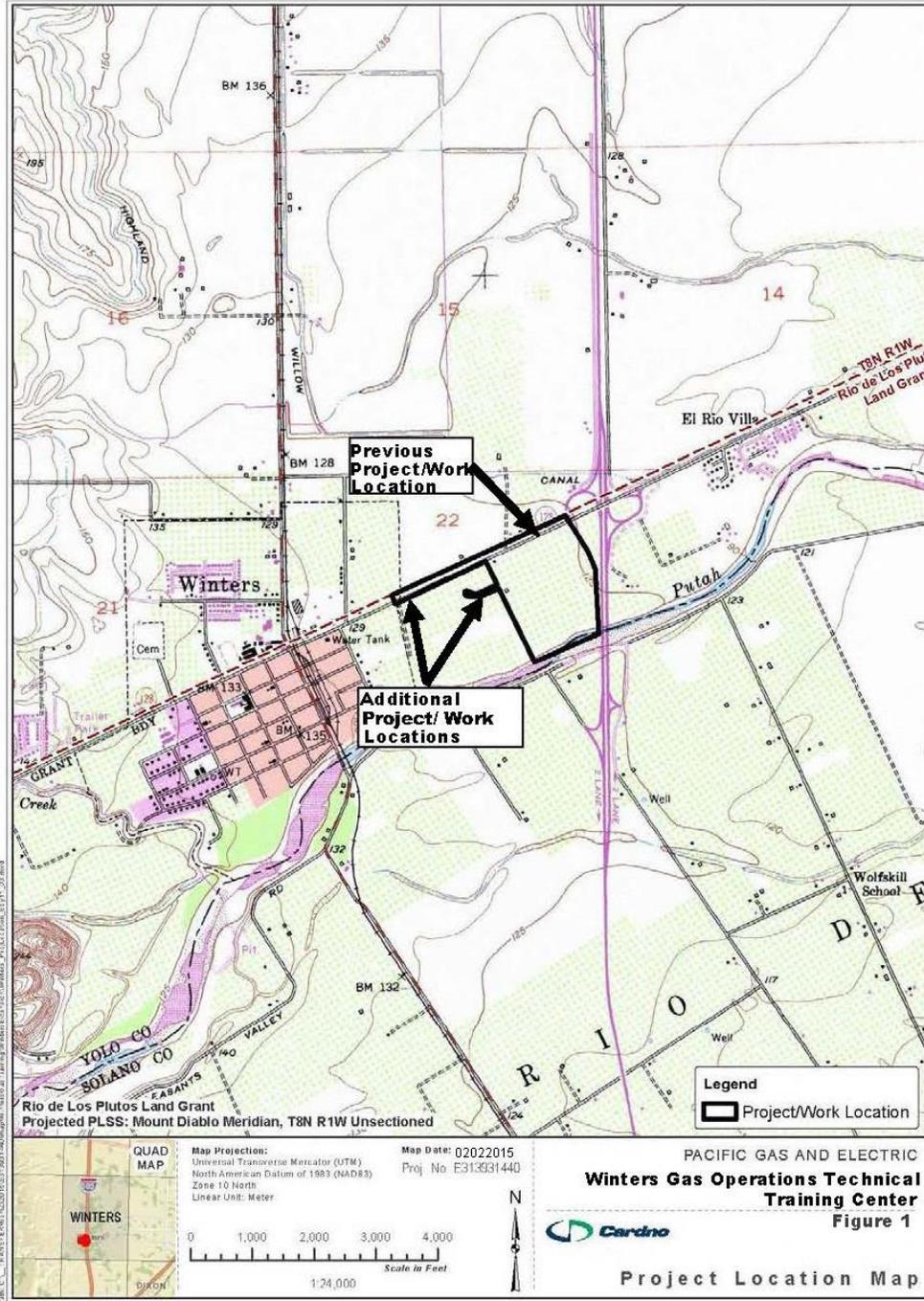


Figure 1 Project API.



### **Paleontological Records Search**

Cogstone Resource Management Inc. requested a paleontological records search for the Winters Gas Operations Technical Training Center Project area. The paleontological records search was conducted by the University of California, Museum of Paleontology (UCMP). UCMP replied via email that no fossils are known from the Project area or a one mile-radius. The closest recorded UCMP locality is located 3.5 miles north of the Project in the Pliocene (5.33-2.59 million years ago) Tehama Formation, which is not mapped in the Project area (Finger 2014). Cogstone conducted additional searches of the UCMP online database, Paleobiology Database, Sierra College, and in scientific journals, technical studies, and State geological survey reports pertaining to the paleontology and geology of the Winters area. These searches were also negative for specimens within the Project area. However, they revealed that Pleistocene vertebrate fossils have been recovered from similar sediments throughout the Sacramento Valley, including the banks of Putah Creek, which borders the Project immediately to the south (UCMP 2014; PBDB 2014; SCPD 2014; Jefferson 1991; Dundas and Cunningham 1993).

Partial skeletons of two sloths (*Paramylodon harlani*) and a mammoth (*Mammuthus columbi*) were collected from the north bank of Putah Creek six miles to the east of the project area (UCMP V76199). This is one of six fossil localities located along the Creek in this area (UCMP V5430, V6911, V69182-V69184). In addition to mammoth and sloth material, a saber-toothed cat (*Smilodon spp.*) canine was recovered from one of the Putah Creek localities (UCMP V5430; Dundas and Cunningham 1993; Jefferson 1991; UCMP 2014). Microfossils, including rodents (Rodentia) and snake (Serpentes), have also been recovered from the Modesto Formation in other parts of Yolo County (UCMP 2014). Depth of fossil recovery was not recorded with the exception of the sloth and mammoth material from UCMP V76199. That material was recovered from the bottom of the approximately 30 foot deep gully that Putah Creek is situated within (Dundas and Cunningham 1993).

### **Field Investigations**

On January 28<sup>th</sup>, 2015 Parus Consulting Archaeologist Jay Baker conducted a reconnaissance pedestrian survey of the project area (Figure 2). Transect spacing of less than 5 meters was utilized. Ground surface visibility was poor (~2%) for the area north of East Baker Street, due to short, dense layer of European grasses. Rodent backfill and sporadic bald patches were examined for evidence of cultural materials. No cultural resources were identified at this location. Visibility was considerably improved in the area adjacent to Highway 128 (~80%). No cultural resources were recorded; however, it was noted that earthen drainage ditches are located within the right of way (R.O.W.) on both sides of Highway 128. No chronologically diagnostic elements were observed, and a review of historic maps did not reveal any further information regarding the age of these ditches.

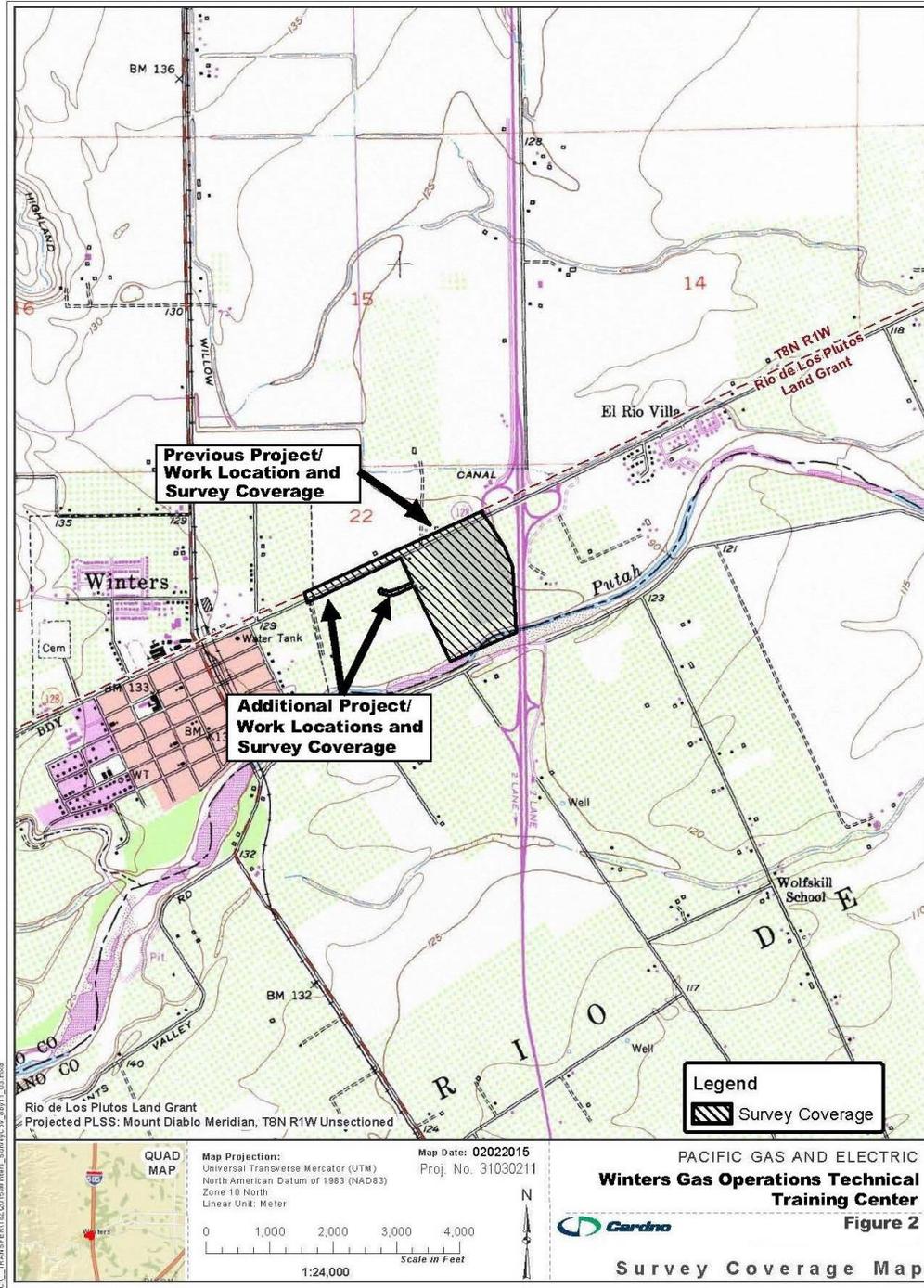


Figure 2 Archaeological Survey Coverage.



### **Summary**

Cardno Inc. conducted supplemental cultural and paleontological investigations for PG&E's Winters Gas Operations Technical Training Center Project. The information gathered in two previous reports for the same project served as the baseline data for the current analysis. Information brought forward from those reports includes the CHRIS center records search results and the results of the paleontological records search conducted through the UCMP. None of these data identified any cultural or paleontological resource issues within the newly added work areas.

Field investigations for the supplemental review also did not identify any additional cultural resources. It was noted that earthen drainage ditches are located within the R.O.W. on both sides of Highway 128; however, no chronologically diagnostic elements were observed, and a review of historic maps did not reveal any further information regarding the age of these ditches. They do not appear to be significant historic features. No adverse impacts to cultural or paleontological resources will occur as a result of the work proposed for the work areas on West Grand Avenue and East Baker Street.

Should cultural resources or human remains be encountered during implementation of this project, please follow the inadvertent discovery and human remains protocol below.

### **Inadvertent Discovery Protocol**

If cultural resources are encountered during construction, all work shall stop within the vicinity of the discovery and the PG&E Cultural Resource Specialist should be contacted immediately. If the discovery is within Caltrans ROW, PG&E will notify the Caltrans Archaeologist within 24 hours. PG&E will consult with Caltrans to determine the proper course of action. No work may proceed until approved by Caltrans. Archaeological and historic-period resources in the region may include:

- **Archeological materials:** flaked stone tools (projectile point, biface, scraper, etc.) and debitage (flakes) made of chert, obsidian, etc., groundstone milling tools and fragments (mortar, pestle, handstone, millstone, etc.), faunal bones, fire-affected rock, dark middens, housepit depressions and human interments.
- **Historic-era resources:** may include, but are not limited to, small cemeteries or burial plots, cut (square) nails, containers or miscellaneous hardware, glass fragments, cans with soldered seams or tops, ceramic or stoneware objects or fragments, milled or split lumber, earthworks, feature or structure remains and trash dumps.

### **Human Remains Protocol**

Section 7050.5 of the California Health and Safety Code (CHSC) states that it is a misdemeanor to knowingly disturb a human burial. In keeping with the provisions provided in 7050.5 CHSC and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any project-related activity:

- Stop all work within 100 feet;
- Immediately contact a PG&E Cultural Resource Specialist (CRS), who will notify the county coroner;
- Secure location, but do not touch or remove remains and associated artifacts;
- Do not remove associated spoils or pick through them;
- Record the location and keep notes of all calls and events; and
- Treat the find as confidential and do not publically disclose the location.



Upon Discovery of cultural resources or suspected human remains, contact the following individual immediately:  
 Stephanie Cimino, Senior Cultural Resources Specialist  
 Cell: (925) 785-6731, Office: (925) 415-6576, email: S2CM@pge.com.

2/05/2015

Date

Joshua Peabody, MA, RPA  
 Senior Consultant/ Cultural Resources Specialist  
 Cardno, Inc.

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