

**ATTACHMENT C3**  
*Cultural Resources Inventory Report*



**Cultural Resources Inventory Report  
for  
Addendum No. 3 to the North San Diego Water Reuse  
Coalition Regional Recycled Water Project Program  
Environmental Impact Report  
(State Clearinghouse No. 2014081028)**

*Prepared for:*

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**JULY 2018**



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## ACRONYMS AND ABBREVIATIONS

APE	area of potential effects
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
City	City of Oceanside
CRHR	California Register of Historical Resources
MLD	most likely descendent
MM	mitigation measure
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
PEIR	Program Environmental Impact Report
PRC	California Public Resources Code
project	Addendum No. 3 to the North San Diego Water Reuse Coalition Regional Recycled Water Project Final Program Environmental Impact Report
RWP	Regional Recycled Water Project

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### NATIONAL ARCHAEOLOGICAL DATABASE (NADB) INFORMATION

**Authors:** Matthew DeCarlo, MA; Brad Comeau, MSc, RPA; Micah J. Hale, PhD, RPA

**Firm:** Dudek

**Project Proponent:** City of Oceanside

**Report Date:** July 2018

**Report Title:** Cultural Resources Inventory Report for Addendum No. 3 to the North San Diego Water Reuse Coalition Regional Recycled Water Project Program Environmental Impact Report (State Clearinghouse No. 2014081028)

**Type of Study:** Cultural Resources Inventory

**Resources:** CA-SDI-6136, CA-SDI-11970, CA-SDI-12241, CA-SDI-12262, CA-SDI-14784, CA-SDI-13744, CA-SDI-17549

**USGS Quads:** Morro Hill, CA (1968), San Luis Rey, CA (1997);  
Township 10 South, Range 4 West, Sections: 23, 26, 27, 33, 34, and 35;  
Township 11 South, Range 4 West, Sections: 3–8, 15–22, and 28–30

**Acreage:** 627

**Permit Numbers:** N/A

**Keywords:** San Luis Rey River; Luiseño; intensive pedestrian survey; bedrock milling station; handstone; millingstone; biface; flakedstone tool; prehistoric, isolate, CA-SDI-6136, CA-SDI-11970, CA-SDI-12241, CA-SDI-12262, CA-SDI-14784, CA-SDI-13744, CA-SDI-17549

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## MANAGEMENT SUMMARY

The City of Oceanside (City) proposes a series of projects to expand tertiary recycled water treatment capacity at the San Luis Rey Waste Water Treatment Plant. These projects are components of the North San Diego Water Reuse Coalition Regional Recycled Water Project (RWP) Program Environmental Impact Report (PEIR); the Final RWP PEIR was certified by Olivenhain Municipal Water District (the lead agency) in October 2015 (North San Diego Water Reuse Coalition 2015a). The City adopted two addendums to the RWP PEIR in February 2016 and April 2017, addressing modifications to the RWP. The City is now proposing another addendum (Addendum No. 3) to the RWP PEIR to address additional minor changes to the locations and sizes of proposed pipelines and facilities within the City. The City contracted Dudek to prepare Addendum No. 3 for the RWP PEIR (project). As a requirement of mitigation measure MM 3.5-2a from the RWP PEIR (North San Diego Water Reuse Coalition 2015b), a cultural resources inventory was conducted for Addendum No. 3 to the RWP PEIR. The City is the lead agency responsible for compliance with the California Environmental Quality Act for the current project.

The cultural resources inventory included seven facilities: Morro Heights Reservoir, Morro Heights Pump Station, Fire Mountain Reservoir, Fire Mountain Pump Station, Mesa Pump Station, Old Grove Reservoir, and Old Grove Pump Station. The proposed project would also include installation of 24 pipeline alignments: L1B, L2B, L3, L4B, L8, L9A, L10, L11A, L12, L15B, L17, L18, L19, U1, U2, U3, U5, U7, U8, U9, U12, U13, U14, and U15. The area of potential effects (APE) for the cultural resources inventory encompasses 627 acres spread throughout the City of Oceanside.

This inventory included a records search of data obtained from the South Coastal Information Center at San Diego State University. The records search found that 436 studies were conducted within 1 mile of the project's APE, and 92 of these studies cover portions of the project's APE (i.e., within the APE). These previous studies identified 178 cultural resources within 1 mile of the project APE, seven of which are located within the APE.

A survey of the project's APE was conducted on December 27, 2017, and May 29, 2018. The APE is located in a highly developed area and it was determined prior to field work that survey of the entire APE would be unnecessary. Large portions of the APE are covered by buildings, pavement, and landscaping, obscuring any remnants of archaeological sites that may be present. The survey team first conducted a reconnaissance survey of the entire APE in a motor vehicle. This allowed the survey team to assess the APE and earmark less developed portions of the APE, which then underwent intensive pedestrian survey. The survey team then revisited previously identified resources within the APE, but did not identify any new resources.

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Of the seven cultural resources previously identified within the project APE, two have been demolished (CA-SDI-11970 and CA-SDI-17549), two are located outside of the proposed work areas and can be avoided (CA-SDI-12241 and CA-SDI-13744), and two were determined to be inaccurately mapped and located outside of the project APE. At the final resource (CA-SDI-12262), subsurface observations suggested that no undisturbed sediments or cultural materials are present within the site boundary within the APE. If the City commits to avoiding the extant resources within the project APE, the current project would not impact any known resources.

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## 1 PROJECT DESCRIPTION AND LOCATION

The City of Oceanside (City) proposes a series of projects to expand tertiary recycled water treatment capacity at the San Luis Rey Waste Water Treatment Plant and create two distribution systems, referred to as the Lower San Luis Rey Water Reclamation Facility and Upper San Luis Rey Water Reclamation Facility. These projects are components of the North San Diego Water Reuse Coalition Regional Recycled Water Project (RWP) Final Program Environmental Impact Report (PEIR). The RWP PEIR was certified by Olivenhain Municipal Water District (the lead agency) in October 2015 (North San Diego Water Reuse Coalition 2015a). Since then the City adopted two addendums to the RWP PEIR—in February 2016 and April 2017—to address minor technical changes, to create a Mitigation and Monitoring Reporting Program (MMRP), and to create a California Environmental Quality Act (CEQA) Findings of Fact and Statement of Overriding Considerations for the City’s recycled water program. The City is now proposing another addendum (Addendum No. 3) to the RWP PEIR to address minor changes to the locations and sizes of proposed pipelines and facilities (proposed modifications). The City is the lead agency responsible for compliance with CEQA for Addendum No. 3 to the RWP PEIR (project). The City contracted Dudek to prepare the current addendum for the RWP PEIR. As a requirement of mitigation measure (MM) 3.5-2a from the RWP PEIR (North San Diego Water Reuse Coalition 2015b), a cultural resources inventory was conducted for the project’s area of potential effects (APE).

The design phase of the project includes seven facilities: Morro Heights Reservoir, Morro Heights Pump Station, Fire Mountain Reservoir, Fire Mountain Pump Station, Mesa Pump Station, Old Grove Reservoir, and Old Grove Pump Station. The project would also include installation of 24 pipeline alignments: L1B, L2B, L3, L4B, L8, L9A, L10, L11A, L12, L15B, L17, L18, L19, U1, U2, U3, U5, U7, U8, U9, U12, U13, U14, and U15. The proposed project components are spread throughout the City of Oceanside (see Figures 1a through 1d, Project Location). The 627-acre APE is located on the Morro Hill and San Luis Rey, California U.S. Geological Survey quadrangles. The APE consists of the project footprints of all proposed project facilities, temporary work areas, and all pipeline routes (see Figures 2a through 2j, APE). To ensure that any adjacent archaeological resources are identified, the APE includes a 100-foot buffer surrounding the proposed pipeline routes. Large portions of the APE are located within highly developed areas, and preferential placement of the pipeline is within existing utility corridors and paved roadways. In compliance with MM 3.5-2a of the RWP PEIR (North San Diego Water Reuse Coalition 2015b), a pedestrian survey has been deemed unnecessary in highly developed areas of the APE with no visible native ground (see Section 3, Methods). The entire APE was subject to a reconnaissance survey in a vehicle so that less-developed areas could be identified and earmarked for pedestrian survey.

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This report documents the results of the archaeological resources inventory for the proposed project, including a records search, reconnaissance vehicle survey, pedestrian survey, resource documentation, and Native American participation. The goal of this inventory is to provide data to the City of Oceanside to aid in the management of archaeological resources during implementation of the project.

## **1.1 Regulatory Context**

This project is subject to state and local regulations regarding cultural resources. The following section provides a summary of the applicable regulations, policies, and guidelines relating to the proper management of cultural resources for this project.

### **1.1.1 California Register of Historical Resources**

In California, per the California Public Resources Code (PRC) the term “cultural resource” includes “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (PRC Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s cultural resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1(a)). A resource is eligible for listing in the CRHR if the State Cultural Resources Commission determines that it is a significant resource and that it meets any of the following criteria (PRC Section 5024.1(c)):

1. Associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. 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, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Per the California Code of Regulations (CCR), resources less than 50 years old are not considered for listing in the CRHR, but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (see 14 CCR, Section 4852(d)(2)).

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The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the National Register of Historic Places (NRHP), and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local cultural resource surveys. The State Historic Preservation Office maintains the CRHR.

### **1.1.2 Native American Historic Cultural Sites**

The Native American Historic Resources Protection Act (PRC Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites, and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission (NAHC) to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

### **1.1.3 California Native American Graves Protection and Repatriation Act**

The California Native American Graves Protection and Repatriation Act, enacted in 2001, required all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of those remains and items on or before January 1, 2003, with certain exceptions. The California Native American Graves Protection and Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

### **1.1.4 California Environmental Quality Act**

As described further below, the following CEQA statutes and CEQA Guidelines are relevant to the analysis of archaeological and historic resources:

- PRC Section 21083.2(g) defines “unique archaeological resource.”
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define cultural resources. In addition, CEQA Guidelines Section 15064.5(b) defines the phrase “substantial adverse change” in the significance of a cultural resource. It also defines the circumstances when a project would materially impair the significance of a cultural resource.
- PRC Section 21074 (a): defines “tribal cultural resources” and Section 21074(b) defines a “cultural landscape.”

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- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b)–(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation measures. Preservation-in-place is identified as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant impact on the environment if it may cause “a substantial adverse change in the significance of an [sic] cultural resource” (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). A “cultural resource” is any site listed or eligible for listing in the CRHR. The term “cultural resource” also includes any site described in a local register of historic resources, or identified as significant in a cultural resources survey (meeting the requirements of PRC Section 5024.1(q)).

CEQA also applies to “unique archaeological resources.” PRC Section 21083.2(g) defines a “unique archaeological resource” as any 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.

In 2014, CEQA was amended through Assembly Bill 52 to apply to “tribal culture resources” as well. Specifically, PRC Section 21074 provides guidance for defining 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 Cultural Resources or (B) included in a local register of cultural resources as defined in subdivision (k) of §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

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subdivision (c) of §5024.1. In applying the criteria set forth in subdivision (c) of §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe. A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

All cultural resources and unique archaeological resources—as defined by statute—are presumed to be historically or culturally significant for the purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5(a)). The lead agency is not precluded from determining that a resource is a cultural resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5(a)). A site or resource that does not meet the definition of a “cultural resource” or “unique archaeological resource” is not considered significant under CEQA and need not be analyzed further (PRC Section 21083.2(a); 14 CCR 15064.5(c)(4)).

Under CEQA, a significant cultural impact results from a “substantial adverse change in the significance of an [sic] cultural resource [including a unique archaeological resource]” due to the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an cultural resource would be materially impaired” (14 CCR 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a cultural resource is materially impaired when a project (14 CCR 15064.5(b)(2)):

1. Demolishes or materially alters in an adverse manner those physical characteristics of an cultural resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of cultural resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an cultural resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a cultural resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

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Pursuant to these sections, CEQA first evaluates whether a project site contains any “cultural resources,” then assesses whether that project would cause a substantial adverse change in the significance of a cultural resource such that the resource’s historical significance is materially impaired.

When a project significantly affects a unique archaeological resource, CEQA imposes special mitigation requirements. Specifically (PRC Sections 21083.2(b)(1)–21083.2(b)(4)):

[i]f it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

1. Planning construction to avoid archaeological sites.
2. Deeding archaeological sites into permanent conservation easements.
3. Capping or covering archaeological sites with a layer of soil before building on the sites.
4. Planning parks, greenspace, or other open space to incorporate archaeological sites.

If “preservation in place” options are not feasible, mitigation may be accomplished through data recovery (PRC Section 21083.2(d); 14 CCR 15126.4(b)(3)(C)). PRC Section 21083.2(d) states that:

[e]xcavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report.

These same requirements are set forth in slightly greater detail in CEQA Guidelines Section 15126.4(b)(3), as follows (14 CCR 15126.4(b)(3)):

- A. Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between

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artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

- B. Preservation in place may be accomplished by, but is not limited to, the following:
1. Planning construction to avoid archaeological sites;
  2. Incorporation of sites within parks, greenspace, or other open space;
  3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site[; and]
  4. Deeding the site into a permanent conservation easement.
- C. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the cultural resource, shall be prepared and adopted prior to any excavation being undertaken.

Note that, when conducting data recovery, “[i]f an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation” (14 CCR 15126.4(b)(3)). However, “[d]ata recovery shall not be required for an cultural resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historic resource, provided that determination is documented in the EIR and that the studies are deposited with the California Cultural resources Regional Information Center” (14 CCR 15126.4(b)(3)(D)).

Finally, CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are set forth in PRC Section 5097.98.

### **1.1.5 California Health and Safety Code Section 7050.5**

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the county coroner has examined the remains (California Health and Safety Code, Section 7050.5b). If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (California Health and Safety Code Section 7050.5c). The NAHC will notify the most likely descendent (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within

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48 hours of the MLD being granted access to the site. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

### **1.1.6 City of Oceanside Historic Preservation Ordinance**

Chapter 14A of the City of Oceanside Municipal Code, referred to as the Historic Preservation Ordinance, identifies evaluation criteria under which a historical site or area may be designated (Section 14A.6, Ordinance No. 82-14, Section 1, 9-8-82):

- a) It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, or architectural history; or
- b) It is identified with persons or events significant in local, state, or national history; or
- c) It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
- d) It is representative of the notable work of a builder, designer, or architect; or
- e) It is found by the council to have significant characteristics which should come under the protection of this chapter.

### **1.2 Project Personnel**

Brad Comeau, MSc, RPA, served as principal investigator and co-authored this technical report. Matthew DeCarlo, MA, served as project manager and co-authored this technical report. Scott Wolf and Patrick Hadel served as field leads (see Appendix A, Project Personnel Qualifications). Kenny Teter of Saving Sacred Sites participated in the survey and geotechnical exploration as a Native American monitor.

### **1.3 Report Structure**

Following this introduction, a cultural and environmental context is provided for characterizing cultural resources. Next, archival research and survey methods are reviewed. A description of the archival research and survey results follow. Recommendations and management considerations complete this report. Two sets of appendices (confidential and non-confidential) are attached. The non-confidential appendix is Appendix A, Project Personnel Qualifications. The confidential appendices consist of Appendix B, Records Search Documents; Appendix C, NAHC Sacred Lands File Search and Tribal Correspondence; Appendix D, DPR Site Record Updates; and Appendix E, Resource Location Maps.

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## **2 PROJECT BACKGROUND**

### **2.1 Natural Setting**

The project site extends from its southwestern boundary at the proposed Fire Mountain Reservoir facility located between Loma Alta and Buena Vista Creeks, to its northeastern boundary at pipeline U12 near Morro Hill (see Figures 1a through 1d). The elevation of the project site ranges from approximately 100 feet above mean sea level near the crossing of San Luis Rey River by pipeline L1B to nearly 900 feet above mean sea level at pipeline U12. Topography of the project site ranges from generally flat mesa terraces to riparian riverbeds. Large segments of the project are planned within existing developed areas and paved roads, but some segments would traverse undeveloped open space.

### **2.2 Cultural Setting**

Evidence for continuous human occupation in the San Diego County region spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad time frame have led to the development of several cultural chronologies; some of these are based on geologic time, most are based on temporal trends in archaeological assemblages, and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. This research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre-5500 BC), Archaic (8000 BC–AD 500), Late Prehistoric (AD 500–1769), and Ethnohistoric (post-AD 1769).

#### **2.2.1 Paleoindian (pre-5500 BC)**

Evidence in coastal Southern California for Paleoindian occupation is tenuous, especially considering that the oldest dated archaeological assemblages look nothing like the Paleoindian artifacts from the Great Basin. One of the earliest dated archaeological assemblages in coastal Southern California (excluding the Channel Islands) derives from SDI-4669/W-12, in La Jolla. A human burial from SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (95.4% probability) (Hector 2007). The burial is part of a larger site complex that contained more than 29 human burials associated with an assemblage that fits the Archaic profile (i.e., large amounts of groundstone, battered cobbles, and expedient flake tools). In contrast, typical Paleoindian assemblages include large-stemmed projectile points, high proportions of formal lithic tools, bifacial lithic reduction strategies, and relatively small proportions of groundstone tools. Prime examples of this pattern are sites that were studied by Emma Lou Davis (1978) on China Lake Naval Air Weapons Station near Ridgecrest, California. These sites contained fluted and unfluted

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stemmed points and large numbers of formal flake tools (e.g., shaped scrapers, blades). Other typical Paleoindian sites include the Komodo site (MNO-679)—a multicomponent fluted point site—and MNO-680—a single component Great Basined Stemmed point site (Basgall et al. 2002). At MNO-679 and MNO-680, groundstone tools were rare and finely made projectile points were common.

Some of the earliest dated assemblages in coastal Southern California are dominated by processing tools, which runs counter to traditional notions of mobile hunter/gatherers traversing the landscape for highly valued prey. Evidence for the latter—that is, typical Paleoindian assemblages—may have been located along the coastal margin at one time, prior to glacial desiccation and a rapid rise in sea level during the early Holocene (pre-7500 BP) that submerged as much as 1.8 kilometers of the San Diego coastline. If this were true, however, it would also be expected that such sites would be located on older landforms near the current coastline. Some sites, such as SDI-210 along Agua Hedionda Lagoon, contained stemmed points similar in form to Silver Lake and Lake Mojave projectile points (pre-8000 BP) that are commonly found at sites in California's high desert (Basgall and Hall 1990). SDI-210 yielded one corrected radiocarbon date of 8520–9520 BP (Warren et al. 2004). However, sites of this nature are extremely rare and cannot be separated from large numbers of milling tools that intermingle with old projectile point forms.

Warren et al. (2004) claimed that a biface manufacturing tradition present at the Harris site complex (SDI-149) is representative of typical Paleoindian occupation in the San Diego region that possibly dates to between 10,365 and 8200 BC (Warren et al. 2004, p. 26). Termed San Dieguito (Rogers 1945), assemblages at the Harris site are qualitatively distinct from most others in the San Diego region because the site has large numbers of finely made bifaces (including projectile points), formal flake tools, a biface reduction trajectory, and relatively small amounts of processing tools (Warren 1964, 1968). Despite the unique assemblage composition, the definition of San Dieguito as a separate cultural tradition is hotly debated. Gallegos (1987) suggested that the San Dieguito pattern is simply an inland manifestation of a broader economic pattern. Gallegos' interpretation of San Dieguito has been widely accepted in recent years, in part because of the difficulty in distinguishing San Dieguito components from other assemblage constituents. In other words, it is easier to ignore San Dieguito as a distinct socioeconomic pattern than it is to draw it out of mixed assemblages.

The large number of finished bifaces (i.e., projectile points and non-projectile blades), along with large numbers of formal flake tools at the Harris site complex, is very different than nearly all other assemblages throughout the San Diego region, regardless of age. Warren et al. (2004) made this point, tabulating basic assemblage constituents for key early Holocene sites. Producing finely made bifaces and formal flake tools implies that relatively large amounts of time were spent for tool manufacture. Such a strategy contrasts with the expedient flake-based tools and

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cobble-core reduction strategy that typifies non-San Dieguito Archaic sites. It can be inferred from the uniquely high degree of San Dieguito assemblage formality that the Harris site complex represents a distinct economic strategy from non-San Dieguito assemblages.

If San Dieguito truly represents a distinct socioeconomic strategy from the non-San Dieguito Archaic processing regime, its rarity implies that it was not only short-lived, but that it was not as economically successful as the Archaic strategy. Such a conclusion would fit with other trends in Southern California deserts, wherein hunting-related tools are replaced by processing tools during the early Holocene (Basgall and Hall 1990).

### **2.2.2 Archaic (8000 BC–AD 500)**

The more than 1,500-year overlap between the presumed age of Paleoindian occupations and the Archaic period highlights the difficulty in defining a cultural chronology in the San Diego region. If San Dieguito is the only recognized Paleoindian component in the San Diego region, then the dominance of hunting tools implies that it derives from Great Basin adaptive strategies and is not necessarily a local adaptation. Warren et al. (2004) admitted as much, citing strong desert connections with San Dieguito. Thus, the Archaic pattern is the earliest local socioeconomic adaptation in the San Diego region (Hale 2001, 2009).

The Archaic pattern is relatively easy to define, with assemblages that consist primarily of processing tools: millingstones, handstones, battered cobbles, heavy crude scrapers, incipient flake-based tools, and cobble-core reduction. These assemblages occur in all environments across the San Diego region, with little variability in tool composition. Low assemblage variability over time and space among Archaic sites has been equated with cultural conservatism (Byrd and Reddy 2002; Warren 1968; Warren et al. 2004). Despite enormous amounts of archaeological work at Archaic sites, little change in assemblage composition occurs until the bow and arrow is adopted at around AD 500, and ceramics at approximately the same time (Griset 1996; Hale 2009). Even then, assemblage formality remains low. After the bow is adopted, small arrow points appear in large quantities, and already low amounts of formal flake tools are replaced by increasing amounts of expedient flake tools. Similarly, shaped millingstones and handstones decrease in proportion relative to expedient, unshaped groundstone tools (Hale 2009). Thus, the terminus of the Archaic period is equally as hard to define as its beginning because basic assemblage constituents and patterns of manufacturing investment remain stable, complimented only by the addition of the bow and ceramics.

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### **2.2.3 Late Prehistoric (AD 500–1769)**

The period following the Archaic and prior to Ethnohistoric times (AD 1769) is commonly referred to as the Late Prehistoric (Rogers 1945; Wallace 1955; Warren et al. 2004). However, several other subdivisions continue to be used to describe various shifts in assemblage composition, including the addition of ceramics and cremation practices. In northern San Diego County, the post-AD 1450 period is called the San Luis Rey Complex (True 1980), while the same period in southern San Diego County is called the Cuyamaca Complex and is thought to extend from AD 500 until Ethnohistoric times (Meighan 1959). Rogers (1929) also subdivided the last 1,000 years into the Yuman II and III cultures based on the distribution of ceramics. Despite these regional complexes, each is defined by the addition of arrow points and ceramics, and the widespread use of bedrock mortars. Variations in the appearance of the bow and arrow and ceramics make the temporal resolution of the San Luis Rey and Cuyamaca complexes difficult. For this reason, the term “Late Prehistoric” is well-suited to describe the last 1,500 years of prehistory in the San Diego region.

Temporal trends in socioeconomic adaptations during the Late Prehistoric period are poorly understood. This is partly because the fundamental Late Prehistoric assemblage is similar to the Archaic pattern, but includes arrow points and large quantities of fine debitage from producing arrow points, ceramics, and cremations. The appearance of mortars and pestles is difficult to place in time because most mortars are on bedrock surfaces; bowl mortars are actually rare in the San Diego region. Some argue that the Ethnohistoric intensive acorn economy extends as far back as AD 500 (Bean and Shipek 1978). However, there is no substantial evidence that reliance on acorns, and the accompanying use of mortars and pestles, occurred prior to AD 1400. True (1980) argued that acorn processing and ceramic use in the northern San Diego region did not occur until the San Luis Rey pattern emerged after approximately AD 1450. For southern San Diego County, the picture is less clear. The Cuyamaca Complex is the southern counterpart to the San Luis Rey pattern, and is most recognizable after AD 1450 (Hector 1984). Similar to True (1980), Hale (2009) argued that an acorn economy did not appear in the southern San Diego region until just prior to Ethnohistoric times, and that when it did occur, a major shift in social organization followed.

### **2.2.4 Ethnohistoric (post-AD 1769)**

The history of the Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the San Diego region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and

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were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered cultural groups. The establishment of the missions in the San Diego region brought more extensive documentation of Native American communities, although these groups did not become the focus of formal, in-depth ethnographic study until the early 20th century (Bean and Shipek 1978; Boscana 1846; Fages 1937; Geiger and Meighan 1976; Harrington 1934; Laylander 2000; Sparkman 1908; White 1963). The principal intent of these researchers was to record the precontact, culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as “salvage ethnography,” was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his “memory culture” approach (Lightfoot 2005:32) by recording languages and oral histories within the San Diego region. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early 20th century seemed to indicate that traditional cultural practices and beliefs survived among local Native American communities. These accounts supported, and were supported by, previous governmental decisions that made San Diego County the location of more federally recognized tribes than anywhere else in the United States: 18 tribes on 18 reservations that cover more than 116,000 acres (CSP 2009).

Even though there were many informants for these early ethnographies who were able to provide information from personal experiences about native life before the Europeans, a significantly large proportion of these informants were born after 1850 (Heizer and Nissen 1973); therefore, the documentation of precontact, aboriginal culture was being increasingly supplied by individuals born in California after considerable contact with Europeans. As Robert F. Heizer (1978) stated, this is an important issue to note when examining these ethnographies, since considerable culture change had undoubtedly occurred by 1850 among the Native American survivors of California.

The traditional cultural boundaries between the Luiseño and Kumeyaay Native American tribal groups have been well defined by anthropologist Florence C. Shipek (1993 summarized by the San Diego County Board of Supervisors, County of San Diego 2007:6):

In 1769, the Kumeyaay national territory started at the coast about 100 miles south of the Mexican border (below Santo Tomas), thence north to the coast at the drainage divide south of the San Luis Rey River including its tributaries. Using the U.S. Geological Survey topographic maps, the boundary with the Luiseño then follows that divide inland. The boundary continues on the divide separating Valley Center from Escondido and then up along Bear Ridge to the 2240 contour line and then

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north across the divide between Valley Center and Woods Valley up to the 1880-foot peak, then curving around east along the divide above Woods Valley.

Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006:34). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007:71). The Native American inhabitants of the region of the proposed project (Oceanside) would have generally spoken a Luiseño variety of Takic, although they would have had likely come into regular contact with the Ipai-speaking northern Kumeyaay.

Victor Golla has contended that the amount of variability within specific language groups can be interpreted as being associated with the relative “time depth” of the speaking populations (Golla 2007:80). A large amount of variation within the language of a group represents a greater time depth than language with less internal diversity. One method that Golla has employed is drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla has observed that the “absolute chronology of the internal diversification within a language family” can be correlated with archaeological dates (Golla 2007:71). This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences.

Golla suggests that there are two language families associated with Native American groups who traditionally lived throughout the San Diego County region. The northern San Diego tribes have traditionally spoken Takic languages that may be assigned to the larger Uto–Aztecan family (Golla 2007:74). These groups include the Luiseño, Cupeño, and Cahuilla. Golla has interpreted the amount of internal diversity within these language-speaking communities to reflect a time depth of approximately 2,000 years. Other researchers have contended that Takic may have diverged from Uto–Aztecan circa 2600 BC–AD 1, which was later followed by the diversification within the Takic-speaking San Diego region tribes, occurring approximately 1500 BC–AD 1000 (Laylander 2010). The Luiseño are linguistically and culturally related to the Gabrielino, Cupeño, and Cahuilla, and represent the descendants of local Late Prehistoric populations. They are generally considered to have migrated into the area from the Mojave Desert, possibly displacing the prehistoric ancestors of the Yuman-speaking Kumeyaay (Ipai-Tipai) who lived directly to the south during Ethnohistoric times. Luiseño territory encompassed an area roughly from what is now Agua Hedionda Creek on the coast, east to Lake Henshaw, north to Lake Elsinore, and west through San Juan Capistrano to the coast (Bean and Shippek 1978; Kroeber 1925). The Luiseño shared boundaries with the Gabrielino and Serrano to the west and northwest, the Cahuilla from the deserts to the east, the Cupeño to the southeast, and the Kumeyaay to the south. Southern Native American tribal groups of the San Diego region

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have traditionally spoken Yuman languages, a subgroup of the Hokan Phylum. Golla has suggested that the time depth of Hokan is approximately 8,000 years (Golla 2007:74). The Kumeyaay tribal communities share a common language group with the Cocopa, Quechan, Maricopa, Mojave, and others to east, and the Kiliwa to the south. The time depth for both the Ipai (north of the San Diego River, from Escondido to Lake Henshaw) and the Tipai (south of the San Diego River, the Laguna Mountains through Ensenada) is approximated to be 2,000 years at the most. Laylander has contended that previous research indicates a divergence between Ipai and Tipai to have occurred approximately AD 600–1200 (Laylander 1985). Despite the distinct linguistic differences between the Takic-speaking tribes to the north, the Ipai-speaking communities in central San Diego, and the Tipai southern Kumeyaay, attempts to illustrate the distinctions between these groups based solely on cultural material alone have had only limited success (Pigniolo 2004; True 1966).

The Uto–Aztecan inhabitants of the northern San Diego County region were called Luiseños by Franciscan friars, who named the San Luis Rey River and established the San Luis Rey Mission in the heart of Luiseño territory. Luiseño population estimates at the time of Spanish contact range from 3,000 to 4,000 (Kroeber 1925) to upward of 10,000 (White 1963). In either case, the arrival of the Spanish undoubtedly decimated native peoples through disease and changed living conditions (Bean and Shipek 1978).

The Luiseño were organized into patrilineal clans or bands of 25 to 30 people centered on a chief (Kroeber 1925). Each band had its own territorial land or range where food and other resources were collected at different locations throughout the year (Sparkman 1908). The title of chief was heritable along family lines. Inter-band conflict was most common over trespassing. Sparkman observed that “when questioned as to when or how the land was divided and sub-divided, the Indians say they cannot tell, that their fathers told them that it had always been thus” (Sparkman 1908). Place names were assigned to each territory, often reflecting common animals, plants, physical landmarks, or cosmological elements that were understood as being related to that location. Marriages were generally arranged by parents or guardians. Free and widowed women had the option to choose their partner. Polygamy occurred, although was not common, often with a single man marrying a number of sisters. Shamanism was a major component in tribal life. The physical body and its components was thought to be related to the power of an individual, and wastes such as fluids, hair, and nails were discarded with intent. Hair, once cut, was often carefully collected and buried to avoid being affected negatively or controlled by someone who wishes them harm. Some locations and natural resources were of cultural significance. Springs and other water-related features were thought to be related with spirits. These resources, often a component of origin stories, had power that came with a variety of risks and properties to those who became affected. Puberty ceremonies for both boys and girls were complex and rigorous.

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Mourning ceremonies were similar throughout the region, generally involving cutting of the hair, burning of the deceased's clothes a year after death, and redistribution of personal items to individuals outside of the immediate tribal group (Kroeber 1925; Sparkman 1908).

The staple food of the Luiseños during the ethnohistoric period was acorns (Sparkman 1908). Of the at least six oak species within this tribal group's traditional territory, the most desirable of these was black oak (*Quercus kelloggii*) due to its ease of processing, protein content, and digestibility. Acorns were stored in granaries to be removed and used as needed. The acorns were generally processed into flour using a mortar and pestle. The meal was most commonly leached with hot water and the use of a rush basket, but there are also accounts of placing meal into excavated sand-and-gravel pits to allow the water to drain naturally. The acorn was then prepared in a variety of ways, although often with the use of an earthen vessel (Sparkman 1908). Other edible and medicinal plants of common use included wild plums, choke cherries, Christmas berry, gooseberry, elderberry, willow, *Juncus*, buckwheat, lemonade berry, sugar bush, sage scrub, currants, wild grapes, prickly pear, watercress, wild oats, and other plants. More arid plants such as *Yucca*, *Agave*, mesquite, chia, bird-claw fern, *Datura*, yerba santa, *Ephedra*, and cholla were also of common use by some Luiseño populations. A number of mammals were commonly eaten. Game animals included back-tailed deer, antelope, rabbits, hares, birds, ground squirrels, woodrats, bears, mountain lions, bobcats, coyotes, and others. In lesser numbers, reptiles and amphibians may have been consumed. Fish and marine resources provided food for some portion of many tribal communities, although most notably those nearest the coast. Shellfish would have been procured and transported inland from three primary environments: sandy open coast, bay and lagoon, and rocky open coast. The availability of these marine resources changed with rising sea levels, the siltation of lagoon and bay environments, changing climatic conditions, and intensity of use by humans and animals (Sparkman 1908).

### 2.2.5 Historic Period

Mission San Luis Rey was founded in 1798 in the northeastern area of what would become Oceanside. After Mexico's successful war for independence in 1821, Mexico passed the Secularization Act of 1833 to combat the potential Spanish influence of the missions, which remained loyal to the Roman Catholic Church in Spain after the war. The Mexican government confiscated mission properties between 1834 and 1836; they broke up the properties and either sold them or gave them away to private citizens. This ushered in the Rancho Era, where large tracts of secularized land were held by private individuals and families until the Mexican-American War began in 1846. Part of the Mission property, approximately 2,260 acres to the west of Mission San Luis Rey, was granted in 1845 by Governor Pio Pico to Andrés and José Manuel, local Luiseño Indians, and became Rancho Guajome (Hoffman 1862). Another rancho,

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Rancho Santa Margarita, was located just north of present-day Oceanside, and Rancho Agua Hedionda was located to the south (Alexander 1912).

During the 1870s, early pioneers moved into the region and founded the Township of San Luis Rey. In 1882, railroad construction began between Riverside and San Diego. One year later, Andrew Jackson Myers applied for a Homestead Grant in what would become downtown Oceanside. On July 3, 1888, the City of Oceanside was incorporated and the first train depot was built. Oceanside continued to grow, with expansion during the 1920s spurred on by construction of a highway through the town that connected Los Angeles and San Diego. In 1942, the Navy took control of Rancho Santa Margarita and renamed it Camp Joseph H. Pendleton. Construction of Camp Pendleton led to a population boom in Oceanside as military members and their families moved into the area; by 1950, the population had nearly tripled. The continued presence of Camp Pendleton and the growth of population in Southern California as a whole led to Oceanside becoming the third largest city in San Diego County (City of Oceanside n.d.; Oceanside Historical Society 2018).

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## 3 METHODS

The purpose of this cultural resources inventory was to compile an inventory of all resources within the project APE to determine possible impacts to cultural resources. To complete the inventory, a review of all known resources and the identification of all new resources was necessary. Because the project APE navigates through highly developed areas, much of the APE has been previously inventoried and most resources have been previously identified. However, since many of these previous surveys were conducted more than 10 years ago, an updated survey was deemed necessary.

### 3.1 South Coastal Information Center Records Search

In compliance with MM 3.5-2a of the Draft RWP PEIR (North San Diego Water Reuse Coalition 2015b), an examination of existing maps, records, and reports was conducted by Dudek staff to determine if the project could potentially impact previously recorded cultural resources. Dudek staff conducted a records search in January 2017 of data obtained from the South Coastal Information Center at San Diego State University. The search encompassed the APE and a 1-mile buffer around the APE (see Confidential Appendix B). The purpose of the records search was to identify any previously recorded resources that may be located in or adjacent to the project site and to identify previous studies in the project vicinity. In addition to a review of previously prepared site records and reports, the records search also involved review of historical maps of the project site and vicinity; ethnographies; the NRHP; the CRHR; the California Historic Property Data File; and the lists of California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility.

### 3.2 Native American Correspondence

In compliance with MM 3.5-2a of the Draft RWP PEIR (North San Diego Water Reuse Coalition 2015b), a search of the NAHC Sacred Lands File was conducted for the project APE on January 25, 2017 (Confidential Appendix C). A search of this type requires NAHC staff to review the list for the presence of Native American sites, which are organized spatially based on a Public Land Survey System section grid (measuring 1 square mile). The NAHC response letter included a list of Native American representatives who should be contacted for information about these sites.

Outreach letters were mailed on January 26, 2017, to all Native American group representatives included on the NAHC contact list (Confidential Appendix C). These letters attempt to solicit additional information these representatives have relating to resources that may be affected by the project. Native American representatives were requested to define a general area where

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known resources intersect the project APE. This helps to guide communications with tribal groups and representatives that maintain traditional associations with the area.

Under CEQA, the lead agency is required to perform formal government-to-government consultation with Native American tribes under Assembly Bill 52. Assembly Bill 52 is applicable to projects that have a notice of preparation or a notice of negative declaration on or after July 1, 2015. Because the current project is an addendum to the RWP PEIR, which released its notice of preparation prior to July 1, 2015, Assembly Bill 52 consultation was not required.

### **3.3 Survey**

In compliance with MM 3.5-2a of the Draft RWP PEIR, a survey of the project APE was conducted on December 27, 2017, and May 29, 2018. The APE is located in a highly developed area, and it was determined prior to field work that survey of the entire APE would be unproductive. Large portions of the APE's surface is covered by buildings, pavement, or landscaping, obscuring any remnants of archaeological sites. The historical significance of these built-environment features are being addressed in another technical study prepared for the project (Dotter 2018). The survey team first conducted a reconnaissance survey of the entire APE in a motor vehicle. This vehicle survey allowed the survey team to assess the APE and identify undeveloped, or at least less developed, portions of the APE where ground surface was visible and archaeological resources could be identified. The survey team also revisited previously identified resources within the APE.

Linear portions of the APE, such as proposed pipeline routes, were surveyed using transects parallel to the route at 10-meter intervals. Larger, more open portions of the APE, such as proposed facility footprints, were surveyed using a combination of north/south and east/west transects at 15-meter intervals. In this manner, all portions of traversable land were subject to pedestrian survey. Portions of the APE that were so steep that they presented a safety risk or were so densely vegetated that ground visibility was completely obscured were not surveyed. Likewise, portions of the APE that were located on private property were not subject to pedestrian survey unless the survey team was granted access.

An iPad Air with georeferenced project maps and GPS capabilities was used to aid surveying and site recordation. Records of sites previously identified within the APE were loaded onto the iPad for field reference. Field work was conducted under the supervision of Dudek archaeologist Matthew DeCarlo. Patrick Hadel served as field lead during the survey, and Kenny Teter of Saving Sacred Sites participated in the survey as the Native American monitor.

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The intent of the survey was to identify the presence and status of previously recorded and unrecorded resources within the project APE to determine the possible impacts the project might have on cultural resources. By being aware of their presence, the City can implement measures, when possible, to avoid impacts to the cultural resources in the APE. Because avoidance of cultural resources is the preferred method of mitigation, this inventory assumed avoidability of cultural resources within the APE, meaning that resources that were difficult or unsafe to access, such as those located on private property or beyond some natural barrier such as a hillside or drainage, were not always surveyed, since their avoidability was evident.

Documentation of cultural resources complied with the Office of Historic Preservation's and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716–44740), and the California Office of Historic Preservation's Planning Bulletin Number 4(a). Any sites identified during this inventory would have been recorded on California Department of Parks and Recreation Form DPR 523 (Series 1/95) using the Instructions for Recording Cultural Resources (Office of Historic Preservation 1995). Updated site forms for each resource encountered are included in Confidential Appendix D and will be submitted to the South Coastal Information Center.

Visibility throughout the project APE was restricted due to development. The areas immediately adjacent to the proposed project facilities have been repeatedly graded. Although this provided excellent ground visibility, it also would have disturbed any cultural resource that may have been present. The northeastern portions of the APE are less developed. The terrain in these areas was dominated by hillsides used for various agricultural activities. This reduced ground visibility to less than 5%, and there is also strong evidence of continued disturbance.

### **3.4 Geotechnical Exploration Monitoring**

To determine if subsurface cultural deposits were present in the vicinity of the proposed Fire Mountain Reservoir and Fire Mountain Pump Station facilities, Dudek archaeologist Scott Wolf and Saving Sacred Sites Native American monitor Rey Mojado observed preliminary geotechnical investigations at the Fire Mountain facilities site. The geotechnical investigation is required for project design and construction considerations, and it also provided Dudek the opportunity to determine the stratigraphy of the proposed construction site and determine if intact subsurface cultural deposits are potentially present. See Section 4.4, Geotechnical Testing Monitoring, for the results of this effort.

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## 4 RESULTS

This section presents the results of the archival searches and the vehicle and pedestrian surveys.

### 4.1 South Coastal Information Center Records Search

The records search identified 178 cultural resources within 1 mile of the APE. Of the 178, seven cultural resources fall within the APE (see Table 1 for resources in the APE; see also Confidential Appendix B for the remaining resources). The prehistoric sites in the APE include four lithic and shell artifact scatters and a habitation campsite. The one historic-period site in the APE consists of a refuse dump. The one multicomponent site in the APE consists of a historic residence with outbuildings and two prehistoric bedrock milling features. To date, one of the resources has been recorded as destroyed and one (CA-SDI-12262) has been previously evaluated and recommended eligible for listing in the CRHR.

The records search also identified 436 previous archaeological studies that have been conducted within 1 mile of the APE. Of the 436 studies, 92 studies cover a large portion of the APE (see the table provided in Confidential Appendix B). Although most of the APE has been previously surveyed, 347 of these surveys were conducted more than 10 years ago.

**Table 1**  
**Previously Recorded Cultural Resources Within the Project’s Area of Potential Effects**

Primary Number	Trinomial	Era	Description	NRHP/CRHR Eligibility	Project Component
P-37-006136	CA-SDI-6136	Prehistoric	Lithic and shell scatter	Destroyed	L1B
P-37-011970	CA-SDI-11970	Multi-component	Historic residence and outbuildings and two bedrock milling features	Not evaluated	U1; U3
P-37-012241	CA-SDI-12241	Prehistoric	Flake and groundstone scatter	Not evaluated	U3
P-37-012262	CA-SDI-12262	Prehistoric	Campsite	Recommended CRHR eligible	Fire Mountain Reservoir; Fire Mountain Pump Station
P-37-016290	CA-SDI-14784	Prehistoric	Shell and lithic scatter	Not evaluated	L18
P-37-019037	CA-SDI-13744	Prehistoric	Shell and lithic scatter	Not evaluated	U5
P-37-026841	CA-SDI-17549	Historical	Refuse dump	Not eligible	U1

### 4.2 Native American Correspondence

A search of the NAHC Sacred Lands File was conducted for the project APE on January 25, 2017 (Confidential Appendix C). The NAHC responded stating that sites have been located

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within the project APE, and advised that the San Luis Rey Band of Mission Indians and the La Jolla Band of Luiseño Indians be contacted.

In a telephone conversation with Dudek, Chairman Thomas Rodriguez of the La Jolla Band of Luiseño Indians deferred Native American recommendations to Carmen Mojado of the San Luis Rey Band of Mission Indians. On February 21, 2017, Carmen Mojado and PJ Stoneburner of the San Luis Rey Band of Mission Indians met with Dudek archaeologists to analyze project maps. The group analyzed each facility location and pipeline alignment to determine if the San Luis Rey Band was aware of any cultural resources that might be impacted by the proposed project. Ms. Mojado expressed concern for the developments at Fire Mountain Reservoir and Fire Mountain Pump Station, since previous finds suggest this area is culturally sensitive. Ms. Mojado also expressed concerns for a topographic feature important to the Luiseño that is located adjacent to the project site. Ms. Mojado requested that further review be conducted during fieldwork to ensure that this feature will not be directly or indirectly impacted by the project. The survey results alleviated Ms. Mojado's concerns, and she agrees that the project would not have an impact on the important topographic feature (see Confidential Appendix C).

The NAHC response letter also included a list of other Native American group representatives who should be contacted for information about these sites. Outreach letters were mailed on January 26, 2017, to all Native American group representatives included on the NAHC contact list (Confidential Appendix C). To date, three recipients have responded to the outreach letter. Victoria Harvey, the archaeological monitoring coordinator for the Agua Caliente Band of Cahuilla Indians, responded on February 1, 2017, and stated that the project is not located within the tribe's traditional use area and the tribe defers to other tribes in the area. Shasta Gaughen, tribal historic preservation officer for the Pala Band of Mission Indians, responded on February 16, 2017, and stated that the project is beyond the boundaries of the tribe's traditional use area. However, due to the proximity of the project site, the tribe requested to be on the receiving list for project updates and any documents generated regarding discovered resources. Merri Lopez-Keifer, chief legal counsel for the San Luis Rey Band of Mission Indians, responded to the outreach letter on February 14, 2017, and stated that the tribe is aware of tribal cultural resource sites within proximity to the project site. Ms. Lopez-Keifer urged caution and requested the presence of a Luiseño Native American monitor during all ground-disturbing activities and cultural resource surveys. She also requested an in-person meeting with Ms. Mojado regarding tribal cultural resources in proximity to the project site.

### **4.3 Survey Results**

Using a combination of vehicular and pedestrian survey, the entire project APE was inventoried. The inventory revisited the seven previously identified archaeological resources within the APE,

## Cultural Resources Inventory Report for Addendum No. 3 to the Regional Recycled Water Project Program EIR

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but did not identify any new resources within the project APE (Table 2). The condition of each of these resources and proximity to the project APE are described below. Resource location maps showing the resource proximity to the APE can be found in Confidential Appendix E.

**Table 2**  
**Cultural Resources in Proximity to the Project’s Area of Potential Effects**

Primary Number	Era	Description	NRHP/CRHR Eligibility	Project Component	Component Proximity
CA-SDI-6136	Prehistoric	Lithic and shell scatter	Not evaluated	L1B	Outside of APE
CA-SDI-11970	Multi-component	Historic residential complex and two bedrock milling features	Destroyed	U1; U3	Intersects APE
CA-SDI-12241	Prehistoric	Flake and groundstone scatter	Not evaluated	U3	Within 100 feet of APE
CA-SDI-12262	Prehistoric	Campsite	CRHR eligible; part of site determined not eligible	Fire Mountain Reservoir; Fire Mountain Pump Station	Intersects APE
CA-SDI-14784	Prehistoric	Shell and lithic scatter	Not evaluated	L18	Outside of APE
CA-SDI-13744	Prehistoric	Shell and lithic scatter	Not evaluated	U5	Within 100 feet of APE
CA-SDI-17549	Historical	Refuse dump	Not eligible; destroyed	U1	Within 100 feet of APE

### **P-37-006136; CA-SDI-6136**

This prehistoric resource was identified in 1978 and included four hammerstones; a lithic scatter; and a scatter of *Chione*, *Argopecten*, *Donax*, and oyster shell (Franklin and Thesken 1978). Situated on a ridgeline, the scatter was described as being previously disturbed by the construction of the San Luis Rey Substation. This resource was revisited in 2014 during monitoring activities for the San Luis Rey Substation. No artifacts were observed and the archaeologist postulated that the site was destroyed by construction of the paved road and transmission line. Upon further review of the original site record (Franklin and Thesken 1978), it appears that there is some confusion as to the location of the resource. The text and the site location map of the site record describe the site as being located 60 meters west of El Camino Real and north of the former alignment of Mesa Road, while the sketch map shows the site to be south of Mesa Road and 40 meters east of El Camino Real.

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The current study revisited the recorded location of the site but was unable to identify any remnants of the scatter within the project APE. It is not clear if the site has been destroyed as suggested in the 2014 site record or whether the resource was incorrectly mapped and still extant outside of the project APE. The current site visit did confirm that there is no evidence of the resource within the project APE.

### **P-37-011970; CA-SDI-11970**

This multicomponent resource was identified in 1990. The historical component is a homestead consisting of a large house, a barn, several other outbuildings, and 104 fragments of “historic material.” The prehistoric component consists of 32 milling elements on a bedrock outcrop that overlooks the San Luis Rey River. The prehistoric scatter included approximately 100 lithic flakes, six lithic tools, three handstones, and five potsherds.

The current study revisited the recorded site boundary of CA-SDI-11970 and found the area to be completely developed. A residential housing development now covers the resource boundary and there is no remnant of either the historic structures or prehistoric features. Aerial maps show that the resources site boundary was completely graded by 2009, which removed all historic structures, prehistoric milling features, and surface artifacts. Pipeline alignment U3 bisects the northeastern extent of the originally recorded site boundary. Pipeline alignment U1 is adjacent to but outside of the western boundary of the resource.

### **P-37-012241; CA-SDI-12241**

This prehistoric resource was identified in 1991 and consists of a small lithic scatter. Recorded artifacts included 30 felsite, andesite, chert, and chalcedony flakes and a granitic millstone fragment. The current study revisited CA-SDI-12241 and found it largely undeveloped, but the area had been recently disked. The survey team surveyed the southern portion of the site, which falls within the U3 pipeline alignment portion of the project APE. A possible handstone was identified within the CA-SDI-12241 site boundary but outside of the roadbed where the City proposes installation of the U3 pipeline.

### **P-37-012262; CA-SDI-12262**

This prehistoric resource was originally recorded as SDM-W-140 in the 1930s by Malcolm Rogers as a Luiseño campsite containing midden, ceramic sherds, cobble hearths, and small “tanks cut into sandstone.” In 1991 the site was described as located north of Fire Mountain Drive and west of Eternal Hills Memorial Park and Mortuary, and as severely disturbed. The only artifacts identified were a possible flake and a possible handstone. A pocket of midden with shell was present in the southeastern portion of Fire Mountain facility site. In 2000, the eastern portion of CA-SDI-12262

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was tested and recommended eligible for listing in the CRHR; the remainder of the site was not evaluated at that time. Additional testing was completed in 2005 south of Fire Mountain Drive that identified one biface, three debitage, one groundstone, three fire-affected rocks, historic glass and ceramics, and a small amount of bone and shell. As a result of the 2005 efforts, the portion of the site south of Fire Mountain Drive was determined not eligible for listing in the CRHR (i.e., it is not a contributing element to the overall eligibility of the site).

The current study revisited the portion of CA-SDI-12262 that falls within the proposed Fire Mountain Reservoir and Fire Mountain Pump facilities. The current study found the resource in the same condition as described in 1991. The area has been heavily developed with construction of an existing tank reservoir, pump house, and graded pad. Proposed work for the project would be located within the graded pad area adjacent to the existing facilities. Only the southeastern portion of the facility has not been heavily developed, and a few shell fragments are observable on the surface in that area. No evidence of the midden deposit was observed during the current survey.

### **P-37-016290; CA-SDI-14784**

This prehistoric resource was identified 1998 as a lithic and shell scatter. The lithic materials include three pieces of debitage and one unifacial tool. The shell scatter consists of *Chione*, *Donax*, and some *Argopecten*. GIS shapefiles obtained from the South Coastal Information Center suggest that the southwestern portion of the resource is within Fire Mountain Drive. Review of the site record shows that the resource is located “approximately 30 meters north of Fire Mountain Drive,” and therefore is outside of the APE. The current survey revisited the mapped portion of the site within the APE, but found no artifacts or shell. The area north of Fire Mountain Drive is blocked by a fence, so no access to that area was possible. The terrain is largely modified north of the road, but the site may still be intact. No cultural resources were identified during the current survey. Pipeline alignment L18 is proposed to be installed in Fire Mountain Drive, approximately 98 feet south of the correctly mapped location of this resource.

### **P-37-019037; CA-SDI-13744**

This prehistoric resource was identified in 1994 as a shell and lithic artifact scatter located on the San Luis Rey River floodplain. No other description of the resource is available. The current study revisited the site boundary of CA-SDI-13744 and found that the site boundary is located within the San Luis Rey River corridor. Heavy vegetation limited access and ground visibility at the resource site, which is located immediately off of the shoulder of North River Road and the U3 pipeline alignment. The survey team surveyed the cleared shoulder of the roadside and found no cultural materials.

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### **P-37-026841; CA-SDI-017549**

This historical resource was identified in 2005 as a refuse scatter located in a plowed field on a flat terrace next to a drainage. The site was tested using eight shovel test units and surface collection. Approximately 150 artifacts were collected, including glass, ceramics, metal, brick, and building materials. The excavations determined that the scatter was limited to the upper 20 centimeters of the site. The field had been repeatedly plowed and the artifacts were out of context. As a result of testing, the site was determined to be not eligible for listing in the CRHR.

The current study revisited the recorded site boundary of CA-SDI-17549 and found that the area has been completely developed. A shopping center and parking lot now cover the recorded site boundary. The shallow resource was destroyed during construction of the shopping center. Pipeline alignment U1 is located immediately east of the previous resource boundary.

### **4.4 Geotechnical Testing Monitoring**

The records search identified CA-SDI-12262 (P-37-012262) as within the Fire Mountain facilities site. Archaeological survey of the area did not identify any evidence of the site on the ground surface in the immediate location of the proposed Fire Mountain Reservoir or Fire Mountain Pump Station facility. A small scatter of marine shell was identified in the southeast portion of the Fire Mountain facilities site, but no construction activities are proposed for this section of the property. MM 3.5-2b of the RWP PEIR states that if resources are identified within the project site that cannot be avoided, they must be evaluated to determine if they are eligible for listing in the CRHR (North San Diego Water Reuse Coalition 2015b).

On October 24, 2017, a cultural team monitored the excavation of four geotechnical auger tests at the Fire Mountain facilities site. The four auger tests were placed within the proposed locations of the Fire Mountain Reservoir facility and the Fire Mountain Pump Station. As geotechnical samples were extracted from varying depths, the monitoring team observed the soil types and inspected the samples for evidence of subsurface cultural deposits. Auger tests 1, 2, and 3 revealed dry, loosely compacted sand loams in the upper 0.3 to 0.6 meters and then straight compact sandstone. Under 0.6 meters, the augers struck an old terrace formation similar to Santiago Formation that extended to the augers' terminal depth at 6.4 meters. Auger 4 revealed fine-grained sandstone sands from 0 to 6.4 meters. No cultural materials or evidence of midden were observed in any of the auger tests. Given the general uniformity of the sediments, it was determined that no intact deposits are present in this area.

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## 5 MANAGEMENT CONSIDERATIONS

### 5.1 Resource Management

This cultural resources inventory of the project APE was conducted in compliance with MM 3.5-2a of the Draft RWP PEIR (North San Diego Water Reuse Coalition 2015b) and per CEQA. This inventory will assist the City in managing cultural resources throughout construction of the proposed project. Because avoidance is the preferred method of managing resources, the current survey focused on the proximity of resources to each proposed project component, and discussed the feasibility of avoiding impacts to the resources. Table 3 summarizes the findings, including project component, resource proximity, current evaluation status, and recommended management measures for each cultural resource within the project APE.

As described in Section 4, Results, of this inventory, seven resources have been identified within the project APE. Of these seven resources, analysis of site records and the current survey confirmed that two are no longer extant. Site visits indicated that these resources have been demolished by construction of a residential neighborhood (CA-SDI-11970) and a shopping center (CA-SDI-26841). Two other sites (CA-SDI-12241 and CA-SDI-13744) are located within the project APE but do not intersect the existing roadbed where proposed pipeline would be installed. Impacts to these two resources would be avoided, provided that all project activities are limited to the existing roadbed. Should project activities extend beyond the existing roadbed and intersect these resources, evaluation of the two resources will be necessary. Review of site records suggests that two resources (CA-SDI-6136 and CA-SDI-14784) were inaccurately mapped and are not located within the project APE. A portion of the remaining site, CA-SDI-12262, is located within the Fire Mountain facility site. The recent survey only identified surface evidence of the resource within a portion of the facility site that will not be subject to construction activities. Archaeological and Native American monitoring of geotechnical tests revealed that there is no potential for subsurface cultural deposits in the proposed location of the Fire Mountain Reservoir or Fire Mountain Pump Station facilities. Measures such as demarking construction limits and protective fencing can be used to avoid inadvertent impacts to the extant portion of CA-SDI-12262 that falls within the Fire Mountain facility site.

There is a potential to encounter buried archaeological resources when conducting ground-disturbing activities in proximity to previously documented cultural resources. Archaeological and Native American monitors should be present during initial ground-disturbing project activities within 100 feet of previously recorded resource locations. A review of site records suggest that two resources, CA-SDI-6136 and CA-SDI-14784, are located outside of the APE. However, due to confusion with their locations, it would be prudent to monitor excavations within 100 feet of the recorded locations of these resources.

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There are two exceptions to this monitoring recommendation. Previous subsurface archaeological testing at CA-SDI-17549 revealed that no cultural materials were discovered below 20 centimeters. Mass grading during construction of the shopping center in 2009 would have removed any remnant of CA-SDI-17549. Also, the current study involved observing geotechnical testing at CA-SDI-12262. The testing revealed that the soils were culturally sterile to depths of 6.4 meters. As such, archaeological and Native American monitoring is not necessary within 100 feet of CA-SDI-12262 or CA-SDI-17549.

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**Table 3  
Resource Summary Table**

Site Number	Era	Description	NRHP/CRHR Eligibility	Project Component	Project Proximity	Management Recommendation
CA-SDI-6136	Prehistoric	Lithic and shell scatter	Not evaluated	L1B	Outside of APE	Monitor within 100 feet of original site location
CA-SDI-11970	Multi-component	Historic residential complex and two bedrock milling features	Destroyed	U1; U3	Intersects with APE	Monitor within 100 feet
CA-SDI-12241	Prehistoric	Flake and groundstone scatter	Not evaluated	U3	Within 100 feet of APE	Avoidance; monitor within 100 feet
CA-SDI-12262	Prehistoric	Campsite	Recommended CRHR eligible	Fire Mountain Reservoir; Fire Mountain Pump Station	Intersects with APE	Avoidance; temporary fencing during construction
CA-SDI-14784	Prehistoric	Shell and lithic scatter	Not evaluated	L18	Outside of APE	Monitor within 100 feet of original site location
CA-SDI-13744	Prehistoric	Shell and lithic scatter	Not evaluated	U5	Within 100 feet of APE	Avoidance; monitor within 100 feet
CA-SDI-17549	Historical	Refuse dump	Not eligible; destroyed	U1	Within 100 feet of APE	None; no longer extant

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### 5.2 Mitigation Measures

The current project must comply with the mitigation measures dictated in the RWP PEIR. Mitigation Measures 3.5-2a, 3.5-2b, 3.5-2c, 3.5-2d, 3.5-2e, and 3.5-4 would reduce potential adverse impacts to known and previously undiscovered cultural resources. The City will be the lead agency implementing the cultural resource mitigation measures. Below are Dudek's recommendations as they relate to the RWP PEIR mitigation measures; the numbers and letters correspond to the mitigation measures from the RWP PEIR.

**MM 3.5-2a Conduct a Phase I Archaeological Resources Assessment.** This inventory was conducted to comply with Mitigation Measure (MM) 3.5-2a. As such, this inventory included the following specified requirements: a cultural resources records searches through the South Coastal Information Center (SCIC), a Sacred Lands File search through the Native American Heritage Commission and follow-up Native American consultation, and a pedestrian survey of the project's area of potential effects (APE). The findings of this Phase I archaeological resources assessment are that cultural resources are present within the project APE, but they can be avoided. As such, Dudek recommends that implementation of MM 3.5-2b from the RWP PEIR is not required.

**MM 3.5-2c Conduct Archaeological Sensitivity Training for Construction Personnel.** In addition to the topics required by Mitigation Measure 3.5-2c from the RWP PEIR, Dudek recommends that construction personnel training include a discussion concerning resources located in proximity to designated work areas. Resources CA-SDI-12241, CA-SDI-12262, and CA-SDI-13744 are located adjacent to work areas. The potential to impact these resources would be avoided, provided construction personnel do not leave designated work areas.

**MM 3.5-2d Monitor and Report Construction Excavations for Archaeological Resources.** Among other criteria, this mitigation measure states that the frequency of monitoring shall be based on the proximity of construction excavations to known archaeological resources. It further states that full-time monitoring can be reduced to part-time inspections if determined adequate by the archaeological monitor. Due to the proximity of known archaeological resources to proposed work areas, Dudek recommends that full-time monitoring occur within 100 feet of the previously identified resource locations for CA-SDI-6136, CA-SDI-11970, CA-SDI-12241, CA-SDI-14784, and CA-SDI-13744. If initial monitoring reveals that these locations have a low potential to encounter archaeological resources, the monitoring schedule could be reduced, as stated in Mitigation Measure 3.5-2d. Monitors shall also be present during the initial development of the Fire Mountain facilities to ensure avoidance of CA-SDI-12262.

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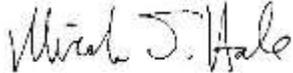
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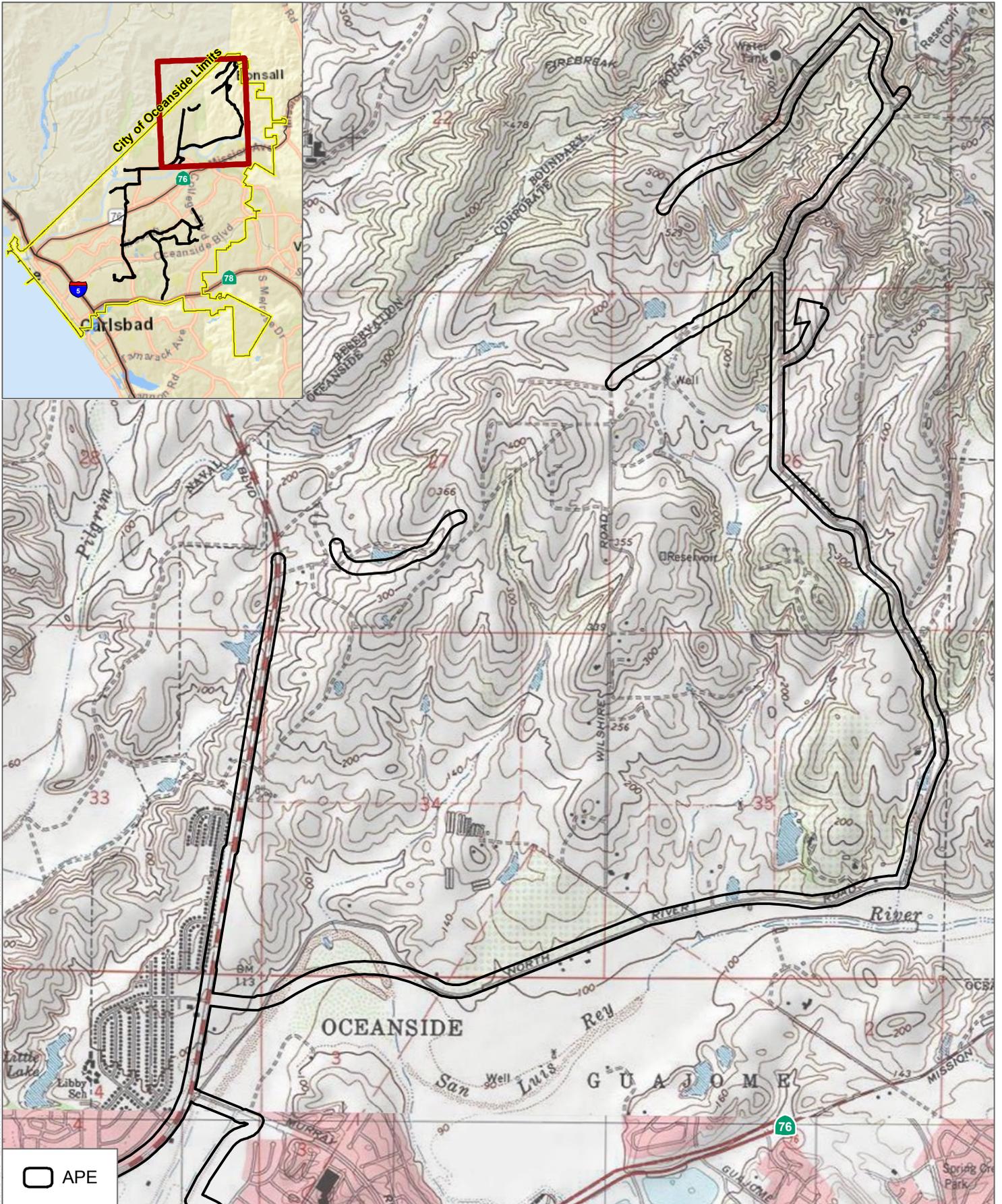
**7 CERTIFICATION**

<b>Preparer:</b> Micah Hale, PhD, RPA	<b>Title:</b> Archaeologist
<b>Signature:</b> 	<b>Date:</b> July 18, 2018

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SOURCE: USGS Topo 7.5 Minute Series San Luis Rey, Morro Hill Quadrangles



FIGURE 1a

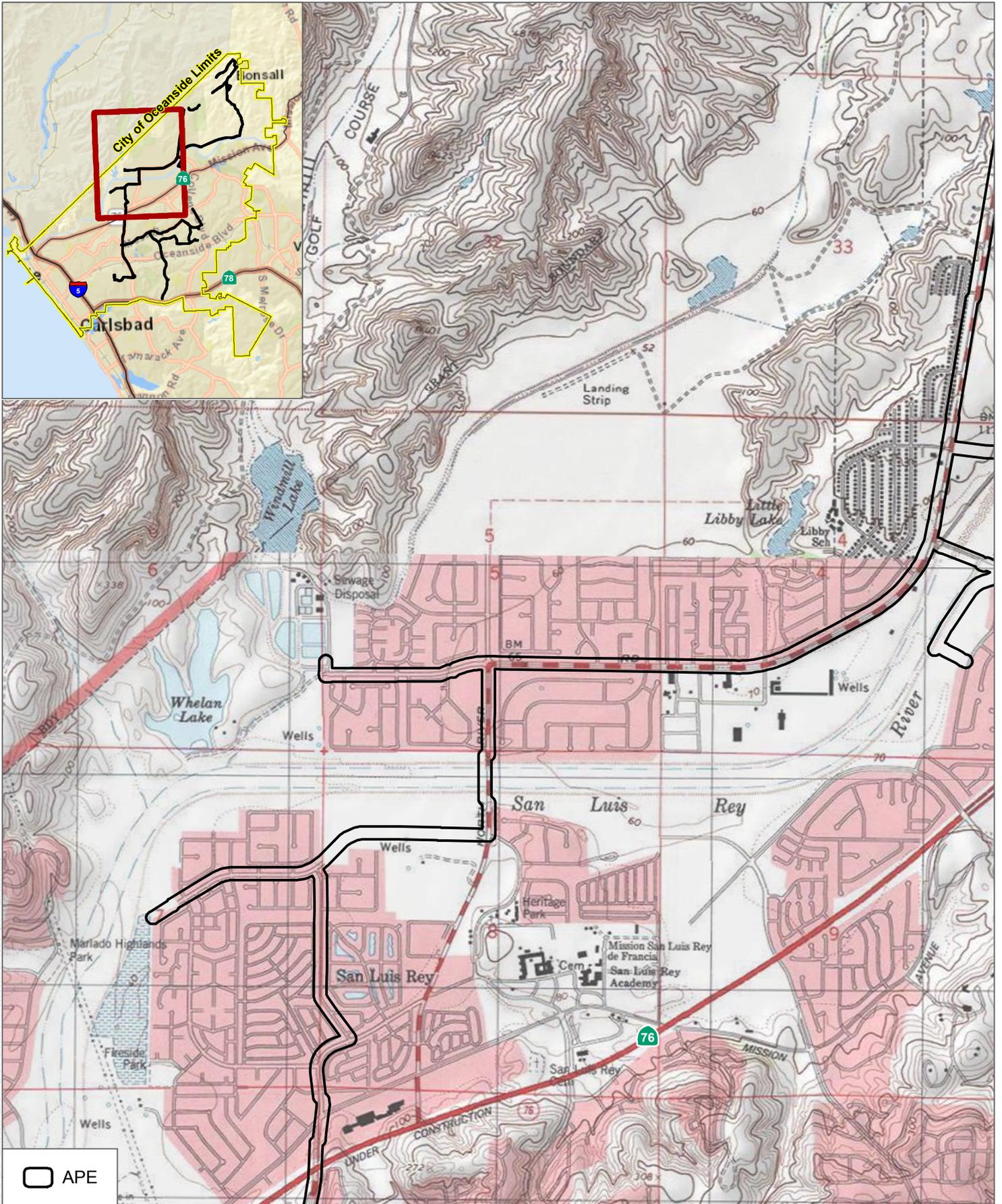
Project Location

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SOURCE: USGS Topo 7.5 Minute Series San Luis Rey, Morro Hill Quadrangles



**FIGURE 1b**

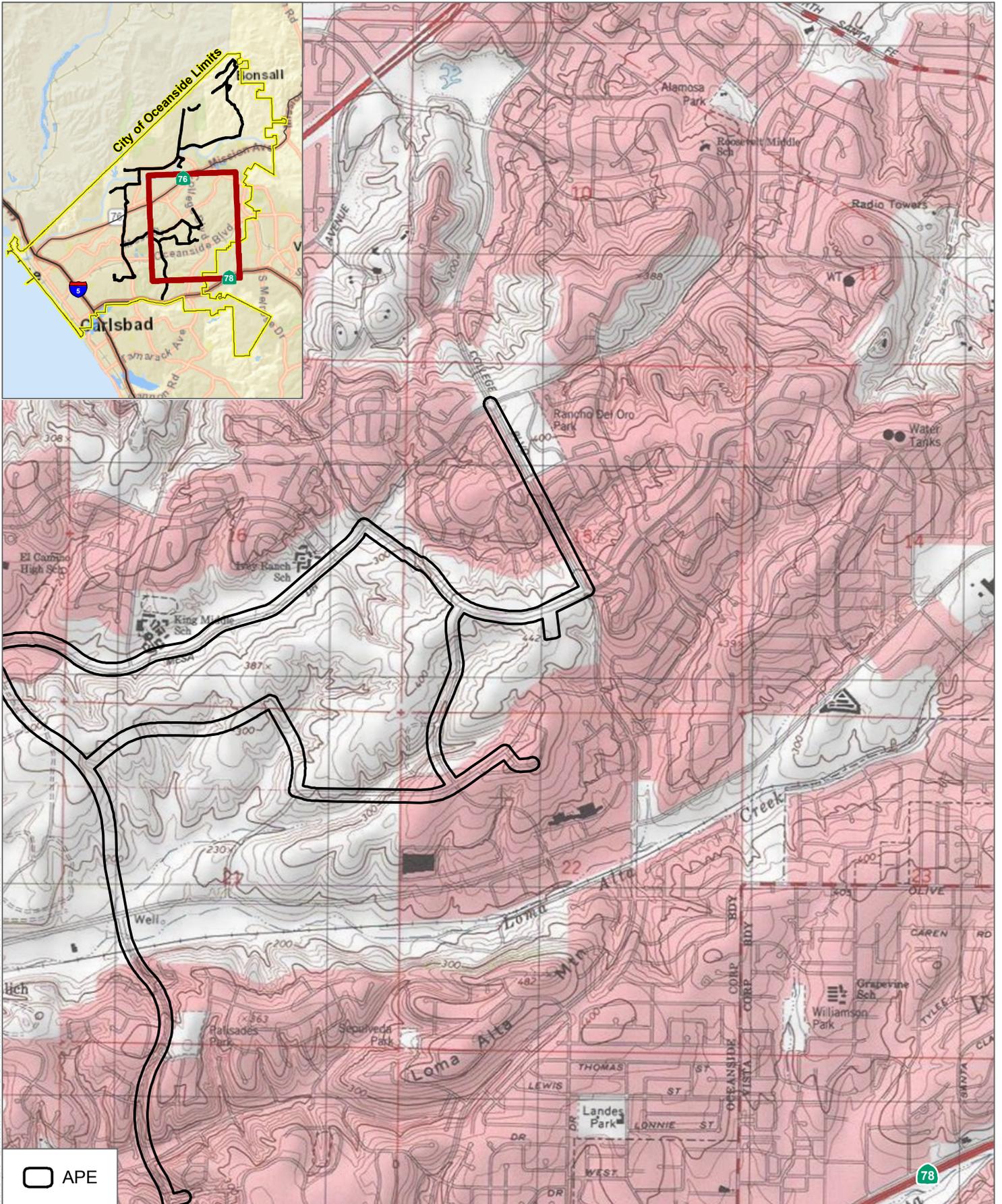
**Project Location**

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SOURCE: USGS Topo 7.5 Minute Series San Luis Rey Quadrangle



FIGURE 1c

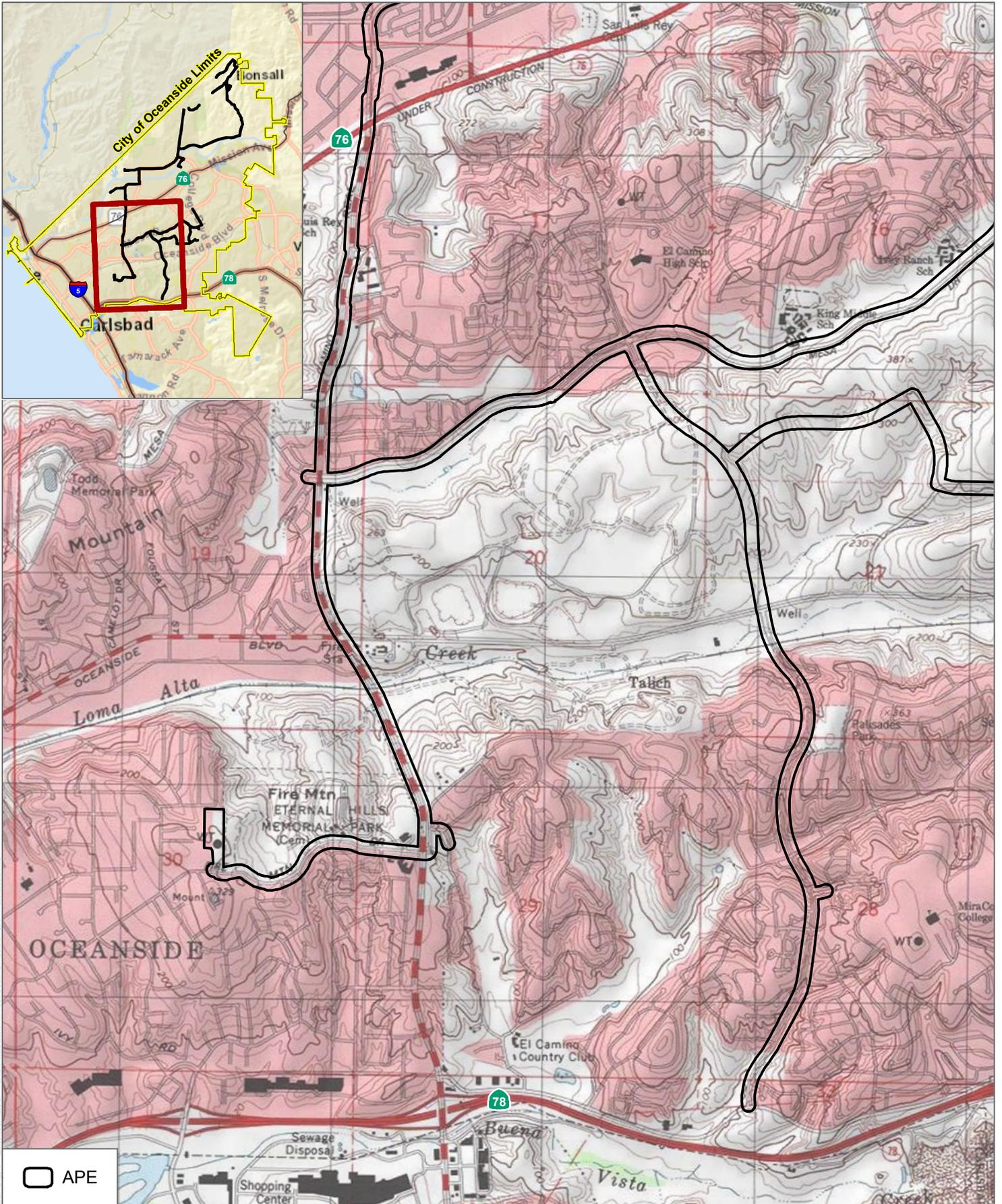
Project Location

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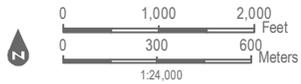
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SOURCE: USGS Topo 7.5 Minute Series San Luis Rey Quadrangle

**DUDEK**



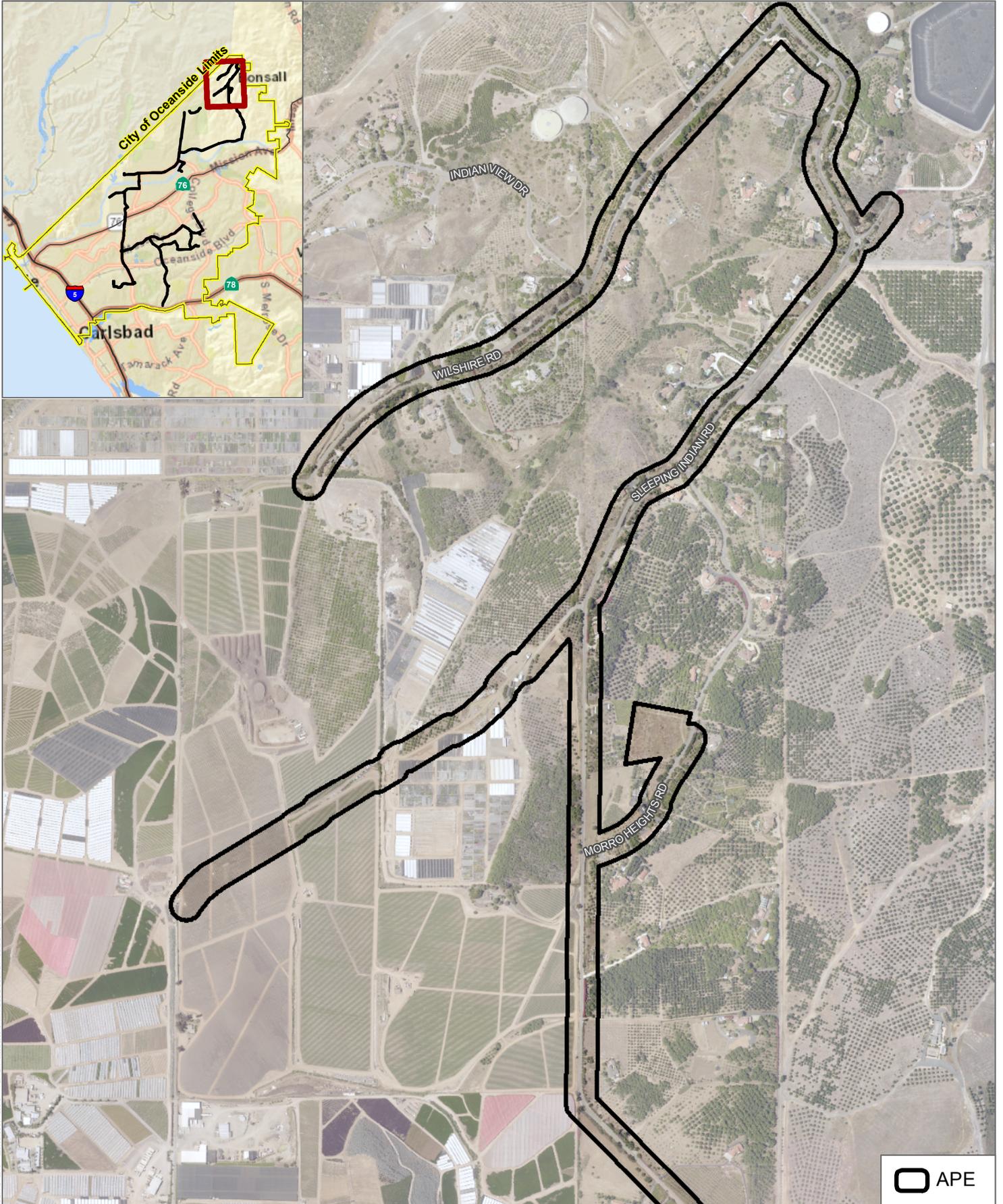
**FIGURE 1d**  
Project Location

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□ APE

SOURCE: SANGIS 2017

**DUDEK**



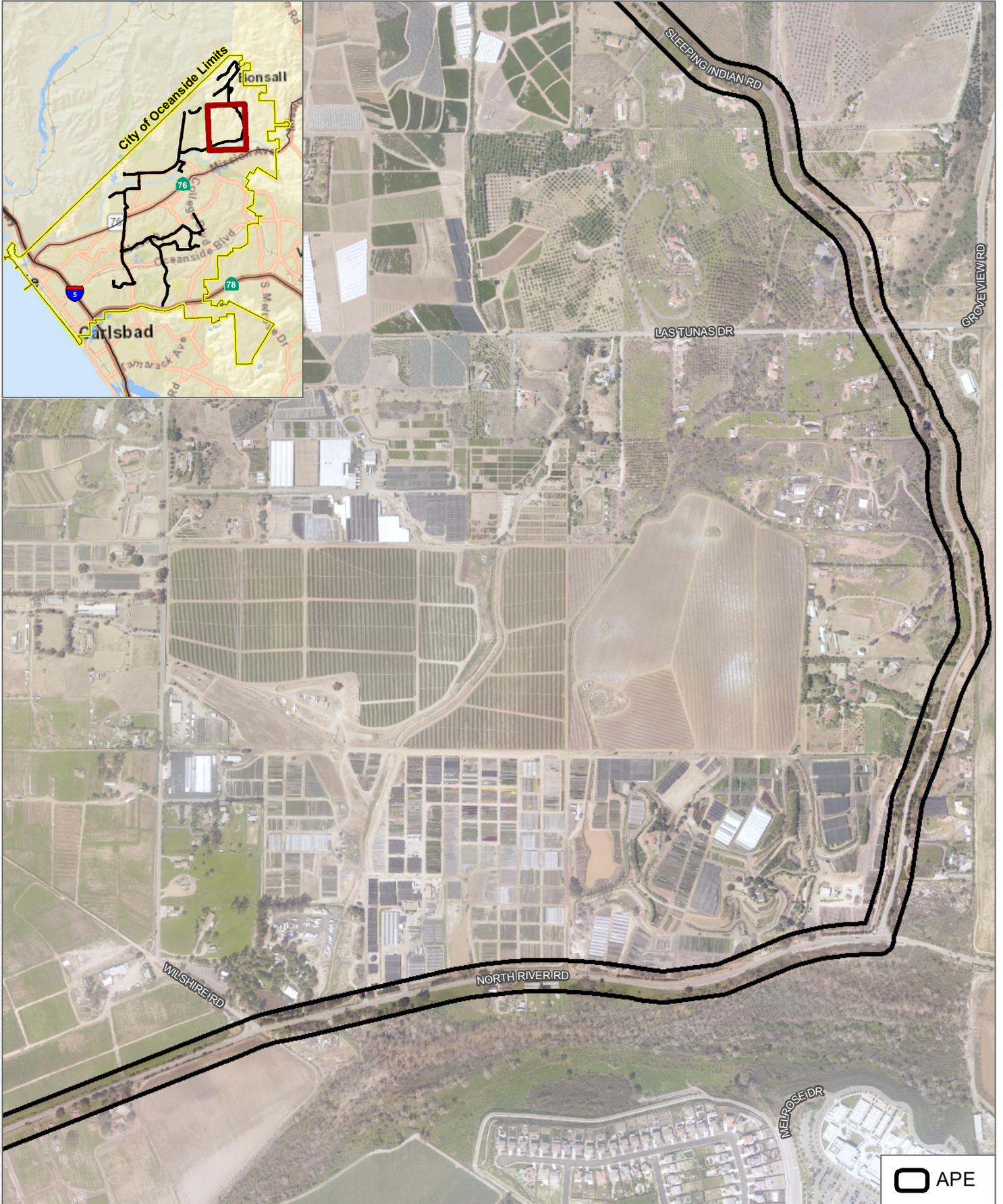
**FIGURE 2a**

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SOURCE: SANGIS 2017



APE

FIGURE 2b

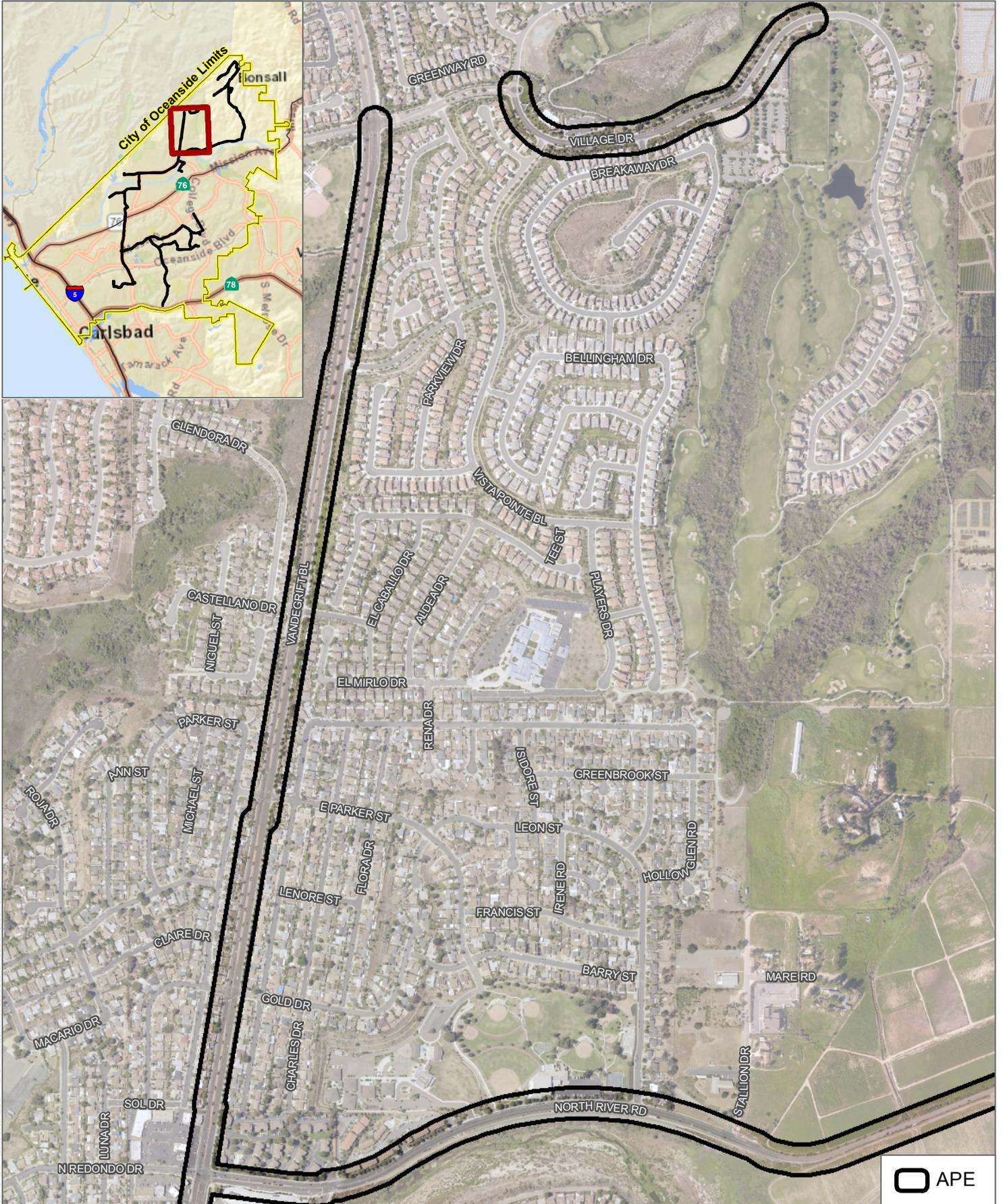
APE

Cultural Resources Inventory Report

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017



○ APE

FIGURE 2c

APE

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017

**DUDEK**



**FIGURE 2e**

**APE**

Cultural Resources Inventory Report

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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 APE

SOURCE: SANGIS 2017



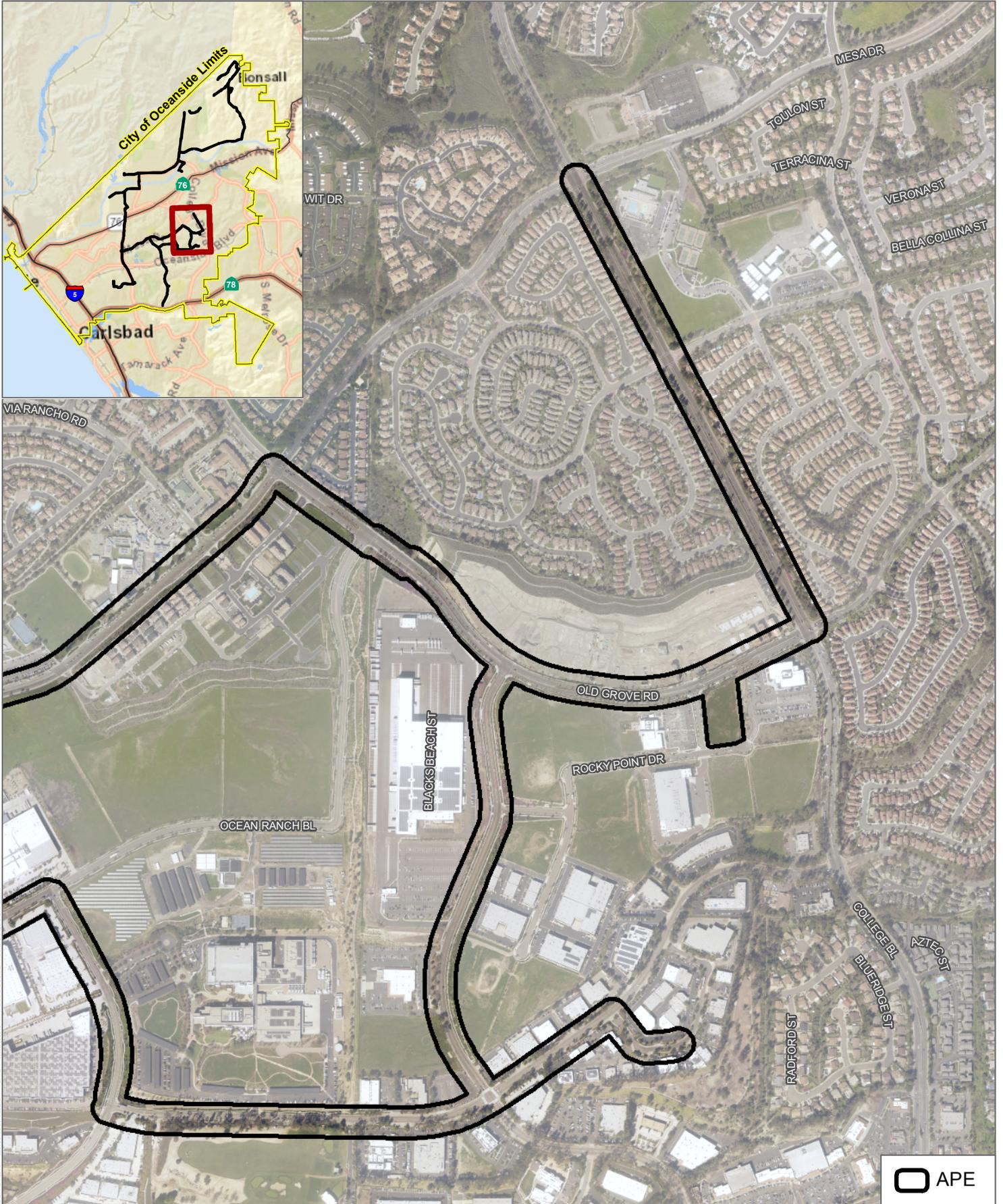
**DUDEK** 

**FIGURE 2f**  
APE

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017

**DUDEK**



APE

**FIGURE 2g**

**APE**

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017

**DUDEK**



**FIGURE 2h**

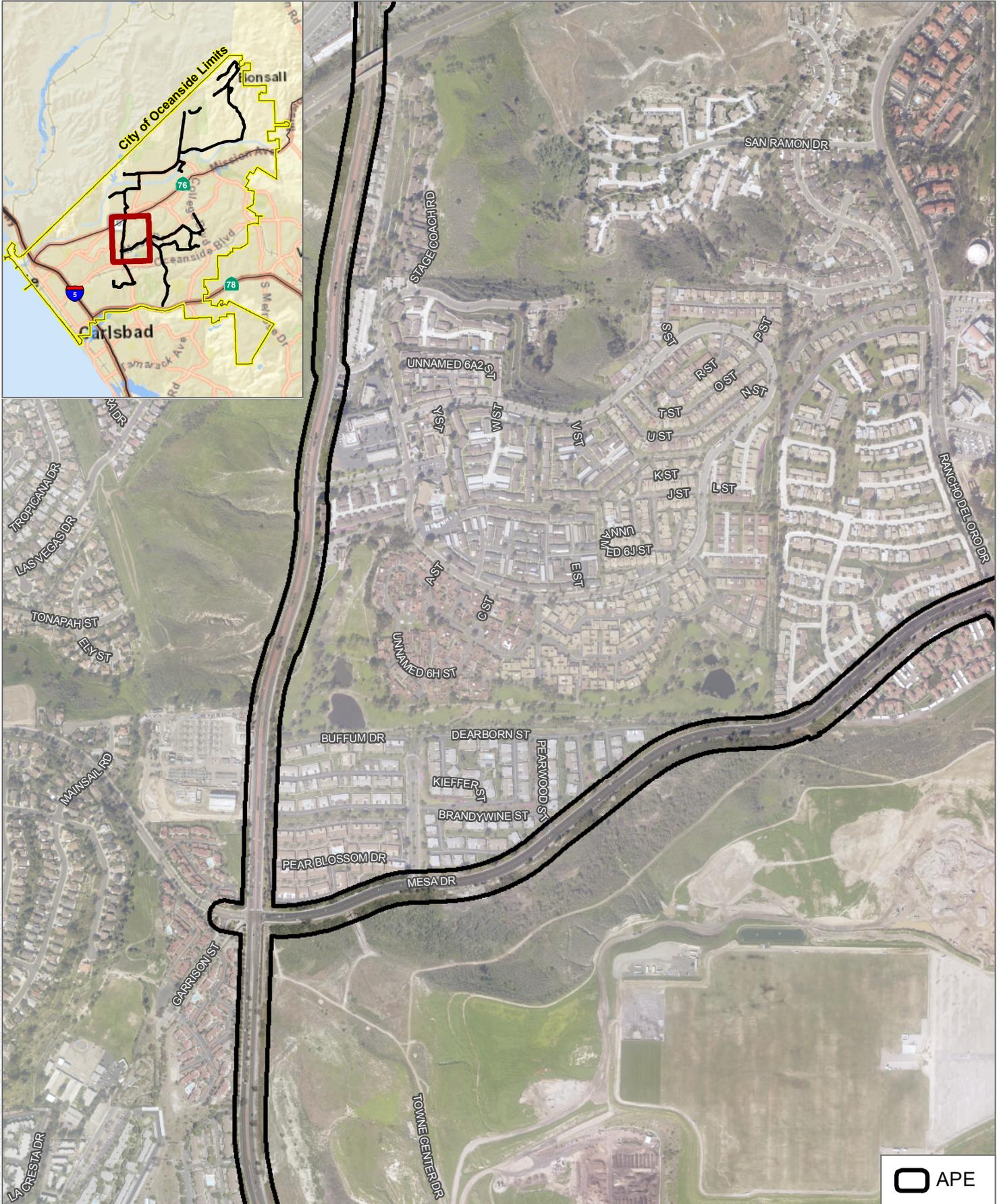
**APE**

Cultural Resources Inventory Report

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017

**DUDEK**



**FIGURE 2i**

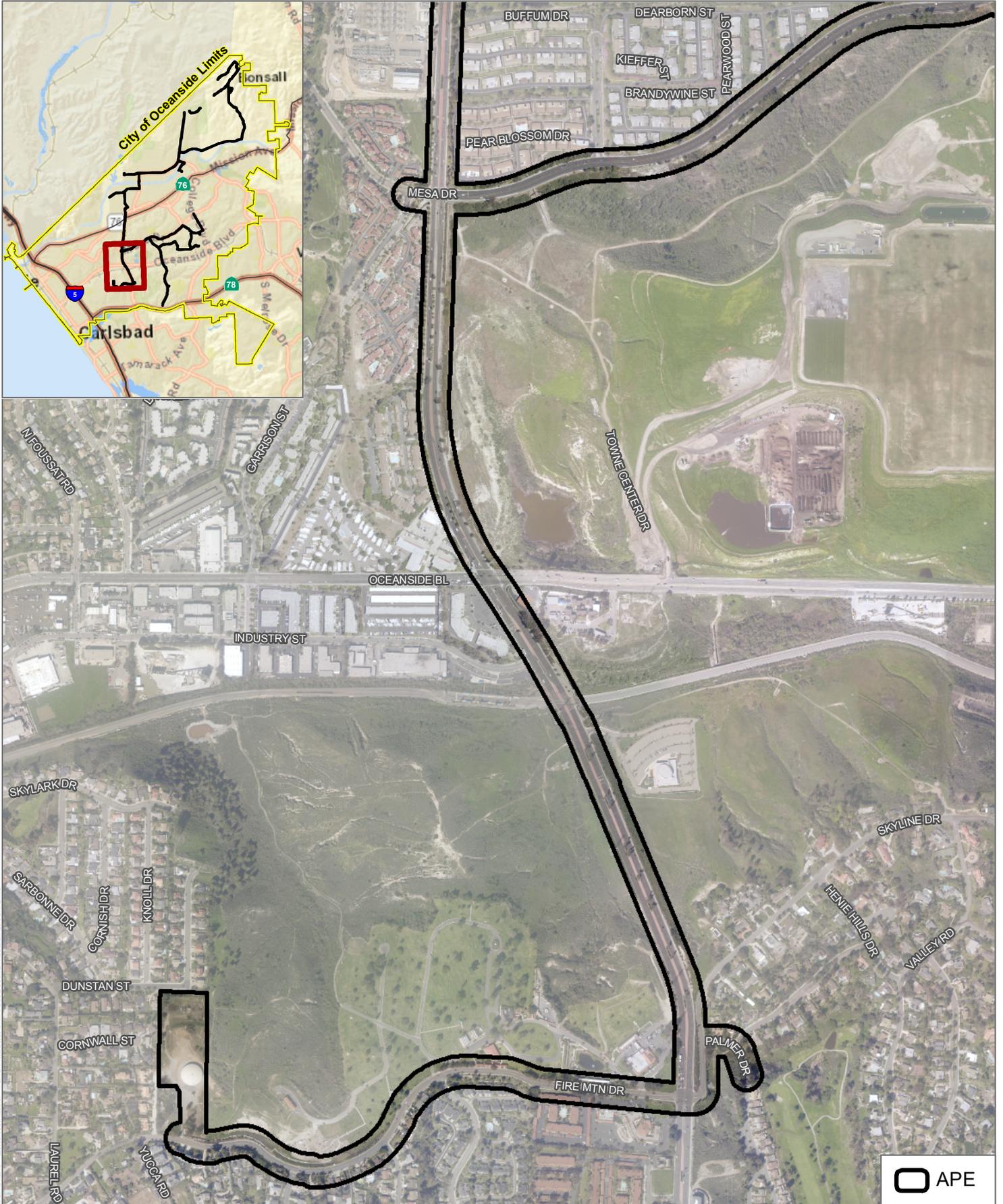
**APE**

Cultural Resources Inventory Report

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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SOURCE: SANGIS 2017



**FIGURE 2j**  
APE

**Cultural Resources Inventory Report for Addendum No. 3  
to the Regional Recycled Water Project Program EIR**

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**APPENDIX A**  
*Project Personnel Qualifications*





# Brad Comeau

## Archaeologist

Brad Comeau is an archaeologist with over 9 years' experience as a field director, archaeological monitor, and laboratory technician. He has conducted numerous surveys, evaluation excavations, and data recoveries, primarily in Southern California. He has extensive experience in San Diego County, with additional experience in Riverside County, the Mojave Desert, San Joaquin Valley, and Imperial County, as well as Massachusetts, Arizona, and England. His research interests include the role of experimentation in archaeology, copper production techniques, and lithic production.

## Project Experience

### Development

**St. John Garabed Church Project, San Diego County, California.** As field director, conducted site examinations and limited shovel test pit excavation for an Extended Phase 1 survey; directed a crew of two people; prepared a letter report of findings.

**Rhodes Crossing Update, Rhodes Properties, San Diego, California.** As field director, led a crew of two people for a Class III pedestrian survey of 88 acres; coordinated Native American monitor participation; assisted with preparation of Archaeological Resource Management Report (ARMR).

**Gregory Canyon Landfill Environmental Impact Statement PHI Assessments, PCR Services Corporation, Pala, San Diego, California.** As field director, conducted pedestrian survey of proposed landfill; relocated and verified previously recorded sites; led a crew of four people; coordinated with Native American monitors; prepared site forms and site descriptions for ARMAR report.

**Robertson Ranch East Excavation, The Corky McMillin Companies, Carlsbad, San Diego County, California.** As field director, conducted controlled grading of two prehistoric sites that required directing excavation activities of multiple types of heavy machinery; led excavation of numerous roasting pit features by a crew of up to 20 people; instructed crew in carbon-14, thermoluminescence, and soil floatation sampling techniques.

**Sky Ranch Monitoring, Lennar, Santee, San Diego County, California.** As archaeological monitor, monitored mass grading activities for construction of a subdivision.

**Sky Ranch Data Recovery, Lennar, Santee, San Diego County, California.** As crew chief, conducted data recovery excavation of two prehistoric sites; led a crew of up to eight staff; drew site maps and unit profiles; collected carbon-14 and soil floatation samples.

**4S Ranch Data Recovery, 4S Ranch Company, Rancho Bernardo, San Diego County, California.** As field technician and crew chief, conducted Phase III data recovery of a large Late Prehistoric site; excavated numerous hearth features; drew site maps and unit profiles; created a site grid for unit placement; collected carbon-14 and soil floatation samples.

### EDUCATION

University of Sheffield

MS, Experimental Archaeology, 2012

University of Massachusetts, Amherst  
BA, Anthropology, 2004

BA, Italian Studies, 2004

### CERTIFICATIONS

Occupational Health and Safety  
Administration Hazardous Waste  
Operations and Emergency Response  
40-hour Course, 2011

City of San Diego, Certified Archaeological  
Monitor, 2009

### PROFESSIONAL AFFILIATIONS

Society for American Archaeology, 2012

Bath and Camerton Archaeological  
Society, 2012

Society for California Archaeology, 2008

**Atlas Monitoring and Excavation, D. R. Horton, San Diego County, California.** As archaeological monitor, monitored building/subterranean parking structure excavation; excavated historic deposits.

**The Rock Academy Monitoring, The Rock Church, San Diego, California.** As archaeological monitor, monitored building foundation excavation, trenching, and building demolition.

**Vantage Point, Point of View Monitoring LLC, San Diego County, California.** As archaeological and paleontological monitor, monitored excavation, drilling, and other construction activities during the excavation of a subterranean parking garage and building footings. Recorded and collected artifacts and marine fossils.

**Audie Murphy Ranch Monitoring, Woodside Homes, Sun City, Riverside County, California.** As archaeological monitor, monitored controlled grading of five sites in collaboration with Native American monitors; excavated hearth features; monitored construction grading.

**Roberston Ranch Data Recovery, The Corky McMillin Companies, Carlsbad, San Diego County, California.** As field technician, excavated four prehistoric sites as part of a data recovery program, including test unit excavation, wet screening, drawing and photographing profiles, excavating hearth and pit features, and artifact sorting.

**LaPozz No. 5 Lode Evaluation, Enviroscientists, Indian Wells Valley, Kern County, California.** As field director, led a crew of four people for an evaluation testing program of three prehistoric sites; prepared site form updates and site testing results for the ARMR technical report.

**Faraday Data Recovery, Carlsbad, San Diego County, California.** As field technician, excavated five prehistoric sites as part of a data-recovery program, including test unit excavation, drawing profiles, wet screening, and sorting artifacts.

## Education

**Palomar College 7 Building Historic Evaluation, Palomar Community College District, San Marcos, San Diego County, California.** As Global Positioning System (GPS) technician and photographer, assisted architectural historians in recording potentially historic buildings; photographed and recorded buildings with Ricoh digital camera, range finder, and Trimble GeoXH GPS.

**University House Excavation, University of California, San Diego, San Diego County, California.** As crew chief, conducted Phase II test excavation using wet screening; led a crew of five people.

**San Marcos Unified School District Monitoring, San Marcos Unified School District, San Diego County, California.** As archaeological monitor, monitored transplanting of endangered species by biologists prior to construction grading of site.

**Maranatha Excavation, Maranatha Christian School, Rancho Bernardo, San Diego County, California.** As field technician, excavated test units for a Phase III data recovery of an archaic period site; drew unit profiles; sorted artifacts.

## Energy

**Jacumba Solar Extended Phase 1, NextEra, Jacumba, San Diego County, California.** As principal investigator, conducted site examinations and limited shovel test pit excavation; directed a crew of two people; prepared a letter report of findings.

**San Jacinto Solar Project, NextEra, Riverside County, California.** As principal investigator, performed site visit and record search review of project area; prepared constraints analysis assessing the potential for sensitive cultural materials.

**Tule Wind Cultural Resources Testing, HDR Inc., McCain Valley, San Diego County, California.** As field director, conducted eligibility testing for one prehistoric site, led a crew of four people, and assisted in producing an ARMR report of findings.

**Occidental of Elk Hills Block Survey II, Occidental Petroleum, Taft, Kern County, California.** As field director, conducted pedestrian survey of 2,560 acres in the Elk Hills Oil Field; led a crew of six people; prepared site forms and site descriptions for technical report.

**Class III Cultural Resources Inventory, Occidental Petroleum, Taft, Kern County, California.** As field director, conducted pedestrian survey of 2,560 acres in the Elk Hills Oil Field; led a crew of six people; performed records search at the Southern San Joaquin Valley Information Center and Bureau of Land Management (BLM) Bakersfield office; prepared site forms and site descriptions for technical report.

**Five Well Pads Cultural Resources Survey, Occidental Petroleum, Kern County, California.** As field director, led a crew of two people for a Class III pedestrian survey of 60 acres near McKittrick, California; performed the record searches at the Southern San Joaquin Valley Information Center and BLM Bakersfield office.

**Vintage Kern Front Inventory, Vintage Production California LLC, Oildale, Kern County, California.** As field director, led a crew of five people for a Class III pedestrian survey of 184 acres in the Kern Front Oil Field; prepared primary record.

**Gildred Solar Cultural Resources Survey, Gildred Building Company, Ocotillo Wells, San Diego County, California.** As field director, led a crew of four for a Class III pedestrian survey of 440 acres; coordinated Native American monitor participation: assisted with preparation of ARMR technical report.

**Silurian Valley West Cultural Resources Study, Iberdrola Renewables, Baker, San Bernardino County, California.** As crew chief, led a crew of four people for a Class II pedestrian survey of 4,500 acres within the project right-of-way; assisted the field director in organizing and scheduling two field crews; trained crew members in operation of Bluetooth-enabled laser range finder.

**TL 637 Survey Santa Ysabel to Creelman, San Diego Gas & Electric, San Diego County, California.** As archaeological monitor, performed pre-construction fielding study with engineers, biologists, and construction managers for an electrical transmission line pole replacement; located previously recorded sites; helped direct new pole locations to avoid site impacts.

**East County Substation Survey, Insignia Environmental, Jacumba, San Diego County, California.** As crew chief, conducted survey of linear electric transmission line; directed a crew of three people; recorded multiple prehistoric and multicomponent sites; prepared site forms and site descriptions for technical report of findings.

**Sunrise Powerlink Evaluations, San Diego Gas & Electric, San Diego and Imperial Counties, California.** As field director, conducted subsurface testing of 17 sites; directed a crew ranging from three to six people; helped organize laboratory artifact processing.

**Devers–Palo Verde 2 Survey, Southern California Edison, Riverside County, California.** As field director, conducted Class III intensive survey of selected portions of a transmission line area of potential effect (APE); relocated and updated previously recorded sites; identified and recorded new sites.

**Colorado River Staging Yard Survey, Southern California Edison, Riverside County, California.** As crew chief, conducted Class III pedestrian survey of the Colorado River Staging Yard for the Devers–Palo Verde 2 electric transmission line near Blythe; identified and recorded numerous World War II–era sites relating to the Desert Training Center; led a crew of two people.

**Tule Wind Project Surveys, HDR Inc., McCain Valley, San Diego County, California.** As field director, conducted Class II and Class III intensive pedestrian surveys over 4,900 acres; coordinated multiple survey crews; scheduled and coordinated with Native American monitors; prepared site forms; assisted in producing an ARMR report of findings.

**Sunrise Powerlink Survey and Monitoring, San Diego Gas & Electric, San Diego and Imperial Counties, California.** As crew chief, led survey crew of four people and two Native American monitors for Class III survey of project APE; coordinated with Native American monitors; created survey schedules in conjunction with the field director and right-of-way agents.

## Federal

**Bunker Hill Survey, GSR Corporation, Imperial Beach, San Diego County, California.** As field director, conducted Class III pedestrian survey of a road improvement and fence construction covering 7.6 acres for the border fence; directed a crew of two people; recorded a previously identified site for a future nomination to the National Register of Historic Places; prepared site form update; prepared ARMR technical report of findings.

**Imperial County Drill Sites Survey, United States Geological Survey, Imperial County, California.** As field director, conducted survey of two water well drilling sites; coordinated U.S. Border Patrol escort; prepared ARMR technical report of findings.

**BLM Western Expansion Survey, TEC Environmental, Johnson Valley, San Bernardino County, California.** As crew chief, surveyed various locations throughout the BLM Johnson Valley off-highway vehicle area; identified and recorded new sites; coordinated survey schedule with the field director.

**Border Fence Project Survey and Monitoring, U.S. Army Corps of Engineers, San Diego County, California, and Pima, Santa Cruz and Cochise Counties, Arizona.** As archaeological monitor, monitored construction of the U.S./Mexico border fence; surveyed locations of proposed construction activity; mapped new archaeological sites; directed construction activities away from archaeological resources.

## Military

**Fort Irwin Solar Project, Soitec LLC, Fort Irwin, San Bernardino County, California.** As principal investigator, directed pedestrian survey of 12 acres for a proposed solar generation facility; also prepared the technical report.

**Level 3 Powerline Road Fiber-Optic Project, HP Communications Inc., Fort Irwin, San Bernardino County, California.** As principal investigator, conducted intensive pedestrian survey of approximately 10 acres; also prepared the ARMR technical report of findings.

**Naval Air Weapons Station (NAWS) Road Survey, Naval Facilities Engineering Command (NAVFAC) Southwest, Ridgecrest, Inyo, San Bernardino, and Kern Counties, California.** As field director, conducted Class III pedestrian survey of approximately 129 miles of existing roads; led a crew of four people; scheduled and coordinated with Explosive Ordnance Disposal escorts; prepared ARMR technical report of findings.

**NAWS Fiber-Optic Survey, Epsilon Systems Solutions, Ridgecrest, San Bernardino County California.** As crew chief, conducted Class III pedestrian survey for a proposed fiber-optic line; led a crew of two people; assisted the field director with scheduling.

**Delivery Order (DO) 30 Survey, NAVFAC Southwest, Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, San Bernardino County, California.** As crew chief, surveyed numerous proposed landing zones throughout MCAGCC; coordinated scheduling/training area access with the field director; prepared site forms and site descriptions for ARMR report.

**53 Aerial Maneuver Zone (AMZ) Survey, NAVFAC Southwest, MCAGCC Twentynine Palms, San Bernardino County, California.** As crew chief, surveyed numerous proposed landing zones throughout MCAGCC Twentynine Palms; coordinated scheduling/training area access with the field director; prepared site forms and site descriptions for ARMR report.

**Southwest Division (SWDIV)-04/DO 27 Survey, NAWS China Lake, NAVFAC Southwest, Ridgecrest, Inyo County, California.** As field technician, participated in a Class III intensive survey under Section 106 of National Historic Preservation Act; operated a Trimble GeoXH for navigation and site recording.

## Resource Management

**St Algar's Farm Geochemical Testing, English Heritage, Frome, Somerset, United Kingdom.** As student volunteer, helped perform a pXRF field survey of a Roman-era glass and metalworking site; excavated a 5-by-5-meter trench.

## Transportation

**Palomar Station Project Survey, Integral Communities Inc., San Marcos, San Diego County, California.** As field director, conducted Class III pedestrian survey of 14.5-acre parcel and prepared ARMR technical report of findings.

## Water/Wastewater

**Temescal Canyon and Dawson Canyon Pipelines and Non-Potable Water Tank Project, Lee Lake Water District, Riverside County, California.** As principal investigator, performed Phase I intensive pedestrian survey of the project APE; also prepared letter report of findings.

**Padre Dam Data Recovery, Padre Dam Municipal Water District, Lakeside, San Diego County, California.** As field director, conducted a data recovery project of a late prehistoric site using wet screening; led a crew of six; coordinated with Native American monitors; performed shell and ceramic lab analysis studies.

## Publications

### Professional Presentations

*Finding the Smith in Hammerscale Palais: Investigations at an Experimental Iron Production Site.* Poster presented at the 39th International Symposium on Archaeometry 2012. Co-author.

*Archaeological Investigations at Site CA-SDI-10,611: A Functional and Temporal Analysis of Subterranean Pit Features In Northern San Diego County.* Presented at Society for California Archaeology Annual Meeting 2008. Co-author.

*The Burghardts of Great Barrington: The View from the W.E.B. Du Bois Boyhood Homesite.* Presented at the Society for Historical Archaeology Conference 2005. Co-author.

### Technical Reports

2013 *Draft Archaeological Survey Report for the Fort Irwin Solar Project, Fort Irwin, San Bernardino County, California.* Brad Comeau, MSc, and Micah Hale, PhD, RPA.

2012 *Results of Extended Phase 1 Shovel Probing at Potentially Sensitive Archaeological Sites for the Jacumba Solar Project, San Diego County, California.* Brad Comeau, MSc, and Micah Hale, PhD, RPA.

2012 *Cultural Resources Report for the Extended Phase I Survey for the St. John Garabed Church Project, San Diego County, California.* Brad Comeau, MSc, and Micah Hale, PhD, RPA.

2012 *Cultural Resources Survey Report for the Lee Lake Water District Dawson Canyon Non-potable Water Storage Tank and Pipeline Design Project, Riverside County, California.* Brad Comeau, BA, and Micah Hale, PhD, RPA.

2011 *Class III Archaeological Inventory of 2,560 Acres Comprised of the Entire Sections of 10Z, 14D, 20B, 28B, 32G, Elk Hills, Kern County, California.* David Whitley, PhD, RPA; and Brad Comeau, BA; and Michelle Dalope, BA.

2011 *An Archaeological Evaluation of KER-7290, KER-7293 and KER-7294 for the LaPozz No. 5 Lode Claim (CAMC286149), Indian Wells Valley, Kern County, California.* Mark S. Becker, PhD, RPA; Brad Comeau, BA; and Tony Quach, BA.

2011 *Cultural Resources Inventory for the Gildred Solar Project, San Diego County, California.* Chad Willis, MA, RPA; Micah Hale, PhD, RPA; and Brad Comeau, BA.

2011 *Cultural Resources Inventory Report for the Rhodes Crossing Project, San Diego County, California.* Chad Willis, MA, RPA; Micah Hale, PhD, RPA; and Brad Comeau, BA.

2011 *Class II Cultural Resources Inventory for the Silurian Wind Project, Silurian Valley, San Bernardino County, California.* Diane Winslow, MA, RPA; Micah Hale, PhD, RPA; Sherri Andrews, MA, RPA; and Brad Comeau, BA.

- 2011 *An Archaeological Inventory of Historic and Contemporary Roads at Naval Air Weapons Station China Lake, Inyo, Kern, and San Bernardino Counties, California.* Brad Comeau, BA; Mark A. Giambastiani, PhD, RPA; and Oliver Patsch, BA.
- 2011 *Cultural Resources Survey Report for the Palomar Station Project, San Marcos, San Diego County, California.* Brad Comeau, BA, and Micah Hale, PhD, RPA.
- 2011 *An Archaeological Survey of Bunker Hill in Border Field State Park, San Diego County, California.* Brad Comeau, BA, Scott Wolf, BA, and Micah Hale, PhD, RPA.
- 2010 *Archaeological Survey Report for the Imperial County Drill Sites Project, Imperial County, California.* Brad Comeau, BA, and Jerry Schafer, PhD, RPA.
- 2010 *Class II and Class III Cultural Resources Inventory Report for the Tule Wind Project, McCain Valley, San Diego County, California.* Micah Hale, PhD, RPA; Brad Comeau, BA; and Chad Willis, MA.
- 2010 *Draft Study Plan for Cultural Resources: Gregory Canyon Landfill, San Diego County, California.* Don Laylander and Brad Comeau.
- 2009 *Data Recovery Excavations at CA-SDI-18472 for the Proposed Padre Dam Municipal Water District Secondary Connection Project (Ridge Hill Facilities), Johnstown, San Diego County, California.* Micah Hale, PhD, RPA, with contributions by Brad Comeau and Aaron Sasson.

### Master's Dissertation

- 2012 *Investigating Metallurgical Practice: An Experimental Study of the Sintashta Well-Tunnel-Furnace (WTF) from the Middle Bronze Age, Siberia, Russia.* University of Sheffield.

### Volunteer History

- 2012 Student Placement, English Heritage, Portsmouth, United Kingdom.

### Awards/Commendations

- 1999–2003 Francis Ouimet Scholar

### Relevant Previous Experience

- 2012–present Archaeologist, Dudek, Encinitas, California
- 2009–2011 Associate Archaeologist, ASM Affiliates Inc., Carlsbad, California
- 2008–2009 Archaeological Monitor, E<sup>2</sup>m, Denver, Colorado
- 2008 Archaeological Monitor/Field Technician, URS Corporation, San Diego, California
- 2005–2008 Field Supervisor, Brian F. Smith and Associates, Poway, California
- 2003–2004 Field/Lab Technician, University of Massachusetts Archaeological Services, Amherst, Massachusetts
- 2003 Field School in Archaeology, University of Massachusetts Amherst/Great Barrington, Massachusetts. As student, participated in site surveying and mapping using theodolite; instructed in and participated in excavation and laboratory methodology; participated in geophysical surveying.

# Matthew DeCarlo

## Archaeologist

Matthew DeCarlo is an archaeologist with more than 11 years' professional experience leading archaeological surveys and excavations, performing lithic and faunal analyses, constructing and analyzing geographic information system (GIS) data, producing cultural resource management reports, and consulting with clients, agencies, contractors, and Native American representatives.

As acting district archaeologist for the U.S. Forest Service (USFS), Mr. DeCarlo worked intensively with federal regulations and Native American tribal representatives and from this experience, has developed the ability to work collaboratively with consulting groups on multi-phase projects. Within the private sector, Mr. DeCarlo has managed the cultural resource requirements for large-scale utility projects which required extensive cooperation with utility managers, construction efforts, and Native American tribal representatives.

### EDUCATION

California State University, Bakersfield  
M.A., Anthropology, pending  
University of California, Irvine  
B.A., Anthropology, 2006

### PROFESSIONAL AFFILIATIONS

San Diego Archaeological Society  
Society for American Archaeology  
Society for California Archaeology

## Project Experience

**Municipal Waterways Maintenance Plan, City of San Diego, San Diego County, California.** Served as cultural resources project lead for the proposed Municipal Waterways Maintenance Plan for the City of San Diego. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Conducted site visits of project facilities while coordinating with a Native American representatives. Produced a report summarizing the finding of the cultural resources inventory including a cultural resources impact analysis, projected resource sensitivities, resource management recommendations, and mitigation measures. Developed a matrix indicating maintenance activities and facility locations that are exempt from further cultural review. (2017 to ongoing)

**City of San Diego Underground Utility Program, City of San Diego, San Diego County, California.** Served as manager for the cultural resource monitoring of a citywide utility underground program in the City of San Diego. Responsibilities included consultation with program representatives, scheduling and management of field technicians, oversight of daily field logs, recordation of identified cultural resources, and constructing a summary document at the completion of each project phase. (2017 to ongoing)

**All-American Canal Surface Waters Seepage Recovery Project, City of El Centro, Imperial County, California.** Served as cultural resources project lead for a proposed water recovery project outside the City of El Centro. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including a cultural resources impact analysis comparing alternate project routes, resource management recommendations, and mitigation measures. (2017 to ongoing)

**East Highline Reservoir Project, City of El Centro, Imperial County, California.** Served as cultural resources project lead for a proposed main canal offline storage reservoir project outside the City of El Centro. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the

finding of the cultural resources inventory including an impact analysis of a National Register of Historic Places listed resource, resource management recommendations, and mitigation measures. (2017 to ongoing)

**Oceanside Campus Facilities Master Plan Project, City of Oceanside, San Diego County, California.**

Served as archaeological resources project lead for a proposed renovation and redevelopment of the Oceanside Campus within the MiraCosta Community College District. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Conducted a pedestrian survey of the project area and coordination with a Native American monitor. Aided the District with AB 52 consultation including hosting project site visits with Native American representatives. Produced a report summarizing the finding of the cultural resources inventory and resource management recommendations including mitigation measures. (2017 to 2018)

**North City Project, City of San Diego, San Diego County, California.**

Served as cultural resources project lead for the proposed construction of a water purification program in the City of San Diego. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Aided the City with AB-52 tribal consultation and conducted a pedestrian survey of the project area while coordinating with a Native American monitors. Produced a report summarizing the finding of the cultural resources inventory including a cultural resources impact analysis comparing alternate project routes, resource management recommendations, and mitigation measures. (2016 to 2018)

**Morena Pipelines Project, City of San Diego, San Diego County, California.**

Served as cultural resources project lead for a proposed utility pipeline installation project in the City of San Diego. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area in coordination with a Native American monitor. Produced a report summarizing the finding of the cultural resources inventory and resource management recommendations including mitigation measures. (2018)

**1237 West 7<sup>th</sup> Street Project, City of Los Angeles, Los Angeles County, California.**

Served as lead analyst and report author for a tribal cultural resources assessment for a proposed urban development project in the City of Los Angeles. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Produced a report indicating the presence and the probability of encountering subsurface tribal cultural resources during construction. (2018)

**1375 North Saint Andrews Place Project, City of Los Angeles, Los Angeles County, California.**

Served as lead analyst and report author for a tribal cultural resources assessment for a proposed urban development project in the City of Los Angeles. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Produced a report indicating the presence and the probability of encountering subsurface tribal cultural resources during construction. (2018)

**Fig Project, City of Los Angeles, Los Angeles County, California.**

Served as lead analyst and report author for a tribal cultural resources assessment for a proposed urban development project in the City of Los Angeles. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Produced a report indicating the presence and the probability of encountering subsurface tribal cultural resources during construction. (2018)

**Adams Solar Farm Project, City of Lind, Adams County, Washington.** Developed an inadvertent discovery plan for utilization during the development of a solar farm. (2018)

**Kaiser Permanente Irwindale Medical Office Building Project, City of Irwindale, Los Angeles County, California.** Managed the cultural resource monitoring of the construction of a Kaiser Permanente medical building in the City of Irwindale. Responsibilities included consultation with program representatives, scheduling and management of field technicians, consultation with Native American representatives, oversight of daily field logs, recordation of identified cultural resources, and submitting a summary document at the completion of the project. (2017)

**Fairway Business Park Project, Lake Elsinore, Riverside County, California.** Managed the cultural resource monitoring of the construction of a business park in the City of Lake Elsinore. Responsibilities included consultation with program representatives, scheduling and management of field technicians, consultation with Native American representatives, oversight of daily field logs, recordation of identified cultural resources, and constructing a summary document at the completion of the project. (2017)

**21<sup>st</sup> Street Ditch Project, City of Del Mar, San Diego County, California.** Aided the City of Del Mar with AB-52 compliance for a proposed wastewater improvement project in the City of Del Mar. Drafted Responsibilities included drafting an AB-52 letter on the City's behalf requesting Native American representatives consultation. (2017)

**MedVic/MccVic Tower Repair Project, near the City of Yermo, San Bernardino County, California.** Served as cultural resources project lead for a proposed electrical transmission tower repair project outside the City of Yermo. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including an impact analysis of a National Register of Historic Places listed resource, resource management recommendations, and avoidance measures. (2017)

**Kaiser Permanente Murrieta Valley Medical Center Project, City of Murrieta, Riverside County, California.** Managed the cultural resource monitoring of the construction of a Kaiser Permanente medical center in the City of Murrieta. Responsibilities included consultation with program representatives, scheduling and management of field technicians, consultation with Native American representatives, oversight of daily field logs, recordation of identified cultural resources, and submission of a summary document at the completion of the project. (2016 to 2017)

**Kettner Lofts Project, City of San Diego, San Diego County, California.** Managed the preliminary cultural resources testing and the construction monitoring of the Kettner Lofts housing development in the City of San Diego. Responsibilities included directing construction personnel in the excavation of testing trenches, documentation of subsurface findings, and consulting with program representatives to establish an appropriate monitoring plan. Management of construction monitoring included scheduling and management of field technicians, consultation with Native American representatives, oversight of daily field logs, recordation of identified cultural resources, and submission of a summary document at the completion of the project. (2016 to 2017)

**Rincon Del Diablo Sewer Master Plan Project, San Diego County, California.** Served as cultural resources project lead for the proposed sewer master plan near the City of Escondido. Responsibilities

included analysis of archived records, aerial photographs, and Native American outreach. Conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including a cultural resources impact analysis comparing alternate project routes and resource management recommendations. (2016)

**Terra Vista Development Project, Victorville, San Bernardino County, California.** Served as cultural resources project lead for a proposed residential development in Rancho Cucamonga. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including resource management recommendations. (2016)

**Commercial Development Project, Morongo Valley, San Bernardino County, California.** Served as cultural resources project lead for a proposed commercial development on Twenty-nine Palms Highway, Morongo Valley. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including resource management recommendations. (2016)

**South Amargosa Plaza Project, Victorville, San Bernardino County, California.** Served as cultural resources project lead for a proposed commercial development in Victorville. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area. Produced a report summarizing the finding of the cultural resources inventory including resource management recommendations. (2016)

**RCP Walker Trails Project, City of Santee, San Diego County, California.** Served as cultural resources project lead for the proposed construction of a residential community in the City of Santee. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Conducted a pedestrian survey of the project area in coordination with a Native American Monitor. Produced a report summarizing the finding of the cultural resources inventory including a cultural resource impact analysis and management recommendations. (2016)

**1836 Columbia Street Project, City of San Diego, San Diego County, California.** Served as cultural resources project lead for a proposed urban development project in the City of San Diego. Responsibilities included analysis of archived records, aerial photographs, and Native American outreach. Also conducted a pedestrian survey of the project area and coordination with a Native American monitor. Produced a report summarizing the finding of the cultural resources inventory and mitigation recommendations. (2016)

**West of Devers Upgrade Project (WODUP), Southern California Edison (SCE), Riverside and San Bernardino Counties, California.** Served as project manager for a cultural resource impact assessment for a dual transmission line upgrade spanning from North Palm Springs to San Bernardino, California. Tasks included implementing archaeological surveys and excavations, producing a cultural resource evaluation report, and participation in construction site visits with SCE staff and construction specialists to resolve construction/resource conflicts. (2014 to 2016)

**Devers to Palo Verde 2 (DPV2) Transmission Line Project, SCE, Riverside County, California.** Served as field director for the construction of a 500 kV transmission line spanning from Blythe to Romoland,

California. Tasks included conducting archaeological surveys and excavations; managing construction monitoring teams; producing cultural resource records and reports; and consulting with SCE, construction, and Native American representatives. The final cultural resource report has been submitted and is awaiting approval. (2010 to 2015)

**Mountain Top Healthy Trees Project, USFS, Mount Pinos Ranger District, Santa Barbara County, California.** Served as the acting district archaeologist for a proposed tree thinning project. To ensure that no previously recorded resources were impacted during the tree mastication, Mr. DeCarlo conducted a records search, delineated mastication boundaries, and monitored the mastication activities.

**ARRA Wilderness Trails Restoration Project, USFS, Mount Pinos Ranger District, Santa Barbara and Ventura Counties, California.** Served as the acting district archaeologist. Fulfilled cultural resource requirements for National Environmental Policy Act (NEPA) compliance to ensure the Mount Pinos Ranger District of the Los Padres Forest received American Recovery and Reinvestment Act (ARRA) federal funds to conduct trail work within wilderness areas. This required consultation with USFS supervisors to construct a viable timetable, completion of a records search, intensive survey of trails, and collaboration with trail maintenance crew chiefs to protect threatened cultural resources.

**Cultural Resources Management for the Day Fire Reforestation Project, USFS, Mount Pinos Ranger District, Ventura County, California.** Served as the acting district archaeologist for the reforestation of areas burned during the 2007 Day Wildfire. Prior to the planting of pine tree saplings, Mr. DeCarlo performed a records search, conducted an archaeological inventory, and evaluated the post-fire condition of previously identified archaeological sites. A survey report and archaeological site records were submitted to the Los Padres National Forest Headquarters and tree saplings were planted in the spring of 2010.

**Sierra Madre Ridge Archaeological Survey and Rock Art Recordation Project, USFS, Mount Pinos Ranger District, Santa Barbara County, California.** Served as the field chief for the Sierra Madre Ridge Project, a Section 110 of the National Historic Preservation Act (NHPA) project consisting of three one-week expeditions to update site records and survey previously unrecorded portions of a known archaeological district. Tasks included leading and training volunteer teams in survey and site recordation methods, updating previously recorded archaeological sites, identification of new sites, surveying previously unrecorded land, and managing fuels near significant sites to prevent possible fire damage. A survey report, site records, and GIS mapping were completed and submitted to the Los Padres National Forest Headquarters.

**NEPA Compliance for the New Chuchupate Ranger Station, USFS, Mount Pinos Ranger District, Ventura County, California.** Served as the acting district archaeologist. To ensure NEPA compliance and ensure acquisition of ARRA federal funds, conducted a records search, collaborated with the Forest Tribal Liaison, updated previously recorded sites, mapped the existing Chuchupate Ranger Station, conducted an intensive survey, contracted an architectural historian, and submitted a report to the Los Padres National Forest Headquarters.

**Sapaski (Painted Rock) Tribal Protection Meeting, USFS, Mount Pinos Ranger District, Ventura County, California.** Served as the acting district archaeologist for the Sapaski Tribal Protection Meeting, a collaborative effort with tribal representatives and USFS supervisors to protect a significant rock art

resource. Conducted a records search and suggested possible protection strategies to tribal representatives.

**Archaeological Investigation for the Yellow Jacket Fire Project, USFS, Mount Pinos Ranger District, Ventura County, California.** Served as the acting district archaeologist for the archaeological investigation after the Yellow Jacket Fire. Conducted a records search to identify any previously identified cultural resource within burned or staging areas, appraised sites impacted by both fire and fire-fighting measures, consulted with fire personnel to determine possible impacts, and submitted a report to the Los Padres National Forest Headquarters.

# Patrick Hadel

## Associate Archaeologist and Paleontological Field Technician

Patrick Hadel is an archaeologist with experience in cultural resource interpretation and preservation, as well as archaeological field methodology. Mr. Hadel has extensive experience in all phases of archaeology, including survey, evaluation, data recovery, and monitoring as field crew and field director. He is also well versed in organizing and managing of small and large teams to complete physically demanding research projects in remote and harsh environments safely and effectively.

### Project Experience

#### Development

**Palm Avenue Distribution Center, City of San Bernardino, California.** Served as archaeological and paleontological technician monitoring excavation for this warehouse/distribution center construction.

**235 North La Luna, Phase II Evaluation, City of Ojai, California.** Served as archaeological technician for the evaluation of a property located near a well-known prehistoric village site slated for residential development.

**Yucaipa Wilson Basin III, Phase II Evaluation, City of Yucaipa, California.** Served as archaeological technician for the testing of archaeological sites identified in a residential expansion.

**Proctor Valley Village 14, Jackson-Pendo Development Co., San Diego County, California.** Served as archaeological technician. Participated in the evaluation excavation of 53 prehistoric and historic sites for a 1,300 acre residential development. Acted a laboratory technician processing artifact collection; assisted with lithic analysis.

**Yokohl Ranch Development, Yokohl Ranch Company, Tulare County, California.** Served as archaeological technician. Participated in survey of 1,900 acres and excavation of 110 prehistoric and historic archaeological sites in locations for a residential development project; acted as laboratory technician sorting and cataloging artifacts; assisted with preparation of DPR forms.

**Archaeological Test Excavation, Monitoring, and Mitigation Project for the Casa de Bandini/Cosmopolitan Hotel in Old Town San Diego State Historic Park, California State Parks, San Diego, California.** Served as field technician. Excavated conducted monitoring, testing, and mitigation for the remodeling and restoration of the ca. 1870's Cosmopolitan Hotel. Included test excavations in the interior of the Bandini adobe as well as exterior courtyard and porch.

#### Energy

**Jacumba Solar Project, Baywa/Swinerton/NextEra, Jacumba, San Diego County, California.** Served as field director for Phase I pedestrian survey of 200 acre opens space preserve. Acted as field technician for Phase II distributional testing of 100 acre solar facility; acted as field director lead archaeological monitor during project construction. Daily tasks for monitoring phase involved interaction with the construction contractors, facilities

#### EDUCATION

San Diego City College

AA, Anthropology (Awaiting Petition approval)

#### CERTIFICATIONS

California Archaeological Fieldwork, San Diego City College

Cultural Resource Management Workshop, Archer Institute

#### PROFESSIONAL AFFILIATIONS

Society for California Archaeology

California Archaeological Site Stewardship Program

American Center for Mongolian Studies

Society for American Archaeology

management, biologists, archaeologists, and Native American monitors to facilitate construction in compliance with all local, state and federal regulations in a culturally sensitive area; identified and excavated numerous thermal features, artifact scatters, and human remains during construction.

**Cal Flats Solar Project, McCarthy Construction and First Solar Inc., Shandon, Monterey and San Luis Obispo Counties, California.** Served as archaeological monitor and crew chief during construction of a 1,700 acre solar facility. Worked closely with construction contractors and Native American monitors to conduct field operations in compliance with all state and federal regulations.

**Tule Wind, Bureau of Land Management and Avengrid Renewables Inc., McCain Valley, San Diego County, California.** Served as third-party archaeological monitor for the BLM ensuring the project maintained compliance with project mitigation measures and federal regulations.

**Blythe Solar Power Project, NextEra, Blythe, California.** Served as archaeological monitor for a 6.4 square mile solar field. Ensured construction contractors were in full compliance with project mitigation measures and federal regulations.

**California Valley Solar Project, NRG/Sunpower, California Valley, San Luis Obispo County, California.** Served as lead archaeological monitor and field director for construction of a 1,900 acre solar project. Managed a crew of 5–10 archaeologists and Native American Consultants. Duties included: monitoring all soil disturbance for cultural resources, building and maintaining Environmentally Sensitive Area barriers and signage to protect cultural resources from construction impacts, and providing consultation to contractors to facilitate their compliance with all mitigation measures, state and federal cultural regulations, and to maintain an open and healthy cultural dialogue with the local Native American community.

**Ocotillo Wind, Pattern Energy, Ocotillo, Imperial County, California.** Served as archaeological monitor during construction of a 112 turbine wind farm situated in a very culturally and archaeologically sensitive location. Daily tasks included working closely with Native American monitors and construction personnel to ensure compliance with all mitigation measures and federal regulations.

**Tule Wind Project, HDR Inc., San Diego County, California.** Served as archaeological technician. Performed Class I and Class II pedestrian survey for 4,900 acre wind energy project; documented over 100 archaeological sites.

**Sunrise Powerlink Project, San Diego Gas and Electric, San Diego and Imperial Counties, California.** Served as lead archaeological monitor during construction of a 221-mile long high voltage electrical transmission line project. Acted as archaeological technician during the Phase I survey; recorded over 100 prehistoric and historic archaeological sites also acted as a Technician the Phase II evaluation and excavation of sites discovered during the survey portion.

**City of San Diego As-Needed Contract, San Diego, California.** Served as archaeological monitor for the installation of underground utilities on 10 separate projects throughout the City of San Diego. Acted as archaeological technician wet screening excavated sediments to recover human remains.

## Federal

**Dry Canyon Munitions Remediation, Army Corps of Engineers / Dawson Technical, Los Padres National Forest, Ventura, County, California.** Served as archaeological monitor, accompanied an Unexploded Ordinance team surveying for munitions during reconnaissance cleanup evaluation in a WWII-era

artillery range. Performed a pedestrian survey of munitions sampling areas prior to activities. Documented nine new archaeological sites and updates eight previously recorded site; directed crews to avoid archaeological sites.

## Military

**Camp Wilson Facilities Upgrade, NAVFAC Southwest, Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, San Bernardino County, California.** Served as archaeological monitor during the installation of upgrades to the Camp Wilson training facility on MCAGCC. Documented multiple isolates and directed crews to avoid significant sites in the vicinity of the project.

**Delivery Order 30 Survey, NAVFAC Southwest, MCAGCC Twentynine Palms, San Bernardino County, California.** Served as archaeological technician, participated in surveying numerous proposed landing zones throughout MCAGCC working closely with BEARMAT range safety and base personnel. Recorded more than a dozen new prehistoric archaeological sites.

## Transportation

**San Elijo Lagoon Double Track Project, AECOM, Encinitas and Solana Beach, California.** Served as archaeological and paleontological monitor during construction of a second mainline railroad track. Coordinated closely with project biologist, Native American monitor, and construction contractors to ensure the project was completed in compliance with all project mitigation measures and state and federal regulations.

**Mid Coast Rail Project, PGH Wong Engineering, San Diego, California.** Served as archaeological monitor during construction of a second mainline railroad track and the installation of a double-track expansion of the Blue Line Trolley. Daily activities included working closely with biologists, Native American monitors, and construction personnel to complete the project in compliance with all mitigation measures and state and federal regulations.

## Water/Wastewater

**Barrett Lake Survey, City of San Diego, City of San Diego, California.** Served as archaeological technician. Participated in the pedestrian survey of the lake shore area while the lake was at a historic low to identify potential impacts to archaeological sites during water level drawdowns; recorded 35 sites and seven isolates; prepared DPR forms and site descriptions for the survey report.

**Otay River Estuary Restoration Project, Poseidon Resources, Imperial Beach, California.** Served as archaeological technician. Participated in the evaluation excavation of four prehistoric sites, including an ethnohistoric village site; as laboratory technician, sorted and cataloged recovered materials.

## Relevant Previous Experience

**Ikh Nart Reserve, Dornogobi Province, Mongolia.** Served as staff archaeologist. The Anza-Borrego Foundation, in partnership with Denver Zoo, Earthwatch, and the Mongolian Academy of Sciences, has a cultural resource identification and preservation program at the Ikh Nartiin Chuluu biological reserve in the Northern Gobi region of Mongolia. As a staff archaeologist, led field crews during field survey, excavation, ethnographic research; with the help of local families and herders, local archaeologists, and US-based archaeologists, created a public heritage preservation outreach program for cultural resource conservation; implemented programs to raise international awareness for the preservation of cultural resources.

**Gaitaud Development and Design, San Diego, California.** Served as construction foreman assistant in high-profile residential construction projects throughout San Diego County. Managed operations of laborers and skilled labor technicians during the process of residential development. Maintained safety standards and environmental compliance for various residential and commercial construction projects throughout San Diego County.

## Specialized Training

- Field Data Collection: All Trimble products, ArcGIS, Pathfinder, CalTOPO, Total Station, GPR, Collector Apps, and Digital Theodolite.
- Extensive Construction and Development Knowledge: Operational knowledge of construction methods and terminology, experience working closely with skilled labor and construction management, lifelong experience with the world of construction, development and its various concerns.

## Conference Presentations

“Working Towards an Exportable Indigenous Heritage Management and Cultural Ranger Program in the Ikh Nart Nature Reserve, Mongolia.” Co-Authored with Terendagva Yadmaa, Ph.D., Joan Schnieder Ph.D., and Jennifer Farquhar, M.A. 2015. Presented at the Society for American Archaeology Annual Conference, San Francisco, California.

“Investigations at Burgas Ni Am Buddhist Monastery in the Northern Gobi, Mongolia.” Co-Authored with Tserendagva Yadmaa, Ph.D. and Dalantai Sereuya. 2014. Presented at the Society for American Archaeology Annual Conference, Austin, Texas.

“A Mongolian Quarry Landscape in the Northern Gobi.” Co-Authored with Joan Schneider Ph.D. and Tserendagva Yadmaa, Ph.D. 2014. Presented at the Society for American Archaeology Annual Conference, Austin, Texas.

“Toward a Cultural Heritage Management Program for Ikh Nart Nature Reserve, East Gobi Province, Mongolia: A Pioneer International Effort Based on the California State Parks Cultural Resources Preservation Model in the Eastern Gobi Desert of Mongolia.” 2013. Poster presented at the Society for American Archaeology Annual Conference, Honolulu, Hawaii.

# Scott Wolf

## Archaeologist

Scott Wolf is an archaeologist with more than 15 years' experience in professional archaeology. He graduated from the College of Charleston with a bachelor of arts (BA) degree in anthropology in 1996 and has worked in the San Diego area since 2003. Mr. Wolf has most often been involved in field directing or leading in survey, testing, data recovery, paleoecological studies, remote sensing, and construction monitoring throughout California for the last 11 years. He is certified by the City of San Diego as an archaeological monitor and has security clearances for military installations in Southern and central California, including Naval Base Point Loma (NBPL) and San Clemente Island (SCLI) Naval Auxiliary Landing Facility (NALF). Along with being well versed in military history, historic artifact analysis, and the analyses of invertebrate remains, Mr. Wolf specializes in military history and aviation and military-related archaeology. He was among the award-winning team of archaeologists and architects who provided historical evaluation and mitigation services for the Cosmopolitan Hotel in Old Town San Diego State Historic Park for California State Parks (CSP).

## Employment History

- Senior archaeologist, NWB Environmental Services LLC, San Diego, California, 2014.
- Associate archaeologist, ASM Affiliates Inc., Carlsbad, California, 2003–2014.
- Associate archaeologist, Brockington and Associates, Mount Pleasant, South Carolina, 1997–2014.

## Other Capabilities

- San Diego history
- Military history
- Expert artifact identification and analysis
- Invertebrate marine shell speciation
- Cartography
- Global Positioning System (GPS) data collection.

## Clearances

- Department of Defense (DoD) clearance for Space and Naval Warfare Systems Command (SPAWAR)
- DoD clearance for NBPL
- DoD clearance for SCLI

## EDUCATION

College of Charleston  
BA, Anthropology, 1996  
Norwich University  
MA, History, in progress

## CERTIFICATIONS

40-hour training Hazardous Waste Operations and Emergency Response (HAZWOPER) (issued 09/18/2013)  
NCTD Railroad Safety  
Adult CPR and first aid training

## PROFESSIONAL AFFILIATIONS

Society for California Archaeology  
Pacific Coast Archaeological Society  
San Diego Archaeology Center  
Historical Congress of San Diego  
San Diego County Archaeological Society

## TRAINING

2008–2014, 8-hour HAZWOPER refresher training  
2007–2008, Training seminars for aviation archaeology field, lab, and research methods  
1996, Paleontology/paleoanthropology field school, Red Desert Basin Project, Red Desert, Wyoming  
1995–1996, Laboratory internship at the Nathaniel Russell House, Historic Charleston Foundation, Charleston, South Carolina

## AWARDS

2011, Preservation Design Award in Recognition of Outstanding Achievement in the Field of Historic Preservation for the Cosmopolitan Hotel Restoration Project

- DoD clearance for Marine Corps Base Camp Pendleton (MCBCP)
- DoD clearance for Edwards Air Force Base (EAFB)
- DoD clearance for Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC)
- Camp Pendleton Range Safety Officer (RSO), non-live fire range certified 2006–2008
- Unexploded ordnance (UXO) safety training for Twentynine Palms MCAGCC and SCLI.

## Independent Research

- Military History of San Diego and Southern California and Military Munitions Casing Head-Stamp Identification Database.

## Laboratory Experience

- 10 years of laboratory lab analysis for projects spanning Southern California.
- Two internships with Martha Zierden and Ron Anthony of the Charleston Museum, Charleston, South Carolina.

## Selected Project Experience

**Verizon Wireless Tower Expansion Project, Aarcher Inc., Federal Communication Commission, Southern California.** As senior archaeologist and historian, participated in all levels of Phase I cultural and historical investigations, including but not limited to record searches, Native American Heritage Commission (NAHC) consultation, public awareness notification procedures, field surveys, and Archaeological Resources Management Report (ARMR) report preparation for the construction of new Verizon data towers throughout Southern California counties. The specific tower projects to date include:

- The Saint Clair Tower Project, Van Nuys, Los Angeles County, California
- The Ossierra Tower Project, Palmdale, Los Angeles County, California
- The Wild Pony Tower Project, Fontana, Riverside County, California
- The Merchant Tower Project, Los Angeles, Los Angeles County, California
- The Covington Tower Project, Morongo Valley, San Bernardino County, California

**1833 Dragoon Officer's Dress Uniform Assessment, Stabilization, and Long-Term Storage Project, CSP, San Diego County, California.** As senior archaeologist, military historian, and project lead, participated in the removal of the dragoon uniform from its display case at the San Pasqual Battlefield Museum. Removed the uniform from the non-standard mannequin, assessed and documented the current conditions of the uniform, and stabilized and prepared the uniform for long-term storage at the California Statewide Museum Collections Center in Sacramento, California.

**Palo Verde Wilderness Area Survey Project, United States Department of the Interior (USDI) Bureau of Reclamation, Imperial County, California.** As associate archaeologist, participated in survey and site recordation for a Class III, 1,339-acre inventory and condition assessment, and re-evaluation of National Register of Historic Places (NRHP) eligibility of the Palo Verde Point Wilderness Area.

**Point Fire Rehabilitation Cultural Resource Survey Project, Bureau of Land Management (BLM), Gooding County, Idaho.** As associate archaeologist, conducted a Class III cultural resources inventory and survey of 2,782 acres on BLM lands outside of Twin Falls, Idaho.

**San Diego Mission de Alcalá Collections Management Project, San Diego County, California.** As associate archaeologist, participated in the long-term management of the San Diego Mission artifact collections. Upgraded the archaeological collections to current archival and curation standards.

**Eastern Service Area (ESA) Secondary Connection Padre Dam Project, Helix Environmental Planning, San Diego County, California.** As associate archaeologist, conducted the field survey and initial evaluations of the proposed property area, prepared a report to summarize the status of knowledge concerning cultural studies in the area, and documented sites for the Padre Dam pipelines.

**San Diego Gas and Electric (SDG&E) Pole Brushing Survey, SDG&E, San Diego, Orange, and Imperial Counties, California.** As associate archaeologist, conducted monitoring of wood-to-steel power pole replacement and made recommendations for mitigation based on cultural resources found in the project area.

**Laguna Fire Monitoring Project, SDG&E, San Diego County, California.** As associate archaeologist, conducted initial damage evaluations and monitored all clean-up/repair efforts within the historic community for emergency pole and overhead conductor work and facility restoration during the Chariot Fire on Mount Laguna.

**Tule Wind Geotechnical Monitoring and NRHP Nomination Project, Iberdrola Renewables, San Diego County, California.** As lead project monitor, coordinated and conducted monitoring for geotechnical work during the field operations of the Tule Wind Project.

**Tie-Line 605 Underground Conversion Project, SDG&E, San Diego County, California.** As associate archaeologist, conducted archaeological monitoring during grading, trenching, excavation, and conversion activities associated with the undergrounding of existing transmission line 605 in Sherman Heights.

**Palomar Station Monitoring Project, Integral Properties, San Diego County, California.** As lead project archaeologist, conducted the testing and monitoring during field operations, based on a recommendation from a prior ASM Affiliates cultural resource study. Prepared the initial report for the development of the Palomar Station property.

**Outlets at the Border Archaeological Monitoring Project, BRG Consulting, San Diego County, California.** As associate archaeologist, conducted the initial resource evaluation and monitoring for the proposed development of the Outlets at the Border. Acted as liaisons for the project client.

**El Dorado Parkway Survey and Evaluation Project, Helix Environmental Planning, San Diego County, California.** As project archaeologist, led and conducted a 0.55-acre survey and excavated three shovel test pits at the El Dorado Parkway. Prepared the initial evaluation report.

**Broadstone Balboa Park Monitoring, San Diego Natural History Museum, San Diego County, California.** As lead project archaeologist, conducted both the testing and monitoring during grading in Balboa Park for the proposed project. Prepared the initial report for the development project.

**San Diego County Fuels Reduction Parcel Preparation, Environmental Resource Solutions, San Diego County, California.** As associate archaeologist, led team of Native American monitors and archaeologists during survey and evaluation of identified County resources along State Route (SR) 78/79 and the Whispering Pines community in Julian, California.

**Civita Horizon I Development Phase B/M F Project, Sudberry Properties, San Diego County, California.** As associate archaeologist, conducted a records search and performed archaeological monitoring for the Quarry Falls Grading Project. Prepared the initial monitoring report.

**Juan and Taylor Streets Pothole Monitoring Project, Atkins, San Diego County, California.** As associate archaeologist, conducted cultural resource monitoring and initial project evaluations for potholing of existing underground utilities. Prepared the initial monitoring report.

**Soitec–Borrego Springs Desert Greens, RBF Consulting, San Diego County, California.** As field director, led the Phase I archaeological survey and evaluation of two off-site improvement corridors for the proposed installation of a concentrated CPV solar farm.

**Jacumba Historic Trash Scatters Evaluation Project, SDG&E, San Diego County, California.** As associate archaeologist, conducted the preliminary assessment of eligibility under California Environmental Quality Act (CEQA) for historic trash deposits located on three mitigation parcels for the Eco Substation Project.

**Mission San Diego de Alcala Trench Test Excavations, Mission San Diego de Alcala, San Diego County, California.** As field director, led the subsurface testing, excavation, and evaluation of historic features on the project property. Prepared artifacts for curation and authored the final report.

**1625 Newton Avenue Cultural Resource Services Project, B&G Consultants, San Diego County, California.** As associate archaeologist, prepared the initial negative monitoring report for the construction monitoring performed for the Monarch School Project.

**Silurian Valley West Cultural Resources Study, Iberdrola Renewables, San Bernardino County, California.** As field archaeologist, conducted a Class III archaeological survey and inventory for the proposed Silurian Valley West solar energy generation facility.

**Goetz Road Monitoring Project, Riverside County Transportation Department, Riverside County, California.** As associate archaeologist, prepared the initial negative monitoring report for the archaeological and paleontological monitoring performed during geotechnical grading and earth-movement activities during the realignment of Goetz Road.

**Sol Orchard Boulevard B Survey and Evaluation Project, RBF Consulting, San Diego County, California.** As field director, led the 105-acre pedestrian survey and excavation testing and evaluation of multiple historic sites for the proposed Sol Orchard area in order to relocate and update site documentation. Prepared the initial project report for the project.

**Moonlight Beach Emergency Test Excavations and Monitoring, City of Encinitas, San Diego County, California.** As lead project archaeologist, conducted the testing and monitoring during field operations at Moonlight Cove. Authored the initial report for the development project.

**Campo Wind Farm Supplemental Inventory Survey Project, AECOM, San Diego County, California.** As field director, led a team of Native American monitors and archaeologists during survey of additional areas of the Campo Invenenergy in support of the proposed development of a wind farm on the Campo Indian Reservation.

**Archaeological Testing of the Urbana (10th Avenue) Apartments, H.G. Fenton Company, San Diego County, California.** As lead project archaeologist, conducted cultural resource monitoring and field investigations during grading for the Urbana Project, as recommended by an initial evaluation of the project site. Prepared the initial report for the development project.

**PN 15220.08 Sorrento to Miramar Double Track, Task 54 Tunnel Alternatives Survey Project, North County Transit District (NCTD), San Diego County, California.** As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project right-of-way (ROW) in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

**PN 15220.09 Sorrento to Miramar Double Track Phase 1, Task 47 Test Excavations Project, NCTD, San Diego County, California.** As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project ROW in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

**Naval Auxiliary Landing Airfield SCLI Signage Maintenance Project, Naval Facilities Engineering Command (NAVFAC), Orange County, California.** As field archaeologist, assisted with the maintenance of protective signing for over 750 sites on northern and central SCLI in order to keep vehicular traffic and other ground-disturbing activities off marked cultural deposits.

**Golden Oasis Exploration Cultural Resources Inventory Project, Enviroscientists, Washoe County, Nevada.** As associate archaeologist, conducted a Class III intensive cultural resource inventory for proposed mining exploration on lands administered by BLM in Battle Mountain, Nevada.

**Southwestern College Modernization Project, BRG Consulting, San Diego County, California.** As associate archaeologist, conducted archaeological monitoring during all earth-movement activities for the modernization of Southwestern College.

**North Embarcadero Visionary Plan, Phase 1 Monitoring Project, Atkins, San Diego County, California.** As lead archaeological monitor, provided archaeological monitoring during ground-disturbing activities at the project site, as recommended by a previously conducted records search of the project area. Prepared the initial monitoring report.

**North Embarcadero Visionary Plan (NEVP) Phase 1 Archaeological Monitoring, San Diego Unified Port, Port of San Diego, San Diego County, California.** As associate archaeologist, conducted archaeological monitoring of the NEVP study area.

**Sorrento to Miramar Double Track Phase 2, David Evans and Associates, San Diego County, California.** As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project ROW in the Cities of Cardiff, Del Mar, and Sorrento Valley.

**Jeff Valley Parcels Historic Evaluation Project, SDG&E, San Diego County, California.** As field director, led excavations testing and evaluating of multiple historic features on the Jeff Valley parcels to aid in the evaluation of eligibility to the NRHP.

**15th and Market Archaeological Testing and Monitoring Project, Holland Construction, San Diego County, California.** As field director, led excavations testing and evaluation of multiple historic features on the eastern half of Block 175 in the East Village neighborhood of Downtown San Diego. Conducted archaeological monitoring during project development activities and prepared the initial project report for the proposed development.

**Quarry Creek Monitoring Project, McMillin Land Development, San Diego County, California.** As lead project monitor, conducted three days of archaeological monitoring during geotechnical drilling on the Panhandle Property and prepared the initial monitoring report.

**Rough Acres Ranch Cultural Resources Survey, REC Consultants, San Diego County, California.** As field director, led excavations testing and evaluation of multiple historic and prehistoric sites on the Rough Acres Ranch property. Prepared the initial project report for the proposed development.

**Carmel Valley Road Widening-T4.3 Project, Hunsaker & Associates, San Diego County, California.** As associate archaeologist, conducted the initial resource evaluation for the widening of Carmel Valley Road and acted as liaison for the project client.

**PN 17850.02 Bunker Hill Monitoring Project, Gulf South Research Inc., San Diego County, California.** As field director, led archaeologists and monitors during the survey and then coordinated the subsequent monitoring of Gulf South Research Inc.'s International Border Fence project at Bunker Hill, adjacent to the CSP Friendship Circle Park located at the U.S.–Mexico International Border.

**CSP Friendship Circle Unanticipated Discoveries Project, Gulf South Research Inc., San Diego County, California.** As project archaeologist, conducted monitoring and feature evaluation during the remodeling of the CSP's Friendship Circle Park Area and International Border Monument located at CSP Friendship Circle Park along the U.S.–Mexico International Border.

**San Marcos High School Monitoring Project, San Marcos Unified School District, San Diego County, California.** As lead archaeological monitor, conducted field monitoring during rough grading and trenching phases of construction at San Marcos High School. Acted as point of contact and monitoring coordinator.

**Palomar College Data Recovery and Mitigation Monitoring Project, RBF Consulting, San Diego County, California.** As field director, led the team of archaeologists and monitors during grading activities in order to mitigate the impact of undiscovered buried cultural resources in the project area and conducted the subsequent data recovery at Palomar Community College North Education Center.

**Broadstone Little Italy Archaeological Testing and Monitoring, San Diego Natural History Museum, San Diego County, California.** As lead project archaeologist, conducted both the testing and monitoring during field operations and prepared the initial report for the project.

**Border Plaza Cultural Resource Monitoring, The Shamrock Group, San Diego County, California.** As associate archaeologist, conducted the initial resources study and archaeological monitoring during grading of the proposed Plaza at the Border Project.

**Rhodes Crossing Data Recovery Project, Sea Breeze Properties LLC, San Diego County, California.** As field director, led excavations testing and evaluating multiple historic and prehistoric sites for the Rhodes Crossing Project. Prepared the initial project report for the proposed development.

**University House Archaeological Testing and Monitoring Project, UCSD, San Diego County, California.** As field director, led excavations and coordinated Phase I archaeological monitoring associated with the cliff stabilization, construction, and revitalization of the University House on the University of California, San Diego campus.

**Archaeological Test Excavation, Monitoring, and Mitigation Project for the Casa de Bandini/Cosmopolitan Hotel in Old Town San Diego State Historic Park, CSP, San Diego, California.** As field director, conducted monitoring, testing, and mitigation for the remodeling and restoration of the ca. 1870's Cosmopolitan Hotel. Included test excavations in the interior of the Bandini adobe as well as exterior courtyard and porch.

**Archaeological Test Excavation and Mitigation Project for the Seeley Windmill/Stables in Old Town San Diego State Historic Park, CSP, San Diego, San Diego County, California.** As field director conducted the monitoring, testing, and mitigation for a multiphased project that included the identification and relocation of two ca. 1870s historic windmill/well locations, the identification of cobble foundations for previously unrecorded historic structures, and general testing for subsurface cultural resources potentially impacted by modern disturbances.

**Archaeological Resources Survey for the Melrose Station Market Survey Project, Gatlin Development, Oceanside, San Diego County, California.** As field director, conducted a pedestrian survey and wrote the initial project report for the proposed development of the Melrose Station Market.

**The Archaeological Test Excavation and Monitoring Project for the Walach and Goldman Square in Old Town San Diego State Historic Park, CSP, San Diego County, California.** As field director, conducted monitoring and test excavations to determine the presence or absence of cultural resources in the footprint of new structures and remodeling of the commercial Square.

**Archaeological Test Excavation and Monitoring Program at El Fandango Restaurant, Old Town San Diego State Historic Park, CSP, San Diego County, California.** As field director, conducted test excavation and monitoring and mitigation for subsurface cultural resources that were impacted by the remodeling of the patio and bathrooms for the restaurant and prepared reporting for the client. This project was unique in that during the discovery of an intact brick floor feature, ASM Associates was able to provide rare feature elevations that help to diagnose other historic events for all of Old Town State Historic Park.

**Site Survey, Site Record Evaluations, and Site Documentation Activities for Sea-Based Weapons and Advanced Tactics School (SWATS) 4 and 5 Site Documentation Project, NAVFAC Southwest, NALF SCLI, Los Angeles County, California.** As associate archaeologist, participated in the archaeological site survey, site record evaluations, and site documentation activities on SCLI.

**Archaeological Evaluation of the Otay Mesa Yamamoto Property, Kearny Real Estate Company, San Diego, San Diego County, California.** As field director, conducted archaeological testing and evaluation of a portion of prehistoric site CA-SDI-7208/CA-SDI-7857.

**Archaeological Study for the South Lake Park Master Plan, Project Design Consultants, San Marcos, San Diego County, California.** As field director, conducted cultural resources survey for the South Lake Park property.

**NCTD Bridge Replacement Project Existing Conditions – Cultural and Historical Resources, BRG Consulting for NCTD, San Diego County, California.** As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD’s project ROW in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

**Archaeological Site Survey, Site Record Evaluations, and Site Documentation Activities for the Infantry Operational Area (IOA) Site Documentation Project, NAVFAC Southwest, SCLI, Los Angeles County, California.** As associate archaeologist, participated in archaeological site survey, site record evaluations, and site documentation activities on central and SCLI.

**Cultural Resources Survey of the Tulloch Property, Greystone Environmental, Santa Ysabel, San Diego County, California.** As associate archaeologist, helped conduct an intensive survey of the existing and the proposed SDG&E utility corridors on the Tulloch property.

**Creekside Sewer Lateral Project, Carter Reese & Associates, San Diego, San Diego County, California.** As field director, conducted survey of the proposed Creekside Sewer Lateral to determine the presence or absence of potentially significant cultural resources within both of the project boundaries.

**Yuma Pivot Point Survey Project, Yuma, Arizona.** As associate archaeologist, participated in ground penetrating radar survey (GPR) for archaeological remains of the Southern Pacific Railroad Bridge across the Colorado River. Prepared for the Yuma Crossing National Heritage Area.

**Cultural and Paleontological Resource Study for the Towne Center Project, T&B Planning, City of Perris, Riverside County, California.** As field director, conducted a cultural resource study to assess the presence or absence of potentially significant resources within the project boundaries for CEQA compliance.

**Extended Phase I Testing at Prehistoric Sites CA-SDI-10879, CA-SDI-10880, and CA-SDI-12155 near Bonsall, California Department of Transportation (Caltrans) District 11, San Diego County, California.** As associate archaeologist, participated in the testing of four prehistoric archaeological sites along SR-76 to determine whether or not intact subsurface archaeological deposits were present.

**Canyon Trails Cultural Resource Phase I and II Studies, T&B Planning, Hemet, Riverside County, California.** As field director, led the testing of 13 prehistoric sites located in Reinhardt Canyon.

**Cultural Resources Monitoring for the Babbitt Parcel of the Amber 58 Project, California West Homes, Vista, San Diego County, California.** As cultural resource monitor, conducted archaeological monitoring of grading associated with residential development on the project property.

**Archaeological Investigations at University House, CA-SDI-4669 (SDM-W-12), University of California at San Diego (UCSD), La Jolla, San Diego County, California.** As field director led the geotechnical testing phase of the archaeological investigations. Participated in the Canine Forensic Investigation Phase of the University House Project, which proposed the replacement of the existing University House facility at UCSD.

**Cultural Resource Survey of 683 Thunderbird Drive, Western Mutual Development Corporation, Oceanside, San Diego County, California.** As field director, administered the archaeological survey of the residence located at 683 Thunderbird Drive in Oceanside.

**Cultural Resource Inventory for the San Marcos Creek SPA Project, City of San Marcos, San Diego County, California.** As associate archaeologist, participated in cultural resources survey covering over a total of 262 acres conducted for the San Marcos Creek Project.

**Extended Phase I Testing for Prehistoric Site SDI-16498, Caltrans District 11, Bonsall, San Diego County, California.** As field director, conducted extended Phase I testing at CA-SDI-16498 to determine whether or not an intact subsurface archaeological deposit was present.

**Records Search and Field Survey for Orienteering Course, NAVFAC Southwest, Coronado, San Diego County, California.** As field archaeologist, surveyed 71 orienteering points used by the U.S. Navy as part of a land navigation training exercise conducted by the Naval Special Warfare Center (NSWC) at Laguna Mountain Recreation Area (LMRA).

**Cultural Resources Inventory of Johnson Valley Off-Highway Vehicle (OHV) Recreational Use Area, BLM, San Diego County, California.** As field archaeologist, conducted an inventory of approximately 2 km<sup>2</sup> maintained by BLM for the Scripps Institutes Calico Fault Seismic Study and authored the subsequent technical report.

**Cultural Resources Monitoring for the Hotel Circle South Project, San Diego County, California.** As cultural resource monitor, observed ground-disturbing activities for the Hotel Circle South Project.

**Archaeological Survey of the Morrison Advanced Mitigation Parcels, Caltrans District 11, Bonsall, San Diego County, California.** As field archaeologist, conducted an archaeological inventory of the Morrison Advanced Mitigation Parcels.

**Archaeological Survey of the Singh Advanced Mitigation Parcel, Caltrans District 11, Oceanside, San Diego County, California.** As field archaeologist, conducted an archaeological inventory of the Singh Advanced Mitigation Parcels.

**Archaeological Survey of the Groves Advanced Mitigation Parcels near Bonsall, Caltrans District 11, San Diego County, California.** As field archaeologist, conducted an archaeological inventory of the Groves Advanced Mitigation Parcels.

**SDI-10723 Data Recovery, NAVFAC Southwest, MCBCP, San Diego County, California.** As archaeologist, assisted with identifying and organizing the artifact collection derived from data recovery of prehistoric site SDI-10723.

**Historic Mining Context for the Western Barry M. Goldwater Range and Archaeological Inventory of the Historic Fortuna Mine and Campsite, NAVFAC Southwest, Yuma County, Arizona.** As associate archaeologist, participated in the historic mining context survey and Class III archaeological survey and recorded features using Trimble GPS technology.

**Archaeological Testing and Evaluation of Four Sites for the Dual Magnet High School Project, Vista Unified School District, San Diego County, California.** As field director, conducted test evaluations at four sites potentially impacted by the proposed development of the new Dual Magnet High School. In the lab, supervised the processing, cataloging, analysis, and curation of artifacts recovered during the testing; authored technical report.

**Archaeological Survey of the Ridge Creek Property, Leising Builders, Fallbrook, San Diego County, California.** As field director, conducted cultural resource survey of the Ridge Creek Property. The project involves the subdivision of a 30.36-acre lot into 14 lots at a minimum of 2.0 acres per lot.

**Phase I Cultural Resource Survey of 2,500 Acres in Four Priority Areas, EAFB, Kern and Los Angeles counties, California.** As associate archaeologist, participated in Class III cultural resources survey and inventory of approximately 2,500 acres in four “priority areas” located on Mercury Boulevard at the center of EAFB and adjacent to Rogers Dry Lake.

**Archaeological Data Recovery for the Hard Rock Hilton, 5th Rock LLP for Centre City Development Corporation, Downtown San Diego, California.** As archaeologist, assisted with organizing the artifact collection derived from data recovery of historic features identified during construction monitoring.

**Viejas Northwest Grade Evaluation Project, Viejas Band of Kumeyaay Indians, Alpine, San Diego County, California.** As field crew, conducted excavation of sites along the northwestern boundary of the Viejas Indian Reservation. Assisted with the collection and processing of artifacts.

**Archaeological Survey of the Lee Lake Expansion Project, Lee Lake Water District, Riverside County, California.** As field director, conducted archaeological survey of the Lee Lake Reservoir in Riverside County. Coordinated with principal investigator and conducted an additional site visit accompanied by a member of the Pechanga Band of Mission Indians.

**Data Recovery Excavations at CA-SDI-16691, SVP Jackson Pendo Development Company, Escondido, San Diego County, California.** As field archaeologist, conducted data recovery to mitigate impacts to prehistoric site SDI-16691.

**Archaeological Testing and Evaluation of CA-SDI-16069 and CA-SDI-17526, BRG Consulting Inc., San Diego County, California.** As field archaeologist, conducted testing to determine the extent and character of potentially significant prehistoric resources situated within the Viejas Indian Reservation on property owned in fee by the Tribe.

**Testing and Evaluation of Site CA-SDI-11021 for the Proposed Tecolote Canyon Wetlands Mitigation Project, City of San Diego Metropolitan Wastewater Department, San Diego County, California.** As field archaeologist, conducted testing to determine the extent and character of potentially significant prehistoric and historic resources within the Tecolote Canyon Wetlands.

**Archaeological Monitoring for the Los Penasquitos North Wetland Creation Project, City of San Diego Metropolitan Wastewater Department, San Diego County, California.** As cultural resource monitor, observed ground-disturbing activities for the Los Penasquitos North Wetland Creation Project.

**Archaeological Monitoring of CA-SDI-10148, Caltrans District 11, Santee, San Diego County, California.** As cultural resource monitor, observed ground-disturbing activities near known archaeological sites partially contained within the Forester Creek biological mitigation site.

**Archaeological Testing and Evaluation at Two Sites, CA-SDI-222 (Monument Mesa Site) and CA-SDI-4281 (Lichty Mesa Site), Border Field State Park, CSP, San Diego County, California.** As field archaeologist, determined the extent and character of two potentially significant prehistoric resources during evaluation.

**Archaeological Survey of Military Family Housing (MFH) Site 8, NAVFAC Southwest, Marine Corps Air Station (MCAS) Miramar, San Diego County, California.** As field archaeologist, conducted an archaeological survey at the MFH Site 8 housing area and within areas proposed for development as an access road. Although a portion of the housing project area had been previously surveyed, the area was subsequently burned and the State Historic Preservation Office (SHPO) required additional surveying due to improved visibility. The access road alignment had not been set, and the survey was used in a constraints analysis.

**Historical Resources Survey of Black Mountain Open Space Park, City of San Diego, San Diego County, California.** As field archaeologist, conducted a cultural resources inventory of this 1,314-acre city park. Assisted with extensive research on the Black Mountain Mine, located on the north slope of the mountain. The project is being conducted to prepare a NRHP mining district nomination form for remnants of the mining operation still existing on-site.

**Cultural Resources Survey for a Fuel Reduction Project in the Julian Area, Atkins, San Diego County, California.** As field archaeologist, conducted a field survey along five major roadways near the town of Julian: SR-79 from Julian to Lake Cuyamaca, SR-78 from Santa Ysabel to Julian, SR-78 Banner Grade/Whispering Pines, SR-79 South, and Sunrise Highway. The project area consisted of a 200-foot corridor on both public and private lands along both sides of these roads. Four previously recorded sites and 16 newly discovered sites were identified as being near or within areas proposed for tree removal.

**Archaeological Testing and Evaluation for the Tank Farm MILCON Project, Shaw Environmental for NAVFAC Southwest, Navy Base Point Loma, San Diego County, California.** As field archaeologist, assisted with delineating, recording, and assessing the integrity of a prehistoric locus uncovered by erosion from heavy rains in 2004–2005. Helped to evaluate the integrity and NRHP significance of the site in compliance with Section 106 of the NHPA.

**Archaeological Survey of the Lakeland Reservoir, Atkins, Riverside County, California.** As field director, conducted survey of the project and identified five historic structures slated for demolition within the proposed project area, including a private ca. 1920s residence located at 17255 Encina Drive, the Adelfa Reservoir, the Encina Pump Station, the Cottrell Reservoir, and the Cottrell Pump Station.

**Phase II Test Excavations at Six Sites in the Lavic Lake Training Area, MCAGCC, Twentynine Palms, San Bernardino County, California.** As field archaeologist, conducted Phase II test excavations and evaluation of five prehistoric habitation sites and one lithic quarry located south and east of Lavic Lake.

**Phase I Cultural Resources Survey of 2,000 Acres in the South Range, Epsilon Systems Solutions, Naval Air Weapons Station (NAWS) China Lake, Ridgecrest, Inyo County, California.** As field archaeologist, surveyed 2,000 acres in a rugged portion of the South Range at NAWS. Documented 21 archaeological sites, including prehistoric rockshelter habitations, lithic scatters, isolated rock features, and a historic fence.

**Phase I Cultural Resources Survey of 1,640 Acres in the Quackenbush Training Area, MCAGCC Twentynine Palms, San Bernardino County, California.** As field archaeologist, conducted Class III survey of 1,640 acres in a relatively disturbed area of the Quackenbush training area. Documented three small lithic quarry sites.

**Phase I Inventory of 1,100 Acres and Phase II Evaluation of Archaeological Sites along the Western and Northwestern Base Boundaries, EAFB, Kern County, California.** As field archaeologist, conducted a Class III inventory of 1,100 acres. Documented 40 new archaeological sites, more than a dozen “submodern” refuse dumps, and a variety of isolated finds. Conducted excavations revealing intact prehistoric sites with relatively low data potential and historic sites impacted by illegal activities, though retaining good data potential.

**All-American Canal Lining Project Survey, Imperial Irrigation District, Imperial County.** As field archaeologist, conducted a large-scale Class II and III inventory and random sample survey. Completed survey of the 4,200-acre ROW along approximately 23 miles of the All-American Canal. Conducted a 10% random sample survey that encompassed an additional 743 acres. This project was undertaken for use in planning the placement of quarrying and staging areas for the proposed canal lining project.

**Archaeological Survey of the Miramontes Road Property, Helix Environmental, Jamul, San Diego County, California.** As field director, conducted archaeological survey of the 19-acre project area. One large habitation site was identified during survey and documented. Prepared an ARMR-format report for submission to the County of San Diego.

**San Vicente Emergency Storage Project Cultural Resources Survey, Atkins, San Diego County Water Authority (SDCWA), San Diego County, California.** As field archaeologist, assisted with a cultural resources study of the San Vicente Reservoir, which the SDCWA proposes to expand by adding height to the existing dam, resulting in the inundation of additional land. Compiled expanded field survey information for evaluation of potential impacts to NRHP-eligible sites within the project area of potential effect (APE).

**Archaeological Monitoring for the Agua Hedionda Lagoon Bridge Replacement, NCTD, Carlsbad, San Diego County, California.** As archaeological monitor, observed construction during replacement of the railroad bridge over Agua Hedionda Lagoon in Carlsbad. Coordinated with construction and railway personnel. Certified to survey along railways.

**Evaluation of 30 Sites in the Quackenbush Range, TEC Inc., MCAGCC, Twentynine Palms, San Bernardino County, California.** As field archaeologist, conducted archaeological excavation of 30 sites within the Quackenbush training area. Assisted with mapping and surface collection of artifacts and artifact processing.

**Pankey Ranch Test Excavations, Pardee Homes, San Diego County, California.** As field archaeologist, conducted archaeological excavation of an ethnohistoric village located near Bonsall. Observed the excavation of backhoe trenches for testing of the site.

**Coachella Canal Data Recovery, Coachella Valley Water District, Riverside County, California.** As field archaeologist, conducted data recovery on two prehistoric fish camp sites located on the relic shoreline of ancient Lake Cahuilla that are expected to be impacted by the Coachella Canal Lining Project. Project conducted on lands administered by USDI Bureau of Reclamation.

**Caltrans TEA21 Rural Roadside Inventory, Caltrans District 11, San Diego County, California.** As field archaeologist, participated in survey of 121 miles of rural roads in eastern San Diego County including SR-76, SR-78, and SR-79. Prepared field mapping and site forms. Thirty-five sites were recorded or updated during the survey.

**Archaeological Monitoring for the Lillian Place Apartments, Wakeland Housing and Development, Downtown San Diego, California.** As archaeological monitor, observed earthmoving activities for the demolition of three historic buildings and excavation for subsurface utilities at 13th and K Streets in Downtown San Diego.

**Extended Phase I Investigations of Archaeological Sites along SR-76, Caltrans District 11, Bonsall, San Diego County, California.** As field archaeologist, investigated a series of prehistoric archaeological sites along the ROW between the Bonsall Bridge and Interstate 15. Conducted site survey, mapping, and testing in compliance with Section 106.

**NBPL Site Recordation, Commander Navy Region Southwest, Point Loma, San Diego County, California.** As field archaeologist, relocated 33 sites on NBPL. Reviewed site documentation and rerecorded sites that were improperly documented by past surveys.

**Data Recovery of Locus O, Star Canyon Development, Agua Caliente Band of Cahuilla Indians, Palm Springs, Riverside County, California.** As field archaeologist, conducted data recovery mitigation of an archaeological deposit and human remains near Tahquitz Canyon.

**Cultural Resource Survey for a Fuel Reduction Project on Palomar Mountain, Atkins, San Diego County, California.** As field archaeologist conducted survey along three roads on Palomar Mountain. Surveyed a 200-foot corridor on both public and private lands. Identified four previously recorded sites and one newly discovered site near or within areas proposed for tree removal.

**Coachella Canal Replacement Monitoring Program, Bureau of Reclamation and the Coachella Valley Water District, Riverside County, California.** As cultural resource monitor, observed ground-disturbing activities near known archaeological sites. Conducted two supplemental surveys, recorded newly found prehistoric sites, performed preliminary significance evaluations, and coordinated with contractors to avoid adverse impacts.

**Las Pulgas Corridor Testing, NAVFAC Southwest, MCBCP, California.** As field archaeologist, conducted test excavations of 22 hunter-gatherer archaeological sites. Mapped and documented prehistoric sites including shell middens, lithic scatters, and bedrock milling stations. Assisted with geotechnical coring of a prehistoric shell midden (SDI-812/H) to identify and examine previously recorded site boundaries.

**Bishop's School Expansion Project Monitoring, CDM Miller for Rudolph and Sletten, La Jolla, San Diego County, California.** As cultural resources monitor, evaluated construction of new buildings and facilities at an historic school located in downtown La Jolla. A number of historic trash deposits were identified and evaluated.

**Rose-Arizona, Clay, and Photo Drainage and Road Improvement Surveys, NAVFAC Southwest, SCLI, Los Angeles County, California.** As field archaeologist, conducted archaeological surveys and assisted with the erection of protective signing on 750 sites.

**SCLI Remote Sensing, NAVFAC Southwest, SCLI, Los Angeles County, California.** As GPS assistant, helped with data collection and image rectification for a remote sensing project in the detection of archaeological sites on the base.

**Eucalyptus Site Data Recovery Project, Caltrans District 11, Chula Vista, San Diego County, California.** As field technician, participated in data recovery excavations of an early Archaic period site.

**All-American Canal Lining Project Survey, Imperial Irrigation District, Imperial County.** As field archaeologist, conducted survey of the 4,200-acre ROW along approximately 23 miles of the All-American Canal. Task 2 involved a 10% random sample survey that encompassed an additional 743 acres.

**Locus O Testing, Agua Caliente Band of Cahuilla Indians, Palm Springs, Riverside County, California.** As field archaeologist, conducted data recovery excavations of three spatially distinct portions of the prehistoric site, including an intact cremation for proposed housing development.

**Salt Creek Ranch Data Recovery, McMillin Companies, Chula Vista, San Diego County, California.** As field archaeologist, conducted testing and data recovery excavations of two historic sites and three prehistoric sites at a proposed housing development location. Documented and mapped historic sites and historic period features, including structural remains.

**Spangler Hills Survey Project, BLM, Ridgecrest, San Bernardino County, California, 2003.** As field archaeologist, participated in survey and inventory of approximately 10,000 acres of the Spangler Hills Area of Critical Environmental Concern (ACEC).

**Path 15 Survey, Steigers Corporation, Merced and Fresno Counties, California.** As field archaeologist, conducted archaeological survey of proposed transmission line. Identified two prehistoric lithic scatters and conducted preliminary subsurface testing of two additional lithic scatters. Recorded one historic period site.

**PF.Net AT&T Monitoring, Land Services, MCBCP, San Diego County, California.** As field archaeologist, conducted archaeological monitoring for construction installation of over 10 linear miles of fiber optic line on MCBCP.

**APPENDIX B**  
**(CONFIDENTIAL)**  
*Records Search Documents*



**APPENDIX C**  
**(CONFIDENTIAL)**

*NAHC Sacred Lands File Search Results  
and Tribal Correspondence*



**APPENDIX D**  
**(CONFIDENTIAL)**  
*DPR Site Record Updates*



**APPENDIX E**  
**(CONFIDENTIAL)**  
*Resources in APE Maps*

