

Gavin Newsom Governor STATE OF CALIFORNIA Governor's Office of Planning and Research State Clearinghouse and Planning Unit



Memorandum

Date:January 17, 2020To:All Reviewing AgenciesFrom:Scott Morgan, DirectorRe:SCH # 2017091081Marisol Specific Plan Initiative

The Lead Agency has <u>corrected</u> some information regarding the above-mentioned project. Please see the attached materials for more specific information. All other project information remains the same.

cc: Matt Bator City of Del Mar 1050 Camino Del Mar Del Mar, CA 92014

CULTURAL RESOURCES SURVEY REPORT for the MARISOL PROJECT, CITY OF DEL MAR, SAN DIEGO, CALIFORNIA

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Type of Study: Positive Cultural Resource Survey **USGS Quadrangle:** Del Mar, CA 7.5', T14S, R4W, Sections 2, and 11 **Area:** 16.55acres, **Key Words:** Positive Survey, City of Del Mar; CA-SDI-7979; CA-SDI-10940, SDM-W-34 and 34A; the "Del Mar Man Site"; Malcom Rogers

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MANAGEMENT SUMMARY

This report presents the results of Dudek's cultural resources survey for the Marisol Project (Project), City of Del Mar, California. The Project is located in Township 14 South; Range 4 West; Sections 2 and 11; of the Del Mar, California USGS 7.5-minute Quadrangle. The Project area of potential effect (APE), also described as the privately owned land within the Specific Plan Area, is 16.55 acres and is located south of Border Avenue and west of Camino Del Mar, in the City of Del Mar; see Figures 1 and 2, Project Regional and Vicinity Maps. The Project APE comprises eight (8) Assessor's Parcel Numbers (APN): 298-241-06, -07, -29, -34, -35, -36 and 299-030-14 and -15.

A records search conducted at the South Coastal Information Center (SCIC) by Dudek staff has indicated that two previously recorded prehistoric cultural resources are within or intersect with portions of the proposed Project APE. CA-SDI-7979, a prehistoric habitation site, is located within the northern portion of the Project APE, and CA-SDI-10940 a large prehistoric habitation site was recorded as being situated along the southern edge within the southern portion of the Project APE (Confidential Appendix B, SCIC Record Search).

Dudek archaeologists conducted an intensive cultural pedestrian survey of previously recorded site areas, visible ground surfaces, and areas of subsurface exposure. Dudek inspected all exposed ground surfaces, however low-laying vegetation allowed for approximately 50-75 percent visibility throughout the majority of the Project APE. Both of the previously recorded cultural resources were relocated, and no new resources were identified

During the pedestrian survey, cultural material and artifacts were relocated within the areas previously recorded for site CA-SDI-7979. A very sparse scatter of marine shell (principally *Chione* and *Argopecten*), lithic materials, and deflating midden sediments were observed on the highest and central portion of the terrace, near the previously recorded boundaries of CA-SDI-7979. A data recovery program was performed in 1996 by Brian F. Smith and Associates (BFSA) at CA-SDI-7979 to mitigate adverse effects (significant impacts) to the resources potentially impacted by proposed development and subsequent cultural monitoring was recommended for any following development activities (Kirkish and Smith 1997). That data recovery program and recommendation for monitoring are sufficient to mitigate impacts that result from the current Project. A low-density scatter of artifacts remains across much of the project APE; these have been redistributed from past landscaping and construction activities and are not associated with intact archaeological deposits (artifacts were identified mixed with imported fill materials).

CA-SDI-10940, also known as the "Del Mar Man Site," is a large prehistoric habitation site that was relocated in the southern part of the Project area. The site was initially recorded by Malcom Rogers in 1929 who divided this site into two Loci; W-34 located on a lower terrace closer to the water level and, W-34A, located on the upper cliff terrace. Rogers collected human remains from at least two

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features during his 1929 investigations. According to the record search information, this site has been the focus of five previous cultural investigations; the initial work in 1929, then again in 1963, 1974, and then re-visited in 1988. In 1995, Dayle Cheever with RECON Environmental Inc. conducted a cultural resource significance testing project at the site and encountered cultural materials and artifacts scattered along the upper terrace, W-34A. RECON's testing established that portions of CA-SDI-10940 were still intact and in relatively undisturbed condition. In fact, the Cheever report introduced the comments that the site had at one time previously been capped with sterile dirt as a method of preservation (Cheever 1995). Cheever concluded that CA-SDI-10940 is significant under CEQA based on its data potential and that it may qualify as a unique archaeological resource "because of the destruction of many coastal archaeological sites through development and/or intensive agriculture" (Cheever 1995). Cheever recommended that a data recovery program would need to be conducted at CA-SDI-10940 to mitigate potential destruction of this resource. Following the data recovery, Native American and archaeological monitors should be present during construction grading or other ground-disturbing activities for potential projects. Finally, it was recommended that an Archaeological Resource Management Report (ARMR) technical report would need to be prepared and submitted to the City of Del Mar, for review by City staff and approved before map or permit approval (Cheever 1995).

During the current survey, cultural materials and artifacts were identified on the ground surface in the vicinity of the previously recorded site location for CA-SDI-10940 but the integrity of the portion of this site within the current Project APE is questionable due to the rather extreme level of residential development and landscape disturbance identified in the area. Dudek obtained historic aerial imagery that indicates a combination of early agricultural and then later residential activities have disturbed surface deposits from the site. However, while agricultural plowing would have initially confused the vertical integrity of the site, there remained a possibility that intact archaeological deposits remain below the disturbed surface. For this reason, Dudek completed an extended phase I (XPI) subsurface survey to determine whether intact archaeological deposits remain in the areas identified by Cheever (1995). Dudek's XPI program consisted of three 50 x 25-cm shovel test pits (STP) and several 10-cm diameter hand augers in the base of STPs or subjectively placed. These efforts resulted in the identification of an intact archaeological deposit variably contained between 20 and 60 cm below the surface in an area approximately 15 m in diameter. The archaeological deposit contained dense bay/estuarine bivalve remains, along with a few pieces of flaked lithic debris and a hammerstone. The archaeological deposit does not appear to be extensive or consistent across the approximate 15 m-diameter area bracketed by STPs. Red Tail Monitoring and Research, LLC (Red Tail) provided a tribal monitor during the XPI testing but no specific tribal concerns were relayed to Dudek during the excavation, other than the importance of properly treating the resource prior to construction.

Avoidance is the preferred treatment for cultural resources under CEQA. If avoidance is not feasible, a focused data recovery program should be implemented to mitigate significant impacts to the remnant and affected portions of CA-SDI-10940, according to the CEQA guidelines. A research design and data recovery plan should be prepared to guide data recovery, taking into account finalized construction plans and other concerns in order to better define impacted areas. The data recovery program should be completed prior to project-related earth moving in the vicinity of CA-SDI-10940.

Furthermore, conceptual off-site improvements associated with the Project include a new water main to extend into the City of Del Mar in order to find a suitable connection point. The existing water mains servicing the northernmost houses before the entrance to the lagoon are currently served by either an existing 4-inch or 6-inch water main, which would not have sufficient capacity to serve as the connection point for the new water main. Additional project impacts might be required within or adjacent to the Specific Plan Area and the cultural APE. Portions of the alignment will be located along the south side of San Dieguito Lagoon. Coastal lagoons are highly sensitive areas for archaeological sites, as most were occupied by Native Americans for most of the last 10,000 years. While there has been extensive disturbance in the area in the last 50–100 years that would have impacted such sites to varying degrees, Dudek recommends that a qualified professional archaeologist and Native American monitor should do an inspection of in the locations of the additional disturbances where earth is exposed to determine the level of effort for monitoring during the duration of the ground disturbing activities associated with the water connection.

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1 INTRODUCTION

1.1 **Project Location and Description**

The proposed Marisol Specific Plan Project (Project) is situated within in the City of Del Mar, San Diego County, California (Figure 1). The Specific Plan Area includes approximately 17.45 acres. The Project area of potential effect (APE) is 16.55-acres of privately owned land within the Specific Plan Area located in Township 14 South; Range 4 West; Sections 2 and 11; of the Del Mar, California USGS 7.5-minute Quadrangle (Figure 2). Eight (8) parcels (APNs 298-241-06, -07, -29, -34, -35, -36 and 299-030-14 and -15) comprise the APE for the Project (Figure 3). The seven northerly parcels are vacant. The southernmost parcel is currently developed with a one-story, 5,800 square foot residence.

The project consists of a Specific Plan including five land use sub-designations: Visitor Serving Accommodations (VSA), Parkland/Passive Open Space (PPOS), Coastal Bluff Protection Area (CBPA) and Steep Slope Protection Area (SSPA). The VSA land use sub-designation allows for the development of approximately 65 hotel guest rooms, 31 villas (27 of which may be used as hotel guest rooms when not in use by owners, subject to provisions in the Specific Plan), 10 lower-cost shared visitor-serving accommodations, 22 affordable housing units, and associated amenities. Amenities include, but are not limited to, restaurants, bar/lounge, special event space, meeting space, swimming pools, a spa and fitness center and retail.

The PPOS land use sub-designation allows for public amenities such as trails, vista points, picnic areas, public access stairway and public restrooms, and passive recreational uses. Passive recreational uses are defined in the Specific plan as low intensity recreational activities that require little or no infrastructure and that are geared toward the viewing and appreciation of scenic and environmentally sensitive areas.

The CBPA and SSPA land use sub-designations serve as protection areas. The only disturbance allowed within the CBPA is the minimal amount necessary to install drainage control measures to protect a coastal bluff area from degradation and/or erosion. Shoreline protection devices are prohibited in this area. The only disturbance allowed within the SSPA is the minimal amount necessary to provide a public access stairway, public restrooms, and related facilities for hotel and public visitor services at the toe of slope; to implement drainage control measures to protect the steep slope area from degradation and/or erosion; and to allow interpretive signage and pathway lighting.

Off-site improvements include a new water main for the project to extend into the City of Del Mar in order to find a suitable connection point. The existing water mains servicing the northernmost houses before the entrance to the lagoon are currently served by either an existing 4-inch or 6-inch water main, which would not have sufficient capacity to serve as the connection point for the new water main. There are two alternatives for the proposed development's potable water supplied by the City of Del

Mar. Both alternatives consist of constructing a new 16-inch diameter pipeline. One alternative is to construct approximately 4,000 linear feet of new 16-inch water main in Via De La Valle from the intersection of Via De La Valle and Jimmy Durante Boulevard to Camino Del Mar within the City of Del Mar. This new 16-inch water line would connect to the existing 18-inch City of Del Mar water main at the north end of Jimmy Durante Boulevard just south of Via De La Valle. The second alternative would construct approximately 5,000 linear feet of 16-inch pipe connected to an existing 20-inch City pipeline beginning on the west side of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. This pipeline would extend northwest, following the Public Works Yard paved access road, then go along the dirt access road adjacent to the Public Works Yard up to the proposed crossing of the railroad right-of-way and drainage ditch. The work to cross the railroad right-of-way and drainage ditch would be done using a jack-and-bore construction method to avoid interruption of these resources. Then the pipeline would continue west via 27th or 28th Street to Camino Del Mar, then north to Via De La Valle. This alternative would replace existing pipelines south of Sandy Lane and construct new pipelines north of Sandy Lane to Via de la Valle. All pipeline construction and replacement would occur within paved roads, City and North County Transit Department right-ofway, or the Public Works yard.

1.2 Regulatory Context

The following section provides a summary of the applicable regulations, policies and guidelines relating to the proper management of cultural resources.

1.2.1 Cultural Resources Regulations

1.2.1.1 Regulations

The California Register of Historic Resources (Public Resources Code section 5020 et seq.)

In California, the term "historical resource" includes but is not limited to "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" (California Public Resources Code section 5020.1(j)). In 1992, the California legislature established CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code section 5024.1(a)). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following National Register of Historic Places (NRHP) criteria:

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.

(California Public Resources Code section 5024.1(c).) 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)).

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 NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys. The State Historic Preservation Officer maintains the CRHR.

Native American Historic Cultural Sites (California Public Resources Code section 5097 et seq.)

The Native American Historic Resources Protection Act (Public Resources Code 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 NRHC 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 an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, requires 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 these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

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:

- 1. California Public Resources Code section 21083.2(g): Defines "unique archaeological resource."
- California Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5(a): Defines historical resources. In addition, CEQA Guidelines section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource. It also defines the circumstances when a project would materially impair the significance of a historical resource.
- 3. California Public Resources Code section 5097.98 and CEQA Guidelines section 15064.5(e): These statutes sets forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- 4. California Public Resources Code sections 21083.2(b)-(c) and CEQA Guidelines section 15126.4: These statutes and regulations provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-inplace mitigation measures; identifies preservation-in-place as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(b)). An "historical resource" is any site listed or eligible for listing in the CRHR. The CRHR listing criteria are intended to examine whether the resource in question: (a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (b) is associated with the lives of persons important in our past; (c) 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; or (d) has yielded, or may be likely to yield, information important in pre-history or history.

The term "historical resource" also includes any site described in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code section 5024.1(q)).

CEQA also applies to "unique archaeological resources". Public Resources Code 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 to apply to "tribal culture resources" as well, but the amendment did not provide a definition for such resources or identify how they were to be evaluated or mitigated (Pub.Res.Code §§ 21084.2 and 21084.3). Instead, Public Resources Code section 21083.09 required that the Office of Planning and Resource develop and adopt guidelines for analyzing "tribal cultural resources" by July 1, 2016. As of the effective date of this Draft EIR, however, those guidelines have not been finalized or adopted. Consequently, this EIR addresses only historic resources and unique archaeological resources.

All historical resources and unique archaeological resources – as defined by statute – are presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(a)). A site or resource that does not meet the definition of "historical resource" or "unique archaeological resource" is not considered significant under CEQA and need not be analyzed further (Public Resources Code section 21083.2(a); CEQA Guidelines section 15064.5(c)(4)).

Under CEQA and significant cultural impact results from a "substantial adverse change in the significance of an historical 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 historical resource would be materially impaired" (CEQA Guidelines section 15064.5(b)(1); California Public Resources Code section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project:

- 1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical 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 historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources

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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 historical 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.

(CEQA Guidelines section 15064.5(b)(2)).

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

When a project significantly affects a unique archeological resource, CEQA imposes special mitigation requirements. Specifically, "[i]f it can be demonstrated that a project will cause damage to a unique archeological 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 archeological sites."
- 2. "Deeding archeological sites into permanent conservation easements."
- 3. "Capping or covering archeological sites with a layer of soil before building on the sites."
- 4. "Planning parks, greenspace, or other open space to incorporate archeological sites."

(Pub. Resources Code section 21083.2(b)(1)-(4).)

If these "preservation in place" options are not feasible, mitigation may be accomplished through data recovery. (Pub.Res. Code § 21083.2(d); CEQA Guidelines § 15126.4(b)(3)(C).) Public Resources Code section 21083.2(d) states that "[e]xcavation as mitigation shall be restricted to those parts of the unique archeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archeological 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:

(A)Preservation in place is the preferred manner of mitigating impacts to archeological sites. Preservation in place maintains the relationship between

artifacts and the archeological 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 archeological sites;
 - 2. Incorporation of sites within parks, greenspace, or other open space;
 - 3. Covering the archeological 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 historical 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." (*Ibid.*) However, "[d]ata recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archeological or historic resource, provided that determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center." (CEQA Guidelines section 15126.4(b)(3)(D).)

California Coastal Act

The California Coastal Act, in part, authorizes the California Coastal Commission (CCC) to review permit applications for development within the coastal zone and, where necessary, to require reasonable mitigation measures to offset effects of that development. Permits for development are issued with "special conditions" to ensure implementation of these mitigation measures.

Section 30244 of the Act, "Archaeological or Paleontological Resources," states that:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

If the CCC determines that a paleontological resource is present within an applicant's proposed project area, they generally look for evidence that the applicant has taken the resource into consideration (e.g., through formal survey by a professional paleontologist with implementation of resulting recommendations). If a paleontological site is present, special permit conditions may

range from avoidance of the site to construction monitoring and/or salvage of significant fossils. This approach virtually parallels the level of protection afforded to paleontological resources by CEQA. Additionally, the CCC relies heavily on project sponsoring or permitting agencies to ensure compliance with CEQA (and consequently, the California Coastal Act). It is worth noting, however, the CCC permits generally post-date a project's environmental document/determination and may not necessarily be consistent with requirements previously issued other regulatory agencies (see SER, Volume 1, Chapter 18).

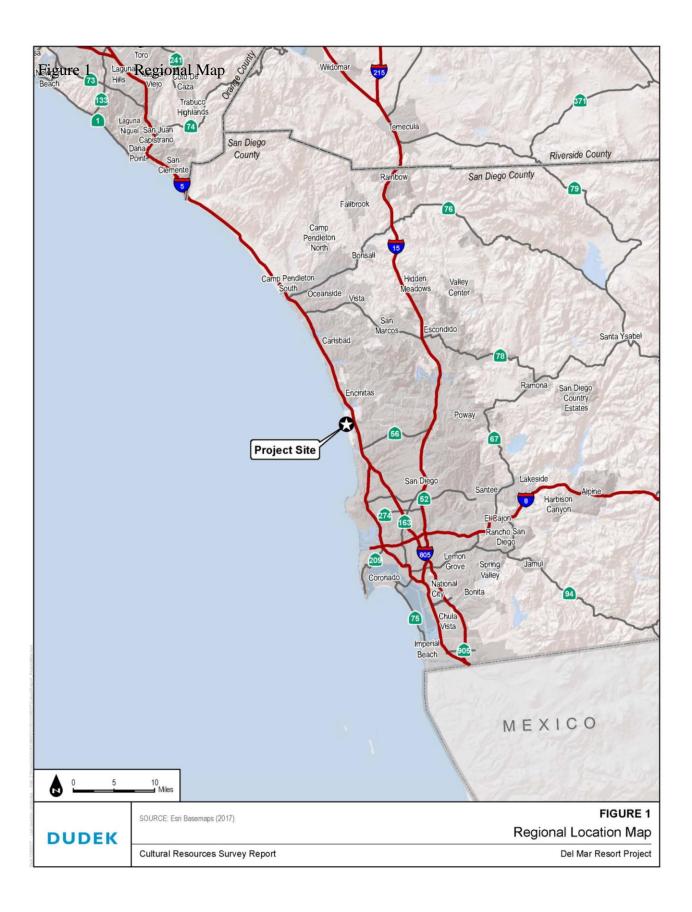
Public Resources Code Section 5097.5

Section 5097.5 of the California Public Code Section states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Senate Bill (SB) 18

The Local and Tribal Intergovernmental Consultation process, commonly known as Senate Bill (SB) 18 was signed into law in September of 2004 and took effect on March 1, 2005. SB 18 established responsibilities for local governments to contact, provide notice to, refer plans to, and consult with California Native American Tribes. The purpose of this consultation process is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural place in any subsequent Project. The consultation is required whenever a general plan, specific plan, or open space designation is proposed for adoption or to be amended. As part of the application process, California Native American Tribes must be given the opportunity to consult with the applicant of the Project and with the City for the purpose of preserving, mitigating impacts to, and identifying cultural places located on Project land within the City of Del Mar's jurisdiction. The Project involves a general plan amendment to the zoning of the Project site; therefore, SB 18 applies to the Project. The proposed Project APE is currently zoned R1-14 (Modified Low Density) and R1-40 (Very Low Density); Existing Zoning. The City's 1985 Community Plan designates the Project APE as Public Parkland. The Project proposed to re-designate and rezone the site as "Specific Plan Area." The SB 18 consultation process will be formally initiated by the City of Del Mar. The period for the tribes to request consultation is 90 days after this request is received. To date, we have received no SB 18 letters.



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Assembly Bill (AB) 52

California Assembly Bill (AB) 52, which took effect July 1, 2015, establishes a consultation process between California Native American Tribes and lead agencies in order to address tribal concerns regarding project impacts and mitigation to "tribal cultural resources" (TCR). Public Resources Code section 21074(a) defines TCRs and states that a project that has the potential to cause a substantial adverse change to a TCR is a project that may have an adverse effect on the environment. A TCR is defined as a site, feature, place, cultural landscape, sacred place, and object with cultural value to a California Native American tribe that is either:

- 1. listed or eligible for listing in the CRHR or a local register of historical resources, or
- 1. determined by a lead agency to be a TCR.

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2 PROJECT CONTEXT

2.1 Environmental Context

The Project APE's environmental context is as described by Kirkish and Smith in their 1997 report and is included here below:

The Project APE situated on a coastal mesa bluff adjacent to the Pacific Ocean. The general area is characterized by a coastal mesa and erosional canyons adjacent to the San Dieguito River Valley. Project elevations range from approximately 60 to 90 feet above mean sea level (amsl). The area can be summarized by three significant land form elements: the permanent lagoon, the mesa bluff, and the San Dieguito River Valley. The permanent lagoon at the mouth of the San Dieguito River was created as the sea level rose rapidly after a long period of lower sea levels that had allowed the San Dieguito River to cut a deep canyon in the area of the present-day Del Mar Fairgrounds. The mesa bluff is a narrow extension of coastal marine terrace which provided access to the various resources from the lagoon, and plants and animals from the coast. The third ecological element is the San Dieguito River Valley, which provided a vast volume of biological terrestrial and marine resources available for exploitation.

The project area is heavily disturbed; landscaped residential and disturbed soil vegetation is visible throughout the project parcel. For the most part, non-native vegetation is present in the project area. Much of the northern area had been planted with a variety of crops including alfalfa, oats and rye. Currently, vegetation largely consists of coastal scrub vegetation and grasses in the northern parcels and pepper and palm trees, with other ornamental flora. (Kirkish and Smith 1997)

Common animals within this area may include coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), Virginia opossum (*Didelphis virginica*), cottontail (*Sylvilagus audubonit*), deer mouse (*Peromyscus maniculatus*) sparrow (*Melospiza melodia*), lesser goldfinch (*Cardeulis psaltria*), common yellowthroat (*Geothlypis trichas*), as well as a number of other species of birds, mammals, reptiles and amphibians.

2.2 Geological Context

The Project APE primarily lies on Pleistocene marine and non-marine sediments (Kennedy and Peterson 1975). Soil in the area consists of a dark brown silty sand-loam overlying reddish brown sands. At times during the last post-glacial age (approximately the last 18,000 years), sea levels have been lower than the present (Inman 1983). During this period, the San Dieguito lagoon and

all other San Diego county tidal marshes and coastal bluffs experienced major shifts and changes. The fluctuating sea levels correspond to changes in the location of the shoreline during prehistoric occupation of the area and as the sea level rose and then stabilized, the bays continued to fill with sediments and slowly becoming the lagoons environments of today.

2.3 Cultural Context

Evidence for continuous human occupation in the San Diego 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).

2.3.1 Paleoindian (pre-5500 BC)

Evidence for Paleoindian occupation in coastal Southern California is tenuous, especially considering the fact 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 CA-SDI-4669/W-12, in La Jolla. A human burial from CA-SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (95.4% probability) (Hector 1984). 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 stemmed points and large numbers of formal flake tools (e.g., shaped scrapers, blades). Other typical Paleoindian sites include the Komodo site (CA-MNO-679)-a multicomponent fluted point site, and CA-MNO-680-a single component Great Basined Stemmed point site (Basgall et al. 2002). At CA-MNO-679 and CA-MNO-680, groundstone tools were rare while finely made projectile points were common.

Turning back to coastal Southern California, the fact that some of the earliest dated assemblages are dominated by processing tools 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 kilometer 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 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 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 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).

2.3.2 Archaic (8000 BC-AD 500)

The more than 1500-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, as well as 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.

2.3.3 Late Prehistoric (AD 500–1769)

The period of time following the Archaic and prior to Ethnohistoric times (AD 1769) is commonly referred to as the Late Prehistoric (M. 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. Vagaries 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.

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Temporal trends in socioeconomic adaptations during the Late Prehistoric period are poorly understood. This is partly due to the fact that the fundamental Late Prehistoric assemblage is very 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, however, 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.

2.3.4 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 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, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century (Boscana 1846; Fages 1937; Harrington 1934; Laylander 2000). 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, p. 32) by recording languages and oral histories within the San Diego region. Kroeber's 1925 assessment of the impacts of Spanish missionization on local Native American populations supported Kumeyaay traditional cultural continuity (Kroeber 1925, p. 711):

San Diego was the first mission founded in upper California; but the geographical limits of its influence were the narrowest of any, and its effects on the natives comparatively light. There seem to be two reasons for this: first, the stubbornly resisting temper of the natives; and second, a failure of the rigorous concentration policy enforced elsewhere.

In some ways this interpretation led to the belief that many California Native American groups simply escaped the harmful effects of contact and colonization all together. This, of course, is untrue. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early twentieth 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 which 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).

The traditional cultural boundaries between the Luiseño and Kumeyaay Native American tribal groups have been well defined by anthropologist Florence C. Shipek:

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 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. [1993 summarized by the San Diego County Board of Supervisors 2007:6]

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, p. 34). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007, p. 71). As the project area is located approximately 30 km south of the San Luis Rey River, the Native American inhabitants of the region spoke using the Ipai language subgroup of the Yuman language group. Ipai and Tipai, spoken respectively by the northern and southern Kumeyaay communities, are mutually intelligible. For this reason, these two are often treated as dialects of a larger Kumeyaay tribal group rather than as distinctive languages, though this has been debated (Luomala 1978; Laylander 2010).

Victor Golla has contended that one can interpret the amount of variability within specific language groups as being associated with the relative "time depth" of the speaking populations (Golla 2007, p. 80) A large amount of variation within the language of a group represents a greater time depth then a group's language with less internal diversity. One method that he has employed is by 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 (2007, p. 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 suggested 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, p. 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 ca. 2600 BC-AD 1, which was later followed by the diversification within the Takic speaking San Diego tribes, occurring approximately 1500 BC-AD 1000 (Laylander 2010). The majority of Native American tribal groups in southern San Diego region 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, p. 74). The Kumeyaay tribal communities share a common language group with the Cocopa, Ouechan, 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 Kumeyaay generally lived in smaller family subgroups that would inhabit two or more locations over the course of the year. While less common, there is sufficient evidence that there were also permanently occupied villages, and that some members may have remained at these locations throughout the year (Owen 1965; Shipek 1982; Shipek 1985; Spier 1923). Each autonomous triblet was internally socially stratified, commonly including higher status individuals such as a tribal head (Kwaaypay), shaman (Kuseyaay), and general members with various responsibilities and skills (Shipek 1982). Higher-status individuals tended to have greater rights to land resources, and owned more goods, such as shell money and beads, decorative items, and clothing. To some degree, titles were passed along family lines; however, tangible goods were generally ceremonially burned or destroyed following the deaths of their owners (Luomala 1978). Remains were cremated over a pyre and then relocated to a cremation ceramic vessel that was placed in a removed or hidden location. A broken metate was commonly placed at the location of the cremated remains, with the intent of providing aid and further use after death. At maturity, tribal members often left to other bands in order to find a partner. The families formed networks of communication and exchange around such partnerships.

Areas or regions, identified by known physical landmarks, could be recognized as band-specific territories that might be violently defended against use by other members of the Kumeyaay. Other areas or resources, such as water sources and other locations that were rich in natural resources, were generally understood as communal land to be shared amongst all the Kumeyaay (Loumala 1978). The coastal Kumeyaay exchanged a number of local goods, such as seafood, coastal plants, and various types of shell for items including acorns, agave, mesquite beans, gourds, and other more interior plants of use (Luomala 1978). Shellfish would have been procured from three primary environments, including the sandy open coast, bay and lagoon, and rocky open coast. The availability of these marine resources changed with the rising sea levels, siltation of lagoon and bay environments, changing climatic conditions, and intensity of use by humans and animals (Gallegos and Kyle 1988; Pigniolo 2005). Shellfish from sandy environments included Donax, Saxidomas, Tivela, and others. Rocky coast shellfish dietary contributions consisted of Pseudochama, Megastraea, Saxidomus, Protothaca, Megathura, and others. Lastly, the bay environment in the immediate vicinity of the project area would have provided Argopecten, Chione, Ostrea, Neverita, Macoma, Tagelus, and others. While marine resources were obviously consumed, terrestrial animals and other resources likely provided a large portion of sustenance. Game animals consisted of rabbits, hares (Leporidae), birds, ground squirrels, woodrats (Neotoma), deer, bears, mountain lions (Puma concolor), bobcats (Lynx rufus), coyotes (Canus *latrans*), and others. In lesser numbers, reptiles and amphibians may have been consumed.

A number of local plants were used for food and medicine. These were exploited seasonally, and were both traded between regional groups and gathered as a single triblet moved between habitation areas. Some of the more common of these that might have been procured locally or as higher elevation varieties would have included buckwheat (*Eriogonum fasciculatum*), *Agave*, *Yucca*, lemonade berry (*Rhus integrifolia*), sugar brush (*Rhus ovata*), sage scrub (*Artemisia californica*), yerba santa (*Eriodictyon*), sage (*Salvia*), *Ephedra*, prickly pear (*Opuntia*), mulefat (*Baccharis salicifolia*), chamise (*Adenostoma fasciculatum*), elderberry (*Sambucus nigra*), oak (*Quercus*), willow (Salix), and *Juncus* grass among many others (Wilken 2012).

2.3.5 The Historic Period (post-AD 1542)

European activity in the region began as early as AD 1542, when Juan Rodríguez Cabrillo landed in San Diego Bay. Sebastián Vizcaíno returned in 1602, and it is possible that there were subsequent contacts that went unrecorded. These brief encounters made the local native people aware of the existence of other cultures that were technologically more complex than their own. Epidemic diseases may also have been introduced into the region at an early date, either by direct contacts with the infrequent European visitors or through waves of diffusion emanating from native peoples farther to the east or south (Preston 2002). It is possible, but as yet unproven, that the precipitous demographic decline of native peoples had already begun prior to the arrival of Gaspar de Portolá and Junípero Serra in 1769. Spanish colonial settlement was initiated in 1769, when multiple expeditions arrived in San Diego by land and sea, and then continued northward through the coastal plain toward Monterey. A military presidio and a mission to deal with the local Kumeyaay and Ipai were soon firmly established at San Diego, despite violent resistance to them from a coalition of native communities in 1776. Private ranchos subsequently established by Spanish and Mexican soldiers, as well as other non-natives, appropriated much of the remaining coastal or near-coastal locations (Pourade 1960–1967).

Mexico's separation from the Spanish empire in 1821 and the secularization of the California missions in the 1830s caused further disruptions to native populations in western San Diego County. Some former mission neophytes were absorbed into the work forces on the ranchos, while others drifted toward the urban centers at San Diego and Los Angeles or moved to the eastern portions of the county where they were able to join still largely autonomous native communities. United States conquest and annexation, together with the gold rush in Northern California, brought many additional outsiders into the region. Development during the following decades was fitful, undergoing cycles of boom and bust. With rising populations in the nineteenth century throughout the Southern California region, there were increased demands for important commodities such as salt.

2.4 Previous Cultural Resource Investigations

Dudek Staff conducted an in-house record search at the South Coastal Information Center (SCIC) for the proposed Project APE and a surrounding 1-mile buffer area on June 19, 2017. The record search indicated that 60 previous cultural investigations have been conducted within 1-mile of the current Project APE, 10 of which cover all or a portion of the APE. Table 1 lists the previous cultural studies conducted within the 1-mile search buffer, with the studies covering all or a portion of the current Project site listed in bold (Table 1). Many of the previous studies have also covered the alignment of the proposed water line alternatives.

 Table 1

 Previous Cultural Studies conducted within the Project APE and 1-mile Record Search

Report I.D.	Title	Author	Year
SD-00624	ARCHAEOLOGICAL SURVEY FOR THE PROPOSED BEACH ACCESSES AT "D" AND "J" STREETS, ENCINITAS AND SEASCAPE SURF, DEL MAR	DEPT. OF TRANSPROTATION	1974
SD-07433	CULTURAL RESOURCES ASSESSMENT FOR THE LOMAS SANTA FE GRADE SEPARATION SOLANA BEACH, CALIFORNIA	EARTH TECH CORP	1993
SD-01441	A REPORT OF AN ARCHAEOLOGICAL SAMPLING PROGRAM AT SITE W-36 (SDI-10238), LA VIDA DEL MAR PROJECT, SOLANA BEACH, CALIFORNIA P-85-55 EAD LOG #85-13-17	BRIAN F. SMITH AND ASSOCIATES	1986
SD-01667	ARCHAEOLOGICAL TEST EXCAVATIONS AT SDM-W-36 CITY OF SOLANA BEACH, CALIFORNIA.	RECON	1988

Table 1

Previous Cultural Studies conducted within the Project APE and 1-mile Record Search

Report I.D.	Title	Author	Year
SD-03549	RESULTS OF A DATA RECOVERY PROGRAM AT SITE SDI-7979, THE WHITTIER-DEL MAR PROJECT AT BORDER AVENUE, DEL MAR, CALIFORNIA	CITY OF DEL MAR PLANNING DEPARTMENT	1997
SD-04076	AN ARCHAEOLOGICAL SURVEY AND EVALUATION OF A CULTURAL RESOURCE FOR THE HEALTH CARE GROUP PROJECT	BRIAN F. SMITH AND ASSOCIATES	2000
SD-04177	ARCHAEOLOGICAL INVESTIGATIONS FOR THE SAN DIEGUITO WETLAND RESTORATION PROJECT EIR/EIS	SCIENCE APPLICATION INTERNATIONAL CORPORATION	2000
SD-02172	DRAFT ENVIRONMENTAL IMPACT REPORT FOR SOLANA BEACH INNSUITES 585-14 LOG#84-7-58	MOONEY-LETTIERI AND ASSOCIATES,INC	1985
SD-00093	ARCHAEOLOGICAL SURVEY AND AIR QUALITY ANALYSIS MOLA VISTA SUBDIVISION (TM 3608, LOG #77-13-11) SOLANA BEACH, CALIFORNIA.	ADVANCE PLANNING & RESEARCH ASSOCIATES	1977
SD-01851	CULTURAL RESOURCES SURVEY OF THE SAN DIEGO COMMUTER RAIL PROJECT.	RECON	1989
SD-04968	DRAFT EIR FOR THE MICKELLAR JOSEPH DEVELOPMENT	RECON	1982
SD-02958	NEGATIVE ARCHAEOLOGICAL SURVEY REPORT 11-SD- 5, P.M. R35.2, 189161	CALTRANS	1994
SD-00253	AN ARCHAEOLOGICAL SURVEY OF THE SEAWIND-DEL MAR PROPERTY.	RECON	1977
SD-00672	A CULTURAL RESOURCE OVERVIEW FOR THE SAN DIEGUITO RIVER VALLEY SAN DIEGO, CALIFORNIA.	WESTEC SERVICES, INC.	1988
SD-09361	ARCHAEOLOGICAL SURVEY REPORT FOR THE PHASE I ARCHAEOLOGICAL SURVEY ALONG INTERSTATE 5 SAN DIEGO COUNTY, CA.	ASM, INC.	2002
SD-06258	NEGATIVE HISTORIC PROPERTY SURVEY REPORT-I- 5/LOMAS SANTE FE DR INTERCHANGE	CALTRANS	2002
SD-08275	SECTION 106 COMPLIANCE & FILING OF NEGATIVE HPSRS	CALTRANS	2002
SD-06440	DRAFT ARCHAEOLOGICAL INVESTIGATIONS FOR THE SAN DIEGUITO WETLANDS RESTORATION PROJECT EIR/EIS	SCIENCE APPLICATION INTERNATIONAL CORP.	1999
SD-06444	ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT (EIR/EIS) FOR THE SAN DIEGUITO WETLANDS RESTORATION PROJECT	U.S. FISH & WILDLIFE	2000
SD-06645	NEGATIVE ARCHAEOLOGICAL SURVEY GRAND AVENUE & OLD DEL MAR AIRPORT	MARTIN ROSEN	1994
SD-09372	COMPLETION OF SECTION 106 REQUIREMENTS, FILING OF 2ND SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT	CALTRANS	2005
SD-07109	TEST EXCAVATIONS AT THE DEL MAR SITE (SDI-191)	WARREN, C.	1959

Table 1

Previous Cultural Studies conducted within the Project APE and 1-mile Record Search

Report I.D.	Title	Author	Year
SD-07433	CULTURAL RESOURCES ASSESSMENT FOR THE LOMAS SANTA FE GRADE SEPARATION SOLANA BEACH, CALIFORNIA	EARTH TECH CORP	1993
SD-06629	HISTORIC PROPERTY SURVEY REPORT OCEANSIDE TO SAN DIEGO-RAIL TO TRAIL	MARTIN ROSEN	1999
SD-04236	ENVIRONMENTAL IMPACT REPORT FOR SAN DIEGUITO RIVER STUDY DRAFT CONCEPTUAL MASTER PLAN	APEC	1981
SD-09362	ARCHAEOLOGICAL TESTING AT TWELVE PREHISTORIC SITES (SDI-603, -628, -4553, -6831, -6882, 10965, -12670, 13484, 15678, 15679, 15680) ON THE CENTRAL SAN DIEGO COAST, SAN DIEGO COUNTY, CA.A2.	ASM	2004
SD-09372	COMPLETION OF SECTION 106 REQUIREMENTS, FILING OF 2ND SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT	CALTRANS	2005
SD-09516	THE CEMETERIES AND GRAVESTONES OF SAN DIEGO COUNTY: AN ARCHAEOLOGICAL STUDY.	DAVID CATERINO	2005
SD-10415	CULTURAL RESOURCES ASSESSMENT DEL MAR FAIRGROUNDS PROJECT CITIES OF DEL MAR AND SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA	LSA ASSOCIATES, INC.	2006
SD-10433	NATIONAL REGISTER OF HISTORIC PLACES INVENTORY NOMINATION FORM FOR THE SITE OF THE DEL MAR MAN/DEL MAR NORTH BLUFFS PRESERVE	CITY OF DEL MAR	1980
SD-10610	NATIONAL REGISTER OF HISTORIC PLACES INVENTORY- NOMINATION FORM FOR THE DEL MAR NORTH BLUFFS PRESERVE, THE SITE OF DEL MAR MAN	PARK AND RECREATION COMMITTEE AND CITY MANAGER.	1980
SD-10885	ARCHAEOLOGICAL AND GEOSPATIAL INVESTIGATIONS OF FIRE-ALTERED ROCK FEATURES AT TORREY PINES STATE RESERVE, SAN DIEGO, CALIFORNIA	SCOTT A. MATTINGLY	2007
SD-11191	PALEONTOLOGICAL MONITORING REPORT, FLETCHER COVE PARK IMPROVEMENTS PROJECT, CITY OF SOLANA BEACH, SAN DIEGO COUNTY, CALIFORNIA	BRIAN F. SMITH AND ASSOCIATES	2007
SD-11192	RESULTS OF ARCHAEOLOGICAL MONITORING FOR CONSTRUCTION OF THE FLETCHER COVE PARK IMPROVEMENTS PROJECT	BRIAN F. SMITH AND ASSOCIATES	2007
SD-11623	SAN DIEGUITO RIVER VALLEY INVENTORY OF ARCHAEOLOGICAL RESOURCES	ASM AFFILIATES	2002
SD-11761	HISTORIC PROPERTY SURVEY REPORT, I-5 NORTH COAST WIDENING PROJECT	CALTRANS	2007
SD-12117	RESULTS OF THE ARCHAEOLOGICAL MONITORING PROGRAM FOR THE SAN DIEGUITO WETLANDS RESTORATION PROJECT, SAN DIEGO COUNTY, CALIFORNIA	RECON ENVIRONMENTAL INC.	2009

Table 1

Previous Cultural Studies conducted within the Project APE and 1-mile Record Search

Report I.D.	Title	Author	Year
SD-12273	CULTURAL RESOURCE EVALUATION OF THE RIVERPARK OFFICE PROJECT, CITY OF DEL MAR, CALIFORNIA	AFFINIS	2004
SD-12817	CULTURAL RESOURCES SURVEY FOR 57 WOOD TO STEEL POLE UNDERGROUNDING AND POLE REPLACEMENTS ALONG TL667 AND TL610 AND STAGING YARD AREAS ALONG VIA DE LA VALLE AND EL CAMINO REAL, DEL MAR AREA OF SAN DIEGO COUNTY, CALIFORNIA	AECOM	2010
SD-12989	SOLANA BEACH SENIOR ARCHAEOLOGY	AFFINIS ENVIRONMENTAL SERVICES	2011
SD-13337	RESIDENTIAL CARE FACILITY, 959 GENEVIEVE STREET- ARCHAEOLOGY (AFFINIS JOB NO. 2428)	AFFINIS	2011
SD-14049	CULTURAL RESOURCE SURVEY UPDATE BRIDGE 243.0 REVETMENT PROJECT, DEL MAR, CALIFORNIA	ASM AFFILIATES, INC.	2011
SD-14092	CULTURAL AND HISTORICAL RESOURCE INVENTORY AND EVALUATION REPORT FOR THE SAN DIEGUITO RIVER BRIDGE REPLACEMENT AND SECOND TRACK PROJECT, DEL MAR, SNA DIEGO COUNTY, CALIFORNIA	ASM AFFILIATES, INC.	2009
SD-13488	CULTURAL RESOURCES INVESTIGATION IN SUPPORT OF CONSULTATION FOR THE REGIONAL BEACH SAND II PROJECT SAN DIEGO COUNTY, CALIFORNIA	AECOM	2011
SD-14397	RECORD SEARCH RESULTS FOR THE UNDERGROUND UTILITY DISTRICT VIA DE LA VALLE PROJECT	LAGUNA MOUNTAIN ENVIRONMENTAL, INC.	2010
SD-14086	CULTURAL AND HISTORICAL RESOURCES CONSTRAINTS REPORT FOR THE SAN DIEGUITO BRIDGE REPLACEMENT AND SECOND TRACK PROJECT; DEL MAR TUNNEL ALTERNATIVES ANALYSIS	ASM AFFILIATES, INC.	2012
SD-13916	INTERSTATE 5 NORTH COAST CORRIDOR PROJECT SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT/ ENVIRONEMENTAL IMPACT STATEMENT	CALTRANS	2012
SD-14615	I-5 NORTH CORRIDOR PROJECT SUPPLEMENTALS	CALTRANS	2013
SD-14495	INTERSTATE 5 NORTH COAST CORRIDOR PROJECT FINAL ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(F) EVALUATION	CALTRANS	2013
SD-14523	LETTER REPORT: ETS 20354- CULTURAL RESOURCES MONITORING FOR TRANSMISSION LINE UNDERGROUNDING AND POLE INSTALLATION FOR TIE LINE 610 AND TIE LINE 667 ALONG VIA DE LA VALLE, CITY OF DEL MAR, SAN DIEGO COUNTY, CALIFORNIA- IO 200410700	AECOM	2013
SD-15797	DRAFT CULTURAL RESOURCES ASSESSMENT REGIONAL BEACH SAND PROJECT II, SAN DIEGO COUNTY, CALIFORNIA	AECOM	2010

Table 1

Previous Cultural Studies conducted within the Project APE and 1-mile Record Search

Report I.D.	Title	Author	Year
SD-16096	CULTURAL RESOURCE RECORDS SEARCH AND SITE SURVEY AT&T SITE SD0420 SOLANA BEACH 305 SOUTH HIGHWAY 101 SOLANA BEACH, SAN DIEGO COUNTY, CALIFORNIA 92075 CASPR# 3601003480	ACE ENVIRONMENTAL	2013
SD-16097	HISTORIC ARCHITECTURAL RESOURCE-INVENTORY AND ASSESSMENT AT&T SITE SD0420 SOLANA BEACH 305 SOUTH HIGHWAY 101 SOLANA BEACH, SAN DIEGO COUNTY, CALIFORNIA 92075 CASPR# 3601003480	ACE ENVIRONMENTAL	2013
SD-16127	2007 CULTURAL RESOURCES TREATMENT PLAN NORTH COAST INTERSTATE 5 CORRIDOR	CALTRANS	2008
SD-16131	SIXTH SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT (HPSR): REVISED AREA OF POTENTIAL EFFECTS (APE) I-5 NORTH COAST CORRIDOR	CALTRANS	2013
SD-16132	NCTD POSITIVE TRAIN CONTROL PROJECT - NCTD BASE RADIO SITE NAME: CP VALLEY (LATITUDE 32.986641, LONGITUDE -117.270114), SOLANA BEACH, SAN DIEGO COUNTY, CA 92075	OFFICE OF HISTORIC PRESERVATION, DEPARTMENT OF PARKS AND RECREATION.	2014
SD-16142	CULTURAL RESOURCES SURVEY REPORT FOR HIGHWAY 101 AND DAHLIA DRIVE MIXED USE PROJECT, SOLANA BEACH, CALIFORNIA	ATKINS	2015
SD-16294	CULTURAL RESOURCES STUDY FOR THE OCEAN RANCH ESTATES PROJECT, CITY OF SOLANA BEACH, SAN DIEGO COUNTY, CALIFORNIA	BRIAN F. SMITH AND ASSOCIATES	2015
SD-16381	CULTURAL RESOURCES ASSESSMENT OF THE DEL MAR GRANDSTANDS PROJECT, DEL MAR, SAN DIEGO COUNTY, CALIFORNIA (BCR CONSULTING PROJECT NO. TRF1517)	BRC CONSULTING	2015
SD-16729	ETS 31031 - CULTURAL RESOURCES MONITORING FOR POLE REPLACEMENT P61716, DEL MAR, NORTH SAN DIEGO COUNTY, CALIFORNIA - IO 7074264	CALTRANS	2015

The SCIC record search conducted for this Project also indicated that two previous cultural resources have been recorded within, or partially within the current Project site. Additionally, there are 20 sites previously recorded within the 1-mile search buffer area (Table 2). Two prehistoric sites intersect, or are within the current Project site, including sites CA-SDI-7979 and CA-SDI-10940 (SDM-W-34A, or also known as the "Del Mar Man Site"). Table 2 lists the previously recorded resources within the Project site and the record search 1-mile buffer area; the two resources located within the APE are listed in bold (Table 2). No cultural resources have been recorded in the off-site impact area, although site CA-SDI-192 is within about 100 feet of the second water line alignment.

Table 2
Previously recorded Cultural Resources in the Project APE and 1-mile Record Search

P-Number	Trinomial	Era	Resource Type	In/Out Current APE
P-37-007979	CA-SDI-7979	Prehistoric	Artifact scatter and shell midden, habitation site	IN
P-37-010940	CA-SDI-10940	Prehistoric	Habitation site with midden and documented burials	IN
P-37-000191	CA-SDI-191	Prehistoric	Habitation site	Out
P-37-000192	CA-SDI-192	Prehistoric	Habitation site	Out
P-37-010238	CA-SDI-10238	Prehistoric	Habitation site	Out
P-37-013484	CA-SDI-13484	Prehistoric	Midden site	Out
P-37-013506	CA-SDI-13506	Historic	Industrial built environment	Out
P-37-013507	CA-SDI-13507	Historic	Industrial built environment	Out
P-37-017025	CA-SDI-15065	Historic	Military/industrial built environment	Out
P-37-018807	CA-SDI-15885	Prehistoric	Midden site	Out
P-37-033561	-	Prehistoric	Isolated bowl mortar fragment	Out
P-37-033562	-	Prehistoric	Isolated portable milling mortar	Out
P-37-034886	-	Historic	Private residential built environment	Out
P-37-034956	-	Historic	San Dieguito River Railroad Bridge	Out
P-37-035855	-	Historic	CVS structure	Out
P-37-035935	-	Historic	Del Mar Infield Pavilion	Out
P-37-035936	-	Historic	Del Mar Thoroughbred Club Grandstand and Racetrack Complex	Out
P-37-036415	-	Historic	Del Mar-TL 666 Utility route	Out
P-37-036418	-	Historic	Del Mar Substation	Out
P-37-036421	-	Historic	Isolated Glass Insulator	Out
P-37-036422	-	Historic	Del Blue Print Co/Del Mar Automotive building	Out
P-37-036423	-	Historic	Old Grand Avenue Bridge	Out

2.4.1 CA-SDI-7979

Records indicate that CA-SDI-7979 consists of a prehistoric habitation/midden site that included a wide range of artifacts and tools, which was initially recorded in 1980, long after the property had been residentially developed. CA-SDI-7979 was initially tested by RECON Inc. in 1995, at which time the site was determined to be significant under CEQA. A subsequent data recovery program, designed with approval of the City of Del Mar to mitigate adverse impacts to the site, was conducted by Brian F. Smith and Associates (BFSA) in 1996. The data recovery program conducted in 1996 included the excavation of six mechanically excavated trenches, nine test units, and one hand-excavated trench. These subsurface investigations yielded a recovery of 1,558 prehistoric artifacts (flakedstone, lithic tools, groundstone and percussion tools and fragments –

no ceramic artifacts), 35,945 grams of marine invertebrate shell remains, and 217 grams of bone (Kirkish and Smith 1997). Despite the high volume of material and artifacts recovered from the site, apparently no features were identified during any of the subsurface investigations. Following the conclusion of data recovery, BFSA recommended that, outside of monitoring, no further cultural work was necessary at SDI-7979 (Kirkish and Smith 1997).

2.4.2 CA-SDI-10940

CA-SDI-10940, also known as the "Del Mar Man Site" is a large habitation/midden site, originally recorded by Malcom Rogers (circa 1929), which became the center of controversy in the late-1970s-early-1980s when bone dating procedures provided evidence that a skull from this site was over 48,000 years old. The procedures used at the time were since proven to be inaccurate and in 1984 the previous date was retracted. Modern ¹⁴C accelerator mass spectrometer (AMS) procedures provide currently-accepted evidence that date the skull to approximately 5,000 years old. The site, apparent from the record search data, has been the focus of three previous cultural investigations in 1929, 1963, and 1974, prior to development of the area, (Confidential Appendix B) and then re-visited in 1988 after the southern portion of the property (south of the current developed residence) had been residentially developed, then subsequently demolished, and abandoned (Appendix D).

Excavation notes from Rogers archaeological investigations at CA-SDI-10940 are somewhat unclear as to the actual volume and recovery of cultural materials and artifacts; however, from maps of the excavations, it appears Rogers excavated a total of 30 excavation units in the southern and lower terrace portion of the site (identified by Rogers as "W-34") and excavated two test pit excavation units on the upper terrace portion of the site (identified by Rogers as "W-34") (Confidential Appendix B, p. 276-277).

In 1995, Dayle Cheever with RECON Environmental Inc., conducted a cultural resource significance testing project at the site and encountered cultural materials and artifacts scattered along the upper terrace, W-34A; the 1995 testing excavations apparently did not extend to the lower terrace, W-34. A total of six shovel test pits (STPs) and two sample (1m x 1m) units were excavated along the northern terrace. Three out of the six STPs were positive and both of the sample units were positive, as they were intentionally placed near positive STPs. In general, cultural materials were recovered from the ground surface to approximately 80 cm below the surface (cmbs). A total of 9,228 grams of marine invertebrate shell fragments, 5 grams of bone, 56 flakedstone (flakes and debitage) artifacts, 6 flakedstone tools (including 5 hammerstones and 1 chopper), and 1 milling handstone was recovered from the subsurface excavations (Cheever 1995).

The RECON testing of CA-SDI-10940 established that portions of CA-SDI-10940 were still intact and in relatively undisturbed condition. In fact, the Cheever report stated that the site had at one

time previously been capped with sterile dirt as a method of preservation (Cheever 1995). Cheever concludes that CA-SDI-10940 is "a significant site under criteria B, D, and E of CEQA. This site may also be interpreted to qualify under criterion C, because of the destruction of many coastal archaeological sites through development and/or intensive agriculture" (Cheever 1995). Cheever recommends that a data recovery program would be needed to be conducted at CA-SDI-10940 to mitigate potential destruction of this resource. Following the data recovery, Cheever (1995) recommended that Native American and archaeological monitors should be present during construction grading or other ground-disturbing activities for potential projects. Finally, it was recommended that an Archaeological Resource Management Report (ARMR) technical report would need to be prepared and submitted to the City of Del Mar, for review by City staff and approved before map or permit approval (Cheever 1995). A copy of the 1995 excavation report authored by Dayle Cheever is available in Appendix B.

2.4.3 CA-SDI-192

According to the site record, this site was originally recorded by Treganza, but a date was not given. The site record contains little to no information about the site, other than a sketch map showing its location with "San Dieguito Village" written on it. The site is located south of the lagoon, near but clearly outside the second water line alignment.

2.5 Tribal Correspondence

California Assembly Bill (AB) 52, which took effect July 1, 2015, establishes a consultation process between California Native American Tribes and lead agencies in order to address tribal concerns regarding project impacts and mitigation to "tribal cultural resources" (TCR). As such, the City of Del Mar is the lead agency and is responsible for conducting formal consultation with the local Tribes. However, as part of this Project, Dudek has started this process by initiating contact with the NAHC and then local Tribes. Dudek requested a NAHC search of their Sacred Lands File (SLF) on June 21, 2017 for the proposed Project APE. The NAHC provided results on June 22, 2017. This search did not indicate the presence of Native American traditional cultural place(s) within this area (Confidential Appendix C). The NAHC additionally provided a list of Native American tribes and individuals/organizations that might have knowledge of cultural resources in or near the Project APE.

Following the NAHC response, on June 22, 2017, letters were sent to the listed tribal representatives with the intent of requesting information, opinions or concerns relating to the proposed Project impacts (Confidential Appendix C). These letters contained a brief description of the planned Project, reference maps, and a summary of the NAHC SLF and SCIC search results.

To date, four tribal responses have been received by Dudek concerning the Project. On June 27, 2017 the Viejas Tribal Government responded and requested that a Kumeyaay Cultural monitor be present and they be informed of Project progression. On June 30, 2017, the Mesa Grande Band of Mission Indians responded that the Project is located within their Tribal Traditional Use Areas and therefore would like to be notified prior to any additional cultural studies or ground disturbing activities associated with the Project. On July 07, 2017, the San Pasqual Economic Development Agency (SPEDA) responded requesting that they also be informed of additional cultural surveys, excavations and/or monitoring. On July 13, 2017, Chris Devers, Cultural Liaison, for the Pauma Band of Luiseno Indians emailed Dudek, commenting that they were unaware of any specific concerns on the property, but they would like any project specific documentation concerning the project as it proceeds. All tribal responses are included in Appendix C (Confidential Appendix C).

No further information regarding Tribal Cultural Resources or other tribal concerns have since been provided.

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3 SURVEY METHODS

The current cultural survey methods can be classified as an intensive pedestrian survey. Archaeological survey staff exceeded the applicable Secretary of Interior Professional Qualifications Standards for archaeological survey and evaluation. The Project APE was subject to a 100% survey with transects spaced no more than 15 m apart and oriented in cardinal directions. All cultural resources identified through the records search and during the survey were recorded using a Global Positioning System (GPS) receiver with sub-meter accuracy, recording, at a minimum, the horizontal extents of the resource (i.e., site boundary), a sample of surface artifacts, cultural features, and any notable landform features within or adjacent to the site limits. Evidence for buried cultural deposits was opportunistically sought through inspection of natural or artificial erosion exposures and the spoils from rodent burrows. No artifacts were collected during the survey. Field recording and photo documentation of artifacts, as appropriate, was completed.

Documentation of cultural resources was compiled using the Office of Historic Preservation (OHP) and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740), and the California Office of Historic Preservation Planning Bulletin Number 4(a), December 1989, Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (ARMR Guidelines) for the Preparation and Review of Archaeological Reports. A Native American monitor was present for the intensive survey of the proposed Project APE. All prehistoric and historic resources identified during this inventory were recorded on California Department of Parks and Recreation Form DPR 523 (Series 1/95), using the Instructions for Recording Historical Resources (Office of Historic Preservation 1995). All DPR forms and updates generated during this Project are included as Appendix E (Confidential Appendix E).

During the recent survey, moderate, low-laying vegetation moderately obscured portions the ground surface throughout the Project APE. However, considering the entire APE, the ground surface visibility was approximately 50-75 percent; there were areas with both openly visible ground surface as well as vegetation-obscured ground surface. While ground covering vegetation was a consideration for potential surface visibility, it was noted that all of the parcels surveyed for this Project have been impacted by a moderate to high level of previous disturbances from residential development and occupation of the various residential parcels within the Project APE. Off-site impacts for the water line were not surveyed, as the water line will be placed within paved access ways right-of-way of Camino Del Mar.

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4 SURVEY RESULTS

During the current survey of the Project APE, two previously recorded sites were relocated (CA-SDI-7979 and CA-SDI-10940). These resources are discussed in more detail individually below and are depicted on Figure 4 in Confidential Appendix A.

4.1 Disturbances

The majority of the area within the proposed Project APE has been subjected to past impacts. Currently, intact buildings (such as the residential house), irregular surface topography, push-piles of sediments, plow scars, graded areas, irrigation pipes, synthetic ground cloth fragments, plastic, and the presence of other debris are all evidence for these disturbances. Aerial imagery available for the area from 1953 to 2013 illustrates the extent and volume of the early agricultural and then residential development producing disturbances within the Project APE (Figures D-01 to D-07, Appendix D).

The initial aerial image available of the Project APE is from 1953 and already shows multiple structures and landscaping altering the natural landscape in parcels 298-241-07, -29, -34, -35, -36 and portions of 299-030-15 (Figure D-01, Appendix D). In the 1953 image, in the northern portion of the Project APE, parcels 298-241-29, -34, -35, and -36 have structures that appear to be residential and possibly agricultural, as the image demonstrates small rows of disturbances that are consistent with agricultural landscaping. Parcel 298-241-06 is undeveloped at this time but has a landscape consistent with parcels 298-241-35, and -36, which appear to be clear cut and possibly graded. In the 1953 aerial image parcel 298-241-07 has a clearly established private residence, while the small triangular parcel 299-030-14 is undeveloped. The southernmost parcel included in the current Project's APE, APN 299-030-15, has in the 1953 image, a standing structure, most likely a private residence, on a portion of the southern edge of the parcel (Figure D-01, Appendix D).

Aerial images from 1964 to 1967 (Figures D-02 and D-03, Appendix D) demonstrate a period where no new development occurred and it appears that the residence near the southern portion of the Project APE has been abandoned and unoccupied for some time prior to the 1967 image. The next available aerial image of the Project APE comes from 1980 and a number of changes can be noted from the image. First, the structure at the most southern portion of the Project has now been destroyed and completely removed. Second, the currently standing residential structure at parcel 299-030-15 is under construction. Parcel 298-241-06 has been relatively untouched and heavily overgrown with vegetation by 1980 and there are signs suggesting that the structures at the northern end of the Project APE have been less utilized and possibly abandoned as well. Vegetation surrounding the residential structures on parcel 298-241-34, -35, and -36 has grown unchecked, and the once straight-lined dirt roads have become blown out and diffuse, suggesting disuse of the general area (Figure D-04, Appendix D).

Ten years later, the 1990 aerial image demonstrates the continued trend first noted in the 1980's aerial image: the residences on parcels 298-241-07, and 299-030-15 are fully established and in habited, while parcel 298-241-06 remains unattended and overgrown. The most notable change can be seen in the northern parcels where the three structures that once stood there have been demolished and removed from the landscape. It appears from the 1990 aerial image that only two concrete pads remain of the former structures located here (Figure D-05, Appendix D).

The final two aerial images available are from 2003 and 2012, which demonstrate the same general trend seen from the 1980's to the 1990: residences located on parcels 299-030-07 and -16 are developed and occupied, and the rest of the parcels within the current Project's APE are unoccupied and unutilized. One interesting occurrence shows up in the final 2012 image. Parcel 298-241-06, which had largely been untouched since the late 1960s, by 2012 starts to show signs of development or minimally landscape maintenance; the thick vegetation has been cut back dramatically and something (unidentifiable from the aerial images) is occurring near the very western edge of the parcel, possibly construction of a temporary structure (Figures D-06 and D-07, Appendix D). What becomes immediately clear from the aerial image documentation is that all of the parcels included in this Project have been heavily disturbed by historic and modern-era residential activities. Because of the documented level of previous ground disturbance within the Project area, it will be important to determine if any resources identified in the APE are intact, in-situ sites that have potential significant subsurface deposits, or if the resources identified have been disturbed and secondarily deposited.

Aerial images were also reviewed for the second water line alignment. The earliest image in 1953 shows a disturbed landscape. A railroad spur runs from east of Jimmy Durante Boulevard to the railroad line, in what is currently the alignment of the dirt and paved access route to the Public Works Yard. The land immediately south of that alignment is undeveloped, and remains so through the most recent images available (2016). To the north, the Public Works Yard was established by 1964 and expanded between 1967 and 1980 to its current size. To the west, 27th and 28th Streets are dirt alignments in 1953, with few structures in the area. By 1964 the streets are paved and the neighborhood is filled in with housing.

4.2 CA-SDI-7979

CA-SDI-7979 consists of a prehistoric habitation/midden site that included a wide range of artifacts and tools, initially recorded in 1980, long after the property had been agriculturally and residentially developed. CA-SDI-7979 was initially tested by RECON Inc. in 1995. A subsequent data recovery program, designed with approval of the City of Del Mar to mitigate adverse impacts to the site, was conducted by Brian F. Smith and Associates (BFSA) in 1996. From the conditions identified during the current survey, it appears that this parcel has not been touched or further developed (with the exception of mowing tall grass) since the data recovery program in 1996 was concluded. A copy of the report of the BSF 1996 excavations authored by Kirkish and Smith in 1997 is available in Appendix B.

During the current survey, the site was found to be in the same general condition as previously recorded. Cultural materials (such as fragments of marine invertebrate shell and flakedstone artifacts) were identified on the ground surface within the approximate previously recorded boundaries. Furthermore, despite a significant amount of time passing since the last cultural work conducted, and considering the volume of recovery removed from excavations conducted at this site, artifacts and cultural materials were still identified on the ground surface. Artifacts identified during the current survey included volcanic flakes and debitage; while marine invertebrate species identified included *Argopecten, Chione* and possibly *Ostrea* fragments. The data recovery efforts recovered a sufficient sample from the site and, as stated in that report, have mitigated potential impacts from grading to the site. No further excavation or documentation efforts are necessary. Consistent with the City's previous requirements, archaeological and Native American monitors should be present during ground disturbing activities in case new features or site components are identified.

4.3 CA-SDI-10940

During the survey of the southern parcel of the Project APE, the northern portion of site SDI-10940 was identified as scatter of artifacts and marine shell located along the southern portion of the terrace adjacent to the south side of the existing residential driveway. Scattered flakes, flake tools, and fragments of marine shell (Argopecten sp. and Chione sp.) were observed over a 50-x-40-m area. Some shell was noted to be embedded within the ground surface; however, this may be a result of erosional processes. The northern end of the scatter had a noticeably higher volume of material, with artifacts and shell fragments becoming more diffuse to the south. Artifacts and marine shell fragments are extremely sparse on the ground surface in the vicinity of the standing residential structure. From records of previous archaeological investigations at this site it is apparent that the lithic artifacts and shell identified in this location currently represent the resource Malcom Rogers recorded as W-34A, and also represent the general vicinity of all of Cheever's 1995 positive STPs and sample units (Cheever 1995). Before subsurface testing was conducted it was not known if the shell and artifacts identified at this time represent a secondary deposit resulting from residential development of the property. Furthermore, Cheever stated this site had been previously capped with sterile dirt, as a preservation measure. However, the presence of dirt berms incorporated into the surrounding landscape could suggest that the preservative cap might have since been displaced, exposing intact cultural deposits. While Dudek's current cultural work did not extend to the parcels south of 299-030-15, the 1995 Cheever excavations and Malcom Roger's 1929 excavations clearly demonstrate that site SDI-10940 extends south, outside the current project area.

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5 EXTENDED PHASE I SUBSURFACE SURVEY

Dudek completed an extended phase I (XPI) subsurface survey of site CA-SDI-10940 on November 03, 2017. Dudek archaeologists completed three shovel test pits (STP's), two 10 cm diameter auger test pits, and a surface collection at SDI-10940 (Figure 5, Confidential Appendix A). Native American monitor Justin Linton, representing Red Tail, was present for all subsurface testing excavations conducted during the Phase I excavations.

5.1 Extended Phase I Methodology

The XPI subsurface survey followed standard archaeological procedures and techniques that meet the Secretary of Interior's standards and guidelines for archaeological excavation. Three STPs were placed judgmentally and excavated across the site in an attempt to determine the possibility of subsurface deposits. The STPs were placed within an area that was identified as the densest area of surface artifacts associated with SDI-10940 during the initial pedestrian survey. All excavations were recorded on standard STP excavation forms, photographed, and mapped with a Trimble Global Positioning System (GPS) unit. STPs measured 50 x 25 cm and were typically excavated in 20 cm arbitrary levels and excavated to a minimum depth of two sterile levels, or until physical limitations were encountered. All sediments were screened using a standard shaker-screen with 3 mm wire screen mesh. Materials recovered from the STPs were counted, recorded, collected, and then brought back to the Dudek laboratory to be cleaned and processed. A surface artifact inventory was conducted of the densest area of surface materials, which consisted of recording, counting, and photographing all materials noted on the surface; however a general collection was not made of non-diagnostic artifacts. All notes and images related to the current study are kept on digital file at the Dudek Encinitas office.

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6 EXTENDED PHASE I RESULTS

6.1.1 Unit Sediment Profiles

Three STPs measuring 50 x 25 cm were placed judgmentally, on a roughly north-northeast-to-southsouthwest diagonal line, approximately 15 m apart through the part of the terrace that had the highest density of surface artifacts and shell fragments (Figure 5, Confidential Appendix a). STPs 1 and 2 had a similar stratigraphic profile and both had evidence of an intact deflated shell midden deposit approximately 30 to 60 mcm below the surface (cmbs). The stratigraphy encountered in STPs 1 and 2 consisted of a very dark brown (Munsell: 10YR3/2) loosely compact slightly silty-sandy loam with consistent, moderate volume of marine invertebrate shell fragments extending down from the ground surface to approximately 30 cmbs. From approximately 30 to 60 cmbs a tightly compacted deposit of marine invertebrate shells and fragments embedded into a matrix of compact brown (Munsell: 10YR4/3) sandy loam was encountered. STPs 1 and 2 were excavated to an approximate depth around 70 cmbs and then a 3" bucket auger was used to excavate further due to the increasing compactness of sediments encountered. Sediments encountered from approximately 70 cmbs down to a depth of approximately 120 cmbs in the auger consisted of a very compact brown (Munsell: 7.5YR5/3) sandy loam with small friable fragments of marine invertebrate shell remains. Sediments encountered at approximately 120 to 140 cmbs consist of a slightly less compact reddish brown (Munsell: 5YR5/4) sandy loam, most likely sandstone formation. STP/augers 1 and 2 were both terminated at an approximate depth around 140 cmbs.

STP 3 was positive, in that it yielded small fragments of marine shell invertebrate remains, but the intact shell deposit identified in STPs 1 and 2, was not encountered. Instead, only a lighter volume of marine invertebrate fragments was encountered during entire excavation of STP 3, a volume similar to the amounts of shell fragments that were encountered below 60 cmbs in STPs 1 and 2. The sediment profile identified in STP 3 consisted of loosely compact brown (Munsell: 10YR4/3) sandy loam down to approximately 30 cmbs, which transitioned into a very compact brown (Munsell: 7.5YR5/3) with small friable fragments of marine invertebrate shell remains. Sediments encountered at approximately 100 to 110 cmbs consist of a compact reddish brown (Munsell: 5YR5/4) sandy loam, most likely sandstone formation. STP/auger 3 and was terminated at an approximate depth around 110 cmbs.

With a limited amount of time and relatively compact sandy sediments encountered, an additional two auger test pits were excavated in an attempt to further delineate the extent of the subsurface shell deposit encountered in STPs 1 and 2. Auger 1 was placed judgmentally to the east of the line of STPs excavated, slightly north of STP 2, and immediately in between the property border fence and the artificially created dirt berms identified adjacent to the property fence.

The sediment profile encountered in Auger 1 consisted of loosely compact brown (Munsell: 10YR4/3) sandy loam from the ground surface down to approximately 50 cmbs, which transitioned into a very

compact brown (Munsell: 7.5YR5/3) sandy clay to a depth of 150 cmbs. Auger 1 terminated in a reddish brown (Munsell: 5YR5/4) coarse grain sandy clay with small friable fragments of marine invertebrate shell remains encountered to an approximate depth of 230 cmbs. It should be noted that Auger 1 was located less than 2 m from the top of the eastern edge of the landform where a steep slope drops off (to the east) to a maintained slope and City park area below (see Figure 5, Confidential Appendix A). The location of Auger 1 is important because the results of the test pit most likely reflect the physical location of the test pit rather than an example of a buried, intact cultural deposit.

Auger 2 was excavated approximately 15 m west of the line of STPs, immediately adjacent to the current paved driveway, within the manicured landscape of the standing residence. The sediment profile encountered in Auger 2 consisted of loosely compact brown (Munsell: 10YR4/3) sandy loam from the ground surface down to approximately 20 cmbs. Sediments encountered at 20 cmbs transitioned into a very compact brown (Munsell: 7.5YR5/3) sandy loam with a moderate amount of small friable marine shell invertebrate fragments extending down to approximately 90 cmbs. Sediment encountered from 90 to 120 cmbs became a reddish brown (Munsell: 5YR5/4) compact sand, with a low volume of small friable fragments of marine invertebrate remains. No shell fragments were encountered in the sandy sediments from 110 to 140 cmbs. Auger 2 was terminated at an approximate depth of 140 cmbs.

6.1.2 Artifact Recovery

A total of 2,880 items were recovered during the XP I excavation of site CA-SDI-10940. These cultural materials included marine shell invertebrate fragments with a total weight of 1,582 grams, one rodent bone, one volcanic multi-directional core, one quartzite hammerstone fragment, 27 pieces of volcanic flakedstone debitage, 13 fragments of fire-affected-rock (FAR), and 6 modern/intrusive items which include one fragment of glass, two quarters, and three pennies. A general surface collection was completed across the area where observable cultural materials were identified and two flakedstone tools were GPS point recorded and collected. These artifacts include one reddish-orange colored quartzite percussion tool/hammerstone fragment and one multi-directional gray-green volcanic core. Both artifacts have been fire affected as demonstrated by the clear discoloration evidence of having been exposed to fire. An additional eight flakes were collected as a general sample of the materials scattered on the ground surface, including three primary coarse-grained gray-green colored volcanic flakes, and three interior coarse-grained gray-green colored volcanic flakes.

The excavation of STP 1 recovered a total of 1,429 marine invertebrate shell fragments, six volcanic flakes, and seven fragments of FAR. A total of 142 shell fragments and two volcanic flakes were recovered from 0 (ground surface) to 20 cmbs; 605 shell fragments, two volcanic flakes and seven fragments of FAR were recovered from 20 to 40 cmbs; 670 shell fragments and two flakes were recovered from 40 to 60 cmbs, and 12 small shell fragments were collected from the auger excavation from 60 to 110 cmbs within STP 1.

The excavation of STP 2 recovered 1,181 marine invertebrate shell fragments, one rodent bone, six volcanic flakes, six fragments of FAR, one fragment of clear glass, two U.S. quarters (bicentennial "Drummer Boy" quarters), and three U.S. pennies (dated 1963, 1975, and 1976). Cultural material recovered by excavation level included: 96 shell fragments, three volcanic flakes, one FAR fragment, one clear glass fragment, and five coins from 0 to 20 cmbs; 549 shell fragments and three fragments of FAR from 20 to 40 cmbs; 487 shell fragments, three flakes and two fragments of FAR from 40 to 60 cmbs; and 50 small shell fragments were collected from the auger excavation from 60 to 120 cmbs.

The excavation of STP 3 recovered a total of 57 marine invertebrate shell fragments and six volcanic flakes. Cultural material recovered by excavation level included: 17 shell fragments and two volcanic flakes from 0 to 20 cmbs; 12 shell fragments and two volcanic flakes from 20 to 40 cmbs; 11 shell fragments from 40 to 60 cmbs; 10 shell fragments and two volcanic flakes from 60 to 80 cmbs; and a seven small shell fragments were collected from the auger excavation from 80 to 120 cmbs within STP 3.

The excavation of Auger 1 yielded 153 shell fragments and two volcanic flakes which were recovered from the ground surface to a terminal depth of approximately 230 cmbs. The excavation of Auger 2 yielded only 11 shell fragments recovered from the ground surface to a depth of 120 cmbs.

Before the extended testing was completed, a surface collection was conducted which identified two tools (A1 and A2), three primary volcanic flakes, two secondary volcanic flakes, and three interior volcanic flakes. Artifact A1 is a fire-affected, multi-directional volcanic core. Artifact A2, located immediately adjacent to the eastern property edge consists of a quartzite Percussion/hammerstone fragment.

6.1.3 Artifacts and Species Identified

By a large margin, marine invertebrate shell fragments consisted of the bulk of the total materials recovered (n=2,831, or 78.57% of the total). Flakedstone artifacts constitute the second highest volume of material recovered (n=28, or approximately 14% of the total of all materials collected). The breakdown of the non-faunal (Shell and/or bone) artifacts recovered is demonstrated in Table 3.

Artifacts (non-faunal) recovered from SDI-10490	# of Total	% of Total
Flaked Stone	28	58
Core	1	02
Debitage	27	56
Percussing Tool	1	02

Table 3
Artifacts Recovered form SDI-10940

Artifacts (non-faunal) recovered from SDI-10490	# of Total	% of Total
Hammerstone	1	02
Misc.	13	27
Fire-Affected Rock	13	27
Modern Item	6	13
Coins	5	11
Glass	1	02
Grand Total	48	100%

Table 3Artifacts Recovered form SDI-10940

The flakedstone recovered from CA-SDI-10940 consist of mainly volcanic flakes and demonstrate a rather even distribution of flake types with relatively equal numbers of primary, secondary, and interior flakes. While a majority of flakes identified are relatively large, bulky, and appear to represent reduction of larger items, several smaller thinning flakes were also identified, thus suggesting a possible wide range of lithic reduction activities, from breaking down larger cores to the refinement of already formed tools, or re-sharpening/re-shaping. The quartzite hammerstone fragment demonstrates clear evidence of peaking/wear damage on the intact end of the artifact and, as mentioned before, shows signs of being fire-affected.

Identified invertebrate species recovered from the subsurface deposit at CA-SDI-10940 include several species of barnacle, bean clams (*Donax gouldii*), Chama, Chione, Chiton, various crustacean species fragments, Jewelry Box (*Pseudochama*), various Limpet (*Lottia*) species, Mussel (Mytilus), several Oyster species (*Ostrea*), Razor Clam (*Siliqua patula*), Scallops (*Argopecten*), Tegula, Washington Clam (*Saxidomus*), Wavy Turbin (*Megastrea undosa*), Whelk, and several species of various marine snails. The highest volume of a specific identified species was Chione, comprising roughly 10% of the invertebrate species identified, with *Argopecten* comprising roughly 9% of the collection, and *Mytilus* comprising roughly 8% of the entire invertebrate collection.

Although the recovered assemblage recovered at this time lacks diagnostic artifacts or a wide variety of artifacts, it does confirm that the deposit is both cultural in nature (i.e., is not a natural deposit), and is the same intact deposit as identified by Cheever (1995), as it is contains similar materials, is in the same location and does not contain evidence of being redeposited.

7 SUMMARY AND RECOMMENDATIONS

7.1 Impacts

Two archaeological resources were identified in the project APE: CA-SDI-7979 and CA-SDI-10940.

CA-SDI-7979 is a prehistoric site that was previously recommended eligible for CRHR listing under Criterion 4 (scientific research value) and subject to a data recovery program to mitigate significant impacts (Kirkish and Smith 1997). The data recovery was sufficient to mitigate significant impacts to the site and no new or different impacts were identified during the current inventory. As such, the current project will not have a significant impact on CA-SDI-7979.

CA-SDI-10940 is a prehistoric site that has been recommended eligible on under all significance criteria due to its association with the Del Mar Man Site controversy, which was an important methodological discourse in anthropology (events and persons important in history). Its rich midden deposit made it significant under Criterion 4. The current study relocated the northern portion of the site and conducted an XPI subsurface survey in the area identified by Cheever (1995) as having intact significant deposits. While it could not be confirmed by Dudek during the current investigations, the previous studies of CA-SDI-10940 demonstrate that this site extends outside and beyond the current project boundaries. Dudek only identified a remnant portion of this significant deposit contained in an area depicted on Figure 5 (Confidential Appendix A). Dudek confirmed the significance of the remnant deposit under Criterion 4 for scientific research value but no deposits were located that could spatially link it to the area associated with the Del Mar Man controversy. Therefore, no information was obtained that could support a recommendation of significance under CEOA criteria 1-3. Implementation of the current project would have a significant impact on CA-SDI-10940. Furthermore, as site SDI-10940 extends beyond the current project APE to the south, any alteration or expansion of the APE in this area would require additional cultural investigations.

Avoidance of significant impacts to identified archaeological deposits from CA-SDI-10940 within the APE is the preferred treatment for cultural resources under CEQA. If avoidance is not feasible, a focused data recovery program should be implemented to mitigate significant impacts to the remnant and affected portions of CA-SDI-10940, according to the CEQA Guidelines. A research design and data recovery plan should be prepared to guide data recovery, taking into account finalized construction plans and other concerns in order to better define impacted areas. The data recovery program should be completed prior to project-related earth moving in the vicinity of CA-SDI-10940. A Secretary of the Interior qualified archaeological principal investigator should prepare the research design and work plan in consultation with the project proponent and consulting tribal representative (Red Tail), after refinement of the project design.

Moreover, archaeological and Native American monitoring is recommended during all grounddisturbing activities within the current project APE to appropriately treat any unanticipated discoveries.

Dudek recommends that if associated restoration or other construction activities occur in areas outside the planned development area, such as in the North Bluff Preserve, the need for cultural monitoring would be dependent on the types and level of disturbance planned in such areas. Typically, if ground surface disturbance is limited to excavations less than 12 by 12 inches, and none of the sediments are being removed from the area, then full time cultural monitoring will not be necessary. However, since a known prehistoric site, CA-SDI-10,940 has been identified in the Northern Bluff Area, outside of the current Project APE; a professional archaeologist should do an inspection of ground surface in the locations of the disturbances to determine the level of monitoring effort required during those ground disturbing activities.

The proposed off-site impacts related to water line installation are in previously developed areas that have undergone grading for installation of streets, railroad spurs, and other developments. Terraces adjacent to lagoons in coastal California, and especially in San Diego County, were occupied extensively by Native Americans over the last 10,000 years, as demonstrated by the two sites in the APE, as documented in this report. The second alternative is located within 100 feet of a known site, on a lower slope of one such terrace, and was reported as a potential village site (CA-SDI-192). Although there is little information on the site, its proximity to the proposed water line alignment indicates that this area is highly sensitive for archaeological resources. As such, monitoring is recommended for the second water line alignment, even though prior disturbances in the area likely impacted some or all of any such resources.

Unanticipated Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the remains are determined to be Native American, the Coroner shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descended (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

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APPENDIX A (CONFIDENTIAL) Project APE Cultural Resources Maps

APPENDIX B (CONFIDENTIAL)

SCIC Records Search Results

APPENDIX C (CONFIDENTIAL)

NAHC and Tribal Correspondence

APPENDIX D

Historic Aerial Image Search

0 150	300 Feet	APE Boundary
		FIGURE D-01
DUDEK		1953 Del Mar Resort Aerial Image
	Cultural Resources Survey Report	Del Mar Resort Project

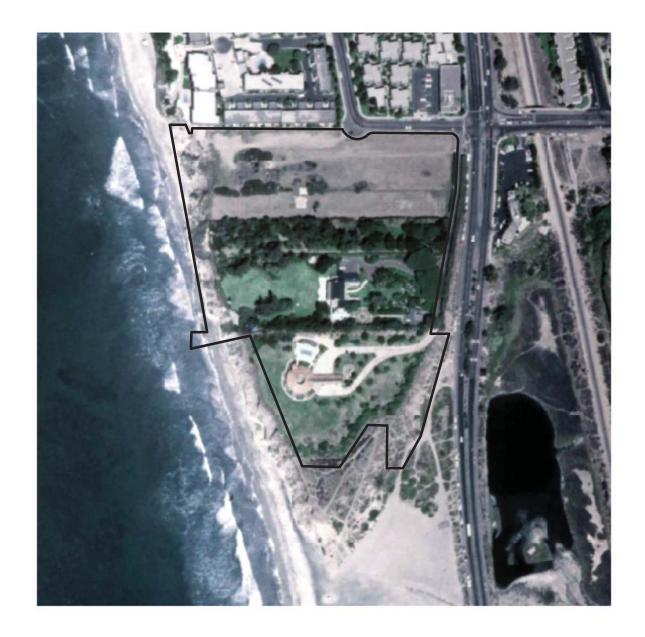


0 150	300 Feet	APE Boundary
		FIGURE D-02
DUDEK		1964 Del Mar Resort Aerial Image
	Cultural Resources Survey Report	Del Mar Resort Project

D 150	300 Feet	APE Boundary
DUDEK	1967 Del Mar	FIGURE D-03 Resort Aerial Image
	Cultural Resources Survey Report	Del Mar Resort Project



0 150	300 Feet	APE Boundary
		FIGURE D-04
DUDEK		1980 Del Mar Resort Aerial Image
	Cultural Resources Survey Report	Del Mar Resort Proiect



0 150	300 Feet	APE Boundary			
DUDEK		FIGURE D-05			
		1990 Del Mar Resort Aerial Image			
	Cultural Resources Survey Report	Del Mar Resort Project			



0 150	300 Feet	APE Boundary		
DUDEK		FIGURE D-06		
		2003 Del Mar Resort Aerial Image		
	Cultural Resources Survey Report	Del Mar Resort Project		



0 150	300 Feet			APE Boundary
DUDEK				FIGURE D-07
			2012 Del Mar I	Resort Aerial Image
	Cultural Resources Survey	Report		Del Mar Resort Project

APPENDIX E (CONFIDENTIAL)

DPR Site Forms and Updates