APPENDIX F

Cultural Resources Technical Report

CULTURAL RESOURCES TECHNICAL REPORT FOR THE PROPOSED CANYON LANE ROADWAY IMPROVEMENTS, SAN MATEO COUNTY, CALIFORNIA

APRIL 2019

PREPARED FOR

County of San Mateo Planning and Building Department

PREPARED BY

SWCA Environmental Consultants

CULTURAL RESOURCES TECHNICAL REPORT FOR THE PROPOSED CANYON LANE ROADWAY IMPROVEMENTS, SAN MATEO COUNTY, CALIFORNIA

Prepared for

County of San Mateo Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Prepared by

Nicholas Poister, M.A., RPA
and
Alex Wesson, B.A.

SWCA Environmental Consultants
60 Stone Pine Road
Half Moon Bay, California 94019
(650) 440-4160
www.swca.com

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Archaeological and other heritage resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. This document contains sensitive information regarding the nature and location of archaeological sites, which should not be disclosed to the general public or unauthorized persons.

Information regarding the location, character, or ownership of a cultural resource is exempt from the Freedom of Information Act pursuant to 54 U.S.C. 307103 (National Historic Preservation Act) and 16 U.S.C. Section 470(h) (Archaeological Resources Protections Act).

MANAGEMENT SUMMARY

Purpose and Scope: The County of San Mateo Planning and Building Department (County) retained SWCA Environmental Consultants (SWCA) to provide a cultural resources study in support of a proposed development project known as the Canyon Lane Roadway Improvements (project). The approximately 3.8-acre project area is located in San Mateo County, California, and includes lands within the city of Redwood City as well as within unincorporated San Mateo County. The project area is east of Lower Emerald Lake and west of the George L. Garrett Jr Memorial Park (Garrett Park).

The project area includes 12 undeveloped parcels and Canyon Lane, a gated dead-end gravel roadway, as well as a proposed water pipeline alignment. The proposed project involves the realignment and improvement of Canyon Lane (existing), construction of a new, approximately 1,050-foot-long (320-m-long), 8-inch-diameter (20-cm-diameter) water pipeline, and the construction of a single-family residence on one parcel. The road improvements and pipeline would support the future development of 11 remaining currently undeveloped parcels within the project area.

This study includes a cultural resources records search, review of historic maps and aerial photographs, a pedestrian cultural resources survey, and the preparation of this technical report documenting the results of the study and providing management recommendations. SWCA's cultural resources assessment addresses the entire project area, but the pedestrian survey was limited to the portions of the project where ground disturbance is currently proposed. As such, the 2.68-acre survey area includes the currently proposed development as well as the proposed linear project components (road improvements and pipeline). The 11 remaining developable parcels were not included in the pedestrian survey.

The current study was completed under the provisions of the California Environmental Quality Act (CEQA; 14 California Code of Regulations [CCR] Section 15064.5 and Public Resources Code [PRC] Section 21083.2). This report is an appendix to the environmental impact report (EIR) being prepared for the proposed project.

Dates of Investigation: The Northwest Information Center (NWIC), located at Sonoma State University, Rohnert Park, California, conducted a California Historic Resources Information System (CHRIS) records search of the project area and a 0.5-mile (0.8-km) radius in response to a request from SWCA on January 17, 2019. The County contacted the California Native American Heritage Commission (NAHC) requesting a review of the Sacred Lands File (SLF). The NAHC responded on January 10, 2019, indicating that the results of the search were negative. The NAHC identified six local tribal contacts. The County sent letters to the NAHC-listed contacts and to one additional contact from the Amah Mutsun Tribal Band on January 24, 2019. No responses were received. SWCA conducted an intensive pedestrian survey on February 6, 2019, of the proposed Canyon Lane improvements, including the locations of the proposed roadway improvements and water main as well as the merged parcel currently proposed for the development of a single-family residence; a total of 2.68 acres were surveyed.

Summary of Findings: The records search conducted by staff at the NWIC identified three known archaeological sites (two previously recorded sites and one unrecorded site) within 0.5 mile (0.8 km) of the proposed project; no previously recorded resources were identified within the project area itself. A review of historic maps and aerial photographs revealed one historic-age building constructed in 1938 on a parcel adjacent to but outside of the project area, and one historic-age road within the project area (Canyon Lane). The NAHC SLF search was negative, and the County did not receive any responses to the letters sent to tribal contacts. The three archaeological sites within 0.5 mile of the project area revealed by the records search will not be impacted by the proposed project. Although the proposed water main would be constructed adjacent to the southern boundary of the parcel containing an historic-age building located at 3339 Oak Knoll Drive, Redwood City (unincorporated; assessor's parcel number [APN] 057-221-130),

no project-specific indirect impacts to this resource are anticipated. Existing trees and vegetation will screen any construction noise and dust. SWCA's pedestrian survey recorded Canyon Lane as a historic linear resource (temporary number CL-01). Newly recorded historic linear resource CL-01 (Canyon Lane) is recommended ineligible for listing on the CRHR as a result of this evaluation because it does not meet any of the four eligibility criteria. As such, Canyon Lane is not a historical resource for the purposes of CEQA.

Disposition of Data: The cultural resources report, including confidential appendices, will be filed with the NWIC, the County, and SWCA's Half Moon Bay office. All field notes, photographs, and records related to the current study are on file at the SWCA Half Moon Bay office.

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INTRODUCTION

At the request of the County of San Mateo Planning and Building Department, SWCA Environmental Consultants (SWCA) has completed a cultural resources study in support of a proposed development project known as the Canyon Lane Roadway Improvements. The approximately 3.8-acre project area is located in San Mateo County, California, and includes lands within the City of Redwood City, as well as within unincorporated San Mateo County. The project area is located east of Lower Emerald Lake and west of the George L. Garrett Jr. Memorial Park (Garrett Park; Figure 1, Figure 2, and Figure 3).

The project area includes 12 undeveloped parcels and Canyon Lane, a gated dead-end gravel roadway, as well as a proposed water pipeline alignment. The proposed project involves the realignment and improvement of Canyon Lane (existing), construction of a new, approximately 1,050-foot-long (320-m-long), 8-inch-diameter (20-cm-diameter) water pipeline, and the construction of a single-family residence on one parcel. The road improvements and pipeline would support the future development of 11 remaining currently undeveloped parcels within the project area referred to herein as "developable parcels."

This study includes a cultural resources records search, review of historic maps and aerial photographs, a pedestrian cultural resources survey, and the preparation of this technical report documenting the results of the study and providing management recommendations. SWCA's cultural resources assessment addresses the entire project area, but the pedestrian survey was limited to the portions of the project where ground disturbance is currently proposed. As such the survey area includes the currently proposed development, as well as the proposed linear project components (road improvements and pipeline) (Figure 4). The 11 remaining developable parcels were not included in the pedestrian survey.

SWCA Senior Project Manager/Archaeologist Alex Wesson, B.A., served as the lead archaeologist for this study. Cultural Resources Specialist Nicholas Poister, M.A., Registered Professional Archaeologist (RPA), conducted the cultural resources survey. Mr. Wesson and Mr. Poister co-authored this report. Cultural Resources Specialist Joanne Minerbi, M.A., RPA, and Architectural Historian Nelson White, M.S.H.P., also contributed to this report. Heather Gibson, Ph.D., RPA, served as the project's Principal Investigator. Dr. Gibson exceeds the Secretary of the Interior's Professional Qualification Standards in history and archaeology. Geographic Information Systems (GIS) Specialists Sean Thomas, B.A., and Julie Gaertner, M.S., created the figures for this report.

REGULATORY SETTING

The current study was completed under the provisions of the California Environmental Quality Act (CEQA; 14 California Code of Regulations [CCR] Section 15064.5 and Public Resources Code [PRC] Section 21083.2).

CEQA requires a lead agency (in this case, the County of San Mateo) to determine whether a project may have a significant effect on historical resources. Sections 21083.2 and 21084.1 of the Statutes of CEQA, PRC Section 5024.1, and Section 15064.5 of the State CEQA Guidelines were used as the guidelines for the cultural resources study. PRC Section 5024.1 requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for California Register of Historical Resources (CRHR) eligibility. The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term "historical resources" includes a resource listed in, or determined to be eligible for listing in, the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines Section 15064.5[a]). The criteria

for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). According to PRC Section 5024.1(c)(1–4), a resource may be considered historically significant if it retains integrity and meets at least one of the following criteria. A property may be listed in the CRHR if the resource:

(1) Is associated with events that have made a significant contribution to the broad patterns 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 installation, or represents the work of an important creative individual, or possesses high artistic values; or

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and 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.

Resources that neither meet any of these criteria for listing on the CRHR nor qualify as a unique archaeological resource under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, "A nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC Section 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from the proposed project are thus considered significant if the project physically destroys or damages all or part of a resource, changes the character of the use of the resource or physical feature within the setting of the resource that contributes to its significance, or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

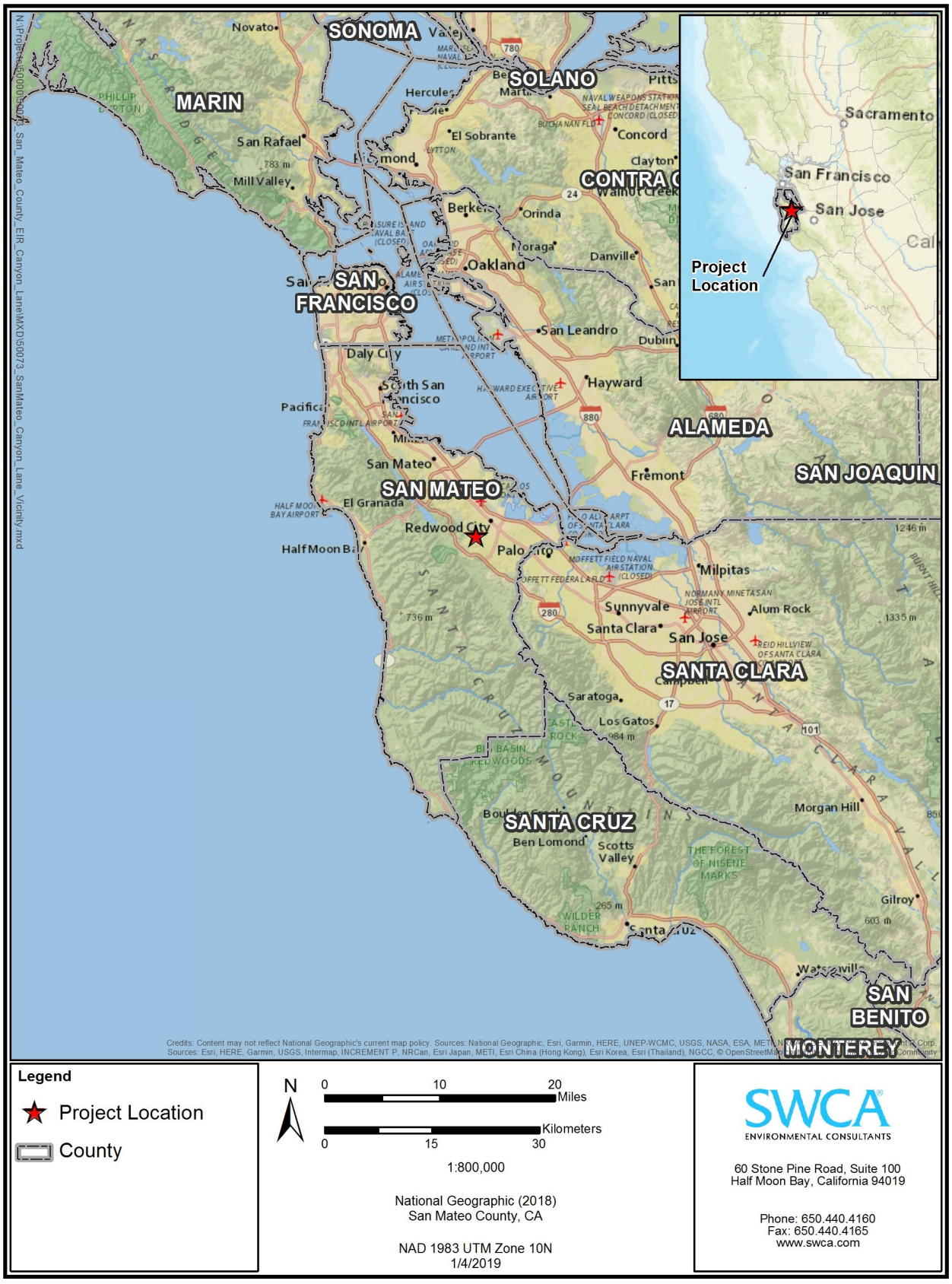

Figure 1. Project vicinity.

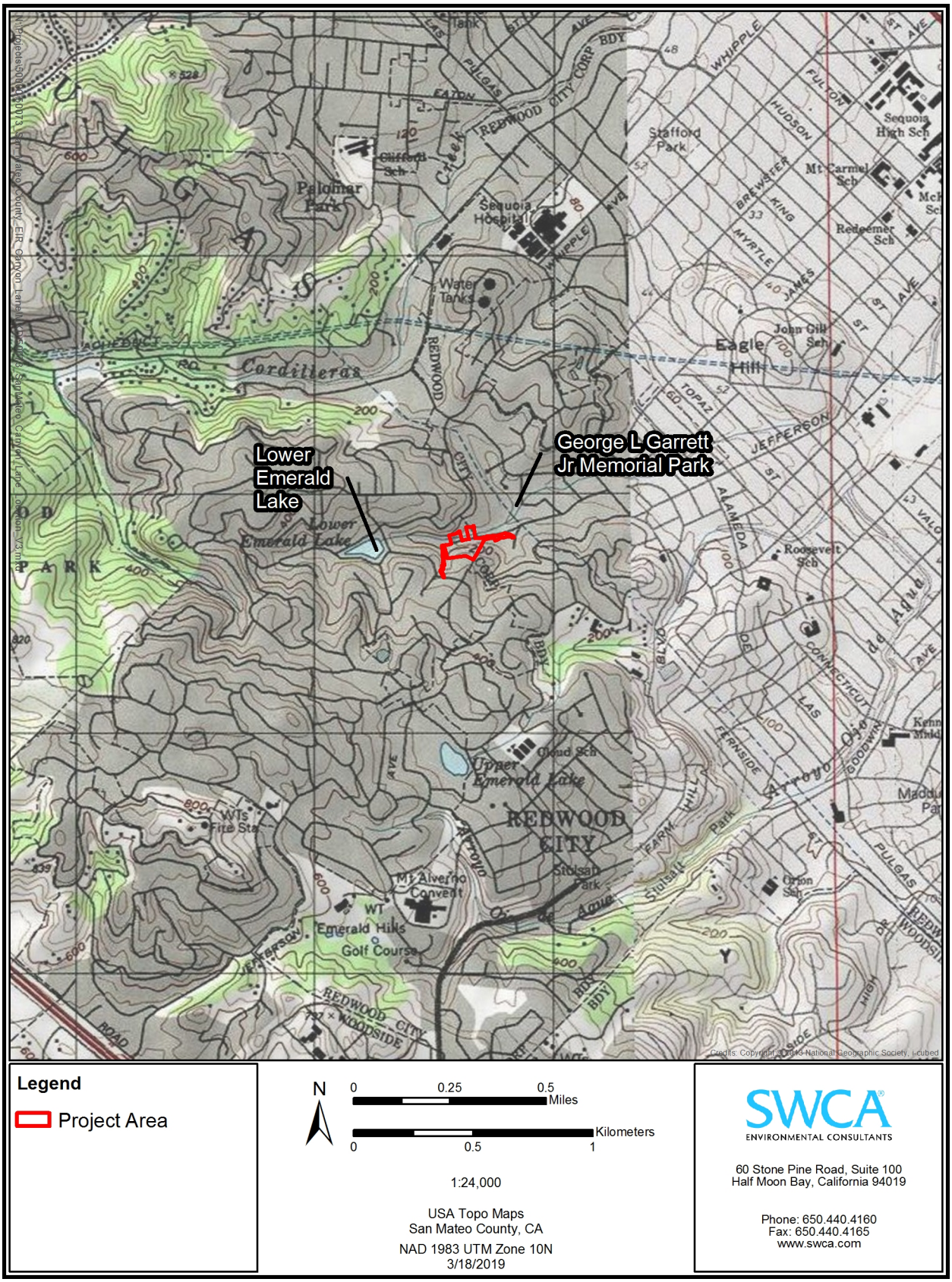

Figure 2. Project location.

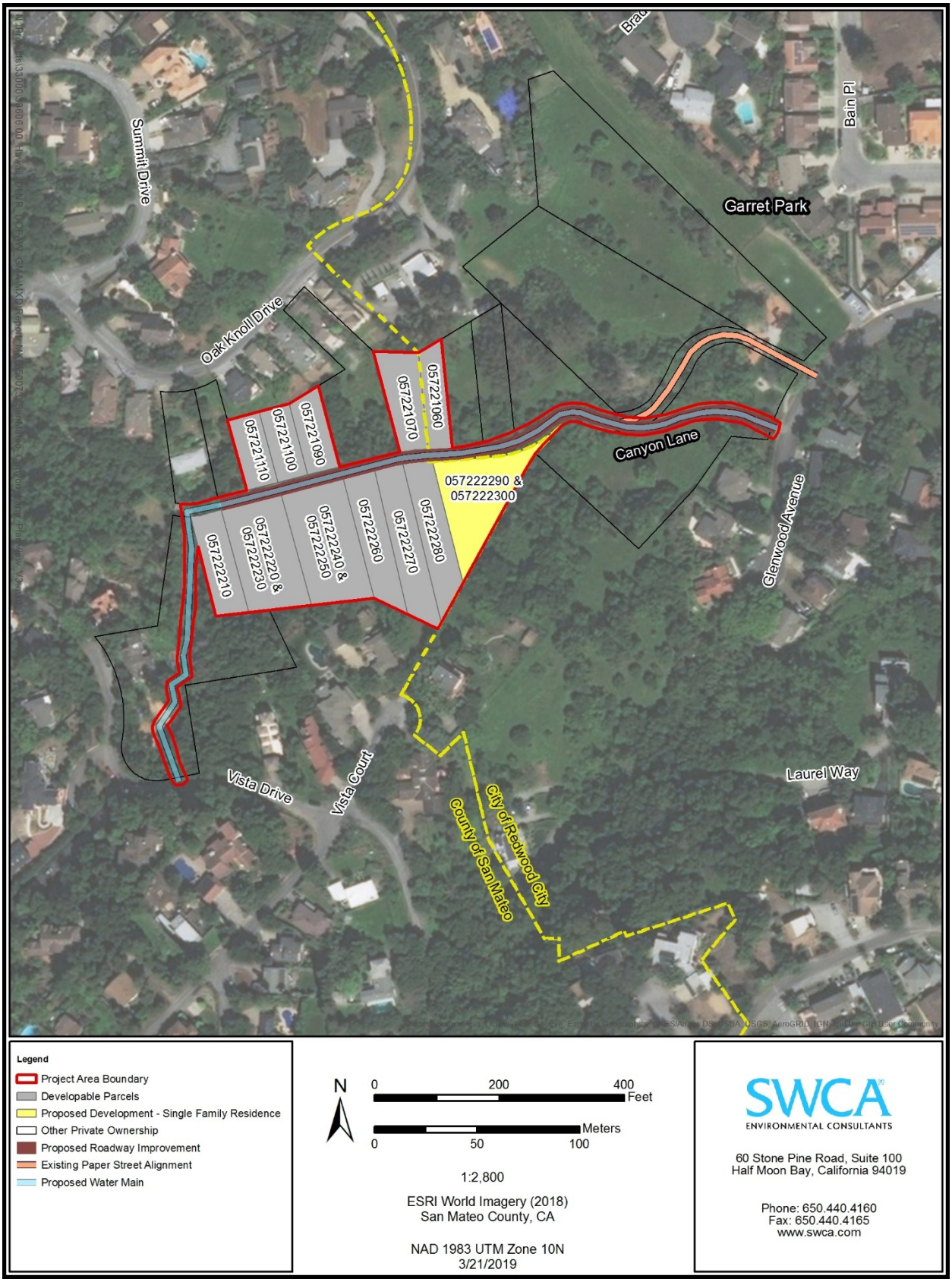

Figure 3. Project area; plan view.

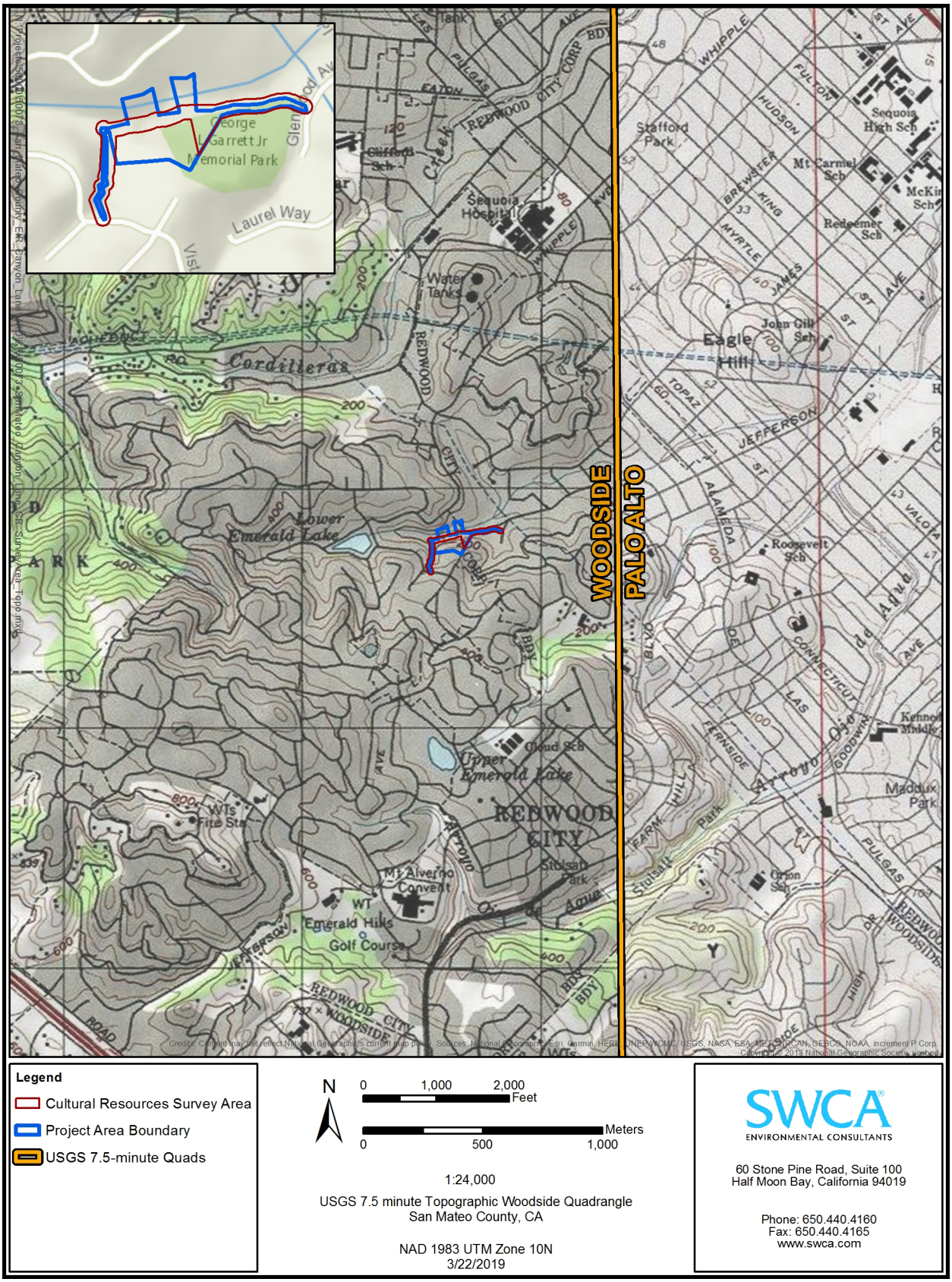

Figure 4. Cultural resources survey area.

Assembly Bill 52

Assembly Bill (AB) 52 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

CONSULTATION WITH NATIVE AMERICANS

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. As the lead agency, the County of San Mateo is required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

TRIBAL CULTURAL RESOURCES

Section 4 of AB 52 adds PRC Section 21074(a) and (b), which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as either of the following:

> (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
>
> > (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
> >
> > (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
>
> (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1(a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3 [a]).

Environmental Setting

Regional Setting

The project area is within the Emerald Hills area of San Mateo County, which is situated along the central coast of California and encompasses approximately 554 square miles (including tidal waters) of the San Francisco Peninsula. The Pacific Ocean constitutes the county's western border and the San Francisco

Bay shoreline its eastern border. The county is bounded by San Francisco (city and county) to the north and by Santa Cruz and Santa Clara counties to the south and southeast, respectively.

The Santa Cruz Mountain Range traverses the county in a north-south direction, effectively dividing the county into two distinct regions: the Coastside and the Bayside. The Coastside is characterized by coastal terraces transitioning into the gently sloping foothills of the Santa Cruz Mountains. The Bayside is characterized by low-lying mudflats, marshes, artificial fill, and broad, flat alluvial plains. Farther west, this low-lying region transitions into the foothills of the Santa Cruz Mountains, increasing in slope to 15 to 30 percent near its crest. The proposed project is located on the Bayside of the Santa Cruz Mountains.

Local Setting

The project area is within a west-trending hillside canyon, surrounded by single-family residential homes scattered throughout the adjacent hillsides. The project area, minus the gravel roadway, is undeveloped and consists of oak forest, grassland, and intermittent creek that runs parallel to Canyon Lane. None of the 12 developable parcels have been extensively graded or developed and thus maintain the natural slope and vegetation of the hillside canyon.

The project area consists of 22 parcels and the Canyon Lane gravel roadway, covering approximately 3.8 wooded acres within a relatively steep-sided canyon east and downstream of Lower Emerald Lake. The lake is situated on a 5-acre parcel and includes a swimming lake fed by seasonal creeks and contained by an earthen dam. Water released from the lake is discharged into an ephemeral creek that flows parallel to Canyon Lane where it eventually reaches Garrett Park, a 6.9-acre park with playground facilities, picnic areas, and barbecue facilities to the east of the project area.

One of the 12 developable parcels with the project area (assessor's parcel number [APN] 057-221-060) is located within the city of Redwood City, and the 11 remaining developable parcels (APNs 057-221-070, 057-221-090, 057-221-100, 057-221-110, 057-222-210, 057-222-220 & 230, 057-222-240 & 250, 057-222-260, 057-222-270, 057-222-280, 057-222-290 & 300) are located within the unincorporated county. The 12 developable parcels are currently zoned RH/DR (Residential Hillside/Design Review) in the county and RH (Residential Hillside) in the city. The project area has a General Plan land use designation of Low-density Residential with the unincorporated county and a land use designation of Park within the city.

Dominant trees in the project area include coast live oak, toyon, buckeye, and bay laurel. In the understory are found coyote brush, blackberry, poison oak, short grasses and a variety of herbs. Feral artichokes are notable in the meadow. Soils are primarily a dark brown sandy clay with abundant organic material. Cobbles, boulders, and outcrops of serpentine are common. There is also a considerable amount of scrap concrete and asphalt in the streambed and along the roadway, presumably fill material used in leveling the roadway.

CULTURAL SETTING

Prehistoric Period

The project area is within the San Francisco Bay Region, one of eight arbitrary organizational divisions of the state (Moratto 1984). This archaeological region includes all of today's San Mateo and Marin counties, and western, northern, or southern portions of Alameda, Contra Costa, Napa, Santa Clara, Santa Cruz, Solano and Sonoma counties bordering the Bay Area (Moratto 1984). The prehistory of this region is divided into six periods: Early Holocene (Lower Archaic, 8000–3500 calibrated [cal] BC), Early period

(Middle Archaic, 3500–500 cal BC), Lower Middle period (Initial Upper Archaic, 500 cal BC–cal AD 430), Upper Middle period (Late Upper Archaic, cal AD 430–1050), Initial Late period (Lower Emergent, cal AD 1050–1550) and Terminal Late period (cal AD 1550–1776; Milliken et al. 2007:101, 114–118).

Early Holocene/Lower Archaic (cal 8000–3500 BC)

Occupation in the San Francisco Bay Area during the Prehistoric period may have occurred as early as 8,000 years ago, when sea levels were some 15–20 m (49–66 feet) lower than today (Bickel 1978:7), but the earliest archaeological sites in this area date to only 6,000 years ago during the Middle Holocene. It is likely that Holocene alluvial deposits buried many prehistoric sites in this area (Moratto 1984:221, 277; Ragir 1972). To the east in the Los Vaqueros region of Contra Costa County, closer to the Sacramento–San Joaquin Delta, for example, is one of the few early Holocene-age sites in the region, CA-CCO-696. This site provides one of the earliest dates from a site with a millingstone component (Milliken et al. 2007:114). To the south at an inland site in Santa Cruz County (Scotts Valley Site, CA-SCR-177), stone tools have been found in deposits dating to more than 6,000 years ago (Breschini and Haversat 1991:128–129). Data from coastal sites in central and southern California during the Paleo-Coastal Tradition of the Paleoindian period indicate the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002). The few Bay Area sites include two in the Santa Clara Valley (CA-SCL-65 and CA-SCL-178) and one on the peninsula coast of Santa Cruz County (CA-SCR-7; Hylkema 2002:233–235). The artifact assemblages in these Bay Area sites have large numbers of handstones and milling slabs as well as core and flake tools. Dates from CA-SCR-7, the Sand Hill Bluff shell mound, range from 4100 to 1400 BC, and includes large corner and side-notched projectile points. There is abundant evidence that marine resources such as fish, sea mammals, and shellfish were exploited at coastal sites.

Early Period/Middle Archaic (3500–500 cal BC)

Sites characteristic of the Early period/Middle Archaic in the San Mateo area date to as early as 5,500 years ago and as late as 2,500 years ago (3500–500 cal BC). Such sites often contain manos and metates (grinding stones), as well as many mortar fragments, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984:201). The period is marked by the first cut bead, the grooved *Callananx biplicata* (formerly *Olivella biplicata*) rectangle bead. Mortars and pestles appear in the Bay Area archaeological record during this time period. A wooden mortar and stone pestle were recovered from CA-CCO-637; these artifacts dated to 3800 cal BC (Milliken et al.2007:115).

The University Village Site (CA-SMA-77) in San Mateo County and the lower levels of the West Berkeley Site (CA-ALA-307) in Alameda County may represent an Early Bay culture coeval with the Windmiller Pattern (Gerow with Force 1968). The lowest level of the West Berkeley Site has been radiocarbon dated to 3030–2890 cal BC (see Lightfoot and Luby 2002:270). Gerow (1974) further suggested that the Early Bay Culture had more in common with southern California coastal cultures than the Windmiller Pattern diagnostic of the Early Horizon in the Delta area. Additional artifact assemblages, such as from CA-SCL-354 in the Los Altos foothills, imply that characteristics of Windmiller assemblages were present on the South Bay peninsula (Hylkema 2002:244). Also, on the peninsula coast, *Callananx* rectangular beads (type L1) and Rossi square-stemmed and large side-notched projectile points are diagnostic of the Early period (Hylkema 2002:250).

Lower Middle Period/Initial Upper Archaic (500 cal BC–cal AD 430)

People inhabiting the San Francisco Bay region during the Lower Middle period (also known as the Berkeley period) practiced a maritime hunting and gathering economy. Large accumulations of shellfish remains, or "shell mounds," formed over hundreds, or even thousands, of years through accretion at

village sites fronting the Bay that were reused seasonally or year-round (Lightfoot 1997:135). Numerous shell mounds contain hundreds of burials as well as ceremonial items, house floors, hearths, and storage pits, indicating they were used as burial, ceremonial, and residential places (Lightfoot 1997:131–136; Lightfoot and Luby 2002:276–277).

The well-known Emeryville Shell Mound (CA-ALA-309) and Ellis Landing Site (CA-CCO-295) date to this period (see discussion in Lightfoot and Luby 2002:270; Nelson 1909). In 1902, Max Uhle initially excavated the Emeryville shell mound (CA-ALA-309), revealing a stratified deposit with numerous cultural sequences (Uhle 1907). The Emeryville Shell Mound was one of the largest in the Bay Area, with estimated size of at least 100 by 300 m, with a maximum depth of nearly 10 m (Moratto 1984:227–228). The lower levels contained flexed burials associated with artifacts such as pointed bone implements, chert bifaces, perforated charmstones, red ochre, and a predominance of bay oyster shells (Moratto, 1984:229). Upper levels appeared to have cremation burials, polished stone artifacts, flaked obsidian tools, and more clam than oyster. In 1924, Schenck discovered approximately 700 burials, most interred in a flexed position, when he "rescued" materials from the site as it was being leveled during construction of a paint factory (Schenck 1926).

Artifacts typical of the Lower Middle period include spire-lopped *Callianax*, and *Callianax* saucer beads; circular *Haliotis* ornaments appear in this period (Milliken et al. 2007:115). Assemblages generally have a relatively small frequency of flaked stone points; projectile points are commonly contracting stemmed and lanceolate types, some of which are made from obsidian (Hylkema 2002). Burials are variable flexed and semi-flexed with inconsistent orientation.

Milling implements include large and small boulder or cobble mortars and various types of pestles, indicating that acorns formed an important part of the diet. In the South Bay, processing of hard seeds continued to be important throughout this period, as evidenced by the number of milling slabs and handstones in the artifact assemblages from that area (Hylkema 2002:244–245, 252). Other plant resources included hazel nuts, cattail seeds, grass and soaproot bulbs; the latter were roasted in earth ovens.

Shellfish species exploited varied depending on location within the Bay Area (Hylkema 2002:252). Along the West Bay in San Mateo County and the East Bay of Alameda County, bay mussel, oyster, and clam are more prevalent. In contrast, horn snail, oyster, and bay mussel are the principal shellfish recovered from South Bay mounds. Temporal variation in shellfish species is also present in the mound assemblages.

Upper Middle Period/Late Upper Archaic (cal AD 430–1050)

The Upper Middle Period/Late Upper Archaic period is marked by the collapse of the *Callianax* saucer bead trade network at cal AD 430 around the Bay Region (Milliken et al. 2007:116). The period is also evidenced by a number of changes in subsistence, foraging, and land use patterns that begin to reflect the use pattern known from Historic-period Native American groups in the area. A substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly of acorn), evidenced in the archaeological record, correlates directly with population growth (Moratto 1984:211–214). Bow and arrow technology, the use of harpoons, and tubular tobacco pipes appear during this period. However, a greater emphasis is placed on the procurement and processing of vegetal foods, especially acorns, as evidenced in the increase of milling tools, especially the mortar and pestle. Both coiled and twined basketry were used as domestic and ceremonial items. Population size and the number of settlements increased during this period, although the large shell mound villages of the Lower Middle period were apparently no longer favored residential places (Lightfoot and Luby 2002:264, 277). There is an increase in grave goods, particularly during the Upper Middle period, compared with few grave goods identified during the Lower Middle period in Bay Area sites.

During the Upper Middle period, the climate fluctuated between cooler, wetter periods and warmer, drier periods. During cooler, wetter periods, alluvial deposition increased; comparatively little deposition occurred in the drier intervals. Extended periods of relatively little rainfall, referred to as the Medieval Climatic Anomaly (MCA), produced droughts across the West between about AD 650 to 850 and again in the Late period, AD 1150 to 1250 (Jones et al. 1999). The dry conditions during the MCA may be related to the abandonment of shell mound villages as primary residential locations, which began around AD 700 (Lightfoot and Luby 2002:277, 279). Settlement strategies were apparently reorganized and focused on a dispersed pattern, with the establishment of both coastal and interior habitation areas, coinciding with the exploitation of seasonally available resources.

Initial Late Period/Lower Emergent (cal AD 1050–1550)

The Late period ushers in a time of status differentiation and the rise of secret societies, cults, and associated traits. Exchange networks, with the use of clamshell disk beads as a form of currency, expanded during this period. Exchange items included magnesite, steatite, *Callianax* beads, and obsidian. Compared with the Middle Period, the use and occurrence of shell beads with burials blossomed (Milliken and Bennyhoff 1993). *Haliotis* banjo pendants may represent the introduction and spread of the Kuksu cult, beginning during the transition from the Middle to Late period in the Bay Area (Hylkema 2002:260). The quantity of non-dietary *Callianax* shells in coastal sites during the Late period, coupled with a concomitant increase of the shells in mortuary contexts throughout central California during this period, attests to the rise of both exchange networks and status differentiation, with coastal peoples supplying the shells to the interior groups. Partial cremation appears or reappears during this time as well as marked stratification, with a diversity of grave goods included in the wealthiest of graves (Milliken et al. 2007:217).

During the Late period on the peninsula coast, site assemblages indicate there was an increase of birds and marine mammals, especially sea otters, in the diet. At the same time, there was a decrease in terrestrial fauna in the archaeological record (Hylkema 2002:254–255). Further inland at large residential, upland meadow sites in Santa Cruz County (CA-SCR-9 and CA-SCR-20), both dense shell and abundant deer and elk bone are present, suggesting these areas were continuously reoccupied on a seasonal basis.

Terminal Late Period/Protohistoric Ambiguities (cal AD 1550–1776)

The Terminal Late period is marked by the abrupt disappearance of the *Callianax* sequin and cup beads ca. AD 1500 to 1550 (Milliken et al. 2007:117). During this period and before the Spanish established a substantial presence, a cultural shift was occurring. The North Bay began to take a more dominant role in the production of new technology and trade items, including clamshell disk beads, toggle harpoons, hopper mortars, corner-notched projectile points, and magnesite tube beads. The precise reason for this cultural shift is unknown, but could have been driven by conflict between groups or the spread of European diseases northward from Mexico prior to 1776 (Milliken et al. 2007:117–118.)

ETHNOGRAPHIC OVERVIEW

The project location is within an area historically occupied by the tribelets of the Costanoan linguistic group (Levy 1978). Descendants of Costanoan speakers prefer to be called by the name of the tribelet from which they are descended. When their heritage is mixed or the specifics have been lost over generations, they prefer the use of a native term *Ohlone,* rather than the European-imposed term Costanoan (“coastal dwellers”; Margolin 1978).

Costanoan territory extended between the Carquinez Strait and San Pablo Bay on the north, southward along the coast beyond Monterey Bay to Carmel Valley, and inland to the coast range (Levy 1978:485).

Neighboring groups included the Coast Miwok north across the Carquinez Strait, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south.

Spanish mission records, diaries, and journals provide most of the information about the Costanoans because little ethnographical research has been conducted in the twentieth century (Levy 1978:495). The most thorough study, by Milliken (1995), used mission records, and Margolin (1978) reconstructed Native American life in the Bay Area.

The numerous Costanoan social groups in this region were organized by tribelets, each of which could have several villages or a main village with a number of camps (Levy 1978:487). Tribelets were also political units that were structured by similarities in language and ethnicity, each holding claim to a designated portion of territory. Topographic features, such as rivers, watersheds and ridgelines, defined tribelet territories and the boundaries were strictly respected.

Linguistically, these tribelets belong to the Utian, or Miwok-Costanoan, language family, part of a hypothesized larger Penutian linguistic stock (Mithun 2001:309). The Costanoan family is broken down into four branches: the Karkin, in the Carquinez Strait area; the Northern Costanoan, consisting of the Chocheno (with four dialects), Ramaytush, Tamyen and Awaswas languages; the Soledad, seen only in Cholon; and the Southern Costanoan branch, consisting of Rumsen and Mutsun (Mithun 2001:535). Speakers of these languages and dialects, in various configurations, have been treated as tribes in the past in accordance with anecdotal reports. Through detailed examination of mission records, marriage patterns and dialect variation seen in personal names, Milliken (1995:229) delineated 43 separate political entities (tribelets) in the San Francisco Bay, Santa Cruz and inland area, with an additional six or so tribelets in the south Monterey Bay and Carmel Valley region.

Each tribelet's territory contained a main village and smaller satellite villages. The villages were typically situated along a river or stream for easy access to fresh water (Levy 1978:487). Coastal people did not build directly on the shoreline but usually on an overlooking bluff. Dwellings were domed structures consisting of a tule- or grass-covered framework of poles, with rectangular doorways and central hearths (Levy 1978:492). Villages often contained specific enclosures for dancing. Assembly halls in the center of the settlement were common; some halls were large enough to accommodate an entire village population of some 200 people. Each community had a sweat lodge placed near a stream. The Costanoans either buried or cremated the deceased, sometimes depending on firewood availability. There is no mention of cemeteries associated with villages (Levy 1978:490–491).

The rich resources of the ocean, bays, valleys, and mountains provided Ohlone-speaking peoples with food and all their material needs (Levy 1978:491–492). The primary food staple was acorn, supplemented by a great variety of animal and plant resources. Depending on species availability and desirability, Costanoans used four oak species, including coast live, valley, tanbark, and black. Collected nuts included buckeye, laurel, pine nuts, and hazelnuts. Seeds from dock, chia and other salvias, tarweed, and holly-leaf cherry were collected and ground into meal. Vegetal resources also included several berry-producing plants, wild onions, carrots, tule roots, and greens of clover and other annuals. Large and small game, including deer, elk, antelope, bears, mountain lions, raccoons, ground squirrels, woodrats, mice, moles, dogs, rabbits, and jackrabbits, plus seals and stranded whales, were part of their diet. Migrating waterfowl were an important resource and included geese, ducks, and coots. Pigeons, quails, and hawks were also consumed but not eagles, owls, ravens, or turkey vultures. Rivers and streams provided freshwater fish, including steelhead, salmon, and sturgeon, whereas the ocean provided sharks, sardines, and lampreys. The Costanoan diet also included a variety of insects and reptiles, but not amphibians.

For hunting and gathering natural resources, Costanoans used a wide array of tools, implements, and enclosures. Among those used for hunting land mammals and birds were bows and arrows, traps and snares, deer-head disguises, bolas, nets and net sinkers, and enclosures/blinds. Communal hunting drives

were used to catch rabbits, whereas nets and poisons were used to harvest fish. Tule watercraft were used for transportation and for fishing and hunting waterfowl on enclosed bays and marshes. Many plants were collected using wooden tools: long poles for dislodging acorns and pinecones, fire-hardened digging sticks for obtaining roots, and beaters for dislodging seeds. Once collected, seeds, roots and nuts were placed in burden baskets and transported for processing or storage (Levy 1978:491).

Costanoans used a variety of tools to process food resources. These tools included portable stone mortars and pestles, bedrock mortars, hopper mortars, anvils, woven strainers and winnowers, leaching and boiling baskets, woven drying trays, and knives. Various foods were baked in earthen ovens. Wooden paddles were carved for stirring food in the boiling baskets. There were shell spoons, basket dippers, and mush bowls for serving food, and woven water jugs and storage containers for storing food.

The presence of exotic items such as obsidian, steatite, and shell indicates Costanoan tribelets traded with coastal groups and mountain tribes (Levy 1978:493). Dietary items were also traded with the Plains Miwok, Sierra Miwok, and Yokuts. Costanoans provided mussels, abalone shells, dried abalone, and salt to the Yokuts and *Callianax* shells to the Miwok. They received pine nuts from the Yokuts, but other food resources received by the Costanoan tribelets are unrecorded.

The Native American population in this region came into contact with European culture at the beginning of Spain's land exploration and settlement in AD 1769. Traditional lifeways were altered drastically during the late 1700s to early 1800s when the Spanish placed their capital at Monterey, built forts at Monterey and San Francisco, and established seven Franciscan missions to convert native peoples to Christianity and the European way of life. Large-scale epidemics soon swept through the mission population and remaining villages (Milliken 1995). Subsequent Spanish colonial towns at Santa Cruz and Yerba Buena (San Francisco), followed by large Mexican land grants, separated Costanoans from their harvesting grounds and hunting parks. Many surviving Native Americans were pulled away from their own villages to the new Euro-American settlements. It is estimated that the combined Costanoan population fell from a pre-Contact total of 10,000 down to 2,000 by the end of the mission period in 1834 (Levy 1978:486). Also during the mission period, the dwindling Costanoan population intermarried within other interior tribes at the missions, mixing their cultural identities.

During the late 1800s, several Native American communities of mixed heritage remained in rural areas, with Pleasanton, Monterey, and San Juan Bautista the best known (Levy 1978:487). Even these groups continued to shrink as young people married into other groups and moved away. Estimates of the total remaining population of people with recognizable Costanoan descent were fewer than 300 in 1973 (Levy 1978:487). According to Levy:

> In 1971 descendants of the Costanoan united in a corporate entity, the Ohlone Indian Tribe, and received title to the Ohlone Indian Cemetery where their ancestors who died at Mission San José are buried (1978:487).

Since that time, other descendants of Costanoan tribelets have organized political and cultural heritage organizations that are active locally and statewide. All are concerned with revitalizing aspects of their culture, learning their language through notes collected by anthropologist John Harrington and preserving the natural resources that played a vital role in traditional culture. Some Costanoan groups are also seeking federal recognition of their tribe, petitioning the Bureau of Indian Affairs with reconstructed tribal histories and genealogies, records that will be a great resource for future generations of Costanoans.

The project area lies within the traditional domain of Ramaytush-speaking Costanoan tribelets, which included most of San Mateo and San Francisco counties. The best estimate for the Ramaytush population in the 18th century is ca. 1,400 individuals, based upon mission records and archaeological data (Levy 1978:485). The territory of the Lamchin tribelet included the bayshore and adjacent valleys from Belmont

to Atherton with its most prominent settlement, Cachanigtac (also known as Las Pulgas), probably situated along Pulgas Creek in San Carlos. Lamchin people were incorporated into the native population at Mission San Francisco de Asís, where their names appear in in the baptismal register during the 1780s and 1790s (Brown 1973–1974; Milliken 1983:86–90, 139; Milliken 1995:246–247).

HISTORIC OVERVIEW

Post-Contact history for the state of California generally is divided into three periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the beginning of Spanish settlement in California occurred in 1769 with a settlement at San Diego and the first (Mission San Diego de Alcalá) of 21 missions established from 1769 to 1823. Word of Mexican victory after a decade of revolt against the Spanish crown reached California in 1822, marking the beginning of the Mexican period. This period was marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, California became a territory of the United States. The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush influenced the history of the state and the nation. The rush of tens of thousands of people to the goldfields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

Local History

The current project area was passed by various Spanish expeditions in the late eighteenth century. In 1769, Gaspar de Portolá and Father Juan Crespi, missing their intended destination of Monterey, first sighted San Francisco Bay from Sweeney Ridge in Pacifica. A campsite of the Portolá Expedition is a registered California State Historic Landmark (#92) in nearby Woodside. Although the party never traversed Redwood City itself, they did interact with a group of natives on nearby San Francisquito Creek (Beck and Haase 1974:317; Nelson 1909:347). They were followed in 1774 by Fernando Javier Rivera and Father Francisco Palou, who advocated for the establishment of a mission at Palo Alto. This recommendation was passed over in favor of San Francisco due to the lack of a suitable harbor on the peninsula. Colonel Juan Bautista de Anza and Father Pedro Font scouted this location two years later, journeying from Monterey. In an instance of particular interest to the current study, Font described a shell mound on lower Redwood Creek, writing, "…there was a great pile of mussels… or which one village often fights another" (Milliken 1983:87).

Mission San Francisco de Asís was founded on October 9, 1776, and the resident fathers soon proved to be highly successful in converting the region's Native Americans and concentrating them at the site. Overcrowding became an issue and some natives were relocated to *rancherias* on the pennisula where there were better agricultural prospects (Beck and Haase 1974:no. 19; Hart 1987; Hynding 1982:19–22). One of these was Rancho Las Pulgas, extending from present-day San Mateo to Palo Alto. This *rancho nacional* of the San Francisco Presidio was formally granted to Luis Argüello by Governor Pablo Vicente on November 27, 1835. After California became a territory of the United States, Rancho Las Pulgas (surveyed at 35,240 acres) was patented to Luis's heir, María de la Soledad Ortega de Argüello, by the Supreme Court on October 2, 1857 (Beck and Haase 1974:no. 30; Hendry and Bowman 1940:1031–1038; Hoover et al. 1966:404-406; Stevens 1856).

Variously known by the names Los Palos Colorados, Arroyo Salinas, Red Woods Embarcadero, Pulgas Ranch Embarcadero, Steinbergers, and Mezesville, Redwood City became a center of timber extraction during the Spanish period; this industry intensified with the advent of the Gold Rush (Brown 1975:76; Gudde 1998:313). Logs harvested in the hills above the city were brought down Redwood Ravine to the Embarcadero, where they where lashed together and set adrift for San Francisco. Mills, lumberyards, and wharfs characterized Redwood City in the 1850s; there were at least 10 documented sawmills in the environs of the city in 1853. Following intervals as Mezesville, after the Argüello's attorney, and Steinbergers, after a stage stop owner, Redwood City acquired its current appellation in September of 1856 (Brown 1975:75–76; Hoover et al. 1966:407–408; Hynding 1982:37, 90; Richards 1973; Stanger 1963:53–54). That same year, the southern portion of San Francisco County became San Mateo County and the county seat was moved to Redwood City in 1857 (Coy 1973:238–239; Hart 1987:410; Hoover et al. 1966:389).

METHODS

Records Search and Map Review

On January 17, 2019, SWCA requested a records search of the California Historical Resources Information System (CHRIS) from the Northwest Information Center (NWIC), located at Sonoma State University in Rohnert Park. As part of this study, SWCA reviewed the following resources:

- National Register of Historic Places – Listed Properties
- California Register of Historical Resources
- California Inventory of Historical Resources
- California State Historical Landmarks
- California Points of Historical Interest
- California Office of Historic Preservation Historic Property Directory and Determinations of Eligibility

In addition, SWCA reviewed all relevant previously recorded archaeological site records and previously conducted surveys.

Built Environment Desktop Review

Historic maps provided by the NWIC, as well as historic maps and aerial photographs available online, were reviewed to identify historic linear resources and historic built environment resources within the project area and adjacent parcels. The following historic maps and aerial photographs were reviewed:

- 1856 Plat of Pulgas Rancho
- 1940 USGS Halfmoon Bay 15' Quadrangle
- 1961 USGS Half Moon Bay 15' Quadrangle
- Topographic maps available at historicaerials.com:
    - 1940

  - 1954
  - 1959
  - 1960
  - 1961
  - 1962
  - 1964
  - 1967
  - 1969
- Aerial photographs available at historicaerials.com:
  - 1948
  - 1956
  - 1958
  - 1960
  - 1968

Native American Outreach

The San Mateo County Planning and Building Department (County) contacted the California Native American Heritage Commission (NAHC) requesting a review of the Sacred Lands File (SLF) and list of appropriate tribal contacts for the project area. The County mailed a letter to each of the contacts provided, plus one additional contact from the Amah Mutsun Tribal Band, on January 24, 2019, describing the proposed project and including a map of the project location (Appendix B). The letters invited the tribal representatives to consult with the County, asked if they have any concerns about the proposed project, and inquired if they would like any additional information regarding resources in the area.

Field Survey

SWCA archaeologist Nicholas Poister conducted an intensive pedestrian survey of the project area on February 6, 2019. Mr. Poister conducted the survey using parallel pedestrian transects spaced no more than 10 m apart over the entire survey area. A total of 2.68 acres were surveyed for cultural resources (see Figure 4). The cultural resources survey area included three main components: the Canyon Lane roadway with a 30-foot (9-m)buffer on either side; a triangular merged parcel (057-222-290/057-222-300) proposed for a single-family residence; and a 70-foot-wide (21-m-wide) corridor where a subsurface water pipeline is proposed. Only those portions of the project where ground disturbance is currently proposed were subjected to pedestrian survey; the remaining 11 “developable parcels” were excluded from the pedestrian survey because they will be subject to design and planning review in the future. Mr. Poister examined all areas of exposed ground surface for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools), historic artifacts (e.g., metal, glass, ceramics), soil

discoloration that might indicate the presence of a cultural midden, linear features, soil depressions, and other features indicative of the former presence of historic structures or buildings (e.g., foundations).

RESULTS

Records Search

The NWIC responded to SWCA's records search request on January 24, 2019.

Prior Cultural Resources Studies

The NWIC records search revealed that five cultural resources studies have been conducted within a 0.5-mile radius of the project area (Table 1). The previous study S-3044 encompassed the project area, and S-39064 may have included a very small portion of the project area. Report S-3044, titled *Cultural Resources Evaluation of the Emerald Lake Hills Sanitation Facilities Project, San Mateo County, California* (Chavez 1977), concluded that no known archaeological or historic resources are located in the then-proposed sanitation facilities' service area on the basis of an archival review and a surface reconnaissance in the field. The author concluded that no discernable adverse impacts to cultural resources would result from the planned expansion of the facilities. The author does caution that the field reconnaissance conducted was far from complete; a significant portion of the area was not inspected because it was situated on private property, on steep slopes, or was obscured by dense vegetation.

Table 1. Previously Conducted Cultural Resources Studies within 0.5 Mile (0.8 km) of the Project Area

Report No.	Study Title	Author (Affiliation)	Year	Study Type	Within Project Area?
S-003044	*Cultural Resources Evaluation of the Emerald Lake Hills Sanitation Facilities Project, San Mateo County, California*	David Chavez	1977	Archaeological, Field study	Yes
S-035355	*Archaeological Testing Conducted at 1780 Cordilleras Rd, Redwood City, San Mateo County, California (letter report)*	James M. Allan (William Self Associates, Inc.)	2008	Archaeological, Excavation	No
S-035355	*Archaeological Research Design and Evaluation Plan, Archaeological Site CA-SMA-304, Redwood City, California*	William Self Associates, Inc.	2008	Archaeological, Management/planning	No
S-039064	*Cultural Resources Assessment Report in Support of Initial Study and Environmental Impact Report, Laurel Way Residential Subdivision, City of Redwood City, San Mateo County*	Basin Research Associates	2009	Archaeological, Field study	Possible
S-040929	*Archaeological Data Recovery Report (SMA-83) (ADRR) and Final Archaeological Resources Report (FARR), San Francisco Public Utilities Commission, Water System Improvement Program, Bay Division Pipeline Reliability Upgrade Project, East Bay and Peninsula Bay Division Pipeline No. 5, Alameda and San Mateo Counties, California*	Basin Research Associates, Inc.	2013	Archaeological, Excavation, Field study, Monitoring	No

Report No.	Study Title	Author (Affiliation)	Year	Study Type	Within Project Area?
S-043506	*New Tower Submission Packet; Jefferson Avenue & Lake View Way; CCU1278; 815 Lake View Way, Redwood City, San Mateo County*	Lorna Billat (EarthTouch, Inc.)	2013	Architectural/historical, Field study	No

Previously Recorded Cultural Resources

The NWIC records search revealed two previously recorded prehistoric archaeological sites (CA-SMA-304 and CA-SMA-394) and one unrecorded site within a 0.5-mile radius of the project area (Table 2; all three sites are located outside of the proposed project area. Sites CA-SMA-304 and CA-SMA-394 were officially recorded in 1976 by the Redwood City Planning Department. These previously recorded sites are likely the two shell mounds on lower Redwood Creek described by Nelson as a part of his 1909 study and may include the one that Friar Pedro Font noted in 1776 (Milliken 1983 in Basin Research Associates 2009; Nelson 1909). Artifacts and features present include habitation debris, hearths, pits, and, at CA-SMA-394, burials. No burials or artifacts were removed or collected during the course of testing; these were instead reinterred onsite. The nature of the unrecorded site within the 0.5-mile radius (discovered in 1987) is presently unknown.

Table 2. Previously Recorded Cultural Resources within 0.5 Mile (0.8 km) of the Project Area

Primary No.	Time Period	Resource Description	Name	Recording Year (Name, Affiliation)	Within Project Area?
P-41-000447	Prehistoric	Site	Indian Mounds, Cordilleras Road	1990 (Barb Bocek, Stanford University) 1976 (Jeffrey D. Rhoads, Redwood City Planning Department)	No
P-41-002242	Prehistoric	Site	Indian Mounds, BDPL#1P, SFPUC Pipeline BDPL No. 1 and 2	2013 (Christopher Canzonieri, Basin Research Associates, Inc.) 2010 (Colin Busby, Christopher Canzonieri, Basin Research Associates, Inc.) 1976 (Jeffrey D. Rhoads, Redwood City Planning Department)	No
n/a	Unknown	Site	n/a	n/a (unrecorded)	No

Built Environment Desktop Review

SWCA reviewed historic maps provided by the NWIC, as well as other historic maps and aerial photographs available online. This desktop review resulted in the identification of one historic-age road within the project area (Canyon Lane) and one historic-age building located on a parcel adjacent to the proposed project area.

Canyon Lane (Temporary Site Number CL-01)

Canyon Lane is an historic linear cultural resource dating to the 1940s; the unimproved road is visible on aerial imagery as early as 1948. Canyon Lane falls within the lands of the former Rancho Las Pulgas, southwest of present-day Whipple Avenue. The 1856 plat of Pulgas Rancho shows the area south of Whipple's Road among the tributaries of Redwood Creek, where Canyon Lane is now located, as

undeveloped. Emerald Lake Hills, where the project area and Canyon Lane are located, was a popular vacation destination in the 1920s, and many of the original vacation homes have become permanent residences (Department of Environmental Management 1986:8.10). Fed by a creek, Lower Emerald Lake had been constructed by 1940, according to the Half Moon Bay topographic map from the same year (U.S. Geological Survey [USGS]), Lower Emerald Lake was present, fed by a creek. One home was southeast of the lake, between the modern alignments of Canyon Lane and Vista Drive, and one structure was situated between the modern alignments of Canyon Lane and Oak Knoll Drive. However, Canyon Lane itself is not depicted on the 1940 topographic map. The aerial imagery from 1948 reveals moderate tree coverage along unimproved Canyon Lane and the adjacent creek, with the addition of one home south of the road. Sparse agricultural use can be seen in some parcels in the surrounding area, but much of the land remained undeveloped. At this time, the dirt road extended from Glenwood Avenue nearly all the way to Lower Emerald Lake, paralleling the creek. By 1954, Canyon Lane clearly curved towards its termination at Vista Drive. Aerial imagery from 2002 shows increased development surrounding Canyon Lane, approximating the current residential density north and south of the road.

3339 Oak Knoll Drive

One privately owned parcel (APN 057-221-130; 3339 Oak Knoll Drive, Redwood City [unincorporated]) located outside of the project area but adjacent to the proposed water main and roadway improvements, contains a building constructed in 1938, according to County of San Mateo Assessor's Office records. Although not formally recorded as such, this building is considered a historic built environment resource based on its age (more than 50 years). The building does not appear on aerial photographs until 1968, and does not appear on topographic maps until 1961; however, SWCA defers to the County's information regarding its date of construction (1938).

Native American Outreach

The NAHC responded to the County's request on January 10, 2019, indicating that the results of the search were negative (Appendix B). The NAHC identified six local tribal contacts of the following affiliations:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the SF Bay Area
- The Ohlone Indian Tribe

The County received no response to the letters sent to these NAHC-listed contacts and the one additional contact from the Amah Mutsun Tribal Band.

Pedestrian Survey

SWCA conducted an intensive pedestrian survey on February 6, 2019, of the proposed Canyon Lane improvements, including the locations of the proposed roadway improvements and water main as well as the merged parcel currently proposed for the development of a single-family residence (defined as the survey area; see Figure 5 through Figure 7). A total of 2.68 acres were surveyed using pedestrian transects spaced at a maximum of 10 m. One resource was identified during the survey: Canyon Lane (temporary

site number CL-01), recorded as a historic linear resource. No other resources were observed within the survey area.

Figure 5. Overview of project area showing Canyon Lane from entrance on Glenwwod Avenue; view to west.

Figure 6. Typical vegetation and slope on merged parcel 057-222-290/057-222-300 (proposed single-family residence development); view to northeast.

Figure 7. Cleared area at the head of tributary gulch at southern end of proposed water main; view to north.

Ground visibility was generally poor across the area, typically less than 10 percent, due to the ubiquitous presence of live vegetation and leaf litter. However, there were patches where up to 50 percent of the ground surface was visible. Visibility along the roadway was 100 percent. In some instances, transects were rerouted around stands of very dense brush.

One sparse historic artifact scatter was noted near the southern end of the proposed water line, outside of the boundary of the project area and cultural resources survey area. Artifacts observed include approximately six complete or mostly complete glass bottles of historic age, three tin cans, broken container glass fragments, and ceramic tile and porcelain fragments as well as saw-cut animal bones. This resource was not recorded because it is located outside the project area and will not be impacted by the proposed project.

Canyon Lane (Temporary Site Number CL-01)

Canyon Lane (temporary site number CL-01) is a Historic-period road constructed between 1940 and 1948 identified through desktop review of historic maps and aerial imagery and recorded during the pedestrian survey (Figure 8). Canyon Lane is an approximately 10-foot-wide gravel roadway that begins at Glenwood Avenue (an improved public roadway located within the city of Redwood City) and extends west approximately 550 feet before crossing into the jurisdictional boundary of the county. The total length of the road within the project area is 999.45 feet. The research potential of this resource has been exhausted by its recording during the cultural resources technical study conducted for the proposed project, and few meaningful conclusions can be drawn from further study. The resource does not appear to meet the minimum criteria to be considered eligible for the CRHR under Criteria 1 through 4 and does not represent a unique archaeological resource. Therefore, SWCA recommends that Canyon Lane is ineligible for listing in the CRHR and that no further work is required.

Figure 8. Canyon Lane from entrance on Glenwwod Avenue; view to west.

DISCUSSION AND RECOMMENDATIONS

The records search identified two previously recorded archaeological sites (CA-SMA-304 and CA-SMA-394) and one undocumented archaeological site within 0.5 mile of the project area; none of these sites are located within the project area itself. As previously discussed, prehistoric habitation debris, hearths, and pits were recorded in 1976 at both CA-SMA-304 and CA-SMA-394; burials were documented at CA-SMA-394. These archaeological resources are probably the two shell mounds studied by Nelson in the earliest years of the twentieth century and mentioned by Font in 1776. These three known archaeological resources are located well outside the project area and will not be impacted by the proposed project.

SWCA's review of historic maps and aerial photographs identified one unrecorded historic built environment resource located outside of the project area but adjacent to the proposed water main and roadway improvements. The privately owned parcel at 3339 Oak Knoll Drive, Redwood City, (unincorporated; APN 057-221-130), contains a building constructed in 1938 according to County of San Mateo Assessor's Office records. Although not formally recorded as such, this building is considered a historic built environment resource based on its age (more than 50 years). Although the proposed water main would be constructed adjacent to the southern boundary of this parcel, no project-specific indirect impacts to this resource are anticipated. Existing trees and vegetation will screen any construction noise and dust.

SWCA recorded the existing Canyon Lane as a historic linear resource during the cultural resources pedestrian survey based on its presence on historic maps and aerial photographs as early as 1948. SWCA evaluated this linear resource for eligibility for the CRHR and recommends it ineligible for listing because it does not meet any of the four eligibility criteria. As such, Canyon Lane is not a historical resource for the purposes of CEQA.

The pedestrian survey noted the presence of a concentration of apparently historic refuse outside the cultural resources survey area, near the southern end of the water line corridor. This unrecorded resource will not be impacted by the proposed project because it is located outside the project area.

In conclusion, no historical resources or unique archaeological resources as defined by CEQA were identified within the project area, and no further cultural resources work is recommended at this time.

In the event that cultural resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under the provisions of CEQA, additional work such as testing or data recovery may be warranted.

The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to California PRC Section 5097.98. The San Mateo County Coroner must be notified of the find immediately, and all work shall cease in the immediate vicinity of the find. If the human remains are determined to be ancient or likely Native American, the coroner will notify the NAHC, which will designate and notify a Native American Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials.

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APPENDIX A

Records Search Results Summary

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

1/24/2019 NWIC File No.: 18-1342

Alex Wesson
SWCA Environmental Consultants
51 W. Dayton Street
Pasadena, CA 91105

re: Canyon Lane EIR, SWCA Project #50073

The Northwest Information Center received your record search request for the project area referenced above, located on the Woodside & Palo Alto USGS 7.5' quads. The following reflects the results of the records search for the project area and a 0.5 mile radius:

Resources within project area:	None
Resources within 0.5 mile radius:	P-41-000447 & 002242; C-156 (C#s are assigned to unrecorded resources).
Reports within project area:	S-3044. S-39064 may have included a very small part of the project area.
Reports within 0.5 mile radius:	S-35355, 40929, & 43506.

Resource Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☒ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☒ enclosed	☐ not requested	☐ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☐ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☐ not requested	☐ nothing listed
Historical Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☐ not requested	☒ nothing listed
GLO and/or Rancho Plat Maps:	☒ enclosed	☐ not requested	☐ nothing listed

Shipwreck Inventory: ☐ enclosed ☒ not requested ☐ nothing listed

*Notes:
** Current versions of these resources are available on-line:
Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA
Shipwreck Inventory: http://www.slc.ca.gov/Info/Shipwrecks.html
The ethnographic & historical literature on file are published documents.

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel
Researcher

APPENDIX B

Native American Heritage Commission Correspondence

This page has been redacted due to confidential information

APPENDIX C

Department of Parks and Recreation 523 Series Forms