

**ARCHAEOLOGICAL DATA RECOVERY PLAN FOR UU798,  
UNDERGROUND UTILITY DISTRICT PROJECT,  
CITY OF SAN DIEGO, CALIFORNIA**

*Prepared for:*

**City of San Diego**  
**Transportation and Storm Water Department**  
9370 Chesapeake Drive, MS 1900  
San Diego, California 92123  
*Contact: Donna Chralowicz*

*Prepared by:*

**Micah J. Hale, Ph.D., RPA**  
**DUDEK**

605 Third Street  
Encinitas, California 92024

**NOVEMBER 2018**



# Archaeological Data Recovery Plan for UU798

---

## INTRODUCTION

Dudek is pleased to submit this archaeological data recovery plan for Task Order (TO) 15 in support of the City's Utility Undergrounding program for UU798, Residential Block 1Y, located in San Diego, California. This data recovery plan proposes work to be performed to satisfy the requirements set forth in the California Environmental Quality Act (CEQA) and the City's Historical Resources Guidelines and Requirements for mitigation of impacts to significant historical resources. This data recovery program will be guided by the research design and will be implemented utilizing the methodology presented below. Results of the data recovery plan will be documented in a data recovery report, prepared in accordance with City guidelines, which will include recommendations for the level of archaeological and tribal monitoring required. This study will also be performed in compliance with the Secretary of the Interior's Standards and Guidelines for Archaeology, in the event that a federal nexus triggering compliance with Section 106 of the National Historic Preservation Act is required.

## PROJECT UNDERSTANDING

As part of the franchise agreement between the City of San Diego (City) and San Diego Gas and Electric (SDG&E), SDG&E conducts the construction work to underground overhead utility lines and infrastructure. To complete the work, trenches will be excavated approximately 5 feet deep and 2.5 feet wide within the public right-of-way (ROW) in UU798. Additional activities include installing conduit and substructures such as transformers on concrete pads, installing cable through the conduits, providing individual customer connections, backfilling, removing the existing overhead utility lines and poles, and installing new streetlights where applicable. Curb ramps, street trees, and utility poles may also be installed. Some of the existing utility poles located within Torey Pines State Preserve will be cut off at ground level, but no excavation is expected in this area; all work in the Preserve is expected to occur within SDG&E's easement. UU 798 consists of two discontinuous locations: the western area is located along Carmel Valley Road, between Interstate 5 and Coast Highway; the eastern area is located along Arroyo Sorrento Rd, south of CA-56, and east of Interstate 5. This data recovery plan was prepared to address known archaeological sites in the western area, as shown on Figure 1 (Confidential Appendix A).

All of Dudek's cultural resources personnel, along with subcontractors, participating in this project will meet the City's and the Secretary of the Interior's minimum qualifications for their respective role (i.e., Principal Investigator (PI) Archaeologist, and Archaeological Supervisors/Monitors), and we will provide resumes demonstrating these qualifications to the City at the kickoff meeting. Red Tail Monitoring and Research, Inc. will provide Native American monitors who will be present for the duration of fieldwork.

# Archaeological Data Recovery Plan for UU798

---

## RESEARCH DESIGN

The objective of the current data recovery program is to identify archaeological deposits that convey the significance of known archaeological sites, recovery statistically relevant data from those deposits, and provide appropriate treatment of human remains and grave goods. Current research is typically structured in a way that links anthropologically oriented research issues to the archaeological record. The following discussion embraces this strategy, and identifies potential questions and appropriate archaeological evidence within a series of broad research themes. General issues pertinent to the assessment of sites include determination of the extent and integrity of cultural deposits, age and probable cultural affiliation, site function and subsistence strategies, overall insight into settlement organization, and the presence of any cultural remains having special Native American or historical heritage value.

## Management Concerns and Potential Regional Research Topics

### *Integrity*

Delineation of the horizontal distribution and vertical depth of a site is necessary for an assessment of research potential. Of particular importance is the integrity of deposits: whether or not features or surfaces are preserved and whether the potential exists for identifying, through analysis, horizontal and vertical spatial patterning in the evidence for prehistoric behavior.

A variety of postdepositional disturbance processes can greatly alter the original character of prehistoric sites (e.g., Gross and Robbins-Wade 2008; Schiffer 1987; Waters 1992). Formation processes such as alluvial deposition, erosion, bioturbation, and modern disturbance can considerably affect the integrity of archaeological sites. The natures of procurement, processing, and discard of secondary refuse, and whether occupation is procurement-related, seasonal, or annual, are key social factors. Here, we attempt to identify and interpret the processes that formed the site, with particular attention given to the character of postdepositional processes and the extent to which they have affected the integrity of the archaeological deposits.

Fieldwork efforts at the project site will be used to assess the following issues:

- Are intact archaeological materials and/or deposits present within the project area, both within and outside known archaeological sites?
- Does the horizontal and vertical extent of the archaeological record within the sites represent continuous or discrete occupations?
- Is it possible to discern depositional versus postdepositional processes that have contributed to the present condition of the archaeological record at the site? In other words, what are

## Archaeological Data Recovery Plan for UU798

---

the factors, both natural and anthropogenic, that have altered the position and condition of artifacts from the prehistoric occupations of the site?

- What kinds of features are potentially preserved at the site (e.g., structures, hearths, earth ovens)? Are there features that are highly disrupted by postdepositional processes but that are still recognizable? Can these features be associated with particular functions?
- By examining spatial patterns in the horizontal distribution of artifacts, is it possible to discern areas that were associated with specific functions? Do patterns in the vertical distribution of artifacts tell us anything about changes in the function, materials exploited, or human activities at the sites through time?

### ***Chronological Placement***

Chronological issues are basic to any archaeological research design, as they provide the primary framework of prehistory. Previous research in the San Diego region has documented a range of prehistoric sites dating to the Archaic (6000 B.C. to A.D. 500) and Late Prehistoric periods (post-A.D. 500). Yohe and Chace (1995) documented a late La Jollan (i.e., Millingstone) deposit dominated by millingstones, handstones, cobble tools, and other items. Rodent protein residue was collected from a basin millingstone in a buried context, implying the functional generality of such tools. In the eastern foothills and in the valley floors a strong record that postdates A.D. 1000 has been documented. These sites have assemblages with large numbers of arrow points, small flake-based tools, and ceramics, but also include sizeable numbers of millingstones and handstones relative to mortars and pestles. The distribution of such artifacts is uneven at many sites in the region, and there may be temporal patterning in how sites were occupied, leaving differential traces of assemblage constituents. Along these lines, potential research issues derived from this basic problem include:

- How did the transition from the Archaic period to the Late Prehistoric period occur? This transition is characterized by shifts in food storage and cooking technology with the inception of ceramics, and a shift in hunting technology with the addition of the bow and arrow. These shifts did not occur simultaneously (cf. McDonald et al. 1993), and their implications for local population expansion in the Late Prehistoric period are unknown.
- Was there a shift in emphasis of acorn use during the Late Prehistoric period? The mortar and pestle appear to have been added to the repertoire of food processing tools during the Late Prehistoric period, but in limited quantities compared to handstones (Hale 2001, 2009; Hale et al. 2010). Is there evidence for earlier use of bedrock mortars? Is the addition of the mortar and pestle correlated to the inception of ceramics in the region and/or intensified use of a particular resource?

## Archaeological Data Recovery Plan for UU798

---

Because chronological controls are essential to any archaeological investigation, several other basic questions concerning the temporal data potential of evaluated sites pertain to the current study, including:

- Can the chronological placement of the site be determined?
- What kinds of chronometric data can the site provide? How well do they correlate in terms of the age estimates they provide (e.g., projectile point types vs. obsidian hydration dates).
- Are there data indicating the presence of multiple occupation episodes?
- Do marker artifacts appear to fit with temporal patterns recognized in the surrounding region? Are there any unique diagnostic items present?
- Can chronometric data help to refine dating schemes in the local region?

Potential chronometric evidence from the study site includes radiocarbon dates, obsidian hydration measurements, and diagnostic artifact forms. Radiocarbon dates are generally the most precise and reliable form of chronometric evidence, and they provide the foundation for the region's prehistoric chronology. However, obsidian hydration measurements may have a more direct cultural interpretation, they are individually less expensive, and they are able to address very late prehistoric to protohistoric time periods that cannot be distinguished through radiocarbon dating. Chronologically diagnostic artifacts include various projectile point forms and pottery, although these only define very broad time periods. Specific types or attributes of buffware ceramics may have a potential to define somewhat more precise time ranges, but that potential is not yet well established.

### ***Settlement and Site Function***

Interpretation of the site depends upon an assessment of its place within the larger settlement-subsistence system of its occupants. Sites belonging to functional types that are relatively ubiquitous within the region would be less likely to be considered significant than unusual site types. Sites with evidence of multiple functions may possess richer information content than relatively simple sites; on the other hand, single-function sites may have a greater research potential than multiple-function sites if the residues from the various activities at the latter cannot be effectively differentiated.

Evidence for the functional uses represented by sites will come from subsurface observations made through analysis of the augers and hand excavated units. Interpretations of functions rest upon both the range and the relative and absolute frequencies of various classes of features, artifacts, and ecofacts.

## Archaeological Data Recovery Plan for UU798

---

Widespread and substantial occupation during the Late Prehistoric period has been documented in the vicinity of the project and region. The Late Prehistoric is a time when significant shifts in settlement and subsistence may have occurred.

While several important prehistoric sites and ethnohistoric villages have been extensively studied in the San Diego region, the character of settlement and subsistence shifts have not been fully explored. A key variable in understanding social organization during this time is the kind of socioeconomic shifts that occurred after adoption of the bow and arrow and the subsequent widespread use of ceramics. Specific data requirements include information on arrow point manufacture, general patterns of lithic reduction, and raw material use, including the use of exotic stone. Was arrow point production occurring at sites in the project area, or were points being discarded in exhausted condition? What does the debitage assemblage imply about the production and/or maintenance of stone tools at project sites?

Information on ceramic vessel forms and functions, and their diversity, is also critical for determining whether residential occupation was brief or prolonged. How many kinds of vessels are indicated in the assemblage and for what purposes were they used? The latter is particularly important for understanding intensification in the exploitation of plant foods (see Eerkens 2001). Is there evidence, in the form of clay residues and other manufacturing residues, that clay vessels were being manufactured at sites in the project area? Finally, the manufacture and use of groundstone implements in conjunction with the ubiquitous milling elements within the project area can help clarify the nature of site occupation and settlement duration. Shaped handstones and pestles can be an indication that populations are somewhat mobile, implying use in off-site contexts—the idea being that shaping can reduce mass, thereby reducing transport costs (Hale 2001).

### ***Subsistence***

The issues related to subsistence orientation are interwoven with the previously discussed settlement organization, and this section complements the issues discussed previously.

Among the questions to be addressed are the following:

- Are floral and faunal remains present?
- Which specific resources were the foci of exploitation?
- Was there diachronic change in the emphasis on specific resources, and can these differences be related to specific factors, such as changes in procurement strategies?
- With respect to floral resources, the initial question is whether they have been preserved, as has been documented at an increasing number of coastal sites in the general region (e.g., Klug 1992; Klug and Popper 1995; Miksicek 1993). Archaeobotanical data are essential to

## Archaeological Data Recovery Plan for UU798

---

address questions related to prehistoric plant resource exploitation and the seasonal availability of specific plant resources and their interface with settlement patterns.

- Can changes in resource emphasis be tied to alterations in settlement organization, extractive technologies, and the availability of local resources due to coastal environmental changes (Inman 1983)?

To address these issues, a number of data sets and analytical procedures are needed. Faunal and floral remains will be targeted for collection. Fine-screen sieving (1/8-in.) of all excavated matrix will be undertaken in the field to recover bone and shell remains.

### ***Native American Heritage Values***

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the sites in the area is to evaluate the likelihood that these classes of items are present in areas that would be affected by the project.

Also potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management (CRM) performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998),

“Traditional” in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Examples of properties possessing such significance include:

1. a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
2. a rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
3. an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;
4. a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
5. a location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.



## Archaeological Data Recovery Plan for UU798

---

A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

### **METHODS**

#### **Records Search**

A records search for UU798 was completed using a 1/4 mile radius around UU798. Dudek performed the records search using Dudek's in-house data subscription from the SCIC. The records search identified cultural resource locations and the boundaries of previously completed studies and collected California Department of Recreation (DPR) series 523 Site Forms for each resource identified in UU798. Site locations were plotted on a USGS topographic map as shown in Appendix A.

#### ***Records Search Results for UU798***

SCIC records indicate that 20 previously recorded cultural resources are within UU798. The records also indicate that an additional 60 cultural resources have been recorded within the 1/4-mile buffer area search radius. Of the total 80 resources identified in UU798 and buffer area 25 are prehistoric artifact scatters, 15 are prehistoric midden sites, five are prehistoric habitation sites, four are shell scatters, two are hearth feature sites, one is a prehistoric rock quarry, and eight are prehistoric isolated artifacts. There are also seven multi-component artifact scatter sites, six historic structures, three historic trash deposits, two cisterns/tanks sites, one historic bridge, one historic rock art site, two historic isolated artifacts, one historic transmission line, and two resources that had no corresponding site records identified by the record search. Additionally the records search indicated that there are four historic addresses listed in the within the record search buffer area and two of those historic addresses are located within UU798.

The 20 sites within UU798 include nine prehistoric midden deposits, one habitation site, four artifact scatters, a hearth feature, a transmission line, a sewer tank, two single family homes, an one resource with no site record.

This data recovery plan focuses on the western portion of UU798. Resources of note within UU798 include CA-SDI-15121 (large shell midden), CA-SDI-15093 (shell midden with a hearth, extending up to 2 ft. below the ground surface), CA-SDI-16653 (large habitation site with multiple loci), and CA-SDI-17387 (stratified shell middens with hearth features extending to at least 11 ft. 6 in. below the ground surface). Underground utilities have already been installed within the mapped boundary of CA-SDI-15121 and will not be directly evaluated or impacted, unless a portion of the site extends beyond the mapped boundary. Only a small portion of CA-

## Archaeological Data Recovery Plan for UU798

---

SDI-16653 is within UU 798. The portion outside the project was previously determined significant and data recovery excavations were performed in the 1980s. Fieldwork will be performed adjacent to this site along two roads. CA-SDI-17387 is adjacent to CA-SDI-15121 and is likely part of that site. Utilities have already been installed underground in the nearest street to the mapped location of CA-SDI-15121. CA-SDI-15093 was previously documented only in private residences; two streets adjacent to those properties will be tested at this time.

One other site, CA-SDI-10149, a shell and artifact deposit, is located in UU 798, but is not mapped within any roads. Backhoe trenches excavated in 1985 between the site and the nearest road did not identify any artifacts or deposits.

### Field Methods

Implementation of the utility undergrounding program at UU798 is burdened by archaeological and Native American concerns associated with the large quantity of previously recorded significant archaeological sites. Chief among these concerns is the ability to locate archaeological deposits requiring data recovery. It is not feasible to remove road surfaces and road bed to expose sediments that may contain archaeological deposits prior to implementation of UU798. For this reason, specific data recovery methods are provided that allow for salvage of archaeological deposits parallel with SDG&E's trenching activities.

To locate archaeological deposits requiring data recovery, archaeological and Native American monitors will conduct sample screening during SDG&E trenching activities. This will involve removing one 5-gal. bucket of matrix excavated by SDG&E contractors on 5 meter (15 feet) linear intervals, and dry-screening the bucket of matrix through 1/8-inch wire mesh. During the course of monitoring, if a continuous linear segment of 50 meters of trench (10 sample buckets) contains no cultural material, no water screening will be required of the matrix for that segment.

If bucket sampling or observation of artifacts identifies archaeological deposits, the archaeologist and Native American will coordinate with appropriate personnel to make appropriate notifications, temporarily divert mechanical excavation to areas outside of the archaeological deposits, delineate the area containing archaeological deposits, and proceed with hand excavation of the trench alignment until a statistically relevant sample, or otherwise appropriate sample is recovered that satisfies data recovery.

Hand excavated Control Units (CU) are limited in horizontal dimensions by the width of the trench, assumed herein to be approximately 0.75 m. As such, variations in the size of CUs is dependent on the distribution of the archaeological matrix in the exposed trench. In general, CUs will be based off of a standard 1-x-0.75-m control unit, with unit length and depth increased or decrease to suit field conditions.

## Archaeological Data Recovery Plan for UU798

---

Regardless of method, all excavated matrix will be screened through 1/8-in. (3 mm) wire mesh and all cultural materials will be collected and transported back to Dudek's laboratory facilities for processing and curation preparation. If potential midden deposits or features are identified, soil samples will be collected for floatation and archaeobotanical analysis. Additionally, appropriate samples of hand excavated matrix will be water screened to ensure collection of smaller and microscopic materials. The amount of material subject to water screening will be negotiated between the Principal Investigator, Native American representative, and the City, based on the nature of the exposed archaeological deposits.

### Archaeological Laboratory Methods

Initial lab procedures include cleaning (as appropriate), sorting, and cataloging of all items. Each item is individually examined and cataloged according to class, subclass, and material; counted (except for bulk invertebrate and vertebrate remains); and weighed on a digital scale. All coded data are entered into a Microsoft Access database. Data manipulation of a coded master catalog combining all sites is performed in Microsoft Excel.

The cultural material is sorted during cataloging into the following potential categories: 14 classes of prehistoric artifacts; two classes of ecofacts; ethnohistoric items, historic and modern items; and organic samples. The prehistoric artifact classes potentially included debitage, cores, utilized core tools, modified core tools, simple flake tools, retouched flakes, formal flake tools, bifaces, percussing tools, groundstone, ceramics, bone artifacts, shell artifacts, and miscellaneous items.

When possible, cores are to be separated by platform variability into subclasses such as multidirectional, unidirectional, and bifacial types. Debitage, including both flakes and debris, are sorted by material type and cortical variation (primary, secondary, and interior) during cataloging. Length, width, and thickness measurements are taken for all tools and cores using a sliding caliper.

Percussing tools, potentially including hammers and abraders, are defined based on their morphology and the type of macroscopic use-wear they exhibit. Groundstone artifacts are classified by type, including millingstones and handstones. Length, width, and thickness measurements are taken on complete groundstone items. Organic artifact classes (ecofacts) consist of shell and bone specimens. After faunal material is cataloged, it is sorted to taxon and coded into an Access subcatalog.

After preliminary cataloging of the material is completed, more detailed attribute analysis of lithics and groundstone is performed. Stone artifacts (both flaked and ground) are individually analyzed for selected morphological and technological attributes, as well as material and condition, in an attempt to gain insight into the period of occupation and the range of activities undertaken. Specific analytical methods will be described in the analytical results section of

## Archaeological Data Recovery Plan for UU798

---

the data recovery report. All artifacts, ecofacts, and samples are subject to appropriate conservation in the field and laboratory, including proper packaging and handling.

### ***Curation***

All materials recovered by Dudek from this Project will be placed in 4-ml bags, along with artifact tags providing catalog number, artifact description, and provenience information. All artifacts were then placed in archival-quality boxes. At the completion of the project, all materials will be turned over for permanent curation at an approved facility in San Diego County in accordance with City Guidelines, such as the San Diego Archaeological Center or a Kumeyaay tribal curation facility. The City reserves the right to negotiate repatriation, in whole or part, all recovered archaeological materials in place of curation. All DPR forms and updates created by Dudek will be submitted to the SCIC at the completion of the project, along with the final report.

### **REPORTING**

All data efforts will be documented in a report prepared to the City's standards. The report will document all consultation, pre-field, fieldwork methods, data recovery results, and recommendations for monitoring. The reports will provide explicit detail on the contents recovered from every excavation unit, sediment context of recovery, and illustrate results on easy to use maps in order to facilitate interpretation and planning with consulting Native Americans and the City.

### **SUMMARY**

This data recovery plan describes methods and research outline that will be used to implement and guide the archaeological data recovery of cultural resources in the western portion UU798 district. All efforts will be performed in compliance with CEQA and City guidelines, as well as Secretary of the Interior's Standards and Guidelines of Archaeology, in the event that a federal nexus is identified for the project.

# **CONFIDENTIAL APPENDIX A**

*Data Recovery Location Map  
(Bound under Separate Cover)*

