

# Carlsbad Tribal, Cultural, and Paleontological Resources Guidelines Update

*Prepared for:*

**City of Carlsbad**

*Prepared by:*

**HELIX Environmental Planning, Inc.**

*and the:*

**San Diego Natural History Museum**

*with contributions from:*

**ECORP Consulting Inc.**

*and*

**Cogstone Resource Management**

**DRAFT** – April 2026

This page intentionally left blank

# TABLE OF CONTENTS

---

<b><u>Section</u></b>	<b><u>Page</u></b>
1.0	PURPOSE AND NEED FOR GUIDELINES ..... 1
1.1	1990 Cultural Resources Guidelines ..... 1
1.1.1	2017 Tribal, Cultural, and Paleontological Guidelines ..... 1
1.2	Current Guidelines Update ..... 4
1.3	Organization of the Guidelines Update ..... 4
2.0	DEFINITIONS OF RESOURCES ..... 5
2.1	Types ..... 5
2.2	Cultural Association ..... 6
2.3	Time Period ..... 6
2.4	Physical Characteristics ..... 8
3.0	REGULATORY CONTEXT ..... 11
3.1	Local ..... 11
3.1.1	City of Carlsbad General Plan ..... 11
3.1.2	City of Carlsbad Municipal Code ..... 13
3.1.3	Local Coastal Program ..... 15
3.1.4	City of Carlsbad Council Policy No. 83 ..... 16
3.2	State ..... 17
3.2.1	California Environmental Quality Act (CEQA) ..... 17
3.2.2	Traditional Tribal Cultural Places Bill (Senate Bill 18) ..... 21
3.2.3	California Coastal Act ..... 21
3.2.4	California PRC 5097.5 ..... 21
3.2.5	California PRC 5097.9 ..... 22
3.2.6	California PRC 5097.98 ..... 22
3.2.7	California PRC 5097.99 ..... 22
3.2.8	California Health and Safety Code 7050.5 ..... 22
3.3	Federal ..... 23
3.3.1	National Historic Preservation Act Section 106 ..... 23
3.3.2	Secretary of the Interior’s Standards for the Treatment of Historic Properties . 25
3.3.3	Advisory Council on Historic Preservation Policy Statement on Burial Sites, Human Remains, and Funerary Objects ..... 26
3.3.4	Guidance for Federal Departments and Agencies on Indigenous Knowledge .... 26
3.3.5	National Register Bulletin 38: Identifying, Evaluating, and Documenting Traditional Cultural Places ..... 27
4.0	CONTEXT STATEMENTS ..... 27
4.1	Regional Archaeology and Ancient Native American History ..... 27
4.2	Ethnography and Native American History ..... 32
4.2.1	Luißeño ..... 32
4.2.2	Kumeyaay ..... 40
4.2.3	Contemporary Presence of the Luißeño and Kumeyaay Peoples ..... 41

4.3	Euro-American History.....	43
4.4	Paleontological Resources .....	45
5.0	ROLES AND RESPONSIBILITIES .....	50
5.1	City of Carlsbad .....	50
5.2	Private Applicants for Projects.....	50
5.3	Consultants .....	50
5.3.1	Minimum Qualifications for Tribal Cultural Resources Professionals .....	50
5.3.2	Minimum Qualifications for Cultural Resources Professionals .....	52
5.3.3	Minimum Qualifications for Paleontological Professionals.....	53
5.4	Tribal Representatives .....	54
5.5	California Office of Historic Preservation .....	54
5.6	California Native American Heritage Commission.....	55
5.7	California Native American Tribes .....	55
5.8	Federally Recognized Tribes .....	55
5.9	Other Permitting or Approving Agencies.....	55
5.9.1	The Federal Trust Responsibility.....	56
5.9.2	Federal Consultation Obligations .....	56
5.10	Interested Parties.....	57
6.0	SENSITIVITY MODELS .....	57
6.1	Uses.....	57
6.2	Architectural History Sensitivity Model .....	59
6.3	Archaeological Sensitivity Model.....	61
6.4	Paleontological Sensitivity Model.....	62
6.5	Management of the Models .....	65
7.0	GENERAL METHODS AND STANDARDS OF ANALYSIS .....	65
7.1	General Standards .....	65
7.2	Thresholds of Review.....	66
7.3	Confidentiality.....	67
8.0	TRIBAL CULTURAL RESOURCES PROCEDURES .....	69
8.1	Tribal Outreach and Coordination .....	69
8.1.1	Notices of Exemption.....	70
8.1.2	National Historic Preservation Act Section 106.....	73
8.1.3	CEQA/AB 52 .....	74
8.1.4	SB 18 (Traditional Tribal Cultural Places Bill) .....	74
8.2	Identification and Treatment of Tribal Cultural Resources .....	74
8.2.1	Impact Analyses and Mitigation Measures.....	75
8.2.2	Preferred Treatment Options and Mitigation Measures.....	76
9.0	CULTURAL RESOURCES PROCEDURES .....	80
9.1	Architectural History.....	81
9.1.1	Sensitivity Model Review .....	81
9.1.2	Records Searches and Literature Review .....	81
9.1.3	Site Visit .....	81
9.1.4	Archival Research.....	81

9.1.5	Evaluations of Significance .....	82
9.1.6	DPR 523 Forms and Technical Reports .....	83
9.2	Archaeological and Tribal Cultural Resources .....	84
9.2.1	Sensitivity Model Review .....	84
9.2.2	Records Searches and Literature Reviews .....	85
9.2.3	Field Surveys .....	86
9.2.4	Site Records and Survey Reports .....	87
9.2.5	Evaluations of Significance .....	88
9.3	Impact Analyses and Mitigation Measures.....	93
9.3.1	Thresholds.....	93
9.3.2	Preferred Treatment Options and Mitigation Measures.....	96
9.4	Curation .....	105
10.0	PALEONTOLOGICAL RESOURCES PROCEDURES.....	106
10.1	Sensitivity Model Review .....	106
10.2	Paleontological Resources Memo.....	106
10.3	Paleontological Resources Assessment .....	107
10.4	Standard Conditions and Mitigation Measures .....	107
10.4.1	No Impacts Anticipated .....	108
10.4.2	Impacts Anticipated .....	108
10.5	Curation .....	110
11.0	DOCUMENT REVIEW AND CONSULTATION .....	110
11.1	Application Requirements .....	111
11.2	Completeness Review .....	111
11.3	Consultation.....	112
11.4	Compliance Verification.....	112
12.0	REFERENCES CITED.....	114

# TABLE OF CONTENTS (cont.)

---

## LIST OF FIGURES

<u>No.</u>	<u>Title</u>	<u>Follows Page</u>
1	Luiseño and Kumeyaay Bands in the Region of Carlsbad .....	33
2	Geology of the City of Carlsbad .....	49
3	Architectural History Sensitivity Model .....	60
4	Paleontology Sensitivity Model .....	63
5	Conceptual capping of a site, in conjunction with a deed restriction .....	99
6	Example of an interpretive panel .....	101

## LIST OF TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Summary of Paleontological Sensitivity by Geologic Unit .....	64

# ACRONYMS AND ABBREVIATIONS

---

AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
AT&SF	Atchison, Topeka and Santa Fe
BERD	Built Environment Resources Directory
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
B.P.	Before Present
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
city	City of Carlsbad
CIAP	California Indian Assistance Program
CNA	California Native American
CRHR	California Register of Historical Resources
CY	cubic yards
DOI	Department of the Interior
DPR	Department of Parks and Recreation
EIR	Environmental Impact Report
FHWA	Federal Highways Administration
FR	Federal Register
GC	California Government Code
GIS	Geographic Information System
GLO	General Land Office
GPO	Government Publishing Office
GPS	Global Positioning System
Guidelines	Tribal, Cultural, and Paleontological Resources Guidelines
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscape Survey
HELIX	HELIX Environmental Planning, Inc.
HPDF	Historic Property Data File

## ACRONYMS AND ABBREVIATIONS (cont.)

---

IB	City of Carlsbad Information Bulletin
ICS	International Chronostratigraphic Chart
LCI	Land Use and Climate Innovation
LCP	Local Coastal Program
MLD	Most Likely Descendant
MOA	Memorandum of Agreement
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCC	North Coastal Corridor
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOE	Notice of Exemption
NPS	National Park Service
NRHP	National Register of Historic Places
O&M Plan	operations and management plan
OHP	Office of Historic Preservation
OPR	Governor's Office of Planning and Research
PA	Programmatic Agreement
PI	Principal Investigator
PMMP	Paleontological Mitigation and Monitoring Plan
PPE	personal protective equipment
PQS	Professional Qualification Standards
PRC	Public Resources Code
PRPA	Paleontological Resources Preservation Act
PWP	Public Works Plan
RPA	Register of Professional Archaeologists
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCIC	South Coastal Information Center
SDNHM	San Diego Natural History Museum
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SPNHC	Society for the Preservation of Natural History Collections
STP	Shovel Test Pits or Shovel Test Probes
SVP	Society of Vertebrate Paleontology

## ACRONYMS AND ABBREVIATIONS (cont.)

---

TCA	Traditionally and Culturally Affiliated
TCL	Traditional Cultural Landscape
TCP	Traditional Cultural Property
TCR	Tribal Cultural Resource
TREP	Transportation and Resource Enhancement Program
TUA	Traditional Use Area
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

This page intentionally left blank

# 1.0 PURPOSE AND NEED FOR GUIDELINES

This chapter addresses the history of the development of the City of Carlsbad’s Tribal, Cultural, and Paleontological Guidelines (Guidelines) and the purpose and need for these guidelines.

## 1.1 1990 CULTURAL RESOURCES GUIDELINES

In 1990, the City of Carlsbad (city) developed its first set of guidelines for the treatment of cultural resources that fall within the limits of the city. The original Cultural Resource Guidelines were prepared with funding from the National Park Service (NPS) via the California Office of Historic Preservation (OHP) and established a standard of performance for cultural resources investigations to meet the requirements of the California Environmental Quality Act (CEQA) that, by today’s standards, were narrowly scoped to largely address archaeological sites.

### 1.1.1 2017 Tribal, Cultural, and Paleontological Guidelines

Between 1990 and 2017, a number of changes occurred in the regulatory context within which the city operates. These changes occurred at various levels of jurisdiction, including at the city, state, and federal levels and in the significance thresholds and expectations for best professional practices in cultural resources management. Changes also occurred in terms of the level of involvement by stakeholders in cultural resources, particularly Native American tribes, as well as historical societies and the general public. The changes included the following.

- Carlsbad City Council Policy No. 83, adopted in 2016 in partnership with the San Luis Rey Band of Mission Indians, calls for the city to “recognize [the city’s] responsibility to protect with improved certainty the important historical and cultural values of current Tribal Cultural Resources within the city limits and to establish an improved framework for the city’s consultations with Native American Tribes that are traditionally and culturally affiliated with the City of Carlsbad.” This policy calls for improved communication and consultation procedures with local Native American tribes. It assists the city in implementing the requirements of Assembly Bill (AB) 52 and Senate Bill (SB) 18 through an update to the 1990 Guidelines, which is represented by the 2017 Tribal, Cultural, and Paleontological Resources Guidelines and this current Guidelines Update.
- AB 52, passed by the California legislature in 2014, amended CEQA to add new requirements regarding tribal cultural resources. By requiring consideration of tribal cultural resources, and consultation regarding such resources with California Native American (CNA) tribes early in the CEQA process, the Legislature intended to ensure that local and tribal governments, public agencies, and project proponents would have information available early in the planning process to identify and address potential adverse impacts to tribal cultural resources (Governor’s Office of Planning and Research [OPR; now the Governor’s Office of Land Use and Climate Innovation] 2017). The city, as CEQA lead agency, must offer consultation with Traditionally and Culturally Affiliated (TCA) tribes that request notification of projects at the initiation of CEQA. The consultation, if initiated, is to determine whether or not the project would cause a substantial adverse change in the significance of a tribal cultural resource, as defined by CEQA; and thus, whether the project may have a significant effect on the environment (California Public Resources Code [PRC] § 21084.2.)

- SB 18, passed by the California legislature in 2004, mandates consultation with CNA tribes when the city is considering the adoption or amendment of a General Plan or Specific Plan. SB 18 also requires that CEQA lead agencies consult with local tribes regarding the provision of open space to protect resources important to Native American tribes (OPR 2005) (California Government Code [GC] Sections 65040.2, 65351 - 65352).
- The regulations implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966 were amended in 2000 and 2004. The amended regulations, found in the *Federal Register* at 36 Code of Federal Regulations (CFR) Part 800, specify how federal agencies are to take into account the effects of their undertakings on historic properties (i.e., significant cultural resources). The Section 106 regulations apply to projects in the city when the project would receive federal funding, assistance, licenses, approvals, or permits (such as a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers [USACE] or funding by the Federal Highway Administration [FHWA] through the California Department of Transportation [Caltrans]).
- Decisions by the California Courts of Appeal and the California Supreme Court have also changed the interpretation of the CEQA Statute and Guidelines. For example, the decision in the *Madera Oversight Coalition v. County of Madera* (January 2012), held that a significance determination regarding cultural resources cannot be deferred until after the CEQA document is certified. This decision also found that preservation in place must be adopted to mitigate impacts to cultural sites, if feasible, unless the lead agency determines that another form of mitigation is available and provides “superior mitigation.” In the *League for Protection of Oakland’s Architectural and Historical Resources v. City of Oakland, Inc.* (February 1997), the court found that documentation of a historically significant building prior to demolition may not reduce impacts to less than significant. If that is the case, the lead agency must consider and adopt a Statement of Overriding Considerations as part of the Environmental Impact Report (EIR) process.
- An update to the CEQA Guidelines that took effect January 1, 1999 removed Appendix K and added Section 15064.5, Determining the Significance of Impacts to Archaeological and Historical Resources. This section more clearly defined a Historical Resource in the context of CEQA analysis, and established guidelines to determine whether a project may have a substantial adverse effect on the significance of a Historical Resource. The definition of a Historical Resource was added to the Guidelines in Section 15064.5(a) as a result of *League for Protection of Oakland’s Architectural and Historical Resources vs. City of Oakland and Montgomery Ward & Co, Inc.* (1997), which, among other findings, determined that Historical Resources are not just those listed on a local register but also resources that are eligible for listing in the California Register of Historical Resources (CRHR) or may otherwise be considered locally significant. Other subsections describe the types of actions that have substantial adverse effects, the relationship between historical resources and archaeological resources, and the protocol to follow if human remains are found.
- The CEQA Guidelines were updated effective September 27, 2016, by revising the initial study checklist in Appendix G to the CEQA Guidelines to separate the consideration of tribal cultural resources from cultural and paleontological resources, and to add sample checklist questions. As part of the revision, consideration of paleontological resources was placed in Section VII Geology and Soils of the checklist (OPR 2017). As a result, Appendix G contains a new section called Tribal Cultural Resources, which asks two questions related to the presence of tribal

cultural resources. The first question asks whether the project would cause a substantial adverse change in the significance of a listed tribal cultural resource, as defined by CEQA. The second question asks whether there is a substantial adverse change in the significance of a resource determined by a lead agency to be a tribal cultural resource. When answering this second question, a lead agency must use its discretion while supporting the decision with substantial evidence, applying the criteria of the historic register, and considering the significance of the resource to a California Native American Tribe. Consultation with CNA tribes is a key way to obtain the information necessary to understand the significance of the resource (OPR 2017).

- Moreover, Appendix G contains the following prompt for lead agencies to consider whether the substantive and procedural requirements for consultation with tribal governments have been followed in accordance with the changes to CEQA made by AB 52:

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to PRC section 21080.3.1? If so, has consultation begun?

- Specifically, the Appendix G, Tribal Cultural Resources, checklist now asks the following:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k); or
  - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.
- Best practices in cultural resources management now emphasize avoidance and preservation over destruction with documentation or data recovery. In addition, advances in digital technology have provided cultural resources managers with new tools for resource mapping, documentation, and data management.
  - There has been an increased awareness of the importance of early consultation with resource stakeholders as part of project planning, particularly with tribes.
  - There is an increasingly complex tribal consultation process that the city is either directly or indirectly affected by, and which varies from project to project. City budgetary constraints,

coupled with an increase in private-sector development, have led to the need for streamlined processing and compliance verification, and greater city staff efficiency.

- Paleontological resources are now protected under state law and local regulations. These remnants of ancient life have scientific and educational value and are of great interest to many citizens of the city.

These changes necessitated the 2017 update to the city’s Cultural Resources Guidelines, which addressed the new requirements that emerged since the Cultural Resources Guidelines were adopted in 1990 and provided user-friendly applications for city staff and consultation professionals. The 2017 Guidelines were developed in consultation with the San Luis Rey Band of Mission Indians, cultural and paleontological resources professionals, city staff, and the public. The 2017 Guidelines were authored by cultural resources professionals from ECORP Consulting, Inc. who meet the Secretary of the Interior’s Professional Qualifications Standards (PQS) for precontact and historic archaeology. Input regarding the built environment was provided by ECORP and city staff who meet the same standards for historian, architectural historian, and historic preservation planner. Contributions regarding paleontological resources were provided by professionally qualified paleontologists from Cogstone Resource Management.

## **1.2 CURRENT GUIDELINES UPDATE**

As a result of tribal consultation on a variety of development projects in the city subsequent to adoption of the Guidelines in 2017, as well as recent changes in approaches to the study of cultural resources and tribal cultural resources, including acknowledgement of the importance of traditional Indigenous knowledge, city staff determined that a new Update to the Guidelines was in order. This Update endeavors to better incorporate input from the TCA tribal community and to foster positive government-to-government relationships between the city and the tribes. This Update builds on the 2017 Guidelines, rather than replacing them wholesale. Thus, some sections remain relatively unchanged from the 2017 version, while other sections reflect revisions based on input received from TCA Tribes during outreach and consultation for this Update, as well as changes in policies at the local, state, and federal levels. This Update was authored by cultural resources professionals from HELIX Environmental Planning, Inc. (HELIX) who meet the Secretary of the Interior’s PQS for precontact and historic archaeology, as well as staff who meet PQS standards for historian, architectural historian, and historic preservation planner. Update contributions regarding paleontological resources were provided by professionally qualified paleontologists from the San Diego Natural History Museum. The tribal cultural resources sections were updated in partnership with the tribal historic preservation officers and cultural resources management specialists from consulting TCA tribes, including the San Luis Rey Band of Mission Indians, the Rincon Band of Luiseño Indians, and the Jamul Indian Village.

## **1.3 ORGANIZATION OF THE GUIDELINES UPDATE**

These Updated Guidelines are organized into twelve main sections. Section 1 presents the purpose and need for the Guidelines. Section 2 provides definitions of resources that are utilized throughout the Guidelines, and Section 3 provides an overview of the regulatory context. Section 4 includes detailed cultural and paleontological context statements that can be used by the city and professional consultants in evaluating significance or interpreting site function. Section 5 outlines the roles and responsibilities of those responsible for participating in, implementing, or verifying compliance with these Guidelines. Section 6 presents high-level sensitivity models for archaeological, architectural

history, and paleontological resources that are intended to aid the city in making informed decisions about land use. Section 7 provides general standards of analysis, and Sections 8, 9, and 10 provide the processes by which resources are considered under these Guidelines for tribal cultural resources, cultural resources, and paleontological resources, respectively. Section 11 discusses the process by which compliance is verified. References cited in these Updated Guidelines are provided in Section 12.

Appendix A provides a copy of Carlsbad City Council Policy No. 83, which led to the need to update the 1990 Guidelines.

## 2.0 DEFINITIONS OF RESOURCES

These Guidelines pertain to a variety of types of resources within the city. In the broadest sense, these resources can be classified as either those relating to past human activities or those relating to past non-human life-forms, as well as ongoing tribal cultural activities and relationships, in the case of Tribal Cultural Resources (TCRs).

### 2.1 TYPES

“Cultural resources” are broadly defined as anything made, modified, or moved by a human in the past. Cultural resources can also be described in terms of time period (precontact, ethnographic, and historic), culture (for example, Native American or Euroamerican), physical state (archaeological, built environment, landscape level, and sacred/religious), and significance, which is defined as meeting certain criteria and age thresholds specified in the regulations.

A resource that is considered sacred, religious, spiritual or an object of cultural value to Native American tribes, regardless of time period, is a “Tribal Cultural Resource” that is given special and separate consideration under state and federal law, as well as these Guidelines. Tribal Cultural Resources can also include geographically-defined sites, places, or landscapes of spiritual or cultural value, including Native American Tribal burial grounds.

Resources from the human environment (collectively, cultural resources) take many forms. The way in which they are described or classified can vary similarly, such as by cultural association, time period, and physical characteristics. Most often, cultural resources are described using a combination of these characteristics. Commonly accepted definitions for each are provided below.

“Paleontological resources” are defined as remains and/or traces of prehistoric organisms (e.g., animals, plants, and microbes). Body fossils such as bones, teeth, shells, leaves, and wood, as well as trace fossils such as tracks, trails, burrows, and footprints, are found in the geological deposits (formations) within which they were originally buried. The primary factor determining whether an object qualifies as a fossil is the geologic age of the organic remain or trace and not how the organic remain or trace is preserved (e.g., “petrified”). Although typically it is assumed that fossils must be older than ~11,700 years before present (the widely accepted end of the last glacial period of the Pleistocene Epoch), organic remains of early Holocene age (11,700 to 8,200 years old) can also be considered fossils because they are part of the record of past life (Society of Vertebrate Paleontology [SVP] 2010). Industry professional best practices (e.g., Murphey et al. 2019; SVP 2025) recommend the use of scientific significance criteria developed by Scott and Springer (2003), which define significant paleontological resources as fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the

interpretation of tectonic events, geomorphologic evolution, and paleoclimatology, are also considered to be critically important (Scott and Springer 2003; Scott et al. 2004).

## 2.2 CULTURAL ASSOCIATION

*Native American* cultural resources are those that are reasonably considered or confirmed (with or without tribal consultation) to be associated with Native American cultures that predated or coexisted with the arrival of Europeans to California. As it pertains to the city, these are generally composed of the Luiseño and Kumeyaay, inclusive of their descendants, ancestors, and modern groups.

A specific type of Native American resource is one that is considered sacred, spiritual, or religious in nature. This can include Traditional Cultural Places (TCPs), Traditional Cultural Landscapes (TCLs), and Tribal Cultural Resources (TCRs) that are identified as such by Native American tribes or communities. A TCP, which is a term that applies to federal undertakings and Section 106, “is defined as a building, structure, object, site, or district that may be listed in (or determined eligible for listing in) the National Register for its significance to a living community because of its association with cultural beliefs, customs, or practices that are rooted in the community’s history and that are important in maintaining the community’s cultural identity” (NPS 2024:1). It is often referenced within the context of Native American culture but is not exclusive to that culture. “TCRs” is a term that applies to CEQA and is defined in Section 21074(a) of the PRC as sites, features, places, geographically-defined cultural landscapes, sacred places, or objects with cultural value to a CNA tribe, as defined in Section 3.2.1 of these Guidelines. TCPs and TCRs may or may not exhibit noticeable signs of their presence unless called out by those who identify with them as cultural resources and may include natural landforms, such as mountain peaks, rivers, or ridge tops. The Advisory Council on Historic Preservation (ACHP) defines landscapes as “large-scale properties often comprised of multiple, linked features that form a cohesive area or place.” TCLs are defined as landscapes that “have cultural and historical meanings attached to them by the peoples who have traveled, used, and interwoven these places into generations of practice. In addition to the physical, on the ground components, visual and audio aspects of place are often important to how they are defined” (ACHP 2018: 1).

*Euro-American* resources are those associated with people of European origin and descent, who first arrived in the San Diego area in the mid- to late 1700s. These include, but are not limited to, missionaries, fur trappers, gold miners, ranchers, and farmers who lived in the area when California was administered by Spain, Mexico, and the United States.

## 2.3 TIME PERIOD

*Precontact* resources are sites, features, places, geographically-defined cultural landscapes, sacred sites, and objects of cultural value to a California Native American Tribe that contain the remains of the native population of the area (Native Americans) prior to the arrival of Europeans in California. The term “prehistory” originated in academia to mean the time before there were written records, but it is widely understood that the term does not mean “before history;” Native American occupation is known to extend back at least 10,000 years, representing a Native American “history” that long predates the arrival of Europeans. Because it is a nearly universal term used in cultural resources management and in academia to refer to Native American sites that predate European contact, the use of “prehistoric” and “prehistory” is retained in some places in this Update; however, where possible, the term “precontact” has replaced “prehistoric.” It is a strong belief held by California Native American Tribes, including but

not limited to the Luiseño and Kumeyaay, that their people have inhabited this region since time immemorial.

Objects found in precontact sites or places, including sacred sites, include flaked stone tools such as projectile points, knives, scrapers, drills, and the resulting flakes from tool production (also known as debitage); ground stone tools such as manos, metates, mortars, and pestles for grinding seeds and nuts; bone tools, such as awls; ceramic vessels or fragments; and shell or stone beads. Subsistence byproducts (burned animal bone, charred seeds, nuts, or organic residue on ground stone tools) may also be present. Precontact features may include hearths or rock rings, bedrock mortars and milling slicks, rock shelters, rock art, and burials.

*Ethnographic* or protohistoric resources are typically considered to be associated with Native American culture, but they can be associated with other groups, like Hispanic, Asian, or other ethnic populations that migrated to California in historic times. Ethnographic resources often reflect a blending or co-occurrence of Euro-American and Native American items, such as the presence of glass beads, woven cloth, and trade goods in Native American sites. With respect to Native American ethnographic sites, archaeologists tend to distinguish this time period as being marked by the arrival of Spaniards to the San Diego area, sometime between 1769 and 1776.

*Historic-period* resources contain the structures or material remains of activities carried out by people after the arrival of Europeans in the 1700s. Historic archaeological material usually consists of domestic refuse, disposed of either as roadside dumps or near structure foundations. Historic artifacts can include domestic refuse (food containers such as cans and bottles, ceramic and glass vessels for preparing and serving food and beverages, utensils, food waste, cosmetic and grooming items [perfume and cosmetics jars, combs, brushes, mirrors], and clothing fasteners), building material (brick, concrete, concrete blocks, lumber, window glass, water and sewer pipe, nails, screws, bolts, and other metal fasteners), auto parts and oil cans, tools, and other miscellaneous items. Historic features can include privies, pits, wells, and structure foundations. Archaeological investigations of historic-period sites are usually supplemented by historical research using written records and historical photographs or maps.

Historic structures include houses, garages, barns, commercial structures, industrial facilities, community buildings, dams, levees, and other structures and facilities with extant architecture that are usually more than 45 years old. Historic structures may also have associated archaeological deposits, such as abandoned wells, cellars, and privies, refuse deposits, and foundations of former outbuildings. Note that the use of “historic” instead of “historical” is deliberate in this context, as explained in Section 3.2.1 of these Guidelines.

*Geologic history* includes events that have occurred in deep time throughout Earth’s history. The geologic time scale (see the International Chronostratigraphic Chart [ICS]; Cohen et al. 2013) divides Earth’s 4.54-billion-year history into a series of geochronologic time units. The largest of these units are the Eons (from oldest to youngest: the Hadean, Archean, Proterozoic, and Phanerozoic), followed by Eras (within the Phanerozoic, these include, from oldest to youngest: the Paleozoic, Mesozoic, and Cenozoic), followed by Periods, and then by Epochs. The entirety of Carlsbad’s geologic history falls within the youngest two Eras: the Mesozoic Era and the Cenozoic Era. Within the Mesozoic Era, the Cretaceous Period is represented by geologic units located within the City of Carlsbad. The Paleogene, Neogene, and Quaternary Periods of the Cenozoic Era are also represented by geologic units located within the city. These Periods are subdivided into the Paleocene, Eocene, Oligocene, Miocene, Pliocene, Pleistocene, and Holocene Epochs—all of these time intervals, with the exception of the Paleocene

Epoch, are represented by geologic units located within the city. As mentioned in Section 2.1, paleontological resources are typically understood to be older than 11,700 years old (the end of the Pleistocene Epoch) but may also originate from the early Holocene Epoch (11,700 to 8,200 years ago).

## 2.4 PHYSICAL CHARACTERISTICS

*Archaeological resources* are composed of the remnants of past human activity and include, but are not limited to, surface or subsurface artifact scatters, midden deposits, subsurface features, and human remains associated with any culture. According to National Register Bulletin 15, a “site” is the “location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archeological value regardless of the value of any existing structure. They include village sites, cemeteries, rock art, habitation sites, camp sites, and other archaeological features.” A discussion of the National Register of Historic Places and related federal laws, upon which the National Register Bulletin relies and implements, is provided in Section 3.3.

*Archaeological sites* are the locations of an event, a precontact, protohistoric, or historic occupation or activity, or the former location of a building or structure, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure or feature (OHP 1995). Archaeological sites can be defined by the presence of one or more features or artifacts. When based solely on artifact presence, archaeological sites are defined as such when there are at least three artifacts in a ten-square-meter area.

*Archaeological isolates* are individual artifacts that are reasonably believed to be out of primary context, such as artifacts that have been transported a distance from their original locations due to a variety of cultural or natural processes. In some cases, isolates indicate the presence of more extensive subsurface archaeological deposits. In other cases, particularly where the isolate is not in primary context, the presence of an isolate may indicate a more extensive precontact site in the vicinity, or simply reflects the general sensitivity of the area.

*Archaeological districts* are further defined as “a significant concentration, linkage, or continuity of sites important in history or prehistory” by plan or by physical development (Keller and Keller n.d.; OHP 1995). Examples of historic archaeological districts may consist of ranches, farms, mining landscapes, and historic town sites that contain a subsurface element. The same criteria are applied to precontact districts, which may consist of interconnected village sites, temporary camping sites, and a combination of archaeological sites, ethnographic landscapes, and/or traditional cultural places.

*Features* are considered “minor components of larger resources, like sites or districts. Features generally consist of small constructed works, discrete activity areas, landscaping, earthworks, non-portable natural objects modified by human use, and other similar cultural entities. They include, but are not limited to values such as: a garage or landscaping associated with a house; a gate valve associated with a ditch; an adit (entrance to an underground mine), tailings, or ruined mill that are part of a mining complex; or a trash pit, orchard, discrete activity area, bedrock milling station, rock art panel, or carved tree associated with a site” (OHP 1995:3). Historic archaeological features can include refuse dumps along roads or drainages with domestic refuse and/or building material; refuse dumps and deposits of domestic refuse and/or building material associated with a farmstead, ranch, residence, or commercial establishment; features and dumps/deposits associated with a historic-period farmstead, ranch, residence, or commercial establishment; or foundations or privies. Features associated with

transportation include roads, highways, bridges, railroad grades and tracks, airfields, and runways that are at least 50 years old. Linear features may have since been paved over or graded, but may retain their original alignments, thereby possessing some aspects of integrity.

The *built environment* generally is considered to describe extant architecture and structures that are above ground and can still be utilized for the purpose it was originally intended, even if not effectively due to a loss of integrity. Sections IV and VIII of National Register Bulletin 15 (How to Apply the National Register Criteria for Evaluation) further define a building as “a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity. ‘Building’ may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn. If a building has lost any of its basic structural elements, it is usually considered a ‘ruin’ and is categorized as a site.” Bulletin 15 also defines the term ‘structure’ “to distinguish from buildings those functional constructions made usually for purposes other than creating human shelter and include dams and earthworks.” The built environment may also include roads, agricultural irrigation systems, and similar features. These types of resources are studied by architectural historians, rather than archaeologists.

Common types of resources within the built environment include buildings, structures, objects, and signs. A *building*, such as a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity. Building may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn (OHP 1995).

The term *structure* is used to distinguish from buildings those functional constructions made usually for purposes other than creating human shelter, such as roads, bridges, canals, fences, windmills, dams, etc.) (OHP 1995).

The term *object* is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed; although it may be, by nature or design, movable, an object is associated with a specific setting or environment (OHP 1995). This includes signs.

Furthermore, in accordance with Title 22 of the city’s Municipal Code, *historic district* means a geographic area which possesses a significant concentration, linkage, or continuity of improvements united historically, culturally, or architecturally by plan, history, or physical development and which has been designated a historic district pursuant to Title 22 (see Section 3.1).

Title 22 also defines a *historic resource* as an improvement which has been determined to meet the eligibility criteria for historic resources and has been designated a historic resource by the City Council pursuant to the provisions of this title. Historic resources include local historic landmarks, contributing resources to a historic district, and qualified historical properties. This is notably different from the term “historical resource,” which is defined in the California PRC as a cultural resource that warrants further consideration under CEQA.

A *cultural landscape* is recognized for the relationship between cultural and natural features on a broad scale. These can be precontact or historic, and can be associated with specific cultures. Examples include large areas of historic mine tailings, precontact or ethnographic hunting and gathering locations, historic agricultural areas, and archaeological or historic districts. A rural historic landscape is defined as “a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features”

(McClelland et al. 1999). Cultural landscapes may include historic homesteads, ranching and grazing lands, or agricultural facilities and fields that have persisted for generations.

An *ethnographic landscape* is defined as a cultural landscape, composed of natural and cultural features, which an associated population defines as a heritage resource. In either case, the individual elements that compose the cultural landscapes (or districts) are always recognized for being related in time and function. The National Park Service initially identified ethnographic landscapes within the grouping of four types of “historical landscapes” (historic site, historic vernacular, historic designed, and ethnographic). The NPS defined ethnographic landscapes as “a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, sacred religious sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components” (NPS 2000).

The NPS’s Applied Ethnography program believed the initial definition of ethnographic landscapes to be too broad and thus expanded the definition to include “a relatively contiguous area of interrelated places that contemporary cultural groups define as meaningful because it is inextricably and traditionally linked to their own local or regional histories, cultural identities, beliefs and behaviors. Present-day social factors such as people’s class, ethnicity, and gender may result in the assignment of diverse meanings to a landscape and its component places” (Evans et al. 2001).

A *precontact landscape* falls under the NPS’s definition of a “cultural landscape” which includes several types of historic landscapes. The NPS defines a historic landscape as “a geographic area, including both natural and cultural resources, including the wildlife or domestic animals therein, that has been influenced by or reflects human activity or was the background for an event or person significant in human history” (Melnick 1984). Precontact landscapes are similar to ethnographic and historic landscapes, in that they may include the natural and cultural resources within a designated area. But unlike ethnographic landscapes, they do not contain landscape features associated with cultural practices or beliefs of a living community which have been passed down through generations. Precontact landscapes may consist of precontact travel routes, quarry sites, or groups of sites associated by archaeological deposits and/or features within a geographic region.

A *rural historic landscape* is defined as “a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features” (McClelland et al. 1999).

*Paleontological resources* include body fossils (physical remains or impressions) and trace fossils (records of the behavior or locomotion of organisms) preserved in geologic strata. Body fossils may consist of original bone, exoskeleton, or shell material; permineralized remains; recrystallized remains; carbonized remains; or casts and molds. Trace fossils may consist of imprints left in sedimentary strata, borings or marks left in bone or shell material, or casts and molds of burrows and borings.

*Paleontological localities* are the context in which fossils are documented. The locality includes both the geographic location (point on a map) and stratigraphic position (place in a sequence of strata) of the fossils. Other data typically associated with paleontological localities include taphonomic data such as the density, orientation, fragmentation, abrasion, and association of fossil remains and the taxonomic composition of recovered fossil assemblages. This contextual data is critical to enable the scientific study of paleontological resources.

*Geologic units or formations* are bodies of rock that are formally (and sometimes informally) defined by their physical characteristics, such as lithology (color, rock type, grain size, fossil content, mineral composition, bedding, and texture), and their relative position to other bodies of rock. Geologic units are useful for placing paleontological localities and paleontological resources into the broader geologic context of a region and help correlate geographically distinct fossil assemblages.

## 3.0 REGULATORY CONTEXT

These Guidelines were developed to satisfy a variety of local, state, and federal requirements, to the greatest extent that they apply to any given project and for requirements over which the city has either jurisdiction or the ability to execute. Full compliance with federal law cannot be achieved solely by the city, and therefore, these procedures will result in project planning and environmental impact decisions that can be utilized by federal agencies to complete the compliance process. A summary of the scope of the regulatory context, including excerpts, is provided below. Not all projects under city jurisdiction will require compliance with all of these regulations.

### 3.1 LOCAL

#### 3.1.1 City of Carlsbad General Plan

The City of Carlsbad General Plan’s Arts, History, Culture, and Education Element (2015) affords consideration for the preservation of cultural resources. The city’s Vision Statement Core Values for their General Plan note examples of the historical resources within the city including the Rancho Carrillo, the Marron Adobe, the Barrio neighborhood, the Magee House, and the Village. The General Plan includes guidelines to help revitalize the historic Barrio and Village neighborhoods. The General Plan also states the goal of enhancing education about the area’s Native American history. Following are relevant goals and policies of the *Arts, History, Culture, and Education Element* of the city’s General Plan:

Goal 7-G-1: Recognize, protect, preserve, and enhance the city’s diverse heritage.

Policy 7-P.1 Prepare an updated inventory of historic resources in Carlsbad, with recommendations for specific properties and districts to be designated in national, state, and local registries, if determined appropriate and with agreement of the property owners.

Policy 7-P.2 Encourage the use of regional, state and federal programs that promote cultural preservation to upgrade and redevelop properties with historic or cultural value. Consider becoming a participant in the Mills Act tax incentive program.

Policy 7-P.5 Encourage the rehabilitation of qualified historic structures through application of the California Historical Building Code.

Policy 7-P.6 Ensure compliance with the City of Carlsbad Cultural Resource Guidelines to avoid or substantially reduce impacts to historic structures listed or eligible to be listed in the National Register of Historic Places or the California Register of Historical Resources.

Policy 7-P.7 Implement the City of Carlsbad Cultural Resources Guidelines to avoid or substantially reduce impacts to archaeological and paleontological resources.

Policy 7-P.8 During construction of specific development projects, require monitoring of grading, ground-disturbing, and other major earth-moving activities in previously undisturbed areas or in areas with known archaeological or paleontological resources by a qualified professional, as well as a tribal monitor during activities in areas with cultural resources of interest to local Native American tribes. Both the qualified professional and tribal monitor shall observe grading, ground-disturbing, and other earth-moving activities.

Policy 7-P.9 Ensure that treatment of any cultural resources discovered during site grading complies with the City of Carlsbad Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated. The final disposition of artifacts not directly associated with Native American graves shall be negotiated during consultation with interested tribes; if the artifact is not accepted by Native American tribes, it shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring.

Policy 7-P.10 Require consultation with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information Systems [CHRIS], the Native American Heritage Commission [NAHC], and Native American groups and individuals) to minimize potential impacts to cultural resources that may occur as a result of a proposed project.

Policy 7-P.11 Prior to occupancy of any buildings, a cultural resource monitoring report identifying all materials recovered shall be submitted to the City Planner.

Goal 7-G.2: Make Carlsbad’s history more visible and accessible to residents and visitors.

Policy 7-P.3 Formalize a program of historical markers/plaques at resources in state and national registers or of local importance.

Policy 7-P.4 Promote community education of historic resources, integration and celebration of such resources as part of community events:

- a. Enhance the community’s recognition that objects of historic importance increase both fiscal and community value.
- b. Promote the use of historic resources for the education, pleasure and welfare of the people of the city. Cooperate with historic societies, schools, libraries, parks and community members to stimulate public interest in historic preservation.
- c. Maintain historical reference materials on file at the Carlsbad City Library.

The General Plan includes designating Special Resource Areas that help reserve natural and cultural features within the city. Following is a relevant policy of the Open Space, Conservation, and Recreation Element of the city’s General Plan:

**Policy 4-P.32:** Where appropriate, designate as open space those areas that preserve historic, cultural, archeological, paleontological and educational resources. Promote expansion of recreational and educational use opportunities in areas of significant ecological value, such as lagoons, where discretionary use of the resource allows. Consider partnering with private foundations for the conservation of such lands and the development of educational programming.

- Combine historically significant sites with recreational learning opportunities, where possible.
- Utilize community parks in support of historical and cultural programs and facilities when feasible and appropriate.
- Coordinate the efforts of the Historic Preservation Commission on the siting and care of historic ruins within parks.

### 3.1.2 City of Carlsbad Municipal Code

The City of Carlsbad Municipal Code *Title 22 Historic Preservation* discusses historic and archaeological resources within the city. It includes definitions of local resource types, procedures for owners who want to voluntarily apply for historic resource (including landmark, district, or qualified historical property designations), regulatory provisions, and preservation benefits and incentives including historical property contracts (Mills Act contracts) that may be available to owners of historic properties. The full text of Title 22 is available on the city's website. Title 22 was amended in 2022 to be a regulatory code that applies to all historic resources, publicly and privately owned, within the corporate limits of the City of Carlsbad. As such, Title 22 is not a regulatory code for the purposes of implementing CEQA. The other laws and regulations referenced and discussed in these Guidelines are also utilized by the city for CEQA purposes, including Municipal Code Title 19, Environment.

#### Significance Criteria

Title 22, Section 22.06.020, contains the following criteria for evaluating the significance of individual historic and cultural resources within the city:

1. The Improvement must be at least 50 years old, or have achieved significance within the past 50 years, and exhibit one or more of the following attributes:
  - a. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the historic, cultural or architectural heritage of California or the United States; or
  - b. It is associated with the lives of persons important to local, California, or United States history; or
  - c. It embodies distinctive characteristics of a region, style, type, period or method of construction, or is representative of a notable work of an acclaimed builder, engineer, designer or architect that embodies significant structural, engineering, or architectural achievement; or

- d. It has yielded or has the potential of yielding information important to the prehistory or history of the local area, California or the United States.

For any improvement less than 50 years old, “achieved significance” means it is of enduring importance within the appropriate historical cultural or architectural context and it can be demonstrated that sufficient time has passed to understand its authenticity, integrity, value, and/or importance.

2. The improvement retains enough of its historic, cultural or architectural character or appearance to be recognizable as a historic resource and to convey the reasons for its significance.

This section also contains an additional criterion for seeking the elevated status of a historic landmark, which is that the historic resource has *outstanding* character or historical, cultural or architectural interest or importance as part of the city’s cultural, social, economic, political and architectural history (emphasis added).

Title 22, Section 22.06.030, contains criteria for evaluating the significance of a historic district within the city:

1. It is a geographically definable area with a concentration of contributing resources linked historically, culturally, or architecturally through location, design, setting, materials, workmanship, feeling and/or association, in which the collective value of the improvements may be greater than the value of each individual improvement; and
2. At least 50% of the contributing resources within the proposed historic district are already designated as historic resources, or otherwise determined by the Commission and City Council to be eligible for placement in the local register. (Contributing resources share a time period in which most of the original construction occurred or there is some other shared historical, cultural or architectural period of context or significance.)

For the purpose of seeking historic designation for a property or historic district, an additional first criterion is that the property owner (all property owners within the proposed historic district) consent(s) to the proposed designation. However, the above criteria serve as local regulatory criteria for evaluating significance for the purposes of CEQA whether or not designation is sought.

### **Historic Preservation Commission**

The City of Carlsbad Historic Preservation Commission implements Title 22 and the duties of the Historic Preservation Commission specified in Municipal Code Chapter 2.42. The five-member Historic Preservation Commission acts in an advisory capacity to the City Council and Planning and Housing Commissions in all matters relating to the identification, protection, retention, and preservation of historic, archaeological, cultural, and tribal cultural resources within the city. The members must all be residents of Carlsbad and are appointed by the mayor and confirmed by the City Council to four-year terms. Their responsibilities are to make recommendations to the City Council on the following matters: the designation of all such resources, including tribal cultural resources; recommending properties for inclusion in the National Register of Historic Places and/or the California Register of Historical Resources, ways to increase the public’s understanding and involvement in historic preservation programs, cooperation with various governmental entities to further preservation objectives, the approval or

denial of preservation benefits and incentives, and other related matters. As with other city commissions, the Historic Preservation Commission’s meeting materials, including agendas and meeting minutes, are publicly available on the city’s website.

The Historic Preservation Commission is responsible for investigating and reporting to the City Council on the use of various funding sources to promote historic preservation, providing advice and guidance on the restoration or modification of any historical area or site when requested by the property owner, and reviewing and commenting on environmental (CEQA) documents for development projects affecting historic resources identified in the project’s environmental study. The Historic Preservation Commission is included on the list of interested parties that receive notices for Mitigated Negative Declarations and Environmental Impact Reports prepared for development projects in accordance with CEQA. The notice provides the opportunity for the Historic Preservation Commission to comment on CEQA documents during the advertised public review period for any development project that would affect a historic structure, archaeological site, or paleontological site that is identified on an adopted city historic resources inventory or within a project’s cultural resources study.

Additionally in accordance with Title 22, Chapter 22.08, Permits and Permit Procedures, the Historic Preservation Commission has the responsibility to issue or deny permits to alter, tear down, demolish, construct, remove, or relocate any portion of a nominated historic resource, historic resource, or any property located within a historic district. If said property is subject to a historical property contract, the City Planner may administratively approve the permit provided the requested work is listed in the contract; otherwise, the permit request shall be forwarded to the Historic Preservation Commission.

Finally, Title 22, Chapter 22, Preservation Benefits and Incentives, gives the Historic Preservation Commission the responsibility to review and make a recommendation to the City Council on applications for historical property contracts which implement sections of the California Government Code and Revenue and Taxation Code, collectively “the Mills Act,” that provide potential property tax savings for qualified historical properties; the Mills Act applies to built environment resources, not to archaeological sites or tribal cultural resources.

### **3.1.3 Local Coastal Program**

The City of Carlsbad’s Local Coastal Program (LCP), which provides guidelines and land use policies for the city’s Coastal Zone, outlines requirements for cultural resources within the Coastal Zone. The coastal zone is separated into several geographic areas or segments; the first two created in the early 1980s were called Mello I and Mello II, after state legislator Henry Mello, who sponsored the legislation that created the mechanism for the LCP. Select policies relevant to cultural resources are included below.

Mello I Segment, Policy 4 - Environmental Impact Report: In the event of commercial and/or residential development pursuant of a coastal development permit, biological and cultural resources on the site shall be identified, and any adverse impacts associated with development mitigated, through a site specific environmental impact report (EIR). Proposed mitigation shall be incorporated in the project design.

Mello II Segment: There are two applicable policies:

Policy 8-2 Potentially Historic Structures: The city’s historic structures which have the potential to meet criteria for inclusion in the National Register of Historic Places appear to be economically well-used at present. The sites with historic significance of “local importance” also

appear to be in active use. However, maintenance, repair and use of these properties may require special attention. The building code flexibility and tax benefits which may be available to such properties need further study. The City of Carlsbad in conjunction with individual property owners of historically significant structures should determine which local and federal programs are applicable and take advantage of them as appropriate.

Policy 8-4 Archaeological and Paleontological Resources: The environmental impact review process will determine where development will adversely affect archaeological and paleontological resources. A site-specific review should also determine the most appropriate methods for mitigating these effects. Most importantly, the City of Carlsbad should require the implementation of these measures.

West Batiquitos Lagoon/Sammis Properties Segment: A program of preservation and/or impact mitigation regarding archaeological sites located on the affected area shall be completed prior to any development.

North Coast Corridor PWP [Public Works Project] Overlay Local Coastal Program Land Use Plan Amendment (2014), Policy 3.7 Archaeological and Paleontological Resources, 3.7.1: Transportation, community and resource enhancement projects in the North Coast Corridor [NCC] shall strive to protect and minimize impacts to archaeological and paleontological resources. Where North Coast Corridor projects may potentially adversely impact archaeological or paleontological resources, appropriate mitigation measures shall be required and implemented consistent with the policies of the NCC PWP/TREP [Transportation and Resource Enhancement Program] (as prepared by Caltrans/SANDAG [San Diego Association of Governments], dated August 13, 2014). Any future amendment of the original PWP shall not decrease the level of protection of archaeological and paleontological resources guaranteed by the policies in the NCC PWP/TREP such that the project as a whole would no longer be, on balance, most protective of significant coastal resources.

### **3.1.4 City of Carlsbad Council Policy No. 83**

Effective March 1, 2016, the City Council passed Policy No. 83, *Tribal Consultation and Treatment and Protection of Tribal Cultural Resources*. The purpose of the policy was to recognize the city’s “responsibility to protect with improved certainty the important historical and cultural values of current Tribal Cultural Resources within the city limits and to establish an improved framework for the city’s consultation with Native American Tribes that are traditionally and culturally affiliated with the City of Carlsbad, including the San Luis Rey Band of Mission Indians.”

This policy arose out of tribal consultation with the San Luis Rey Band of Mission Indians and, to the extent allowed under the authority of the city, urges city and private projects under the jurisdiction of the city to be designed to avoid or substantially reduce impacts to Tribal Cultural Resources, as defined in CEQA (see below). The policy also required the updating of the 1990 Guidelines, which was completed in 2017. In the intervening years since the Guidelines were updated, additional traditionally and culturally affiliated tribes have become increasingly engaged in consultations with the City of Carlsbad, resulting in the city embarking on the current update to the 2017 Guidelines.

## **3.2 STATE**

### **3.2.1 California Environmental Quality Act (CEQA)**

The city is similarly bound to comply with CEQA (PRC §21000 et seq.) as it relates to tribal, cultural, and paleontological resources. CEQA pertains to all proposed discretionary projects that require state or local government agency approval, including general plan amendments, the enactment of zoning ordinances, zoning changes, specific plans, specific plan amendments, the issuance of conditional use permits, tentative subdivision maps, development agreements, and other discretionary project approvals. Ministerial actions, or those that fall under one of a number of exemptions, are not subject to CEQA.

In accordance with CEQA, any project with an effect that may cause a substantial adverse change in the significance of a cultural resource, either directly or indirectly, is a project that may have a significant effect on the environment. As a result, such a project would require avoidance or mitigation of impacts to those affected resources. Significant cultural resources must meet at least one of four criteria that define eligibility for listing on the CRHR (PRC §5024.1, Title 14 Code of California Regulations [CCR], §4852). For purposes of resource eligibility for the CRHR, the resource must meet one of four criteria, with significance to a Tribe or Tribes being a key consideration, where appropriate (e.g., significance to a Tribe may not be relevant for historic-aged resources). Resources listed on, or eligible for, inclusion in the CRHR are considered Historical Resources and may also be considered Tribal Cultural Resources under CEQA. Under CEQA, a resource can be treated as a significant tribal cultural resource without formal listing if the lead agency (here, the City of Carlsbad) determines the resource or resources meet CRHR criteria based on substantial evidence, consultation with a Tribe or Tribes, and the significance of the resource to the Tribe or Tribes, which occurs during the environmental review of a project.

The formal CRHR nomination process for listing such resources involves several steps, including the preparation of a nomination packet by the applicant or agency using required Department of Parks and Recreation (DPR) 523 forms; consents; notifications; submittal of a completed application and comments from the OHP; OHP review; and official listing upon approval from the State Historical Resources Commission (SHRC).

As part of the CEQA review process, if tribal cultural resources are determined to be significant, the city will require mitigation measures, including, where appropriate, the requirement for a project applicant to fund and prepare a completed CRHR nomination packet through SHRC approval.

A Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the CRHR by the State Historical Resources Commission; 2) is included in a local register of historical resources, as defined in PRC 5020.1(k); 3) has been identified as significant in an historical resources survey, as defined in PRC 5024.1(g); or 4) is determined to be historically significant by the CEQA lead agency [Code of California Regulations (CCR) Title 14, Section 15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

Tribal Cultural Resources are defined in CEQA, PRC Section 21074, and below. In making a tribal cultural resource determination, including accounting for the significance of the resource to the Tribe or Tribes, resources listed on or eligible for inclusion in the CRHR are considered Tribal Cultural Resources under CEQA.

The eligibility criteria for the CRHR are as follows [CCR Title 14, Section 4852(b)]:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)]. Impacts to a Historical Resource (as defined by CEQA) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)].

Prior to the amendments to the CEQA guidelines that established the significance criteria under the CRHR and defined Historical Resources, the CEQA statute only required that the lead agency consider whether or not the project will have a significant impact on unique archaeological sites. A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria.

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

CEQA Guidelines require that it should first be determined whether an archaeological site is an Historical Resource (is eligible for the CRHR) (14 CCR Section 15064[c][1]). If the site is a Historical Resource, then the guidelines for assessing impacts to, and mitigation for, archaeological sites that are Historical Resources should be followed and the financial limits on mitigation for unique archaeological sites do not apply (14 CCR Section 15064[c][2]).

As a practical matter a site that meets any of the three criteria for unique archaeological sites will almost always meet the definition of a Historical Resource under the CRHR eligibility criteria. Likewise, a site that fails to meet the definition of a unique archaeological site will similarly not meet the definition of a Historical Resource. Therefore, in almost all cases the provisions for unique archaeological sites will not apply if archaeological sites are first evaluated using CRHR criteria to determine if they are Historical Resources. The State CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a Historical Resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

As previously noted, following the passage of AB 52, CEQA also requires that the lead agency consider impacts to Tribal Cultural Resources. A Tribal Cultural Resource that meets the statutory definition does not have to be further evaluated for significance. Section 21074(a) of the Public Resource Code defines Tribal Cultural Resources as “either”:

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

Recognizing that tribes are experts in their Tribal Cultural Resources and heritage, AB 52 amended CEQA to require lead agencies initiate consultation with TCA tribes at the commencement of the CEQA process to identify Tribal Cultural Resources and engage in meaningful consultation. Further, consultation is required because a substantial adverse change to a Tribal Cultural Resource is considered a significant impact on the environment under CEQA, and therefore, it is important to engage in discussions to identify and develop appropriate avoidance, impact minimization, and mitigation measures.

The process by which consultation with tribes occurs in CEQA was established with the passage of AB 52. Effective July 1, 2015, a lead agency must provide notice to any CNA tribe that is traditionally and culturally affiliated with the geographic area and has requested notice of projects proposed by the lead agency; and for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include the presence or absence of Tribal Cultural Resources, the potential for the project to cause a substantial adverse change to Tribal Cultural Resources, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

The CEQA Guidelines, Appendix G, includes a consultation inquiry, and the initial study checklist separately addresses Cultural Resources and Tribal Cultural Resources; these questions are often used as significance criteria in CEQA environmental documents.

The CEQA Guidelines, Appendix G, include paleontological resources among those resources that should be considered when evaluating the environmental impacts of a proposed project. Effects to unique paleontological resources typically occur through ground-disturbing activities. Significance of the discovery and importance of the resource may determine the level of consideration.

Changes to the CEQA resulting from the passage of AB 52 and revisions to the CEQA Guidelines to incorporate the requirements of AB 52 have clarified that cultural resources, tribal cultural resources, and paleontological resources must be considered as separate types of resources. This is because all

Tribal Cultural Resources are cultural resources by definition, but not all cultural resources are Tribal Cultural Resources. In addition, a Tribal Cultural Resource might also meet the legal definition of a historical resource under CEQA, warranting consideration as both types of resources. Paleontological resources are natural (related to geology and biology), and not cultural (related to humans), in nature.

In 2025, AB 130 and SB 131 made changes to CEQA to streamline the environmental review process for housing and infrastructure projects. Specifically, AB 130 includes PRC section 21080.66, which establishes a new statutory exemption for qualifying housing development projects that are 20 acres or less in size (or, in the case of a builder’s remedy project site, five acres or less) and that:

- Are located in an incorporated city or urban area, and either previously developed or surrounded by urban uses,
- Are consistent with applicable local plans,
- Are at least half of the density that is deemed appropriate to accommodate lower-income households in the State Housing Element Law, as set forth in GC section 65583.2(c)(3)(B);
- Do not require demolition of a historic structure;
- Avoid hazardous sites and sensitive lands (e.g., prime farmland, wetlands, etc.);
- Do not include any transient lodging (e.g., hotel, motel, or bed and breakfast inn);
- Meet specific tribal consultation requirements and include mitigation for tribal cultural resources;
- Include a condition of approval requiring an environmental assessment for hazardous substance releases, with mitigation requirements based upon results;
- Comply with specific environmental hazard and air filtration standards if within 500 feet of a freeway;
- Comply with prevailing wage and other labor standards if over 85 feet or if 100 percent of units will be dedicated to lower-income households and with additional labor provisions for projects in San Francisco.

AB 130 requires tribal consultation for these qualifying infill projects as follows:

- Tribe has 60 days to request consultation
- If tribe elects to consult, consultation must be initiated within 14 days
- Consultation shall conclude within 45 days of initiation, subject to a one-time 15-day extension if requested by the tribe

The local government must include a number of items as binding conditions of project approval, including :

- Upon request of tribe, include paid tribal monitoring during all ground-disturbing activities
- Tribal cultural resources shall be avoided where feasible
- A CHRIS records search, TCR search, and Sacred Lands File search shall be conducted

### **3.2.2 Traditional Tribal Cultural Places Bill (Senate Bill 18)**

SB 18, the Traditional Tribal Cultural Places Bill (GC sections 65040.2, 65351 – 65352), was signed into law in September 2004 and became effective in March 2005. SB 18 (Burton, Chapter 905, Statutes of 2004) requires city and county governments to consult with CNA tribes early in the planning process with the intent of protecting traditional tribal cultural places. The purpose of involving tribes at the early stage of planning efforts is to allow consideration of tribal cultural places in the context of broad local land use policy before project-level land use decisions are made by a local government. As such, GC sections 65040.2, 65351 – 65352 apply to the adoption or substantial amendment of general plans or specific plans. The process by which consultation must occur in these cases was published by the Governor’s Office of Planning and Research (now LCI) through its Tribal Consultation Guidelines: Supplement to General Plan Guidelines (November 14, 2005). In September 2025, LCI announced the launch of an extensive plan to update California’s Tribal Consultation Guidelines. The effort aims to strengthen protections for Tribal cultural resources and honor government-to-government relationships with Tribal Nations and Native communities across the state.

### **3.2.3 California Coastal Act**

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.” Avoidance of impacts to cultural resources, both archaeological and tribal cultural resources, is preferred over mitigation of impacts.

If paleontological resources are present, efforts should be undertaken to monitor construction activities in potentially significant areas to reduce the adverse effects to paleontological resources and to salvage any significant fossils, or to avoid the site entirely. The city’s certified Local Coastal Program, in conjunction with the California Coastal Commission, implements the California Coastal Act within the boundaries of Carlsbad.

### **3.2.4 California PRC Section 5097.5**

Section 5097.5 (a) and (b) of the California PRC 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.

As used in this section, ‘public lands’ means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

### **3.2.5 California PRC 5097.9**

PRC 5097.9 establishes that no public agency or private party using or occupying public property or operating on public property, under a public license, permit, grant, lease, or contract made on or after July 1, 1977 shall interfere with the free expression or exercise of Native American religion. This code also prohibits damage to a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

### **3.2.6 California PRC 5097.98**

PRC 5097.98 specifies procedures to be followed in the event of the discovery of Native American human remains. These procedures must be read in conjunction with CEQA’s tribal cultural resources considerations and determinations, as well as CEQA’s tribal cultural resources consultation requirements. Section 5097.98 and CEQA’s AB 52 requirements are not mutually exclusive but should be interpreted together and in harmony with one another. Section 5097.98 specifies that upon notification by the county Medical Examiner, the NAHC shall immediately notify the persons believed to be most likely descended from the deceased Native American. It provides that the most likely descendant(s) has/have the right to inspect the site, with permission of the land owner, and provide recommendations for treatment of the remains and grave goods within 48 hours of being granted access to the site. Section 5097.98 also provides procedures in the event that the most likely descendant(s) is/are unable to be identified, or the identified descendants fail to make a recommendation. Consultation is also a critical step in the Section 5097.98 descendant process.

### **3.2.7 California PRC 5097.99**

PRC 5097.99 states that no person shall obtain or possess any Native American artifacts or human remains except as otherwise provided by law. The code further states that unlawful possession of these items is a felony, punishable by imprisonment.

### **3.2.8 California Health and Safety Code 7050.5**

Health and Safety Code 7050.5 establishes the intentional disturbance, mutilation, or removal of interred human remains a misdemeanor. This code also requires that upon the discovery of human remains outside of a dedicated cemetery excavation or disturbance of land cease until a county Medical Examiner makes a report. The code also requires that the county Medical Examiner contact the NAHC within 24 hours if he or she determines the remains to be of Native American origin (CCR [Title 14, Division 3, Chapter 1])

Section 4307 of the California Code of Regulations regarding Geological Features applicable to lands administered by the California Department of Parks and Recreation states: “No person shall destroy, disturb, mutilate, or remove earth, sand, grave, oil, minerals, rocks, paleontological features, or features of caves.”

Section 4309 of the California Code of Regulations regarding Special Permits applicable to lands administered by the California Department of Parks and Recreation states: “The Department may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological or paleontological materials; and any person who has been properly granted such a permit shall to that extent not be liable for prosecution for violating the forgoing.”

### **3.2.9 Office of Land Use and Climate Innovation Tribal Consultation Guidelines Update**

The State of California, Office of Land Use and Climate Innovation (LCI), announced in September 2025 that it is updating California’s Tribal Consultation Guidelines (California Guidelines) to further protect tribal cultural resources and enhance relationships with Tribal communities throughout California. The original California Guidelines were adopted in 2005; this update is scheduled for completion in 2027. The revisions are intended to incorporate substantial legal and policy developments that have occurred in the 20 years since enactment of SB 18, including passage of AB 52 in 2014 and enforceable case law. The city and all project applicants will be required to adhere to these revised tribal consultation guidelines when completed.

### **3.2.10 Koi Nation of Northern California v. City of Clearlake (2025)**

In *Koi Nation of Northern California v. City of Clearlake (2025)*, the court reversed a trial court judgment upholding a mitigated negative declaration for a project in the City of Clearlake, due to the City’s failure to lawfully conduct meaningful tribal cultural resources consultation with the Tribe as required by AB 52/CEQA. The court found that consultation was not lawfully conducted or concluded by the City, resulting in a prejudicial failure to satisfy CEQA’s informational requirements. The court added that the administrative record did not allow the court to conclude that the consultation met the statutory requirement of a “process of seeking, discussing, and considering carefully the views of others” and “where feasible, seeking agreement” (Gov. Code § 65352.4.). The record also failed to support the City’s claim that consultation could “permissibly cease” under section 21080.3.2(b) of CEQA. The take away from the *Clearlake* decision is that CEQA’s tribal cultural resources consideration and consultation requirements are not a “check-the-box” process. Instead they require the lead agency and project proponent to adhere to AB 52/CEQA’s procedural requirements for noticing, conduct good faith and “meaningful” consultation, and conclude such consultation with a focus on avoidance, minimization, and mitigation of significant adverse impacts to tribal cultural resources, as defined by CEQA.

## **3.3 FEDERAL**

### **3.3.1 National Historic Preservation Act Section 106**

Regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800) provide procedures for federal agencies to identify, evaluate, assess effects, and provide treatment for adverse effects on historic properties for federal undertakings. A “historic property” is defined in 36 CFR Part 800.16(l)(1) as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria” in 36 CFR Part 60. Historic Properties, as defined therein, are subject to these Guidelines.

A federal undertaking is a project that receives federal funding or when a federal permit (such as a Section 404 permit from the USACE) is required. The Section 106 process is the responsibility of the federal agency that provides the funding or issues the permit. It is the federal agency official who determines if the project qualifies as an undertaking. However, the city must ensure that projects that qualify as federal undertakings that are initiated by the city or by applicants to the city go through the Section 106 process following the requirements of the responsible federal agency. The city or the applicant may hire a consultant to prepare the reports needed by the federal agency official for the Section 106 process.

The steps in the Section 106 process generally parallel those carried out for CEQA and include identification of historic properties, evaluation of historical significance, assessment of effects, and resolving adverse effects. At various points in the Section 106 process the federal official must consult with the State Historic Preservation Officer (SHPO) and any Consulting Parties (such as Native American tribes and local governments, such as the city) identified by the federal official. A reasonable and good faith effort to identify potential historic properties in the Area of Potential Effect (APE) of the undertaking is required. Identification efforts may include background research, including a records search from the appropriate CHRIS Information Center and the NAHC, consultation with Native American groups, and field survey.

If potential historic properties are identified, they must be evaluated to assess whether they are historic properties (have historic or prehistoric significance). Historic properties are those that are eligible for or are already listed in the National Register of Historic Places (NRHP). The four NRHP eligibility criteria are as follows (36 CFR 60.4):

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

- a. is associated with events that have made a significant contribution to the broad patterns of our history;
- b. is associated with the lives of a person or persons significance in our past;
- c. embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- d. has yielded or may be likely to yield information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4).

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

In addition, the resource must possess sufficient integrity to adequately express the characteristics that make it eligible. Evaluation procedures include historical research to assess association with important

historical events or persons, assessment of distinctive architectural or engineering characteristics, and archaeological investigation (may include test excavations) to assess information potential of archaeological sites. The federal agency official makes the determination of eligibility and the SHPO reviews the determination. The SHPO may concur or not concur with the determination.

Part of the NRHP determination of eligibility and assessment of effects includes consultation by the federal lead agency with interested parties, including Native American tribes. A federal agency must consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by the agency's undertakings. The ACHP notes:

Legally, there is a distinction between Indian tribes that are federally recognized and those that are not. Federal recognition signifies that the U.S. government acknowledges the political sovereignty and Indian identity of an Indian tribe and from that recognition flows the obligation to conduct dealings with that Indian tribe's leadership on a "government-to-government" basis (ACHP 2021).

If properties are determined to be eligible (historic properties are identified), it must be determined if the historic property will be adversely affected by the undertaking. The criteria of adverse effect are applied. Adverse effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the NRHP (make it eligible for the NRHP). Examples of adverse effects include physical destruction or damage, alterations to a building or structure that are not consistent with the Secretary of the Interior's Standards, relocation, and change of use or setting. Alteration or destruction of an archaeological site is an adverse effect. After applying the criteria of adverse effect, the agency official will make a finding that historic properties are or are not adversely affected. The SHPO will review and concur or not concur with the finding.

When there are adverse effects to historic properties, a Memorandum of Agreement (MOA) is negotiated between the federal agency and the SHPO, with input from the Consulting Parties, including Consulting Tribes. The city may be a signatory, invited signatory, or concurring party to the MOA. The MOA stipulates the treatment that will be applied to resolve the adverse effects. Treatment (mitigation measures) may include documentation of buildings and structures using Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) standards (including large format photography), rehabilitation using the Secretary of the Interior's Standards, or data recovery for archaeological sites. Other types of mitigation could include ethnographic studies, nominations to the National Register of Historic Places, oral history documentation, coalescing of collections of imagery, or other types of documentation.

### **3.3.2 Secretary of the Interior's Standards for the Treatment of Historic Properties**

In accordance with the National Park Service, projects that comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards) are projects that retain the integrity of the identified historical resource. Additionally, according to the CEQA Guidelines, a project that complies with the Secretary's Standards is generally considered to be a project that will not cause a significant adverse impact to a historical resource.

The goal of the Secretary's Standards is to outline treatment approaches that allow for the retention of and/or sensitive changes to the distinctive materials and features that lend a historical resource its

significance. Four treatment approaches are included in the Guidelines to the Secretary’s Standards: Preservation, Rehabilitation, Restoration, and Reconstruction. The Secretary’s Standards and associated Guidelines offer general recommendations for preserving, maintaining, repairing, and replacing historical materials and features, as well as designing new additions or making alterations. The Secretary’s Standards also provide guidance on new construction adjacent to historic districts and properties, in order to ensure that there are no indirect adverse effects to historic properties.

The determination of a project’s consistency with the Secretary’s Standards and Guidelines begins with the qualified consultant’s identification and documentation of the “character-defining,” or historically significant, features of the historical resource. According to the National Park Service Preservation Brief 17, there are three steps to identifying character-defining features. The first step assesses the building’s exterior physical aspects including its setting, shape and massing, orientation, roof and roof features, projections, and openings. The second step looks more closely at the building’s design, materials, trim, secondary features, and craftsmanship. The last step encompasses the interior, including individual spaces, relations or sequences of spaces (floor plan), surface finishes and materials, exposed structure, and interior features and details. Alterations and replacement of character-defining features over time can impair a historic property’s integrity and result in a loss of historic status. Therefore, to ensure that a historic property remains eligible after the implementation of projects, character-defining features should be identified for preservation, or alternatively for the evaluation of potential impacts.

### **3.3.3 Advisory Council on Historic Preservation Policy Statement on Burial Sites, Human Remains, and Funerary Objects**

On March 1, 2023, the ACHP released the Policy on Burial Sites, Human Remains, and Funerary Objects (Policy) meant to be established among state and local agencies and to be applied within the Section 106 process. The Policy works in tandem with the Native American Graves Protection and Repatriation Act (NAGPRA) and other applicable state and local policies regarding human remains and grave goods. The Policy emphasizes the need for meaningful consultation with descendant communities, including deference to Indigenous Knowledge in the “identification, documentation, evaluation, assessment, and treatment of their burial sites, human remains, and funerary objects.”

### **3.3.4 Guidance for Federal Departments and Agencies on Indigenous Knowledge**

The Council on Environmental Quality (CEQ) released a memo for Guidance for Federal Departments and Agencies on Indigenous Knowledge on November 30, 2022. The guidance encourages federal agencies and their partners or contractors responsible to environmental reviews for projects receiving federal funding or subject to federal permitting to incorporate Indigenous Knowledge in environmental reviews, policy making, research, and decision making. This can only be done through meaningful tribal consultation on a government-to-government basis. Indigenous Knowledge should be incorporated in decision-making to the same extent as other scientific and technical reviews. In addition, the guidance provides an actionable framework for ensuring Indigenous Knowledge consultation and inclusion through progress reports to the National Science and Technology Council’s Subcommittee on Indigenous Knowledge. Federal agencies are required to adhere to this guidance through tribal consultation periods within environmental reviews, cultural resource evaluations, and mitigation planning.

### **3.3.5 National Register Bulletin 38: Identifying, Evaluating, and Documenting Traditional Cultural Places**

The National Parks Service released the “National Register Bulletin: Identifying, Evaluating, and Documenting Traditional Cultural Places” in December 2024 as an update to the National Register Bulletin 38, “Guidelines for Evaluating and Documenting Traditional Cultural Properties”, originally issued in 1990. The updated Bulletin 38 provides guidance on how to identify, evaluate, and document Traditional Cultural Places. It expands the significance criteria for Traditional Cultural Places by integrating the worldview of living communities in the evaluation process. A living community is defined as “a group that is deeply rooted in American history” that has “contributed to the diversity and richness of the American people and the broad patterns of the nation’s history”. Living communities are differentiated from other groups by their traditional group identity, including their beliefs, practices, customs, language, and other cultural elements. As a part of this recognition, the period of significance for resources has been expanded to include the present day for Traditional Cultural Places that are actively in use by living communities.

The updated Bulletin requires the identification of animals, plants, and other natural resources as character-defining features when evaluating a resource as a Traditional Cultural Place. It defines the process for establishing the physical boundaries of Traditional Cultural Places in consultation with the associated living community. In cases where the concept of placing a boundary around a resource like a natural landscape is against a living community’s world view and no agreement can be reached, the nomination form applicant must set a boundary based upon their best judgement and must outline their justification. The Bulletin requires that information outside of archaeological data must be assessed to determine a resource’s significance under Section 106 of the NRHP. Such information may include living cultural practices, oral traditions, natural resources, and other intangible cultural associations.

## **4.0 CONTEXT STATEMENTS**

### **4.1 REGIONAL ARCHAEOLOGY AND ANCIENT NATIVE AMERICAN HISTORY**

The Native American tribes indigenous to the Carlsbad area, the Luiseño and Kumeyaay people, do not necessarily recognize temporal distinctions made by archaeologists and linguists/linguistic anthropologists. Generally, traditional knowledge holds that the Indigenous people have been here since time immemorial. The discussion below represents archaeological knowledge and is not fully reflective of traditional Indigenous knowledge.

Most archaeologists contend that approximately 10,000 years ago at the beginning of the Holocene, warming temperatures and the extinction of the megafauna resulted in changing subsistence strategies with an emphasis on hunting smaller game and increasing reliance on plant gathering. The San Dieguito Complex was defined based on material found at the Harris site (CA-SDI-149) on the San Dieguito River near Lake Hodges in San Diego County (Warren 1968). San Dieguito artifacts include: large leaf-shaped points; leaf-shaped knives; large ovoid, domed, and rectangular end scrapers and side scrapers; engraving tools; and crescentics (Koerper et al. 1991). The San Dieguito Complex at the Harris site dates to 9,000 to 7,500 years before present (B.P.) (Gallegos 1991: Figure 3.9). However, sites from this time period in coastal San Diego County have yielded artifacts and subsistence remains characteristic of the

succeeding Encinitas Tradition, including manos, metates, core-cobble tools, and marine shell (Gallegos 1991; Koerper et al. 1991).

The Encinitas Tradition (Warren 1968) and the Milling Stone Period (Wallace 1955) refer to a long period of time during which small mobile bands of people used foraging strategies to obtain a wide variety of resources including hard seeds, berries, and roots/tubers (yucca and agave in inland areas), rabbits and other small animals, and shellfish and fish in coastal areas.

The La Jolla Pattern of the Encinitas Tradition was found along the San Diego County coast beginning about 8,500 B.P. Phases within the La Jolla Pattern consist of La Jolla I (8,500 B.P. to 5,000 B.P.), La Jolla II (5,000 to 4,000 B.P.), and La Jolla III (4,000 B.P. to 1,300 B.P.) (Sutton and Gardner 2010). Most La Jolla Complex sites are located around the coastal lagoons, which began filling with sea water at the beginning of this period because of sea level rise as the ice caps melted at the end of the last ice age. Shellfish from these lagoons were an important part of the diet and most La Jolla sites are classified as shell middens. During La Jolla I both rocky shores shellfish, such as *Mytilus* sp. (mussels), and bay/estuary shellfish, such as *Argopecten* sp. (scallops), *Chione* sp. (cockles), and *Ostrea lurida* (oyster) are found in La Jolla sites. Later in time (after 3,000 B.P.) the rocky shores species are much reduced in quantity and almost disappear from the middens. This has been attributed to increased sediment deposition around the mouths of the lagoons along the northern and central San Diego coast, which covered the rocky habitats. Fewer sites were occupied in these areas during La Jolla III. However, the larger bays to the south (Mission Bay and San Diego Bay) never silted in, and there are numerous La Jolla III sites in this area (Masters and Gallegos 1997).

The Encinitas Tradition in inland San Diego County is known as the Pauma Pattern and was originally defined as the Pauma Complex (True 1958, 1980). The Pauma Pattern is divided into the Pauma I Phase (7,500-3,000 B.P.) and the Pauma II Phase (3,000-1,000 B.P.) (Sutton and Gardner 2010). Pauma sites have numerous manos and metates and lack the marine subsistence remains seen in La Jolla sites. Other Pauma Complex artifacts include core and cobble tools, scraper planes, and unifacial scrapers.

In most Pauma Pattern sites, the mano-metate tool kit predominates, which suggests that collecting and processing hard seeds was emphasized. Pauma sites are located on older high elevation alluvial terraces in valleys and canyons. Some Pauma sites may be buried in shallow alluvium. The inland Pauma Complex and the coastal La Jolla Complex may be different seasonal manifestations of the same people with the La Jolla Pattern emphasizing marine resources (shellfish and fish) and the Pauma Pattern emphasizing hard seeds. There are more planing-scraping tools in the La Jolla Complex and more manos and metates in the Pauma Complex (Waugh 1986:55-56).

Following the Pauma Complex, Waugh (1986:310) has defined a Transition Phase from about 2,000 B.P. to 1,000 B.P. in inland northern San Diego County. During this phase people lived in small groups which occupied seasonal camps on knolls and low hills along the San Luis Rey River and the Santa Margarita River and its major tributaries. These groups used the river as corridors for travel between the coastal mesas and interior valleys (Temecula Valley on the upper Santa Margarita River and San Jose Valley on the upper San Luis Rey River) where grass seeds and sage seeds were abundant. Seasonal residential bases were probably established in these areas. While traveling along the river corridors, camps were established in areas where chaparral was producing large amounts of seeds. The knoll locations along the rivers may have been selected in order to see game and members of other groups approaching. The camps had cached metates indicating the camps were reused seasonally by the same groups.

Artifacts found as a result of excavation at CA-RIV-3063, a Transition Phase site on a knoll overlooking the Santa Margarita River in Temecula Canyon, include 5 domed scrapers, 5 cobble tools, 3 cores, 2 biface fragments, 9 unifacially modified flakes, 18 manos, and 4 metates (slab and flat block). Obsidian from both the Coso and Obsidian Butte sources was present (Waugh 1986:233-241). Transition Phase artifacts include artifacts characteristic of the preceding Pauma Complex (core/cobble tools, hammerstones, cortex-based scrapers, domed scrapers), but they make up a smaller proportion of the total tool assemblage. Other artifacts found in Pauma Complex sites, such as scraper planes, hammer-grinders, and discoidals, are absent in the Transition Phase. Small unifacial flake tools and new forms for metates (slab and flat block) first appear during the Transition Phase (Waugh 1986:312).

The period from 1,000 B.P. to 150 B.P. in northern San Diego County is divided into the San Luis Rey I Phase (1,000 to 500 B.P.) and the San Luis Rey II Phase (500 to 150 B.P.) (Sutton 2011). San Luis Rey I is characterized by Cottonwood Triangular arrow points, use of bedrock mortars, stone pendants, shell beads, quartz crystals, and bone tools. San Luis Rey II sees the addition of ceramics, including ceramic cremation urns, red pictographs on boulders in village sites, and steatite arrow straighteners. San Luis Rey II represents the archaeological manifestation of the antecedents of the historically known Luiseño.

A new settlement system developed in the upper San Luis Rey River drainage area (east of Pala) at the beginning of the San Luis Rey I phase (1,000 to 400 B.P.). The most important determinants of the new settlement system were access to water and access to acorns. Small permanent residential sites were located in a linear arrangement along the lower reaches of each of the tributaries on the north side of the San Luis Rey River (Waugh 1986:305). Acorns from coast live oak were available nearby as well as plant foods from the riparian woodland and chaparral plant communities. Camps were also established on Agua Tibia Mountain/Palomar Mountain/Aguanga Mountain above 5,000 feet to collect and process acorns from black oaks and to hunt deer. These camps were occupied in the fall and were permanent in the sense that they were re-occupied every year (True and Waugh 1982). The watershed of each tributary along the north side of the river probably comprised the territory of a corporate kin group (Waugh 1986:314) or lineage. Settlements within the territory included the multiple residential sites along the drainage in the lowlands and the fall acorn camps in the uplands. An extended family within the lineage probably occupied each of the lowland residential sites (Waugh 1986:296), which together comprised the lineage settlement.

The artifacts and features at the lowland residential sites indicate that a full range of activities took place at each site. These activities included hunting, tool manufacturing and maintenance, food processing, and social interaction (Waugh 1986:313). One of these residential sites (CA-SDI-731) is on lower Frey Creek above its confluence with the San Luis Rey River. The site is within the chaparral plant community and near coast live oaks. There are 23 bedrock mortars, 8 bedrock metates, and 20 bedrock slicks or milling surfaces. Ground stone tools include manos, metates, bowl mortars, and pestles. Fire-affected rock and ash features are present. There are both unifacial flaked stone tools, including domed scrapers, and bifacial flaked stone tools, including numerous Cottonwood Triangular arrow points which date to after 700 B.P. in this area (Waugh 1986:179, 262). All pieces of obsidian, except one, were from the Obsidian Butte source. The presence of primary and secondary flakes among the debitage indicates that lithic reduction took place (Waugh 1986:303). A cache of burned Olivella shell beads was found adjoining an ash feature. There were 161 beads, 122 of which were Olivella cupped beads, which date to A.D. 1150 – 1792 in the Santa Barbara Channel area. Faunal specimens consisted mostly of rabbit and deer. There are more deer bones and small rodent bones in the upper levels of the site. A few pieces of marine shell were found (Waugh 1986:179, 222, 266).

The San Luis Rey I Complex indicates decreased residential mobility and increased intensification of land use, compared to the previous Transition Phase. Residential sites were located so as to control critical resources, especially water. All residential sites were in direct proximity to water. The transformation to settlement in stable permanent residential sites occurred within a relatively short span of time and coincided with the beginning of acorn use (Waugh 1986:313). Acorns required a much greater labor effort for processing (Basgall 1987) but were storable, allowing year-round settlement in permanent residential sites. This specialization and intensification of resource procurement is indicated by the bedrock mortars and pestles for acorn processing and the arrow points for deer hunting (Waugh 1986:314). At the beginning of San Luis Rey I, decreased mobility in order to control a water source resulted in multiple season residency, intensified use of restricted or smaller habitats or territories, and a specialized system of resource use (Waugh 1986:318-319).

Based on archaeological evidence and ethnographic data, archaeologists have suggested there was a consolidation of settlement at the beginning of San Luis Rey II (400 to 130 B.P.) in the upper San Luis Rey River drainage area. The number of lowland residential sites decreased from 42 to 13. Each of the 13 residential sites consisted of a large village located at a reliable water source. Each of the 13 villages had a territory that consisted of the watershed of one of the 13 major drainages that descend from Agua Tibia Mountain/Palomar Mountain/Aguanga Mountain (True and Waugh 1982; True 1990). Multiple lineages now lived together in one village, probably resulting in the parties comprised of multiple lineages described ethnographically for the Luiseño. Each territory had one or more permanent camps in the uplands for gathering black oak acorns and deer hunting in the fall. San Luis Rey II villages are recognized by their large size as well as the presence of ceramics and red pictograph panels on boulder outcrops. The pictographs were painted by girls during their puberty ceremonies and demonstrated clan (party) affiliation and ownership of their territory and its resources. The girls' puberty ceremonies symbolized established party and lineage rights to female labor and reproduction (Waugh 1986:316, 321).

One of the 13 San Luis Rey II villages in the upper San Luis Rey River drainage area, known as Molpa (CA-SDI-308), was investigated by archaeologists during the 1950s (True et al. 1974). It is located on two low knolls overlooking open grassland. There is a reliable spring below the site. The midden area at Molpa occupies 40,000 square yards (about 33,400 square meters). There are two pictograph panels and one cupule rock. There are 289 bedrock mortars and 109 bedrock milling surfaces on 10 outcrops. Seven subsurface features were found, consisting of rock clusters and ash. Flaked stone tools included 327 Cottonwood Triangular arrow points, 10 Desert Side-Notched arrow points, and 6 leaf-shaped arrow points. There were also 49 knives, 12 drills, 5 domed scrapers, 1 keeled scraper, 5 flake scrapers, 59 retouched flakes, 7 hammerstones, 2 hammer-grinders, and 1 chopper. Ground stone tools include 88 manos, 24 metates, 8 pestles, and 9 portable mortars. Other artifacts consisted of 59 bone tools fragments, most probably representing awls and needles, 1 steatite arrow shaft straightener, 1 quartz crystal, 1 tourmaline crystal, 1 conically drilled bone fragment which may have been a pendant, 16 Olivella shell beads, 3 abalone ornaments, and 2 glass beads. Ceramics consisted of 2,728 sherds, 8 fired clay pipes and 4 fired clay figurines. Most of the ceramics came from the upper 18 inches of the site, which represents the San Luis Rey II component.

There is less information about settlement along the lower San Luis Rey River west of Pala. However, a village site occupied during the San Luis Rey II phase, known as Tom-Kav (CA-SDI-682) was excavated during the 1950s and 1960s (True et al. 1991). It is located near Bonsall on the San Luis Rey River where there is no adjacent upland area for collecting black oak acorns. There are 116 bedrock mortars, 51 bedrock metates, and 31 milling surfaces (slicks) on 7 groups of outcrops at Tom-Kav. There are small

and large cupules on some of the outcrops and there is a pictograph panel on the ceiling of a rockshelter at the east end of the site. Flaked stone tools consist of 94 Cottonwood Triangular arrow points, large bifaces used as knives, drills, scrapers, and retouched flakes. Ground stone tools include 159 manos, 31 metates, 5 pestles, 5 portable mortars, and 29 smoothing stones. Bone artifacts consisted of 77 bone awls, 22 needles, and 57 worked bone fragments. Ceramics consisted of 1,720 Tizon Brown Ware sherds, 76 Colorado Buff Ware sherds, and 18 fired clay pipes. Animal bone was only classified as small and large mammal. A small amount of marine shell (*Chione* sp. and *Argopecten* sp.) was recovered.

There were no upland acorn collecting camps associated with Tom-Kav, but there are several small processing stations with bedrock milling features and camps nearby. Their function is unknown and they would seem to be superfluous since all the resources collected from Tom-Kav's territory could have been brought back to the village for processing. It is possible these sites date to San Luis Rey I because most have no pottery (True et al. 1991:47). There is a different proportion of bedrock mortars to bedrock milling surfaces at Tom-Kav compared to Molpa. At Tom-Kav there are 116 mortars and 82 bedrock milling surfaces for a ratio of 1.4 to 1. At Molpa there are 289 mortars and 109 bedrock milling surfaces for a ratio of 2.65 to 1. This indicates that acorn use was less intensive at Tom-Kav and that hard seeds made up a greater proportion of the plant foods (True et al. 1991:47).

Better documentation of a settlement system similar to that around Tom-Kav comes from an investigation of sites along a tributary that enters the San Luis Rey River from the south, west of Pala. The sites in this valley include a Late Prehistoric village, 5 temporary camps with bedrock milling features and subsurface deposits including tools, debitage and animal bone, 9 sites with bedrock milling features only, and 3 lithic scatters. CA-SDI-4909 has been identified as a Late Prehistoric village (Clevenger et al. 1990). It has four loci with midden, each with associated bedrock milling features. The number and type of milling features at CA-SDI-4909 is not provided. Test excavations recovered triangular arrow points, bifaces, utilized and retouched flakes, worked bone, ground stone tools, ceramics, animal bone, marine shell, a shell pendant, and glass beads. The ceramics and glass beads indicate a San Luis Rey II occupation at CA-SDI-4909. The five temporary camps have bedrock milling features (59 mortars and 105 basins/slicks), flaked and ground stone tools, and animal bone. CA-SDI-4909 appears to be a San Luis Rey II village, based on the presence of ceramics. The investigators state that all the temporary camps are associated with the village and that all the sites in the valley comprise a settlement system, implying that the sites were all occupied at the same time by one group. However, the temporary camps lack ceramics and, as with sites around Tom-Kav, there is no need for camps so close to the village. As with the Tom-Kav area, it is more likely that the camps date to the San Luis Rey I Phase.

The temporal and functional relationships of the sites cannot be determined because radiocarbon dates are not available. The ratio of mortars to milling surfaces (basins to slicks) is 0.56 mortars to 1 milling surface, indicating that in the valley area acorns were even less important than in the Tom-Kav area. In the Keys Creek area, hard seeds from the chaparral community which surrounds the sites were the most important plant resource. Their use could have been intensified through managed burning of the chaparral to allow grasses to grow and produce new sprouts from the chaparral plants. This pattern of settlements associated with hard seed processing is probably more characteristic of the lower San Luis Rey River area and the area around Carlsbad. In these areas there was abundant coastal sage scrub and chaparral with numerous plants that produced hard seeds, while acorns were available only from coast live oak trees which had a limited distribution, mostly in canyons.

## 4.2 ETHNOGRAPHY AND NATIVE AMERICAN HISTORY

The city is located in a culturally-rich region, which has long since been home to, or within traditional use areas of, Native American cultures. The cultural history of Carlsbad is complex, and a representative summary of two main cultures, namely, the Luiseño and the Kumeyaay, is provided herein. Figure 1 illustrates the organization of both cultures. The information provided below is based upon ethnographic studies conducted by anthropologists via interviews with tribal members. The reader is encouraged to seek additional information through references that are cited throughout.

### 4.2.1 Luiseño

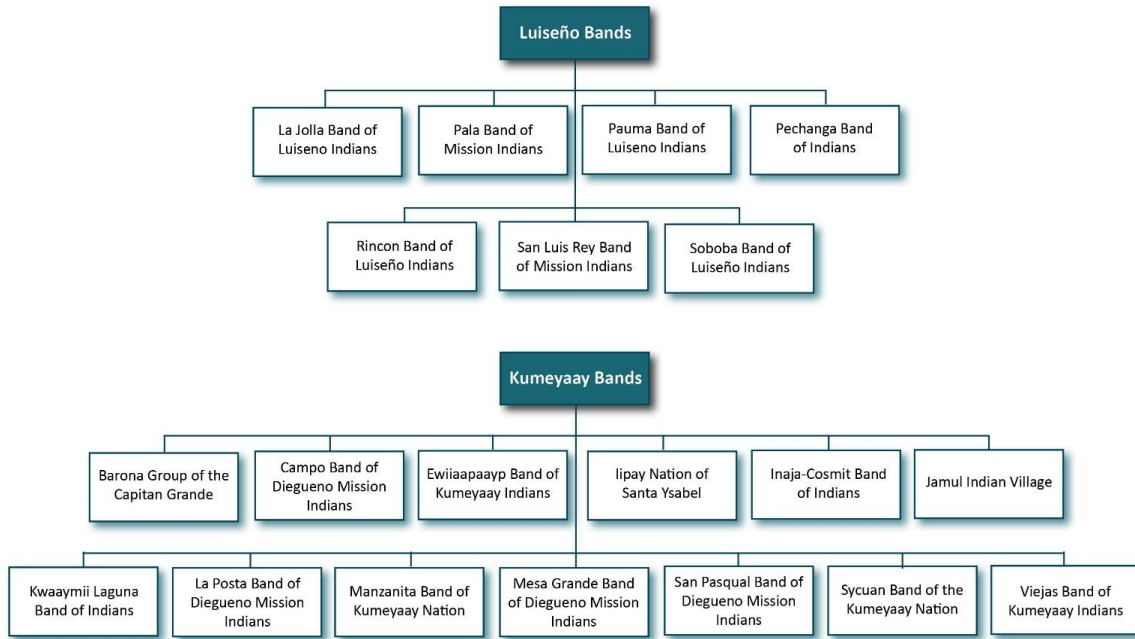
The Luiseño were one of the Takic-speaking groups in southern California prior to the arrival of Euro-Americans. Luiseño occupied most of the area drained by the San Luis Rey and Santa Margarita Rivers.

The Luiseño lived in sedentary and autonomous village groups, each with specific subsistence territories encompassing hunting, collecting, and fishing areas. Villages were typically located in valley bottoms, along streams, or along coastal strands near mountain ranges where water was available and village defense was possible. Inland populations had access to fishing and gathering sites on the coast, which they used during the winter months (Bean and Shipek 1978).

Luiseño subsistence was based on the gathering of acorns, seeds, greens, bulbs, roots, berries, and other vegetal foods. This was supplemented by hunting mammals such as deer, antelope, rabbit, woodrat, ground squirrels, and mice, as well as birds including quail, doves, and ducks. Bands along the coast also exploited marine resources, such as sea mammals, fish, crustaceans, and mollusks. Inland, trout and other fish were taken from mountain streams (Bean and Shipek 1978).

Hunting was done both individually and by organized groups. Tool technology for food acquisition, storage, and preparation reflects the size and quantity of items procured. Small game was hunted with the use of curved throwing sticks, nets, slings, or traps. Bows and arrows were used for hunting larger game. Dugout canoes, basketry fish traps, and shell hooks were used for near-shore ocean fishing. Coiled and twined baskets were made for food gathering, preparation, storing, and serving. Other items used for food processing included large shallow trays for winnowing chaff from grain, ceramic and basketry storage containers, manos and metates for grinding seeds, and ceramic jars for cooking (Bean and Shipek 1978).

Luiseño social organization was based on patrilineal and patrilocal lineages. Exogamy rules required that a man could not marry a woman related to them within five generations. Women moved to their husband's village but kept their identity as a member of their natal lineage (Cultural Systems Research 2005:15).



**Figure 1. Luiseño and Kumeyaay Bands in the Region of Carlsbad (credit: Native American Heritage Commission)**

The Luiseño corporate group was a “party” composed of one major lineage with a ceremonial leader (chief), a ceremonial bundle, and a ceremonial house or enclosure. Members of other lineages within the party could live in the same village as the major lineage or within other villages within the party territory. The ceremonial chief was also the hereditary chief of the party who organized religious, economic, and military activities (Horne and Goldberg 2001:47). An advisory council of ritual specialists and shamans was consulted for their specialized knowledge. Resources within the party territory were owned by the party. The party territory was marked by boundary markers and was defended against trespassers (Waugh 1986:74).

The most important ceremonies were boy and girl initiation ceremonies and mourning ceremonies for all who had died during the year. The corporate identity of the Luiseño party was reaffirmed through these ceremonies. Ceremonies were usually held during fall and winter when stored foods were available for exchange with other groups. During the girls’ initiation ceremony, the girls made geometric red paintings on boulders with their hands. Luiseño girls painted the same geometric rectilinear red designs on rocks and their faces for four successive months. Thus, there are red pictographs associated with every Luiseño village site usually on a boulder or outcrop in or near the village (Cultural Systems Research 2005:55-56). Non-geometric designs were made by shamans in isolated rockshelters and on sheltered outcrops away from the village (Shepard 1996).

Ceremonies were held in and around an unroofed ceremonial enclosure surrounded by a brush fence. The enclosure could be round, elliptical, or rectangular. One example measured 38 by 58 feet. There was a ramada (a structure with a thatched roof supported by willow poles) in the center of the enclosure near fire pits. Spectators watched the dances from outside the fence. The ceremonial enclosure was located near the chief’s house (Cultural Systems Research 2005:11-12).

Houses were circular with conical roofs and were made of a framework of logs covered by tules, sedge, or bark and a layer of earth. The floors of the houses were about two feet below the ground surface. Houses had a central fireplace, but most cooking was done outside (Cultural Systems Research 2005:9). Round earth-covered semi-subterranean sweathouses with an interior fire pit were primarily used by men and were located next to a stream or pond. Ramadas, flat-roofed open structures, provided shade for work areas (Cultural Systems Research 2005:12-13). Women's work areas often consisted of a circular windbreak made of arrow weed or tule. They had a hard-packed earth floor that was swept to remove debris. Earth ovens consisted of a pit with a ring of rocks. Granaries for storing acorns, seeds, and nuts were made of woven arrow weed or willow, sealed with mud. They were built on platforms, on top of houses, or on boulders to keep burrowing animals out. Caves and rockshelters in or near villages were used for activity areas, as caches, and for ceremonies. Rockshelters away from the village could be used as temporary camps. Other temporary camps had lean-tos made of willows with an adjacent fire pit (Cultural Systems Research 2005:12-14).

When the Spanish arrived in southern California in 1769, it is estimated that there were 50 Luiseño villages with a population of about 200 each, suggesting a total population of about 10,000 (White 1963:104).

The first contact with Euro-Americans by Native Americans in southern California came as a result of the Spanish Portolá Expedition in 1769. Missions were established by Franciscan friars to convert, educate, and control the native population. Mission San Diego was established to convert the Native Americans that lived in the area, known as the *Kumeyaay* or Diegueño. Mission San Juan Capistrano was established in 1776 on San Juan Creek (in what is now southern Orange County) to convert the *Agjachemem* or Juaneño. Coastal Luiseño people were also taken to Mission San Juan Capistrano. Mission San Luis Rey was established in 1798 on the lower San Luis Rey River (in what is now Oceanside) to convert the Luiseño (Castillo 1978:100). Some missions later established outposts in inland areas. An *asistencia* (mission outpost) of Mission San Luis Rey, known as San Antonio de Pala, was built in Luiseño territory along the upper San Luis Rey River near Mount Palomar in 1810 (Pourade 1961).

Some coastal Luiseño people were converted and baptized by Franciscan friars and taken to the San Juan Capistrano Mission after it opened in 1776. However, the friars at San Luis Rey Mission (established 1798), allowed many native people to remain in their villages, especially along the upper San Luis Rey River, with a continuation of traditional economic organization and leadership (Bean and Shipek 1978:558). The friars traveled to the villages to say mass and teach farming skills and European crafts (Bean and Shipek 1978:558).

Hundreds of Luiseño who lived near San Luis Rey Mission were converted and brought to live at the mission. Other Luiseño converts worked on ranches established by the mission friars. The ranches were within 10 leagues of the mission and included ranches at Santa Margarita, Las Flores, San Mateo, Pala (around the *asistencia*), and Temecula. The friars appointed Luiseño *alcaldes* or overseers to manage the labor of the Luiseño on the ranches, where the Luiseño grew wheat, barley, and corn and looked after large herds of cattle. Each ranch had houses, storehouses, and a chapel. The priests from the mission came to say Mass in the chapels on the ranches. The Luiseño on the ranches were able to maintain more of their culture and religious traditions than those at the mission. Other Luiseño remained in their villages on the upper San Luis Rey River, and the headmen of these villages retained their authority. People who left the mission usually returned to these villages (Phillips 2014).

The Spanish saw the native people as lower class, conquered people who had obligations which included obedience, allegiance to the crown, and fidelity to God. The Luiseño saw these as foreign obligations that were forced on them. However, the friars saw not fulfilling these obligations as a crime punishable by forcible return to the mission, public whipping, or incarceration. The friars thought the Luiseño had a child-like culture and therefore the friars should serve *in loco parentis* and have rights of judgment and punishment (Carrico 2008).

After Mexico became independent of Spain in 1821, the Mexican government said that the Indians were citizens of Mexico and released some of them from the control of the missions. In 1834, Mexico secularized the missions. This meant that the friars no longer had political or legal jurisdiction over the converts. While some Luiseño returned to the inland villages, others remained at the mission and on the mission ranches. The Mexican governor of Alta California appointed Pío Pico as administrator of Mission San Luis Rey. Pico continued the system the friars had established for running a large agricultural enterprise using the labor of the Luiseño, but without the religious instruction that the friars had provided. Pico was assisted by three Mexicans who served as ranch managers. The Luiseño carried out agricultural labor, including plowing, seeding, and harvesting. Craftsmen included shoemakers, blacksmiths, carpenters, soap makers, and weavers. In 1840 the mission and its ranches had 25,000 sheep and 3,000 cattle. Pico served as mission administrator from 1835 to 1840 (Phillips 2014).

Under the secularization law Indian pueblos were supposed to be created. The only Indian pueblo in Luiseño territory was Las Flores on the coast north of the Santa Margarita River, which was established on one of the former mission ranches. In 1836 there were 196 Luiseño at Las Flores and some had individual plots of farmland. Farm animals were given to the people of Las Flores by the Mexican government in 1839 (Phillips 2014).

The mission administrators exploited native labor to enrich themselves. The Luiseño were not paid and were treated like serfs who were given only food. At the mission, some lived in the mission buildings. Under the Mexican system the Luiseño were free to leave the mission and many returned to the inland villages. Others went to Los Angeles where they worked as part time laborers or worked on ranches that had been given as land grants by the Mexican governor to Mexican citizens. One of the land grants in Luiseño territory included Rancho Santa Margarita y Las Flores which included the former mission ranch of Santa Margarita and the pueblo of Las Flores which was also on a former mission ranch. Rancho Santa Margarita was granted to Pío and Andres Pico in 1841 (Aviña 1976), one year after Pío Pico resigned as administrator of Mission San Luis Rey. In 1844 Las Flores was added to the land grant (Aviña 1976). Pío Pico put a large cattle herd on his land grant, possibly taken from the mission herds. He also had a resident labor force from the pueblo of Las Flores, which was now on his land grant (Phillips 2014).

Other Mexican land grants in Luiseño territory included Temecula, Little Temecula, Pauba, Monserate, Guajome, Pauma, and Cuca. Temecula and Little Temecula were located on one of the former mission ranches. The Little Temecula land grant was given to Pablo Apis, a Luiseño who had been an alcalde at Mission San Luis Rey. Apis became the headman or captain of a village community of Luiseño on the little Temecula land grant (Phillips 2014).

During the Mexican-American War in 1846, Manuelito Cota, a mestizo who lived near Pala, led a group of Indians who killed 11 Mexicans on the Rancho Pauma land grant. In retaliation, 38 Luiseños and Cupeños were killed at Aguanga. The Cupeños were another Takic-speaking group who lived in San Jose Valley east of the upper end of San Luis Rey River (Phillips 2014).

After Mexico lost the Mexican-American War, the U.S. government took control of California. California was governed by the U.S. Army from 1847 to 1849 and became a state in 1850. The U.S. government considered the Luiseño to be Mission Indians who were not U.S. citizens but were residents of San Diego County. As residents of San Diego County, they were required to pay taxes, which caused much resentment. The captains of the village communities of Temecula, Pala, Potrero, La Jolla, and Pauma had to sell some of their cattle in San Diego in order to pay the taxes (Phillips 2014).

George Barbour was appointed by Congress as Indian Commissioner in 1851 and was told to negotiate treaties with the southern California Indians. Many Luiseño communities sent representatives to meet with Barbour at Rancho del Chino east of Los Angeles. Barbour did not attend the meeting and returned to Washington, D.C. without accomplishing anything (Phillips 2014).

During the Gold Rush, hundreds of gold seekers used the southern route into California, crossing the Colorado River at Yuma where they came into conflict with the Quechan, a Yuman-speaking group. Two white men, Lincoln and Glanton, established a ferry at Yuma, and the Quechan established a competing ferry. During a meeting between the two ferry-operating groups, Glanton clubbed the Quechan chief. In retaliation, the Quechan later killed Glanton and Lincoln. The Morehead Expedition was sent by the California state militia to punish the Quechan but was forced to retreat by the Quechan. However, later in 1850, Camp Yuma, whose name was later changed to Camp Independence, was established. By 1851 there were only 11 men in the camp. The Quechan attacked a group of sheepherders who were crossing the river and stole some of their sheep. They then surrounded the military camp. Captain Davidson of the militia from San Diego went to Camp Independence and rescued the men there; they abandoned Camp Independence and returned to San Diego. The Quechan destroyed Camp Independence and the ferry in late 1851 (Phillips 2014).

Perhaps emboldened by the success of the Quechan, Antonio Garra, a Cupeño leader, organized a revolt against the Americans. The Mexican land grant known as Valle de San Jose came into the possession of an American named John Warner and the ranch became known as Warner's Ranch. Most of the Cupeño villages were on Warner's Ranch, including the village of Kupa. Garra's son and others killed four Americans in Kupa. Another group attacked Warner's house. Although Warner escaped, when he returned he found that all his possessions in his house had been stolen, and all his cattle were gone (Phillips 2014).

The Luiseño leaders supported the Americans and refused to join the revolt of the Cupeños. However, a volunteer force of the California militia was organized in San Diego to put down the "Indian revolt," and martial law was declared in San Diego County on November 26, 1851. Antonio Garra, Garra's son, and four other Indians thought to have killed the Americans at Kupa were captured by forces from the California militia and the U.S. Army, were tried by military tribunals, and executed in December 1851 and January 1852. Kupa and other Cupeño villages were burned. Captain Heintzelman of the U.S. Army returned to Yuma where the Quechan were robbing travelers and "subdued" the Quechan by the end of 1852 (Phillips 2014).

The revolt by Antonio Garra and some of the Cupeño people was a result of the requirement by the County officials that the Indians must pay taxes and the unfulfilled promise of treaty negotiations on the part of the federal government. Meanwhile, the Americans in San Diego believed that all of the southern California Indians were united against them and that they would be attacked by thousands of warriors (Phillips 2014).

Indian Commissioner Wozencraft, a representative of the federal government, negotiated a treaty with the Luiseño captains at Temecula on January 5, 1852. The purpose of the treaty, from the government’s point of view, was to stop all acts of hostility against U.S. citizens and other Indians. The Indians had to accept the jurisdiction, authority, and protection of the U.S. Government and to be governed by the U.S. Indian Bureau. In return, the Luiseño, Cahuilla, and Serrano would be given a large vaguely defined reservation that extended from the San Gorgonio and San Jacinto Mountains on the north to a line running west from the San Jose Valley to Pauma on the south. From Pauma the western boundary would run north through Temecula. The eastern boundary was the desert. The Indians who signed the treaty were to be given flour, clothing, cloth, plows and other farm tools, along with horses and oxen. A similar treaty was negotiated with the Kumeyaay on January 6, 1852. The Kumeyaay were to be given a reservation that extended south from the Luiseño reservation through the eastern mountains to the Mexican border (Phillips 2014).

The California Legislature opposed ratification of the treaties by the U.S. Senate, and the Senate rejected them. Instead, Congress appointed Edward S. Beale as Indian Agent for California. Beale gave Benjamin D. Wilson of Los Angeles a contract to prepare a report on Indian policy for southern California. Wilson recommended setting aside smaller reserves (reservations) where the Indians were currently living, at places including San Gorgonio, San Jacinto, Temecula, Agua Caliente (Kupa), and Tejon. He noted that some of these places had existing vineyards and orchards from mission times. There should be one town in each reserve and the government should provide cattle, clothing, and tools to promote farming. There should be no hereditary chiefs. The Indian agent assigned to the reserve would appoint leaders based on good behavior who would enforce compulsory labor and rationing of food from commonly held stores of the produce of the small self-supporting agricultural community. Congress authorized five reserves, each with a military garrison, in California. One of these was Tejon (north of Los Angeles), established by Beale in 1853. The others were in northern California. Once again, the federal government failed to provide any land for the southern California Indians (Phillips 2014).

Cave Couts was appointed Indian subagent for the Luiseño in 1853, and John Warner was appointed subagent for the Cupeño and Kumeyaay. Couts came from a slave-holding family in Tennessee and came to California as an officer in the U.S. Army during the Mexican-American War. He served on the military tribunal in San Diego that sentenced Antonio Garra to be executed. Couts married the daughter of a wealthy Mexican rancho owner in 1851 and received the Rancho Guajome land grant, near Mission San Luis Rey, as a wedding present (San Diego History Center 2016). Couts’s appointment as Indian subagent was based on the 1850 Act for the Government and Protection of Indians. Using his position as Indian subagent to enforce provisions of the Act, he instituted a feudal labor system that bound Luiseño to ranch owners who exploited their labor. One of the provisions of the Act allowed employers to take custody of Indian children until they reached majority age, providing them with free child labor. Couts procured Luiseño labor for the development of his Rancho Guajome and for neighboring ranches. When Indian laborers didn’t work hard enough, Couts flogged them, which sometimes resulted in their deaths. Couts was indicted for the flogging death of a Luiseño captain named Urbano in 1855 (Hanks 2012).

Couts appointed Manuelito Cota, the mestizo who had killed the Mexicans at Rancho Pauma during the Mexican-American War, to be a paramount chief over the captains of the Luiseño villages on the upper San Luis Rey River. Cota had a ranch east of Pala. Because Cota was not part of any Luiseño lineage, the Luiseño captains did not want to accept his authority. Cota actually served as an Indian labor recruiter and contractor for his own and neighboring ranches (Hanks 2012).

Couts wrote in 1856 that the Luiseño were industrious agriculturalists, but that the Kumeyaay did not farm. According to Coutts, they subsisted on acorns and stolen cattle (Phillips 2014).

When Cota retired in 1860 the Luiseño captains chose Francisco Majal to succeed him. Coutts was opposed to Majal because Majal was unwilling to recognize Coutts's authority over him. Coutts denounced Majal as a drunkard and thief and was successful in getting the Office of Indian Affairs to re-appoint Manuelito Cota in 1865 (Hanks 2012).

In 1867 Indian Agent Stanley met with 20 Luiseño captains at Temecula. He gave them supplies and tools and asked them to establish and maintain farms with fruit trees and grape vines. He noted that the Indians were losing their land to white men who also sold them liquor in exchange for their labor and for access to their women. In 1868 Stanley recommended establishing a reservation at Pala. In 1869 Cota recommended San Pasqual as a reservation. In 1870 President Grant, by executive order, set aside land at Pala and San Pasqual for exclusive Indian use (Phillips 2014).

The Luiseño captains, who were not happy with Cota because he was trying to get them to move onto reservations, elected Manuel Olegario (also known as Olegario Calac) as paramount chief over 12 villages in 1870. Olegario was a member of an important Luiseño lineage, unlike Cota. However, Olegario was not recognized by the federal government because he had not been appointed by an Indian agent. Olegario and the Luiseño captains said they would not go to the reservations. The Luiseño feared that on the reservations they would become dangerously dependent on the federal government and would lose control over their affairs. Because the Luiseño refused to move onto the ill-defined reservations, President Grant in February 1871 rescinded his executive order creating the reservations (Phillips 2014). Rescinding the order reinforced the Luiseño's belief that on the reservations they would be landless indigents with no claims to the land they currently occupied (Hanks 2012).

Violence erupted between the Cota faction and Olegario's followers at Pala and Pauma in the summer of 1871. Cota's sister, Margarita, was taken by Olegario's supporters and hung by her wrists (Hanks 2012).

Olegario and Manuel Largo of the Mountain Cahuilla went to San Bernardino in August 1871 and convinced Justice Wagner to issue an arrest warrant for Cota. News that the leaders of the Luiseño and the Cahuilla had joined forces and were trying to overthrow the government-appointed Indian leaders led to fears of another Indian uprising, such as the one led by Antonio Garra in 1851 (Hanks 2012).

During a meeting with Indian Superintendent Whiting at Temecula in 1871, the Luiseño captains complained about Cota who they said had abandoned them, did not defend and protect them, and neglected their welfare. Whiting recognized the forced resignation of Cota. At this meeting Olegario said that he was the leader elected and chosen by the Luiseño and that the reservations were promoted by the ranch owners who wanted the land the Indians currently occupied. Whiting said that neither Cota nor Olegario could be chief and appointed Jose Antonio Sal, Cota's relative, as general chief who should appoint captains and alcaldes. Like Cota, Sal supported reservations. However, most Luiseño continued to support Olegario (Hanks 2012; Phillips 2014). In 1873 Olegario complained that whites were taking Indian lands and sent a petition to the General Land Office in Los Angeles (Phillips 2014).

In 1875, Indian agent Charles Wetmore proposed establishing trust lands for Indians which they could not sell or buy. He also recommended that the proposed trust lands be surveyed to establish their boundaries. Wetmore said that there should be a town on the trust lands where there would be a Catholic church with a priest to "help" the Indians. Olegario opposed the land surveys, saying that

surveying would limit Indian lands to small patches and that whites would take the rest. Surveying, which had begun at Pauma, was stopped (Phillips 2014).

Olegario began to change his mind about reservations after all of the Luiseño people were evicted from Rancho Temecula by the San Diego County Sheriff in 1875 (Phillips 2014). The Luiseño people from Temecula were forced into a waterless canyon which later became the Pechanga Reservation (Hanks 2012). Encroachment on traditional Luiseño lands was also occurring around other Luiseño villages.

Olegario went to Washington D.C. in November of 1875 and met with Secretary of the Interior Chandler and President Grant. As a result of this face-to-face appeal, on December 26, 1875 President Grant created nine small reservations in San Diego County by executive order. The Pala Reservation, Potrero Reservation (later became the La Jolla Reservation), and the Rincon Reservation were in Luiseño territory. The Agua Caliente Reservation was created at Kupa for the Cupeño. The other reservations were in Kumeyaay territory (Hanks 2012; Phillips 2014).

In June 1877 Antonio Varela, who was leasing land at Rancho Cuca near the Potrero reservation, began grazing his cattle on land outside the rancho, threatening traditional Luiseño food sources. Olegario and his warriors blocked the access of Varela to the ranch in an effort to keep his cattle off of traditional Luiseño lands. Several Luiseño were arrested and brought before Justice of the Peace Cave Coutts, who uncharacteristically decided he had no jurisdiction and freed the prisoners (Hanks 2012).

Olegario sought the removal of the owner of Rancho Cuca, Margaret Trujillo, and return of the rancho land to the Luiseño. Deputy Sherriff Ed Bushyhead was sent to Cuca to arrest Olegario. Olegario and his followers refused to recognize the authority of the arrest warrant and a standoff ensued. Bushyhead returned to San Diego without his prisoner. Olegario went to court and argued that Cuca was traditional Luiseño land, owned and worked by his people “since time began.” However, the judge made no ruling in the case (Hanks 2012).

Olegario fought for the sovereign rights of the Luiseño people using the whites’ own legal system. “Olegario Calac redefined the nature of resistance in southern California by his use of the courts as well as confrontation” (Hanks 2012:47). He led the Luiseño in their fight for self-determination and resistance of white domination. “Olegario kept his people together, maintained the tribal integrity of their reservations, and represented the whole of the Luiseño nation with dignity and wisdom” (Hanks 2012:47). Olegario died July 31, 1877. Many Luiseño believed Olegario had been poisoned, but a Medical Examiner’s inquest by Justice Cave Coutts found no foul play (Hanks 2012).

The reservation created by President Grant at Agua Caliente for the Cupeño was rescinded by President Hayes in 1880 at the request of former Governor Downey who was then the owner of Warner’s Ranch and wanted all Indians removed from his property. In 1903, all Cupeño were removed to Pala (Phillips 2014).

In 1882, Indian Commissioner Hiram Price authorized Helen Hunt Jackson to investigate the conditions of the southern California Indians. Accompanied by Abbot Kinney, she visited the Cahuilla, Luiseño, and Kumeyaay settlements. In her report she recommended resurveying the reservation boundaries and issuing federal patents for them, removing white settlers, establishing schools, distributing farm equipment, and hiring a law firm to represent the Indians. As a result of her visit to Soboba, the Soboba reservation was established in 1883 (Phillips 2014). She wrote the novel *Ramona* (published 1884) based on her investigations.

The Act for the Relief of Mission Indians established trust-patent reservations in 1891 (Bean and Shipek 1978:558-559). The Act created the Pechanga Reservation near Temecula, the Pauma and Yuima Reservation, and the San Pasqual Reservation (not established until 1910) (California Indian Assistant Program [CIAP] 2004).

The Act also established the Bureau of Indian Affairs (BIA) to “manage” the Native Americans and help them “assimilate” into American society (Bean and Shipek 1978:558-559). The BIA established native governments on the reservations (subject to the approval of the BIA) and started boarding schools for native children so that they would “adapt” to American culture. The Perris Indian School opened as a manual training boarding school for Indians in 1892, but lack of water resulted in a move to the Sherman Indian Institute in Riverside in 1901. The purpose of the boarding schools was to remove Indian children from their native environment in order to ensure “the transculturation of American Indians” which included “imposed assimilation” to American culture “and the subsequent loss of a distinct Indian culture,” according to Albert Smiley, an Indian commissioner for southern California (Hanks 2012:87).

Many Luiseño children were taken to the Perris Indian School and, later to the Sherman Indian Institute. Conditions were poor at the Perris Indian School, resulting in poor health of the children. This caused great distress among the parents at Temecula who also thought their children were not being fed properly. This may have contributed to the murder of Mrs. Platt, the teacher at the day school at the Pechanga Reservation in 1894. The schoolhouse was burned with Mrs. Platt in it, resulting in her death. Some of the Luiseño parents had asked her for money so they could go to investigate conditions at the Perris Indian School and see their children, but Mrs. Platt refused. At Sherman Institute, children were beaten when caught speaking their native language and many had to steal food from the kitchen to get enough to eat. Many escaped and went home, only to be sent back to the school (Hanks 2012).

Constance G. Dubois visited the southern California reservations and villages in 1900. She found that the Indians lived a miserable existence in terrible poverty. They had some legal rights on the reservations, but on private land were vulnerable to the white civil justice system (Phillips 2014).

Native Americans were finally granted U.S. citizenship when Congress passed the Indian Citizenship Act in 1924. It was thought that granting citizenship would help assimilate Native Americans into mainstream society. However, this did little to change the authority of the BIA and its agents on the reservations. Indian agent police brutally enforced Prohibition on the reservations during the 1920s (Hanks 2012).

The Mission Indian Federation was organized in 1920 to counter the control of the BIA and its agents. The Federation was made up of representatives from all the reservations in southern California but was led by Jonathan Tippet of Riverside who could serve as an intermediary with white society. The Federation put its own police on the reservations in order to solve problems before the BIA agents could intervene. The Federation was also a lobbying organization and assisted in convincing Congress to pass the Indian Citizenship Act and other federal legislation affecting Native Americans (Hanks 2012).

#### **4.2.2 Kumeyaay**

The Kumeyaay (also known as Tipai and Ipai) were Yuman speakers (part of the Hokan language family) who occupied San Diego County. The Kumeyaay have been ancestrally located in the southern part of the City of Carlsbad, southeast into Imperial County and south of the United States into Baja California. From west to east, the Kumeyaay occupied the coast, coastal hills, mountains, and desert.

The primary source of Kumeyaay subsistence was vegetal food. Seasonal travel followed the ripening of plants from the lowlands to higher elevations of the mountain slopes. Acorns, grass and sage seeds, cactus fruits, wild plums, pinyon nuts, and agave stalks were the principal plant foods. Deer, rabbits, small rodents, and birds provided meat. Residential bases were selected for seasonal use and were occupied by exogamous, patrilineal clans or bands. Three or four clans might winter together and then disperse during the spring and summer (Luomala 1978).

The Kumeyaay were loosely organized into exogamous patrilineal groups termed sibs, clans, gens, and tribelets by ethnographers. The Kumeyaay term was *cimul*. The *cimul* used certain areas for hunting and gathering but apparently did not control a bounded and defended territory, as did the Luiseño.

In addition, members of several different *cimul* usually lived in the same residential base, unlike the Luiseño where a single lineage, party, or clan controlled a village and its territory. Kumeyaay lived in residential bases during the winter and subsisted on stored resources. No permanent houses were built. Brush shelters were temporary and were not re-used the next year. Ceremonies, including rites of passage and ceremonies to insure an abundance of food, were held in the winter residential bases. The *cimul* leader directed the ceremonies and settled disputes (Christenson 1990:58, 62). One of the most important ceremonies was the mourning ceremony. Upon death, the Kumeyaay cremated the body of the deceased. Ashes were placed in a ceramic urn and buried or hidden in a cluster of rocks. The family customarily held a mourning ceremony one year after the death of a family member (Luomala 1978).

The Kumeyaay were geographically and linguistically divided into western and eastern Kumeyaay. The western and eastern Kumeyaay spoke two different dialects (Christenson 1990:64). The western Kumeyaay lived along the coast and in the valleys along the drainages west of the mountains. The eastern Kumeyaay lived in the canyons and desert east of the mountains. The western Kumeyaay spent the winter in residential bases in the lowland valleys and then broke into smaller *cimul* groups that moved gradually eastward toward the mountains, following ripening plants and occupying temporary residential sites along the way. Thus, each group occupied several different residential bases during the course of a year (Christenson 1990:292-293). The eastern Kumeyaay spent the winter in villages on the desert margin where water was available from springs at canyon mouths. They moved up the canyons toward the mountains during spring and summer. The eastern and western Kumeyaay met in the mountains in the fall where they gathered black oak acorns, traded, and held ceremonies (Christenson 1990:63).

It is estimated that the precontact Kumeyaay population was about 9,000 (Luomala 1978). Beginning in 1775, the semi-nomadic life of the Kumeyaay began to change as a result of contact with European-Americans, particularly from the influence of the Spanish missions. Through successive Spanish, Mexican, and Anglo-American control, the Kumeyaay were forced to adopt a sedentary lifestyle and accept Christianity (Luomala 1978). In many cases, people were displaced by Euro-American settlers or were moved to the missions; many Indigenous people had to leave their villages to seek work on ranches or in towns, when it became too difficult to maintain the lifeways that had sustained the Native people for hundreds of generations.

### 4.2.3 Contemporary Presence of the Luiseño and Kumeyaay Peoples

The Luiseño and Kumeyaay Bands shown in Figure 1 are the descendants of the Indigenous people who have been in the Carlsbad area for many thousands of years, archaeologically speaking, and from the beginning of time, based on Indigenous knowledge.

Yet, their communities are not simply part of the past; they are vibrant, living cultures with deep-rooted connections to their ancestral homelands which include what today is called, City of Carlsbad. These indigenous communities continue to actively steward their cultural and natural landscapes through practices informed by thousands of years of traditional ecological knowledge and community-based care. Their ongoing presence is visible through land management, language revitalization, education, and intergenerational cultural transmission.

Despite the geographic confines of federally recognized reservations, the cultural geography of the Luiseño and Kumeyaay extends far beyond reservation boundaries. Many affiliated village sites, ceremonial grounds, and ancestral landscapes lie within contemporary city limits and other jurisdictions. These locations remain spiritually and culturally vital to the tribes and are often subject to development pressures that can further erode Indigenous sovereignty and presence.

#### **4.2.3.1 Stewardship and Cultural Responsibilities**

The Luiseño and Kumeyaay peoples maintain a profound and sacred responsibility to protect their homelands. Stewardship today includes site monitoring, native plant reintroduction, advocacy for the protection of sacred and cultural sites, and educational outreach. These efforts are not just environmental — they are acts of cultural survival and revival.

#### **4.2.3.2 Access and Recognition**

Access to traditional sites and resources, such as gathering areas for plant medicines and places of ceremony, is essential to cultural continuity. However, jurisdictional barriers, private ownership, and urban expansion often limit or obstruct Indigenous access. There is a growing need for municipalities, private landowners, and regional agencies to recognize and facilitate tribal access to these lands.

Affiliated village sites—many of which are outside reservation boundaries—require recognition and protection. These places are often unmarked or misrepresented in public records, and some have been disturbed or destroyed through development projects that did not include tribal consultation. Accurate mapping, tribal consultation, and collaborative stewardship agreements are key steps toward redress.

#### **4.2.3.3 Healing Through Protection**

The erasure and desecration of tribal lands is a direct consequence of historic forced removals and assimilation policies. Protecting cultural sites is therefore a central part of healing and restoring Indigenous dignity and connection. Site protection is not merely a legal or environmental issue; it is a human rights issue grounded in justice and the right to cultural survival.

#### **4.2.3.4 Collaborative Responsibility**

It is imperative that cities and governing bodies engage in sustained, respectful, and transparent collaboration with affiliated tribes. This includes:

- Formal consultation on land use and cultural resource planning.
- Cultural easements or co-management agreements on public lands.
- Support for tribal-led initiatives in stewardship and education.

- Inclusion of tribal representatives on advisory boards and commissions that influence land and cultural policy.

By working in partnership, cities and tribes can begin to address historic harms and build a future based on respect, reciprocity, and shared care for the land.

### 4.3 EURO-AMERICAN HISTORY

Euro-American colonization of California began with the Spanish Portolá land expedition. The expedition, led by Captain Gaspar de Portolá of the Spanish army and Father Junipero Serra, a Franciscan missionary, explored the California coast from San Diego to the Monterey Bay area in 1769. As a result of this expedition, Spanish missions to convert the native population, *presidios* (forts), and towns were established. The Franciscan missionary friars established 21 missions in Alta California (the area north of Baja California) beginning with Mission San Diego in 1769 and ending with the mission in Sonoma established in 1823. The purpose of the missions and presidios was to establish Spanish economic, military, political, and religious control over the Alta California territory. As previously mentioned, missions were established at San Diego in 1769, at San Juan Capistrano in 1776, and San Luis Rey Mission was established in 1798 on the lower San Luis Rey River (in what is now Oceanside) (Castillo 1978:100). Some missions later established outposts in inland areas.

The missions sustained themselves through cattle ranching and traded hides and tallow for supplies brought by ship. Large cattle ranches were established by Mission San Luis Rey at Temecula and San Jacinto (Gunther 1984). The Spanish also constructed presidios, or forts, at San Diego and Santa Barbara, and a pueblo, or town, was established at Los Angeles. The Spanish period in California began in 1769 with the Portolá expedition and ended in 1821 with Mexican independence.

After Mexico became independent from Spain in 1821, what is now California became the Mexican province of Alta California. The Mexican government closed the missions in the 1830s, and former mission lands were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or “ranchos” (Robinson 1948). During the Mexican period there were small towns at San Diego (near the presidio), San Juan Capistrano (around the mission), and Los Angeles. The rancho owners lived in one of the towns or in an adobe house on the rancho. The Mexican Period includes the years 1821 to 1848.

Most of what is now Carlsbad was the Mexican land grant known as Rancho Agua Hedionda, granted to Juan María Marrón by the Mexican governor of Alta California in 1842 (Aviña 1976:92). When originally granted, the rancho covered three square leagues. When surveyed by the U.S. Surveyor General’s Office, the area of the grant was 13,311 acres. Marrón had been a ship captain and arrived in San Diego in the 1820s. He married the daughter of the *Alcalde* of San Diego and was a regidor (city councilman) in San Diego. Marrón raised cattle and horses on his rancho. He supported the Americans during the Mexican War which caused trouble with his neighbors when they used his support for the Americans as a pretext to remove all the livestock from his rancho in 1846 (Anderson 2007a).

The American period began when the Treaty of Guadalupe Hidalgo, which ended the Mexican War, was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the

U.S. Surveyor General's office. Land that was not part of a land grant was owned by the U.S. Government until it was acquired by individuals through purchase or homesteading. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult to pay the new American land taxes on the thousands of acres that comprised many of the ranchos. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. The resulting foreclosures and land sales transferred most of the land grants into the hands of Anglo-Americans (Cleland 1941:137-138).

Don Juan María Marrón died in 1853 at the age of 45, leaving most of Rancho Agua Hedionda to his widow and four children. His brother, Silvestre Marrón, received 360 acres. In 1860 the heirs took a loan of \$6,000 from Francis Hinton with the rancho as collateral. Drought, which greatly reduced the Marrón's cattle herd, left the Marrón family unable to repay the debt, and Hinton foreclosed in 1865.

Hinton was born in New York and came to California as part of the Boundary Commission Guard during the Mexican War. He previously was a merchant in Yuma (Allen and Harmon n.d.). Hinton never married and lived at the rancho until his death in 1870. Robert Kelly, who had come to San Diego from Yuma with Hinton as a member of the Boundary Commission Guard, became a partner in the Jamacha Rancho near San Diego where he raised cattle. In 1860 Kelly became ranch foreman on Hinton's Rancho Jamul and later became a partner with Hinton in Rancho Agua Hedionda. Hinton had no children and, upon Hinton's death in 1870, Hinton's half interest in Rancho Agua Hedionda was bequeathed to Robert Kelly who now fully owned the Rancho (Allen and Harmon n.d.). When Robert Kelly died without heirs in 1890 the rancho passed to the nine children of his brother, Matthew Kelly, who had died in 1885. Matthew Kelly had come to California as part of the Gold Rush and then moved to the San Diego area to join his brother, Robert. The Kelly children divided the rancho equally among them, and the new parcels were surveyed in 1895 (Allen and Harmon n.d.).

Matthew Kelly lived outside the rancho (just east of the southeastern rancho boundary) on land (in Section 19 of Township 3 West, Range 12 South) that he purchased from the federal government in 1881 and 1884 (Bureau of Land Management [BLM] 2016). Kelly's land was known as Rancho de los Kiotes. His heirs sold Rancho de los Kiotes to a San Francisco syndicate in 1922. They sold the land (840 acres) to actor Leo Carrillo in 1938. Carrillo remodeled the adobe house Kelly had built and lived there until his death in 1961 when the ranch passed to his adopted daughter, Mrs. Marie Antoinette Carrillo Delpy (Anderson 2007a). Leo Carrillo Ranch, located in Carlsbad, is now California Historical Landmark No. 1020 and is listed on the NRHP.

The original town of Carlsbad was located outside of Rancho Agua Hedionda on federal land along the coast south of Buena Vista Lagoon. The town began as a station (Frazier's Station) on the new California Southern Railroad which completed its line from National City (south of San Diego) to Colton in 1882. The railroad was later completed through San Bernardino to Barstow, where it connected with the transcontinental Atchison, Topeka and Santa Fe (AT&SF; Santa Fe) Railroad in 1885. The railroad became part of the AT&SF Railway in 1906 (Robertson 1998).

John A. Frazier, a former ship captain, arrived in the area in 1883 and dug a well near the railroad to provide water for the steam locomotives when they stopped at what became known as Frazier's Station beginning in 1884. Frazier dug another well that produced mineral water. Frazier had the mineral water analyzed and the mineral content was found to be similar to the water of one of Europe's most popular health spas, Karlsbad, in Bohemia (now known as Karlovy Vary, Czech Republic) (Anderson 2007b; Gudde 1969:54). Frazier bought land from the federal government around Frazier's Station and along

the coast (in Section 1 of Township 5 West, Range 12 South) in 1886 and purchased additional land in 1892 (BLM 2016). Frazier and several businessmen from the eastern U.S. formed the Carlsbad Land and Mineral Water Company. Frazier provided the land, and the other partners in the company provided the capital. Frazier's Station was renamed Carlsbad when the company divided some of the land into town lots and filed a town plat with the county. The company began bottling the mineral water and sold it nationwide as (The American) Carlsbad Mineral Water. The Company built a large hotel and spa (the Carlsbad Hotel) near the mineral water well for those who wanted to take the waters in person (by drinking and bathing) (Carlsbad Spa 2016). Frazier sold lots around the hotel and those who bought the lots built businesses and residences that formed the beginning of the town of Carlsbad. In 1890 there were a telegraph office, Wells Fargo Express, a school, a Methodist and a Congregational church, a hotel, and another hotel under construction. The Carlsbad Hotel was destroyed by fire in 1896 (Allen and Harmon n.d.).

Several of the partners in the Carlsbad Land and Mineral Water Company, including Samuel C. Smith and Gerhard Schutte, moved to Carlsbad. Gerhard Schutte's home, built in the Queen Anne style, became one of the two Twin Inns. The Twin Inns was greatly expanded and redecorated with exotic foreign themes and later became a fried chicken restaurant. The Shipley family purchased the Smith home, as well as large tracts of land around Carlsbad (Allen and Harmon n.d.).

There was little further development in Carlsbad until 1914 when the South Coast Land Company bought up all the remaining lands of the Carlsbad Land and Mineral Water Company, as well as other adjoining properties. The new company drilled wells and installed pipelines from the San Luis Rey valley to provide water to Carlsbad for farming. New settlers arrived and bought farmland, growing winter vegetables, grains, and poultry. During the 1920s Carlsbad became a major avocado production area. The Carlsbad Avocado Growers Club was formed in early 1923 with John Newberry as president. The peak years for avocado production were 1947 and 1948. Commercial flower and bulb production also began in the 1920s. In 1949, it was estimated that 90 per cent of the nation's freesia bulbs came from Carlsbad's annual production of nearly three million bulbs (Allen and Harmon n.d.). After a vote about whether to be annexed to Oceanside failed, Carlsbad voted to incorporate as a city a month later in 1952 (Allen and Harmon n.d.).

In 1930, the Eastman Hotel Company acquired the mineral water well and built the California-Carlsbad Mineral Springs Hotel. The hotel had 130 rooms with a spa and clinic for taking mineral water baths. The hotel was purchased by the Lutheran Services of San Diego in 1956 and became a retirement home (Allen and Harmon n.d.). By the early 1950s, the mineral water well had been buried and forgotten. B. M. Christiansen rediscovered and reopened the well and made a Bohemian-themed well house to protect and commemorate the well (Allen and Harmon n.d.). In 1995, the mineral well was reopened as the Carlsbad Mineral Water Artesian Well by Ludvik and Veronica Grigoras from Karlovy Vary, Czech Republic. A new spa opened as the Carlsbad Mineral Water Spa and the water was sold as Carlsbad Alkaline Water (Carlsbad Spa 2016).

## **4.4 PALEONTOLOGICAL RESOURCES**

The City of Carlsbad is underlain by a complex sequence of geologic units consisting of marine and non-marine sedimentary rocks, plutonic and volcanic igneous rocks, and metamorphic rocks that record portions of the last 128 million years of the Earth's history (Abbott 1999) (Figure 2). Published geologic maps covering the city and adjacent areas (e.g., Kennedy and Tan 2007) summarize the areal

distribution of these various geologic units and serve as the basis for understanding where different geologic units occur within the city.

A brief summary of paleontological resources known from those geologic units present within the City of Carlsbad is provided below, organized from youngest to oldest. The below information provides the basis for the paleontological sensitivity ratings assigned to each geologic unit in Section 6.4.

*Artificial fill* associated with historical human activities is not indicated on published geologic maps but is undoubtedly present within the City of Carlsbad in areas where previous development has occurred. Because artificial fill has been previously disturbed and may have been imported to a project site, any contained fossil remains have lost their original stratigraphic and geographic contextual data and are thus of little or no scientific value.

*Younger sedimentary deposits* mapped within the City of Carlsbad include late Holocene-age (less than 4,200 years old) alluvial flood-plain deposits, marine beach deposits, and paralic estuarine deposits, and late Pleistocene- to Holocene-age (less than 129,000 years old) young alluvial flood-plain deposits. These primarily Holocene-age (less than 11,700 years old) deposits are generally considered to have limited potential to produce fossil remains, based on their relatively young geologic age. However, these deposits may be underlain in the shallow subsurface by fossil-bearing geologic units.

*Landslide deposits* within the City of Carlsbad were primarily derived from strata of the Santiago Formation and redeposited during the Pleistocene and Holocene (over the last 2.58 million years). While these deposits have the potential to contain Eocene-aged fossil remains, these fossils may be of limited significance because they lack the original stratigraphic context necessary for their scientific interpretation. In cases where landslides consist of large, generally intact, rotated blocks of strata, contained fossils may still have scientific value because their stratigraphic context can be preserved.

*Old and very old alluvial flood-plain sediments* deposited during the Pleistocene (between 2.58 million and 11,700 years ago) occur as remnants of river terraces preserved along the upper margins of coastal valleys within the City of Carlsbad, and represent alluvial sediments deposited by the broader ancient rivers that once occupied these drainages and have since been dissected by modern streams. In Carlsbad, Pleistocene non-marine deposits have produced numerous fossils of scientifically significant Ice Age megafauna, including dire wolf, tapir, ancient horse, camel, bison, deer, mammoth, mastodon, and giant ground sloth, along with fossil remains of smaller-bodied terrestrial vertebrates (e.g., frogs, salamanders, pond turtles, snakes, lizards, birds, rabbits, rodents), aquatic vertebrates (including bony fishes and pond turtles), terrestrial/freshwater snails, and terrestrial plants. Notably, unmapped Pleistocene alluvial flood-plain deposits produced significant vertebrate fossils during paleontological monitoring of residential development construction activities along the Buena Vista Creek drainage in northernmost Carlsbad. These deposits are depicted in Figure 2 and included in the associated paleontological sensitivity GIS database.

*Old paralic deposits* representing various stratigraphic units deposited during the middle and late Pleistocene (between 774,000 and 11,700 years ago) occur as elevated marine terraces along coastal portions of the City of Carlsbad. These deposits are broadly equivalent to the Bay Point Formation of Kennedy (1975) and have produced abundant and diverse fossil assemblages of marine invertebrates (including foraminifers, bryozoans, snails, clams, tusk shells, ostracods, barnacles, crabs, shrimp, sand dollars, sea urchins, and heart urchins), as well as more limited assemblages of marine vertebrates (including sharks, rays, bony fishes, and sea birds).

*Very old paralic deposits* representing stratigraphic units deposited during the early and middle Pleistocene (between 2.58 million and 129,000 years ago) occur as mesa-forming marine terraces located at higher elevations farther inland from coastal Carlsbad and are broadly equivalent to the Lindavista Formation of Kennedy (1975). Within the City of Carlsbad, these deposits have produced limited fossils remains of sediment-dwelling and rock-boring clams, as well as borings left behind by these clams.

*Volcanic rocks composed of dacite (dacite stock)* that formed during the Miocene (23 to 5.3 million years ago) are preserved in the Calavera Hills in northeastern Carlsbad. The volcanic rocks in this area represent a volcanic plug, or the remnant of the central neck of an ancient volcano. The extremely high temperature of molten rock is inhospitable to organic life and not conducive to the preservation of organic material. Extrusive igneous rocks do not preserve fossils because they form directly from molten volcanic rock.

Strata of the *Sespe Formation* are not indicated on published geologic maps but have been identified on the basis of fossil evidence recovered south of Agua Hedionda Lagoon in west central Carlsbad. In this area, the Santiago Formation is mapped as underlying old paralic deposits, but the recovered fossils indicate that the strata in this area are actually late Oligocene (30 to 27 million years old) in age. Fossils known from this geologic unit within Carlsbad consist of well-preserved remains of the small-bodied oreodont *Sespia californica* and the canid *Hesperocyon*, as well as more fragmentary remains of rodents, tortoise, and lizards.

The *Santiago Formation* underlies much of the City of Carlsbad. This geologic unit spans nearly the entire middle Eocene Epoch (49 to 40 million years ago) and has been divided into three informal members in the Carlsbad area (Wilson 1972). As exposed within the City of Carlsbad, the upper two members, B and C, consist of shallow marine, estuarine, and fluvial strata that have produced large and diverse fossil assemblages of marine and estuarine invertebrates (including foraminifers, ostracods, corals, bryozoans, brachiopods, mollusks, barnacles, crabs, shrimp, and sea urchins), marine vertebrates (including sharks, rays, skates, bony fishes, crocodiles, lizards, snakes, turtles, and sea birds), terrestrial plants (including fan palms and mangroves), and terrestrial vertebrates, including tortoises, with a particularly noteworthy assemblage of terrestrial mammals (e.g., marsupials, hyaenodontids, miacid carnivores, insectivores, bats, primates, rodents, condylarths, horses, tapirs, brontotheres, uinatheres, amynodontid rhinoceroses, oromerycids, and protoreodonts). Over 160 fossil localities have been documented from the Santiago Formation within the City of Carlsbad to date.

The *Torrey Sandstone* is mapped in southeastern Carlsbad and consists of nearshore marine sandstones deposited during the early middle Eocene Epoch (49 to 48 million years ago). Fossils have not been recovered from the Torrey Sandstone in its areas of outcrop within the City of Carlsbad, but this geologic unit has produced important remains of fossil plants and marine invertebrates elsewhere within coastal San Diego County.

The *Delmar Formation* is mapped in southern Carlsbad, and consists of lagoonal/estuarine mudstones, siltstones, and sandstones deposited during the late early to early middle Eocene Epoch (50 to 49 million years ago). Fossils recovered from the Delmar Formation in the City of Carlsbad include remains of marine invertebrates (including bryozoans, clams, and snails), marine vertebrates (including rays, guitarfish, and bony fishes), and isolated occurrences of wood. More broadly in coastal San Diego County, the Delmar Formation has also produced well-preserved fossil remains of crocodiles and terrestrial mammals (including tillodont and early rhino-like ungulates).

The *Point Loma Formation* is mapped in eastern Carlsbad, and consists of shales, mudstones, and sandstones deposited on an ancient sea floor during the Late Cretaceous Period (~75 million years ago). The Point Loma Formation has produced numerous scientifically significant fossils within the City of Carlsbad, including well-preserved remains of marine invertebrates (e.g., foraminifers, bryozoans, corals, brachiopods, snails, clams, chitons, tusk shells, ammonites, nautiloids, ostracods, barnacles, crabs, and sea urchins), marine vertebrates (e.g., sharks, rays, chimaeras, and bony fishes), terrestrial plants, and, most famously, some of the only dinosaur fossils known from California (a partial skeleton of the ankylosaur *Aletopelta coombsi* and two isolated skeletal elements of hadrosaurs [Coombs and Deméré 1996; Ford and Kirkland 2001]).

The *Lusardi Formation* is exposed in eastern Carlsbad and consists of sandy pebble and boulder conglomerates with lenses of sandstones deposited in alluvial fans during the Late Cretaceous Period (~80 million years ago). To date, only small fragments of plant material have been observed within the Lusardi Formation in Carlsbad; however, the age and terrestrial depositional setting of this geologic unit suggests that fossil remains of dinosaurs or other terrestrial vertebrates could be preserved.

*Plutonic igneous* rocks of Early Cretaceous age (140 to 125 million years old) are exposed within northeastern and east central Carlsbad. These rocks comprise part of the western foothills of the Peninsular Ranges Batholith, and include units mapped as tonalite, undivided, and Leucogranodiorite of Lake Hodges. Plutonic igneous rocks do not preserve fossils because they crystallize at extremely high temperatures and pressures several miles below the Earth's surface.

*Metasedimentary and metavolcanic rocks* occur in the northeastern, central, and southeastern portions of Carlsbad. As exposed within the City of Carlsbad, these rocks represent the Early Cretaceous-age (128 to 110 million years old) Santiago Peak Volcanics, which consist entirely of metavolcanic rocks (Kimbrough et al. 2014). As mentioned previously, extrusive volcanic rocks do not preserve fossils because they form directly from molten magma.

The geologic units that occur within the city serve as an archive of the ancient geological and biological history of the region. Past and ongoing investigations of this archive by professional paleontologists and geologists, as well as by students and citizen scientists, has revealed a complex history extending at least 140 million years into the past and including the formation of a Japanese-style volcanic island arc (Santiago Peak Volcanics); the uplift of an Andean-style coastal mountain range (Peninsular Ranges Batholith) and its destruction by extensive tropical weathering and erosion; the ocean flooding (Point Loma Formation) of the resulting eroded mountain roots followed by another period of tropical weathering and erosion; the development of a broad coastal plain with meandering and densely forested streams and vast mangrove marshes and lagoons (Santiago Formation); the initiation of a period of climatic cooling and appearance of savannah-like habitats (Sespe Formation); the explosive eruption of small, local strata volcanoes (Calaveras dacite); the submergence beneath the sea of the coastal plain and the development of broad marine abrasion platforms (very old paralic deposits); the uplift of the coastal plain and the carving of local river valleys and stream channels; and the initiation of cycles of sea level rise and fall and the related oscillation between the formation of coastal bays and estuaries, their eventual filling by sediments, and their partial removal by downcutting streams (old paralic deposits and old alluvial floodplain sediments).

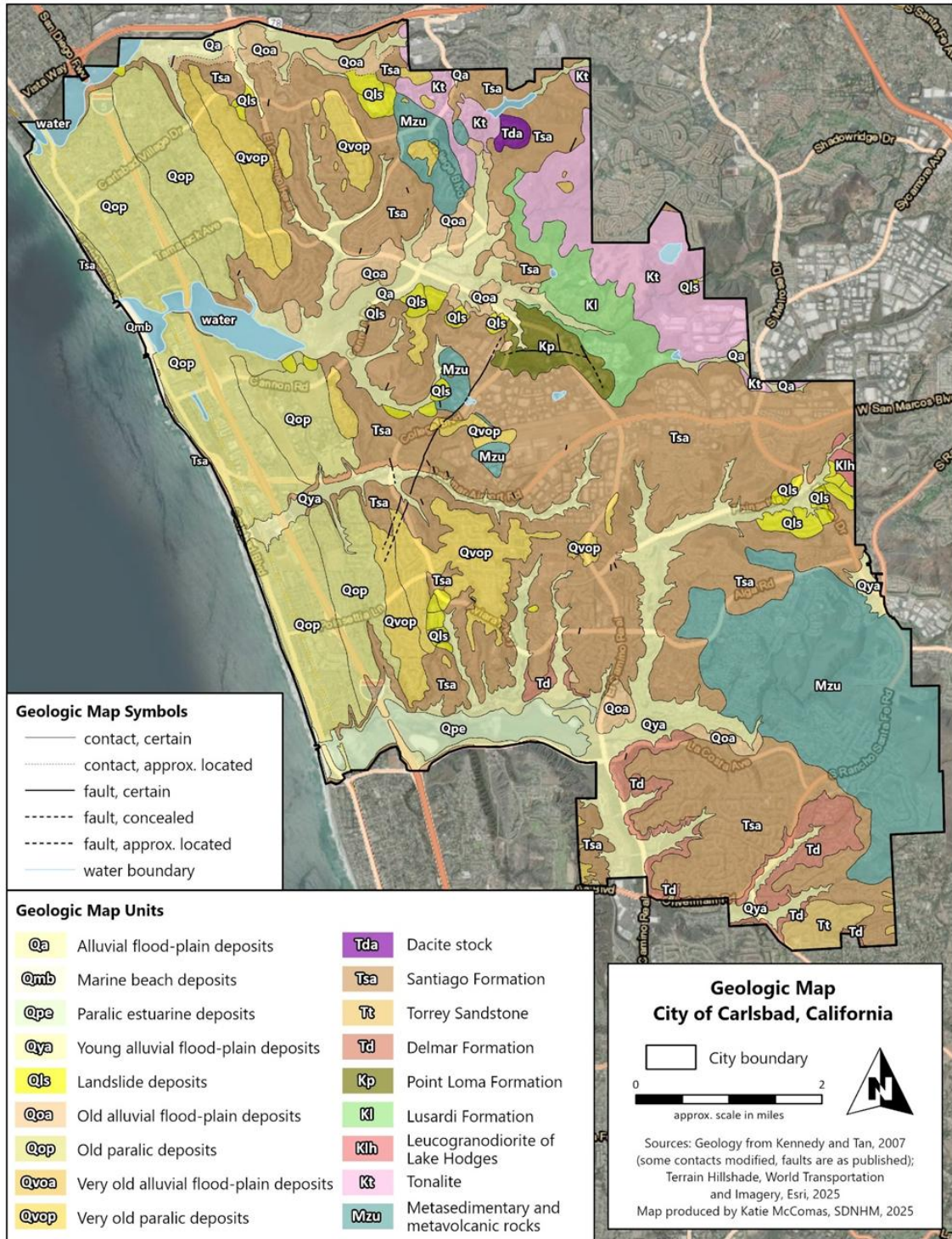


Figure 2. Geology of the City of Carlsbad

## **5.0 ROLES AND RESPONSIBILITIES**

Implementation of these Guidelines requires effort from, and collaboration with, a number of city staff; professionally qualified city and consultant staff; and tribes, agencies and interested parties. Those that are expected to either materially participate in their implementation, or those that will contribute important information to the process, are presented below.

### **5.1 CITY OF CARLSBAD**

The City of Carlsbad will serve either as a CEQA lead or responsible agency for discretionary approval of private-sector projects, or as lead agency and a project proponent for city projects. The city also administers the issuance of ministerial approvals, plan checks, and non-discretionary actions related to projects under its jurisdiction, which are not subject to compliance with CEQA. The city Building Division monitors and enforces the building and safety standards contained in the state Building Codes and in various municipal codes and policies. This includes oversight of ministerial actions, which are not subject to these Guidelines. These are the primary divisions or departments that may be expected to implement these Guidelines, in whole or in part, as follows: the Planning Division and Land Development Engineering Division within the Community Development Department, the Public Works Department, the Utilities Department, and the Parks and Recreation Department. The Planning Division, and Public Works, Utilities, and Parks and Recreation Departments are the departments most likely to be responsible for CEQA compliance.

### **5.2 PRIVATE APPLICANTS FOR PROJECTS**

Developers, landowners, and authorized applicants who propose development projects within the city, which are typically funded wholly with private money on privately-owned property, are considered private-sector applicants. These applicants are subject to compliance with all applicable laws, codes, regulations, and permits, both discretionary and ministerial. Although the city is ultimately responsible for approval or denial of a proposed project, the applicants and city may engage third-party consultants to implement portions of these Guidelines and carry out technical analyses used to support decision-making of discretionary projects.

### **5.3 CONSULTANTS**

Consultants are third-party environmental analysts contracted by applicants or by the city to conduct the appropriate technical studies for discretionary projects. To ensure that consultants implementing these Guidelines are professionally qualified and produce technical documentation that can be used to support CEQA and discretionary approval of projects, minimum qualifications standards are required. These standards apply to both city-contracted consultants and those retained directly by private-sector project applicants.

#### **5.3.1 Minimum Qualifications for Tribal Cultural Resources Professionals**

Professional qualifications should emphasize the professionals' positive relationships with California Native American Tribes, tribal communities, and other descendant communities. The professionals must demonstrate that they can assume overall responsibility to plan, conduct, and investigate for tribal cultural resources, and ensure that all aspects of their work will meet current statutory and regulatory

compliance requirements and professional technical and ethical standards, including the demonstrated ability to successfully work with tribal representatives, tribal historic preservation officers, tribal archaeologists, elders, tribal leaders, and tribal members and their representatives. The professionals must also demonstrate an ability to conduct tribal research, assessments, and make recommendations, including mitigation and project alternatives, regarding tribal cultural resources, including the confidentiality of any such data.

Moreover, professionals are considered appropriately qualified—as evidenced by training, education, and experience, and possess demonstrable competence in tribal culture and tribal cultural resources, and in collecting, handling, analyzing, evaluating, and reporting tribal cultural data—in relation to the type and scope of the work proposed, and meet the following minimum qualifications in Education, General Experience, and Sub-disciplinary Experience, as set forth below.

#### Education

1. A graduate degree (e.g., M.A., M.S., or Ph.D.) in archaeology, anthropology, tribal culture, or a closely related field from an accredited institution, or
2. Equivalency to a graduate degree consisting of
  - a. A bachelor's degree (e.g., A.B., B.A., B.S.) in archaeology, anthropology, tribal culture, or a closely related field from an accredited institution, and
  - b. Demonstrated ability to carry tribal cultural research to completion, as evidenced by individual authorship of a thesis, dissertation, or other comparable major study focusing on California tribal cultural resources.

#### General Experience

1. Demonstrated ability to respectfully collaborate, consult, and incorporate the expertise, knowledge, practices, polices, and traditions of Native American Indian Tribes and their Descendants regarding how their heritage resources and cultural places are to be considered and treated in accordance with their associated cultural values,
2. Demonstrated ability to plan, equip, staff, organize, and supervise activity of the type and scope proposed,
3. Demonstrated ability to conduct research to completion, as evidenced by timely completion of a thesis, report on research, reports, studies, and/or a similar document,
4. Demonstrated experience and competence with environmental and tribal cultural resources laws and regulations applicable in California and their integration with applicable local government and tribal polices or practices,
5. At least one year of full-time professional experience or equivalent specialized training at a recognized professional entity in California, and
6. At least four months of supervised tribal cultural resources field and analytical experience.

### Sub-Disciplinary Experience: Precontact Archaeology

At least one year of full-time professional experience at a supervisory level in the study of California precontact-era tribal cultural resources, or if outside the state, in resource types and contexts directly comparable to those of California.

## 5.3.2 Minimum Qualifications for Cultural Resources Professionals

A qualified professional, also referred to as a professionally qualified consultant or Principal Investigator (PI), is the professional that is primarily responsible for the design, preparation, execution, and results of a cultural resources study, and is the individual responsible for ensuring that the study is conducted in accordance with the terms of these Guidelines and all applicable laws and regulations. PIs implementing these guidelines shall meet the Secretary of the Interior’s Professional Qualifications Standards (PQS) that pertain to the particular area of study. The PQS standards are published in 36 CFR Part 61 (September 19, 1983) and state:

The qualifications define minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved. In the following definitions, a year of full-time professional experience need not consist of a continuous year of full-time work but may be made up of discontinuous periods of full-time or part-time work adding up to the equivalent of a year of full-time experience.

As a result of amendments to the NHPA in 1992 which expanded the list of professional disciplines, the NPS published a notice for more detailed and comprehensive professional qualifications standards in Volume 62, No 119 of the Federal Register (June 20, 1997) that apply to these Guidelines. Qualifications standards are provided for PIs in the following disciplines and can be found in their entirety at <https://www.federalregister.gov/documents/1997/06/20/97-16168/the-secretary-of-the-interiors-historic-preservation-professional-qualification-standards>. All of the following disciplines also require a demonstrated ability to carry out applicable research or work, and education and experience must be in the relevant field:

- Precontact Archaeologist: graduate degree plus 2.5 years of experience
- Historical Archaeologist: graduate degree plus 2.5 years of experience
- Architectural Historian: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience
- Conservator: graduate degree plus 3 years of experience or an undergraduate degree plus 3 years of experience and another 3 years of full-time apprenticeship
- Cultural Anthropologist: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience
- Curator: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience

- Historic Engineer: licensed civil engineer plus 2 years of experience or a Master of Civil Engineering plus 2 years of experience or a Bachelor of Civil Engineering plus 2 years of experience
- Folklorist: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience
- Historical Architect: licensed architect plus 2 years of experience, or a Master of Architecture degree plus 2 years' experience or a Bachelor of Architecture with 2 years of experience
- Historical Landscape Architect: licensed landscape architect plus 2 years of experience, or a Master of Architecture degree plus 2 years of experience or a Bachelor of Architecture with 3 years of experience
- Historic Preservation Planner: licensed land use planner plus 2 years of experience or a graduate degree in planning plus 2 years of experience, or an undergraduate degree plus 4 years of experience
- Historic Preservationist: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience
- Historian: graduate degree plus 2 years of experience or an undergraduate degree plus 4 years of experience

The PQS allow for lead agencies to use some discretion in the combination of education and experience criteria required for each specialty. Consultants who may not definitively meet the criteria presented above must obtain approval from the city, in consultation with applicable agencies, prior to acceptance of work products intended to be utilized under these Guidelines and may be subject to a mandatory peer review of the resulting documentation. Technical staff working under the direct supervision of the qualified PI need not meet the above criteria.

### **5.3.3 Minimum Qualifications for Paleontological Professionals**

The qualifications listed below are summarized from established industry best practices (Murphey et al. 2019; SVP 2025).

A Principal Paleontologist is an individual with a graduate degree in paleontology, geology, or a closely related field with at least two years (or 50 projects) of prior experience overseeing paleontological resource mitigation projects under the direct supervision of a Principal Paleontologist. This experience should include resource sensitivity assessment and analysis of potential project impacts, direction of paleontological monitoring and data collection, fossil recovery and treatment, specimen identification and curation, and reporting. The Principal Paleontologist should also be familiar with how paleontological resources and their associated data are used in paleontological research (demonstrated by having a record of peer-reviewed paleontological publications) and should participate in professional scientific organizations. Knowledge of federal, state, and local laws, regulations, and procedures that apply to mitigation paleontology is also critical in this role. The Principal Paleontologist is responsible for evaluating the scientific significance of unearthened fossils, staffing qualified field supervisors, field

paleontologists, and laboratory technicians for the project, and ensuring compliance with all project requirements.

A Paleontological Field Supervisor is an individual with a graduate degree in paleontology, geology, or a closely related field with at least one year (or 25 projects) of prior experience with paleontological resource mitigation projects working under the direct supervision of a Principal Paleontologist. A minimum of three years (or 75 projects) of experience may be substituted for a graduate degree. This experience should include supervision of paleontological monitoring and data collection, fossil recovery and treatment, and specimen identification and curation. The Field Supervisor is responsible for ensuring that field notes and collected data are complete and accurate, and that any documented fossil localities are accurately plotted on maps and measured stratigraphic sections.

Field Paleontologists will have an undergraduate degree with an emphasis in paleontology or demonstrated equivalent experience. Academic training must include completed basic coursework in paleontology, geology, and biology. Equivalent experience consists of a minimum of two years of cumulative professional or non-professional work in laboratory preparation, curation, and/or fieldwork related to paleontology and documented knowledge of the discipline of paleontology. Field Paleontologists should be able to safely identify and recover fossils discovered in natural and construction settings, identify and describe sedimentary rocks and stratigraphic relationships, record contextual data for fossils discoveries (including photographs, geographic data, stratigraphic data, and taphonomic data), and comply with safety requirements and use appropriate personal protective equipment (PPE).

Laboratory Technicians will have demonstrated experience in fossil preparation, including past professional experience in a fossil preparation laboratory, knowledge of laboratory techniques (e.g., screenwashing and picking of microfossils, preparation of specimens in plaster field jackets), familiarity with archival chemicals and fossil preparation tools, and an understanding of fossil conservation. If the consultant does not have access to laboratory facilities or trained staff to complete the required fossil preparation tasks, they may contract with an outside consultant meeting these qualifications or with the designated fossil repository.

## **5.4 TRIBAL REPRESENTATIVES**

As described throughout this document, notably in Section 8, the city will consult with representatives of CNA/TCA tribes who request consultation for a specific project or for tribal cultural resources issues. The TCA tribes are the experts regarding their traditional use areas and tribal cultural resources; their knowledge of the tribal cultural resources, as well as the natural resources and cultural landscapes are vital to inform an analysis of potential impacts to tribal cultural resources, as well as avoidance, impact minimization, treatment, mitigation measures, and project alternatives. The tribal representatives consulted for a specific project, referred to as the consulting tribes for that project, will assign appropriate tribal cultural monitors for any fieldwork and/or ground-disturbing activities for that project.

## **5.5 CALIFORNIA OFFICE OF HISTORIC PRESERVATION**

The California OHP is a state agency led by the SHPO that, through delegation of authority by Congress, acts on behalf of the Advisory Council on Historic Preservation in the implementation of the regulations in 36 CFR Part 800 that implement Section 106 of the NHPA. The OHP is also responsible for maintaining

the CHRIS and for administering the CRHR, NRHP, California Historical Landmarks (CHL), and various grants and programs related to historic preservation in California. Although the OHP does not participate in the CEQA process for individual private-sector projects, it may enter into consultation as part of Section 106 compliance or when state-owned historical resources may be affected by a project.

## **5.6 CALIFORNIA NATIVE AMERICAN HERITAGE COMMISSION**

The California NAHC is composed of a nine-member governor-appointed advisory body responsible for the identification and cataloging of places of special religious or social significance to Native Americans, including sacred sites and known Native American graves and cemeteries. The NAHC may serve as a trustee agency under CEQA and is responsible for identifying Most Likely Descendant(s) for Native American human remains that are unearthed in California. The NAHC also keeps lists of TCA tribes for specific areas and provides contact information to lead agencies for tribal representatives to be contacted for SB 18 and AB 52 consultation.

## **5.7 CALIFORNIA NATIVE AMERICAN TRIBES**

A CNA tribe is defined in CEQA as “a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission” (PRC § 21073). The NAHC provides a list of CNA tribes that are traditionally and culturally affiliated with the geographic area of the city (TCA tribes) for specific projects upon request from the city; the city then notifies these tribes of projects that are subject to CEQA, per the procedures enacted by AB 52. These tribes need not be physically located in or near Carlsbad but must be traditionally and culturally affiliated with the land currently under the jurisdiction of the city.

In addition, CNA Tribes are notified of projects and offered the opportunity to consult under SB 18, as applicable (as described in Section 3.2.2) and as determined by the NAHC. The SB 18 lists typically provided by the NAHC in response to city requests include CNA Luiseño and Kumeyaay tribes, whose Traditional Use Area (TUA) includes all or part of the city. The city is required to offer consultation under SB 18 to all of the tribes named by the NAHC on its SB 18 list for the city.

## **5.8 FEDERALLY RECOGNIZED TRIBES**

Federally recognized tribes are Native American tribes, bands, nations, pueblos, villages, or communities as defined in 25 CFR Part 83 and identified as such by the Bureau of Indian Affairs (BIA). These tribes are recognized by the federal government as having special sovereignty, immunities, and privileges by virtue of their government-to-government relationship with the United States. Federally recognized tribes are eligible for funding and services from the BIA and are afforded special consultation rights under Section 106 of the NHPA. Federally recognized tribes may include, but are not limited to, CNA tribes as described in Section 5.7, above.

## **5.9 OTHER PERMITTING OR APPROVING AGENCIES**

There are several federal agencies that may issue federal approvals, permits, licenses, or funding for projects in the city, which will trigger compliance with Section 106 of the NHPA and potential consultation with interested parties including but not limited to tribes, historical societies, and preservation organizations, etc.:

- U.S. Army Corps of Engineers (USACE): issuance of a permit for temporary and permanent discharge of fill into Waters of the United States, in accordance with Section 404 of the Clean Water Act
- U.S. Fish and Wildlife Service (USFWS): issuance of a biological opinion or incidental take permit for federally-listed biological species
- Federal Highways Administration (FHWA), and its designee, California Department of Transportation (Caltrans): issuance of Federal pass-through funds, which will require separate compliance with the Caltrans Section 106 Programmatic Agreement (PA), or issuance of encroachment permits, which will require separate review by Caltrans
- Other federal agencies that may provide funding to city or private projects such as the U.S. Department of Housing and Urban Development’s Community Development Block Grant program

### **5.9.1 The Federal Trust Responsibility**

The federal trust responsibility is a foundational principle in United States law and policy regarding Native American tribes. It arises from treaties, statutes, executive orders, and judicial decisions, establishing a fiduciary duty of the U.S. government toward tribes.

The trust responsibility obligates the federal government to:

- Protect tribal lands, assets, resources, and treaty rights;
- Provide essential services such as education, health care, housing, and infrastructure;
- Uphold tribal sovereignty and self-determination while ensuring the highest standards of honesty, good faith, and fiduciary care in all dealings with tribes.
- This relationship is often compared to that of a trustee to a beneficiary, where the federal government must act in the best interests of the tribes, exercising due diligence and loyalty.

### **5.9.2 Federal Consultation Obligations**

Consultation with tribes is a key aspect of the trust responsibility and a critical requirement under U.S. law and policy. Consultation is a formal process requiring meaningful engagement with tribal governments prior to federal actions or decisions that may affect tribal rights, resources, or interests.

Effective consultation includes:

- **Early Engagement:** Initiating consultation at the earliest possible stage of decision-making to allow tribes to meaningfully influence outcomes;
- **Good Faith Efforts:** Conducting consultations openly, respectfully, and without predetermined outcomes;

- Consideration and Integration: Seriously considering tribal concerns and integrating tribal input into final decisions, where appropriate.
- Legal frameworks guiding federal consultation include but are not limited to:
  - a) The National Historic Preservation Act (NHPA);
  - b) The National Environmental Policy Act (NEPA);
  - c) Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments."
  - d) Consultation is not merely an informational exercise; it is a recognition of tribal sovereignty and an essential mechanism for upholding the federal trust responsibility.

Recognition of tribes, the trust responsibility, and consultation requirements form the backbone of federal Indian policy. These commitments reflect a continuing effort to honor historical agreements, uphold tribal sovereignty, and promote tribal self-determination. All federal agencies and personnel must ensure they understand and implement these obligations fully and respectfully in all interactions with federally recognized tribes.

## **5.10 INTERESTED PARTIES**

Other parties may express interest or provide input in planning and project approval decisions that are based, in part, on the implementation of these Guidelines. These include the city's Historic Preservation Commission, external historical societies and organizations, the city's Cultural Arts Office, professional societies, academia, and the general public. Although these entities do not have responsibility for implementing these Guidelines, any input will be taken into consideration as appropriate.

# **6.0 SENSITIVITY MODELS**

## **6.1 USES**

Cultural resources come in a variety of forms, and range from historic, existing architecture to deeply buried archaeological and tribal cultural resources. Paleontological resources, meanwhile, may be exposed at the surface but are more commonly preserved in the subsurface within geologic formations. The possible presence of resources in the subsurface makes identification and avoidance difficult, as some archaeological and tribal cultural resource sites sometimes do not, and paleontological resources often do not, manifest on the surface, such that they would be detectable by typical surface or near-surface methods alone. The ability to predict the presence of cultural and paleontological resources is not always possible; however, the use of modeling to produce sensitivity and compliance status maps can be very helpful in long-range planning efforts. There are a number of benefits and uses for a sensitivity model for the city including:

- serving as a screening tool for planners and developers to determine if cultural resources surveys and evaluations have already been completed for a project area and the age of such studies, thereby reducing the effort necessary to inventory for cultural resources;

- serving as a planning tool to identify to developers particularly sensitive areas that have a high potential for cultural resources, which may result in larger areas set aside for avoidance and preservation of cultural resources;
- identifying areas that may require additional or more specialized studies, such as geo-archaeological investigations;
- identifying areas that may require focused consultation with Native American tribes;
- identifying areas that may require consultation with specific special interest groups, such as historical societies or other ethnic groups;
- serving as a model for predicting the types of cultural or paleontological resources that may be expected in a project area;
- allowing for the development of research themes and questions, guidelines for treatment, and an overall compliance framework that can be applied in a consistent manner over time; and
- being housed in a Geographic Information System (GIS) database and continually updated and refined, as information generated through implementation of the city's Guidelines is fed back into the model.

However, as discussed further in Section 7.3, confidential information in the possession of the city cannot be disclosed to the public. Only city staff, professionally qualified consultants meeting the qualifications in Section 5, and TCA tribes (when appropriate) may have access to information about specific site locations and descriptions.

More important than the purpose of this sensitivity model is acknowledgement of what this model is not—it does not provide a predictive map of where resources are located, does not represent an inventory of resources, and must not be used as a substitute for appropriate level of study under applicable state and federal law.

The initial sensitivity model for the city was developed through a broad and high-level records search and literature review, a review of geological maps and soils data, aerial photograph review, and from professional expertise in cultural resources management efforts throughout the city. General maps were created based on the model, which show the geological formations and associated eras throughout the city (Figure 2), general areas sensitive for archaeology (map redacted for confidentiality), built environment resources (Figure 3), and a paleontological sensitivity map based on published geological mapping and paleontological data (Figure 4). In the future, tribes may elect to submit information about areas of special concern, which may be included in the sensitivity model with their authorization.

In accordance with Section 7.3 of these Guidelines, archaeological information is restricted from public distribution or access under a variety of laws and regulations. Therefore, the sensitivity model for archaeological resources has been redacted from these Guidelines and will be kept in a secure location at the city. Only city Planning staff and those qualified professionals meeting the applicable Secretary of the Interior's Professional Qualifications will be permitted to view the information. However, the CHRIS information centers are the primary source of archaeological information available to qualified professionals.

## 6.2 ARCHITECTURAL HISTORY SENSITIVITY MODEL

The three types of areas depicted on Figure 3 are High Sensitivity, Moderate Sensitivity, and Low Sensitivity for resources in the built environment.

High Sensitivity: areas shown in pink in Figure 3 represent those areas that have known historic districts and features. These include Historic Village and Barrio Neighborhoods; McClellan Palomar Airport; and neighborhoods built before 1968 (as determined by reviewing historic aerial photographs and historic U.S. Geological Survey [USGS] quadrangle maps).

Moderate Sensitivity: areas shown in green in Figure 3 represent those areas that can be classified neither as high nor low, because they have not been surveyed for cultural resources or do not otherwise fall into either the high or low categories. These include developments that were built between 1968 and 1983 (as determined by reviewing historic aerial photographs and historic USGS quadrangle maps).

Low Sensitivity: areas shown without highlight in Figure 3 represent areas that are reflected in the files at CHRIS for having been previously surveyed as not historically significant, and/or have lower frequencies of previously recorded sites, and/or are not listed in federal, state or local historic registers, or have recently been fully developed (as determined from historic through modern aerials), or have no visible indication of historic (built environment) resources on aerial photographs, such that the potential for built environment resources is relatively low. This includes heavily developed areas and areas built after 1983.



The categories presented above are considered preliminary only and are expected to shift over time; thus, they should be considered only for screening and are not definitive. For example, where a property is currently situated in an area of high sensitivity, and such property is subject to the Guidelines for identification, evaluation, and treatment of cultural resources, it will eventually be surveyed. If the survey concludes, with agency concurrence, that there are no built environment resources located within its boundaries, then the model would be updated by the city to reflect a lower sensitivity, regardless of whether the development were to proceed; the color would change from pink to green or no color. With the passage of time, built environment resources age and new context statements emerge, so these resources may achieve higher sensitivity levels. Over the course of the implementation of the Guidelines, the sensitivity model would more accurately reflect the actual inventory of cultural resources. As such, this model will not be available in its entirety to the public but will be utilized by qualified city staff. However, at any time, a potential applicant for a project within the city can request information about whether the project is located in a high, moderate, or low sensitivity area. Knowledge of the relative sensitivity of the project location may help make a determination about whether development, adaptive re-use or strict preservation is the appropriate land use.

### **6.3 ARCHAEOLOGICAL SENSITIVITY MODEL**

Similar to the architectural history model presented above, the three types of areas depicted in the sensitivity model are High Sensitivity, Moderate Sensitivity, and Low Sensitivity. These sensitivity levels were initially developed not by actual site locations, but by the presence or absence of development, or by existing landform.

High Sensitivity: these represent those areas that are situated in landforms that typically contain archaeological sites, or for which signatures of cultural resources are visible from aerial photography, or for which there is a higher concentration of previously recorded cultural resources.

Moderate Sensitivity: these represent those areas that can be classified neither as high nor low, because they have not been surveyed for cultural resources or do not otherwise fall into either the high or low categories. If an area has been surveyed for cultural resources, but the survey is greater than five years old, it should be considered of moderate sensitivity (not low), so that a resurvey or at least a field check is triggered; conditions can change over time affecting the visibility of archaeological evidence. In addition, tribal knowledge may not have been considered if the previous study is over five years old.

Low Sensitivity: these areas represent areas that are either reflected in the files at CHRIS for having been previously surveyed with negative results, and/or have lower frequencies of previously recorded sites, or have recently been fully developed (as determined from historic through modern aerials), or have no visible indication of cultural resources on aerial photographs, or are set back from major water courses, such that the potential for cultural resources is relatively low. This includes heavily developed areas and areas built after 1983.

This model will not be available to the public but will be utilized by city staff. However, at any time, a potential applicant for a project within the city can request information about whether the project is located in a high, moderate, or low sensitivity area. While the city cannot release confidential information to the requesting party, knowledge of the relative sensitivity of the project location may help make a determination about whether development or conservation is the appropriate land use. The sensitivity model is also useful in suggesting the types of cultural resources that may be encountered, which, in turn, can be used to pre-define research themes and topics. It can also be used

to develop standard treatment methods when avoidance or mitigation of significant cultural resources is necessary.

## 6.4 PALEONTOLOGICAL SENSITIVITY MODEL

The paleontological sensitivity of each geologic unit as mapped in the City of Carlsbad was determined by considering the past yield of fossils in each geologic unit within the city and more broadly within coastal San Diego County. A ranking of high, moderate, low, or no sensitivity for paleontological resources (defined below, in line with the paleontological resource sensitivity classification systems published by Murphey et al. 2019 and SVP 2025) is assigned based on this information. Figure 4 shows the model in its updated form. Table 1 provides a summary of paleontological sensitivity assignments for geologic units known to be present within the city.

**High Sensitivity:** Sedimentary geologic units that are known to consistently produce scientifically significant paleontological resources (as defined in Section 2.1). Rare or uncommon fossils, including vertebrate and invertebrate fossils, may be present.

Geologic units assigned a high paleontological sensitivity in the City of Carlsbad include: the Point Loma Formation, Santiago Formation, Delmar Formation, Sespe Formation, old and very old alluvial flood-plain deposits, and old paralic deposits (broadly equivalent to the Bay Point Formation).

**Moderate Sensitivity:** Sedimentary geologic units in which fossil content varies in significance, abundance, and predictable occurrence. Geologic units that produce sporadic or widely scattered occurrences of significant paleontological resources are considered to have moderate sensitivity. Geologic units that, based on their geologic age and depositional environmental, have the potential to produce significant fossils are also classified as having moderate sensitivity.

Geologic units assigned a moderate paleontological sensitivity in the City of Carlsbad include: the Lusardi Formation, Torrey Sandstone, and very old paralic deposits (broadly equivalent to the Lindavista Formation).

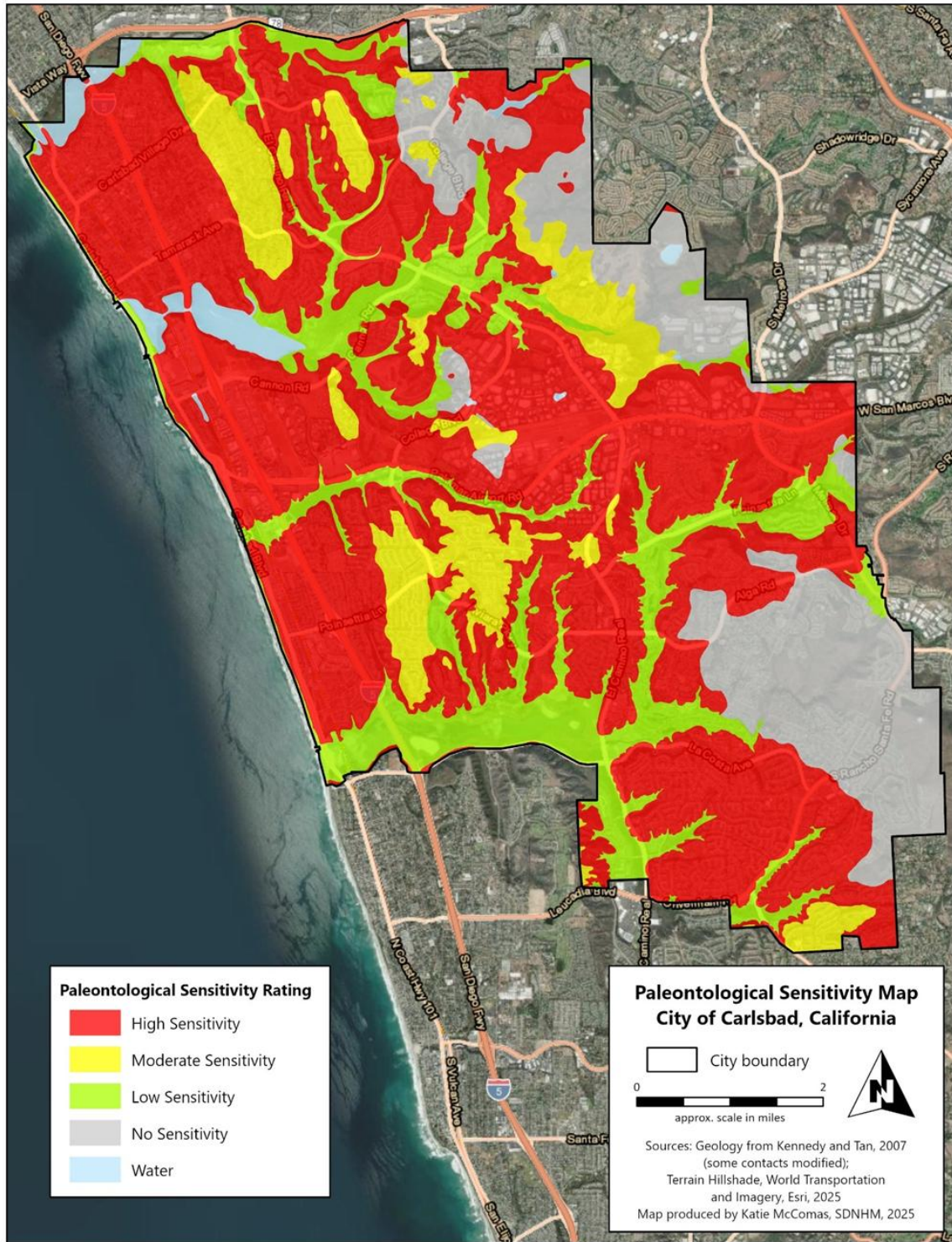


Figure 4. Paleontology Sensitivity Model.

**Table 1**  
**SUMMARY OF PALEONTOLOGICAL SENSITIVITY BY GEOLOGIC UNIT**

Map Unit	Description	Age	High	Moderate	Low	No/Zero
unmapped	artificial fill	Recent				X
Qa	alluvial flood-plain deposits	late Holocene			X	
Qmb	marine beach deposits	late Holocene			X	
Qpe	paralic estuarine deposits	late Holocene			X	
Qya	young alluvial flood-plain deposits	Holocene and late Pleistocene			X	
Qls	landslide deposits	Holocene and Pleistocene			X	
Qoa	old alluvial flood-plain deposits, undivided	late to middle Pleistocene	X			
Qoa6	old alluvial flood-plain deposits, unit 6	late to middle Pleistocene	X			
Qoa5	old alluvial flood-plain deposits, unit 5	late to middle Pleistocene	X			
Qop7-8	old paralic deposits, units 7-8	late to middle Pleistocene	X			
Qop6-7	old paralic deposits, units 6-7	late to middle Pleistocene	X			
Qop6	old paralic deposits, unit 7	late to middle Pleistocene	X			
Qop2-4	old paralic deposits, units 2-4	late to middle Pleistocene	X			
Qvoa	very old alluvial flood-plain deposits, undivided	middle to early Pleistocene	X			
Qvop	very old paralic deposits, undivided	middle to early Pleistocene		X		
Qvop13	very old paralic deposits, unit 13	middle to early Pleistocene		X		
Qvop12	very old paralic deposits, unit 12	middle to early Pleistocene		X		
Qvop10-11	very old paralic deposits, units 10-11	middle to early Pleistocene		X		
Qvop10	very old paralic deposits, unit 10	middle to early Pleistocene		X		
Tda	Dacite Stock	Miocene				X
unmapped	Sespe Formation	Eocene to Oligocene	X			
Td	Delmar Formation	middle Eocene	X			
Tsa	Santiago Formation	middle Eocene	X			
Tt	Torrey Sandstone	middle Eocene		X		
Kp	Point Loma Formation	Upper Cretaceous	X			
Kl	Lusardi Formation	Upper Cretaceous		X		
Kt	Tonalite, undivided	mid-Cretaceous				X
Klh	Leucogranodiorite of Lake Hodges	mid-Cretaceous				X

Map Unit	Description	Age	High	Moderate	Low	No/Zero
Mzu	Metasedimentary and metavolcanic rocks, undivided	Mesozoic				X

**Low Sensitivity:** Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils are assigned a low sensitivity. These geologic units are typically younger than 11,700 years old and/or the sediments exhibit significant physical and chemical changes that make fossil preservation unlikely. It should be noted that these deposits may be underlain at relatively shallow depths in the subsurface by geologic units assigned a moderate or high sensitivity.

Geologic units assigned a low paleontological sensitivity in the City of Carlsbad include: Holocene-age sedimentary deposits and landslide deposits.

**No Sensitivity:** Geologic units that are not likely to preserve recognizable fossil remains, including igneous or high-grade metamorphic rocks, are assigned no sensitivity. Deposits of artificial fill are also typically assigned no sensitivity because fill may have been imported to its current location. Any fossil remains contained in artificial fill lack the original geographic and stratigraphic contextual data that would enable their scientific study and are therefore not considered to be significant.

Geologic units assigned no paleontological sensitivity in the City of Carlsbad include: Mesozoic metamorphic rocks, Cretaceous igneous rocks (tonalite and Leucogranodiorite of Lake Hodges), Miocene-age dacite stock, and artificial fill.

## 6.5 MANAGEMENT OF THE MODELS

The city Planning Division will periodically obtain updates to the models presented in these Guidelines. Formal updates will be carried out by qualified professionals or with collaboration with the CHRIS, or both; however, in the interim, the city will keep confidential records of the results of cultural resources studies that affect the level of sensitivity on a parcel-by-parcel basis. Periodic official updates to the sensitivity models shall not require a revision to these Guidelines; however, any subsequent revisions may be accompanied by an update to the models. In addition, the Planning Division shall notify the secretary to the Historic Preservation Commission upon the updating of non-confidential sensitivity models.

# 7.0 GENERAL METHODS AND STANDARDS OF ANALYSIS

## 7.1 GENERAL STANDARDS

There are numerous standards and guidelines that currently apply to cultural and paleontological resources management. While modifications to these standards are expected to occur over the lifetime of the Guidelines and their individual projects, the fundamental standards for professional cultural and paleontological resources management will always apply. In addition, recent state and federal policies have reiterated the importance of Traditional Environmental Knowledge and Indigenous Knowledge, not only to cultural resources studies but to general environmental, land management, and conservation policies.

These fundamental standards and guidelines applicable to cultural resources management include:

- CEQA and applicable sections of the CEQA Guidelines and PRC;
- Archaeological Resource Management Reports: Recommended Contents and Format (February 1990), published by the California OHP;
- Instructions for Recording Historical Resources (March 1995), published by the OHP;
- Section 106 of the NHPA and its implementing regulations at 36 CFR Part 800;
- Standards for curation of archaeological collections in 36 CFR Part 79;
- Ethical and professional standards of the Society for California Archaeology, the Society for American Archaeology, and the Register of Professional Archaeologists (RPA);
- Secretary of Interior’s Standards and Guidelines for the identification, evaluation, and treatment of archaeological and historical resources as appropriate;
- Council on Environmental Quality’s Guidance for Federal Departments and Agencies on Indigenous Knowledge; and
- California State Assembly Bill 2225.

Regulations and guidelines applicable to paleontological resources management include:

- CEQA and applicable sections of the CEQA Guidelines and PRC;
- Paleontological Resources Preservation Act (PRPA) of 2009 (P.L. 111-11, 123 Stat. 991, HR 146) and regulations adopted by the United States Department of Agriculture (USDA) (Title 36 CFR Part 291) and Department of the Interior (DOI) (87 Federal Register [FR] 47296) addressing the management and protection of paleontological resources on federal lands;
- Ethical and professional standards of the Society for Vertebrate Paleontology (SVP) and the Society for the Preservation of Natural History Collections (SPNHC); and
- Published industry best practices (i.e., Murphey et al. 2019; SVP 2019, 2025).

The following sections present the specifications for project work that meet the standards and guidelines above. These specifications are also based on standard practice by the NPS for similar projects. Deviation from any standards, guidelines, or work plan specifications must be approved by the city, in consultation with applicable federal agencies, in advance of implementation.

## 7.2 THRESHOLDS OF REVIEW

There are two broad types of actions that the city is responsible for: discretionary projects and ministerial actions. *Discretionary projects* are those that require that the city exercise judgement or deliberation when determining whether or not to approve a project. Because discretionary projects can

result in no approval (denial), they are subject to compliance with CEQA and, by extension, these Guidelines.

*Ministerial actions* are agency decisions involving little or no judgment by city staff as to the wisdom or manner of carrying out the project. These actions include plan checks, over-the-counter building permit issuance, dog or business licenses, and other similar actions for which an agency official has no ability to deny or reject the action, as long as the subject of the action meets the pre-approved parameters and the required terms and conditions are met. Ministerial actions are not subject to CEQA or to these Guidelines. Therefore, the following procedures for the identification, evaluation, determination of effect, and mitigation of significant impacts to tribal, cultural, and paleontological resources apply only to discretionary projects (in which the city has the ability to deny a project through the exercise of judgment as to the wisdom or manner of carrying out the project), or to applicable city projects not exempt under CEQA.

### 7.3 CONFIDENTIALITY

Maintaining confidentiality of the location and nature of archaeological sites, TCRs, and fossil localities is of the utmost importance to the city. Similarly, federal and state law recognize this need. As it pertains specifically to CEQA and these Guidelines, the city shall make best efforts to meet the following objectives in the California PRC, which are provided herein:

“Any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with subdivision (r) of Section 6254 of, and Section 6254.10 of, the Government Code, and subdivision (d) of Section 15120 of Title 14 of the California Code of Regulations, without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. This subdivision does not prohibit the confidential exchange of the submitted information between public agencies that have lawful jurisdiction over the preparation of the environmental document” (Section 21082.3[c][1]).

“This subdivision does not prohibit the confidential exchange of information regarding tribal cultural resources submitted by a California Native American tribe during the consultation or environmental review process among the lead agency, the California Native American tribe, the project applicant, or the project applicant’s agent. Except as provided in subparagraph (B) or unless the California Native American tribe providing the information consents, in writing, to public disclosure, the project applicant or the project applicant’s legal advisers, using a reasonable degree of care, shall maintain the confidentiality of the information exchanged for the purposes of preventing looting, vandalism, or damage to a tribal cultural resources and shall not disclose to a third party confidential information regarding tribal cultural resources” (Section 21082.3[c][2][A]).

“This paragraph does not apply to data or information that are or become publicly available, are already in the lawful possession of the project applicant before the provision of the information by the California Native American tribe, are independently developed by the project applicant or the project applicant’s

agents, or are lawfully obtained by the project applicant from a third party that is not the lead agency, a California Native American tribe, or another public agency” (Section 21082.3[c][2][B]).

“This subdivision does not affect or alter the application of subdivision (r) of Section 6254 of the Government Code, Section 6254.10 of the Government Code, or subdivision (d) of Section 15120 of Title 14 of the California Code of Regulations” (Section 21082.3[c][3]).

“This subdivision does not prevent a lead agency or other public agency from describing the information in general terms in the environmental document so as to inform the public of the basis of the lead agency’s or other public agency’s decision without breaching the confidentiality required by this subdivision” (Section 21082.3[c][4]).

“Consistent with subdivision (c), the lead agency shall publish confidential information obtained from a California Native American tribe during the consultation process in a confidential appendix to the environmental document and shall include a general description of the information, as provided in paragraph (4) of subdivision (c) in the environmental document for public review during the public comment period provided pursuant to this division” (Section 21082.3[f]).

In addition, information obtained or derived from information provided by the California Historical Resources Information System maintained by the California Office of Historic Preservation cannot be disclosed to the public.

The California Public Records Act exempts from public disclosure the “records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in Section 5097.9 and 5097.993 of the PRC maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency” (GC § 6254[r]); and “records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency” (GC § 6254.10).

Although no federal lands currently exist within the city boundaries, dissemination of archaeological site information is also prohibited by Exemption 3 of the federal Freedom of Information Act (5 United States Code [USC] 5), because the disclosure of cultural resources location information is prohibited by the Archaeological Resources Protection Act of 1979 (16 USC 470hh) and Section 304 of the NHPA. Therefore, it is also exempted from disclosure under the Freedom of Information Act.

Similarly, information about paleontological localities is exempt from disclosure under the Freedom of Information Act (5 USC § 552), unless “the Secretary [of the Interior] determines that disclosure would— (1) further the purposes of [Subtitle D—Paleontological Resources Preservation]; (2) not create risk of harm to or theft or destruction of the resource or the site containing the resource; and (3) be in accordance with other applicable laws” (Section 6309 of the Paleontological Resources Preservation Act of 2009, P.L. 111-11, 123 Stat. 991, HR 146).

Best practice guidelines published by the SVP (SVP 2019) govern the disclosure of vertebrate fossil locality data among professional vertebrate paleontologists, and state that “in cases where release of [contextual data] will not create risk of harm to, or theft or destruction of, resources remaining at the collecting site..., they should be disseminated freely to facilitate research, education, resource

management, and other public benefit uses.” The SVP guidelines also state that the “sensitivity of all contextual data, especially the location of the collecting site..., should be reviewed by the permitter (i.e., the governing body responsible for, or the owner of, the land where the fossils were collected), the repository, and the permittee (i.e., collector/researcher)” and this review “should be completed as expeditiously as possible” in order to not to hinder research, curation, and education. The guidelines also provide criteria for assessing the sensitivity of vertebrate fossil localities, which include the type and level of threat to fossils at the locality, the uniqueness of the taxa or preservation quality, and whether the data is already publicly available. Other considerations include the presence of non-paleontological resources (e.g., endangered species, environmentally sensitive areas, or cultural or Native American resources) at the site.

Therefore, in light of these requirements for confidentiality, the city shall not make publicly available the locations of archaeological, tribal cultural, and paleontological resources, and dissemination of such information will be tightly guarded on a “need to know” basis only. Such circumstances are generally limited to city staff, landowners of property that contain such resources, and consultants and engineers who are responsible for designing proposed projects in accordance with these Guidelines.

## **8.0 TRIBAL CULTURAL RESOURCES PROCEDURES**

Tribal cultural resources are identified by TCA Tribes through a consultation process in CEQA prescribed by AB 52. This process requires, at a minimum, outreach to the TCA tribes on the city’s AB 52 list and consultation with those tribes if requested; however, in compliance with AB 52, this does not preclude additional TCA Tribes from participation. No delegation of consultation authority from the city to Applicants or consultants is provided by these Guidelines, although these parties may be asked to provide technical and administrative support.

### **8.1 TRIBAL OUTREACH AND COORDINATION**

There are three regulatory mechanisms by which government-to-government consultation between tribes and agencies may occur: Section 106 of the NHPA, AB 52, and SB 18. Not all three will apply for any given project; however, the following procedures will be conducted when applicable, and documentation of compliance with these procedures shall be kept separate.

In addition to legally mandated government-to-government consultation, the city is committed to informal engagement with all interested tribes. This engagement takes the form of emails, phone calls, regularly scheduled meetings and special one-time meetings, as needed. These engagements are important in fostering greater communication and trust and allow for a fuller understanding of tribal priorities, concerns, comments, and/or questions. Through this partnership, topics ranging from specific projects to city-wide plans and long-term initiatives to general topics of mutual interest are discussed, information is exchanged, and tribal input is incorporated into the planning and permitting processes.

The city made a commitment to the CNA tribes who are traditionally and culturally affiliated with the city when it adopted City Council Policy No. 83. To follow through on that commitment, these Guidelines contain specific additional tribal consultation procedures, in addition to the tribes’ participation under the three regulatory mechanisms, when applicable. The procedures under Notices of Exemption are not required by any of the regulatory mechanisms listed previously and are above and beyond what is

normally required. Because these procedures are outside of the strictly regulatory process, they are listed first.

### **8.1.1 Notices of Exemption**

Section 15061 of the CEQA Guidelines requires that the city first consider whether or not the project is subject to CEQA, if not exempted by statute or by category. Statutory exemptions are provided in Article 18 of the CEQA statute, from Section 15260 to 15285 and include, but are not limited to:

- projects ongoing since 1970;
- Feasibility and planning studies;
- Discharge requirements;
- Adoption of coastal plans and programs;
- General plan time extensions;
- Financial assistance to low or moderate income housing;
- Ministerial projects;
- Emergency projects;
- Family day care homes;
- Specified mass transit projects;
- Transportation improvement and congestion management programs;
- Application of coatings;
- Air quality permits; and
- Specifically named projects either in the CEQA guidelines (Section 15282) and CEQA statute (Section 21080 et seq.).

Statutory exemptions under CEQA are not subject to these Guidelines.

In addition, Section 21084 of the PRC required the development of a list of classes of projects that have been determined not to have a significant effect on the environment and are therefore exempt from CEQA, as long as there is no exception to the exemption as specified in Section 15300.2 of the CEQA Guidelines. These categorically exempted projects currently include, but are not limited to the following projects in Sections 15301 through 15333:

- Operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use;

- Replacement or reconstruction of existing structures and facilities;
- New construction or conversion of small structures;
- Minor alterations to land;
- Minor alterations in land use limitations;
- Information collection; inspections;
- Loans;
- Accessory structures;
- Surplus government property sales;
- Minor additions to schools;
- Minor land divisions;
- Acquisition or transfers of lands for conservation or preservation of parks, wilderness, historical resource, or wildlife conservation;
- Transfer of ownership of land in order to create parks;
- Open space contracts or easements;
- Annexation of existing facilities;
- Educational or training programs;
- Normal operations of facilities for public gatherings;
- Leasing facilities;
- Small hydroelectric or cogeneration projects at existing facilities;
- Some types of hazardous materials responses;
- In-fill development; and
- Small areas of habitat restoration.

In accordance with Section 15300.2(f) of the CEQA Guidelines, categorical exemptions cannot be used for a project that may cause a substantial adverse change in the significance of a historical resource or under unusual circumstances. Because some TCRs may also meet the regulatory definition of historical resources under CEQA, consideration of the project's effects on TCRs must be taken into consideration before determining that a Notice of Exemption (NOE) is the appropriate CEQA document, and such consideration will include input from the TCA tribes. This additional consideration (the process of which is provided below) is above and beyond what is required under AB 52.

### 8.1.1.1 Procedure for Pre-NOE Consultation with TCA Tribes

The city will first screen every discretionary project to determine whether or not it is categorically exempt from CEQA and these Guidelines and does not invoke any exceptions to the exemption rule. The following types of projects are expected to be categorically exempt and have no reasonable potential to impact either historical resources or TCRs, and therefore, shall not be subject to the tribal notifications below:

- Subdivisions without construction;
- Wireless communication projects without ground-disturbing activity;
- Changes of use of existing structures and facilities without ground-disturbing activity;
- Sign permits;
- Consistency Determinations;
- Time extensions;
- Repair, minor alteration, repaving or replacement of existing infrastructure within previously excavated alignments, trenches or facilities; and
- Other similar projects or permits, without ground disturbing activities or occurring within previously excavated or graded areas, alignments, or trenches, as determined by the city Planner.

Some projects that are found to be eligible for Categorical Exemptions may still warrant consultation with the TCA tribes on the city's AB 52 list in order to determine whether or not a NOE is the appropriate CEQA document. In the event that the city screens a project activity, taking into consideration applicable sensitivity models, and determines that it otherwise qualifies for a Categorical Exemption under CEQA, then no less than 30 days prior to a public hearing or final decision on the project, the city shall provide written notice by email to the identified TCA tribes of the intent to prepare an NOE under CEQA. No response is necessary from the tribes if they have no concerns.

If one or more of the TCA tribes has concerns, the tribe(s) shall provide comments to the city within 10 business days of receiving the notice of intent. If a TCA tribe to which notice was sent does not respond in this timeframe, it will be presumed that they do not have any concerns. Comments must be received in written form; while verbal comments are welcome, they must also be provided in written form within the timeframe specified herein. Upon receipt of comments from the tribe(s), within 5 calendar days the city shall acknowledge by email or letter its receipt of the comments. The city shall review and evaluate the comments as follows:

- To determine if the comments provide specific evidence about the presence of potential tribal cultural resources within the project area;
- To determine if the comments provide specific information that the project may result in potentially significant impacts to tribal cultural resources that may affect the city's ability to utilize a Categorical Exemption;

- To make a reasonable and good faith effort to interpret the comments in a way that is respectful of the tribe’s concerns and clarify and issues that may be unclear;
- To determine if additional consultation is warranted and would lead to important information prior to the project, as opposed to being conducted as part of implementation of standard unanticipated discovery measures; and
- To determine if the information presented meets the definitions and thresholds established by AB 52.

The above shall factor into the city’s determination or recommendation of the appropriate CEQA document for the project. The city shall copy consulting TCA tribes on any subsequent notifications or administrative decisions on the project.

If comments are received after the prescribed comment period, then the city shall evaluate those comments, but is not obligated to halt the project review and approval process in the meantime. Evaluation and notifications following the receipt of late-arriving comments shall follow the same procedure above.

The city may coordinate with TCA Tribes and the applicant regarding potential project conditions that may still be desirable for projects that do not meet AB 52 thresholds and warrant a NOE. However, in the event that the above procedure indicates that a potentially significant TCR is present as defined by CEQA and may be adversely impacted, then the city shall not prepare a NOE, but shall undertake an Initial Study.

### **8.1.2 National Historic Preservation Act Section 106**

As a non-federal lead agency, the city is not directly responsible for compliance with Section 106 of the NHPA. However, some projects for which the city is the proponent will require federal permits, approval, or funding assistance. The legal responsibility to consult under Section 106 falls to the federal agency and therefore, the lead federal agency may direct the consultant otherwise; these Guidelines are not intended to supersede federal law or agency directives. To ensure that cultural resources investigations are compatible with the federal requirements under Section 106 and its implementing guidelines, the qualified professional consultant may implement the following procedures, subject to approval by the federal lead agency.

For projects subject to Section 106 of the NHPA, the city or its designee, which is likely to be the qualified professional consultant, shall first contact the NAHC to request a search of the Sacred Lands File and list of contacts. Upon receipt of the results, the city or its designee shall send by mail or email a project notification letter to each contact named by the NAHC. The notification letter shall, at minimum, include a boundary map of the project area and a brief description of the project, and the name and contact information to whom comments should be addressed. No sooner than one week following the delivery of the project notification letters, the city or its designee shall attempt, up to two times, to reach each contact by phone or email to verify receipt of the project notification letter and solicit comments. All non-written correspondence shall be documented in a log or appropriate record of conversation, which includes both successful and non-successful attempts to contact each individual.

Copies of the written correspondence and logs shall be forwarded by the city or designee to the applicable federal agencies with the applicable technical report in order for the federal agency to follow up and continue with government-to-government consultation.

### **8.1.3 CEQA/AB 52**

Each CEQA lead agency maintains its own file of general request letters from TCA tribes under PRC Sections 21080.3.1 through 21080.4, commonly referred to as AB 52; in addition, the city can request an updated contact list from the NAHC for a specific project. The city shall first review project applications and within 14 days of determining that the application is deemed complete and it is ready to undertake CEQA review, it shall notify in writing those tribes that specifically requested notification under CEQA and may notify other TCA tribes identified by the NAHC. The tribes notified may be slightly different from the tribes being consulted under SB 18 (GC section 65040.2, 65351 – 65352) or Section 106, although some overlap may occur. For tribes that respond within 30 days with a request to consult, the city shall initiate consultation within 30 days of receiving the written request to consult. Consultation concludes when either the parties come to agreement on impacts to, and mitigation measures for, TCRs, or, when the city determines, after acting in good faith and in a reasonable manner, that mutual agreement cannot be reached. The procedures outlined in AB 52 shall be conducted as specified in the California PRC Sections 21074, 21080.3 et seq., 21082.3, 21083.09, and 21084.3.

### **8.1.4 SB 18 (Traditional Tribal Cultural Places Bill)**

If a project will require a general plan or specific plan adoption or amendment, the city must comply with GC sections 65040.2, 65351 – 65352 (the Traditional Tribal Cultural Places Bill), commonly referred to as SB 18, which requires local agencies, including cities and counties, to contact and consult with CNA tribes prior to amending or adopting a general plan or specific plan, or designating land as open space containing Native American cultural resources. The consultation that is conducted under SB 18 is different from that which is normally conducted in conjunction with cultural resources consultation under CEQA (per AB 52) or Section 106 of the NHPA. In addition, consultation under SB 18 must be government-to-government, between the Native American tribe and the local agency and in accordance with the Governor’s Office of Planning and Research’s (now the Governor’s Office of Land Use and Climate Innovation) Tribal Consultation Guidelines (2005).

First, the city or its designee will obtain the list of applicable Native American tribes and organizations to contact for SB 18 consultation for the project from the NAHC. Each listed tribe will be contacted by letter to provide them with information about the project and ask if they wish to consult with the city. Follow-up phone calls will be made to each group, and the results of all correspondence will be documented in a summary report. Native American consultation meetings will be conducted by city staff.

## **8.2 IDENTIFICATION AND TREATMENT OF TRIBAL CULTURAL RESOURCES**

The determination of whether or not a TCR is present in or near a project site falls to the city, in consultation with the TCA tribes, through the AB 52 consultation process.

TCRs, as defined in Section 21074, are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Native American tribe that are:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources;
- Included in a local register of historical resources as defined in subdivision k of Section 5010.1; and/or
- A resource determined by the city to be significant, as supported by substantial evidence, pursuant to criteria set forth in subdivision (c) of Section 5024.1; and in applying such statutory criteria (section 5024.1), the city shall consider the significance of the resource to a California Native American Tribe.

It is important to understand that all air, lands, and waters are associated with the tribes and that time, history, and place must be considered as part of the resource. The tribes are the experts on their own culture, heritage, and resources, and the city recognizes that the tribal worldview and expertise is of paramount importance in identifying tribal cultural resources.

### **8.2.1 Impact Analyses and Mitigation Measures**

AB 52 establishes that a substantial adverse change to a TCR has a significant effect on the environment. In making this determination, the city must determine if the Project will cause a substantial adverse change to the TCR. However, because the nature of TCRs can vary, and because they represent a new type of resource in the CEQA process since the adoption of the original Guidelines, and because some TCRs (particularly religious and sacred resources) may be difficult to quantify, determining whether or not a project will significantly impact a TCR may be difficult. Determination of impacts to TCRs must take into account the significance ascribed to them by the TCA tribe(s) and may not always parallel impact assessments for Cultural or Historical Resources.

Integrity of a resource is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)]. Impacts may be significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)]. Accordingly, impacts to a TCR would likely be significant if the project negatively affects the qualities of integrity that made it significant in the first place, as determined through consultation with the TCA tribe(s). The NPS guidance regarding TCPs indicates, “The evaluation of integrity is a subjective judgement, but it must always be grounded in an understanding of a place’s physical features and how they relate to its historic significance. The integrity of a traditional cultural place should be evaluated according to the views of those who hold the place to be significant. If the place’s integrity is not lost in their eyes, it likely has integrity. Nevertheless, just how a place conveys its integrity must be described in the nomination; it is insufficient to simply state that a place retains integrity in the opinion of the community” (NPS 2024:63).

Once the significance of that TCR has been established and further defined by one or more of those aspects of integrity, the city (in its role as lead agency and with appropriate tribal consultation) must next determine whether or not the project will adversely affect (significantly impact) those applicable aspects of integrity. In making this determination, the city should address the aspects of integrity that are important to the TCR’s significance, which were identified by the tribal experts.

## 8.2.2 Preferred Treatment Options and Mitigation Measures

In the event that the city applies these thresholds and determines that there will be a significant impact on a TCR, the following are preferred treatment options and mitigation measures. Some or all of these options or measures may be required of projects, depending on the particular TCR and/or nature of the impact.

### 8.2.2.1 Avoidance, Preservation, and Mitigation

Public agencies must, when feasible, avoid damaging effects to any tribal cultural resource (PRC § 21084.3 [a]). Appropriate mitigation for tribal cultural resources is different from mitigation for archaeological resources. If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, mitigation measures should be identified through consultation with the tribal government(s) (OPR 2017). If measures are not otherwise identified in the consultation process, the PRC describes mitigation measures that may avoid or minimize the significant adverse impacts (PRC § 21084.3 [b]). Examples include:

- (1) Avoidance and preservation of the resources in place, including planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including the following: (A) Protecting the cultural character and integrity of the resource; (B) Protecting the traditional use of the resource; or (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

The above mitigation includes avoidance and preservation of such resources as well as their protection. To further such mitigation measures, the city is authorized, in consultation with Tribes, to also require the project applicant or designee to fund and prepare a completed CRHR nomination packet through SHRC approval of such resources.

For TCRs, it may also be necessary to require either the recording of a deed restriction or the dedication of a conservation easement over the resource, recorded with the County, to restrict development in perpetuity. Management of the protected resource in perpetuity will be the responsibility of either a qualified third-party easement manager or the affiliated TCA tribe. Long-term funding will be required to be demonstrated by the project proponent in either case.

The management shall include, but is not limited to, the following measures, as deemed appropriate:

- Sign replacement;
- Regular monitoring and associated reporting by a professional archaeologist and an authorized Tribal representative for damage;

- Erosion control;
- Trash removal;
- Vegetation and weed control with no or minimal ground intrusiveness;
- Security patrols;
- Vandalism abatement;
- Law enforcement monitoring and citations; and
- Removal of trespassers.

No signs indicating the presence of TCRs shall be permitted, unless requested by the applicable TCA tribe for educational purposes. Any signs requested shall exclude confidential information that could lead to the destruction or vandalization of TCRs. In addition, the deed restriction or conservation easement will be subject to negotiated conditions that restrict certain uses of the property, depending on the nature of the resource. This will be determined in consultation with the TCA tribe.

The applicant(s) shall provide a copy of the recorded deed or conservation easement that includes the preserved resource as proof of the restriction of future activities that could affect the Project site. Proof of compliance will typically be submitted to the city prior to ground-disturbing activities.

#### **8.2.2.2 Dignified and Respectful Treatment**

It is important that TCRs be treated with dignity and respect. The city may require as mitigation the implementation of one or more Contractor Sensitivity Training Session(s) to allow a tribal representative to instill a sense of appropriate respect for TCRs in its construction contractors, and to educate workers about the proper level of respect. See Section 9.3.2.2, Standard Treatment 8 for more information.

#### **8.2.2.3 Repatriation**

The city requires that the landowner or project proponent (if not the city) enter into an agreement with the applicable TCA tribe on an appropriate reburial location on the property for any cultural materials or human remains that may be unearthed during ground-disturbing activities during the project. The location shall be one that will not be subjected to ground-disturbing activities in the future and would be subject to the same measures addressed under section 8.2.2.1, Avoidance, Preservation, and Mitigation. This location will be documented as a reinterment location by the Native American tribe, and the tribe may file it as such with the NAHC, county, city, and the CHRIS. The site of any reburial of Native American human remains shall be kept confidential and not be disclosed pursuant to the California Public Records Act, California Government Code §§ 6254.10, 6254(r). The Medical Examiner shall also withhold public disclosure of information related to such reburials pursuant to the specific exemption set forth in California Government Code § 6254.5(e).

#### **8.2.2.4 Tribal Monitoring**

The presence of a Native American monitor will be necessary during ground-disturbing activities that have the potential to affect TCRs. Monitoring may be required for an entire site or portions of a site,

depending on discussions and consultation with the tribes and other information based on a site's geomorphology, geotechnical reports, prior grading plans for disturbed soils, or other reasons. In cases where the TCR is also considered a historical resource under CEQA (i.e., it is also significant for archaeological characteristics), archaeological monitoring may also be required. In other cases, where the TCR is not significant archaeologically, only a tribal monitor may be required.

When monitoring is required to address potential impacts to TCRs, then prior to the commencement of any ground-disturbing activities, including but not limited to exploratory geotechnical investigations/borings for contractor bidding purposes, the project developer shall enter into a Pre-Excavation Agreement, otherwise known as a Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with a TCA tribe. The Pre-excavation agreement must be consistent with the mitigation measures from the CEQA document. This agreement will contain provisions to address the proper treatment of any tribal cultural resources and/or Native American human remains inadvertently discovered during the course of the project. The agreement will outline the roles and powers of the TCA Native American monitors and the archaeologist and shall include the following provisions. In some cases, the language below may be modified in consultation with the TCA tribe if special conditions warrant.

1. A Native American monitor representing a TCA tribe shall be present during all ground-disturbing activities that have the potential to affect TCRs. Ground-disturbing activities may include, but are not limited to, archaeological studies, geotechnical investigations, clearing, grubbing, trenching, excavation, preparation for utilities and other infrastructure, and grading activities.
2. Any and all uncovered artifacts of Native American cultural importance shall be returned to the TCA Monitoring Tribe for the project and not be curated, unless ordered to do so by a federal agency or a court of competent jurisdiction.
3. The TCA Native American monitor shall be present at the project's preconstruction meeting to discuss with grading and excavation contractors excavation schedules and safety issues, as well as to discuss with the archaeologist PI concerning the proposed archaeologist techniques and/or strategies for the project.
4. TCA Native American monitors and archaeological monitors shall have joint authority to temporarily divert and/or halt construction activities. If tribal cultural resources are discovered during construction, all earth-moving activity within and around the immediate discovery area must be diverted until the TCA Native American monitor and the archaeologist can assess the nature and significance of the find.
5. If significant tribal cultural resource(s), including Native American human remains, and/or unique archaeological resource(s), are unearthed during ground-disturbing activities for the project, the city shall engage in continued consultation with both the consulting Tribes and the TCA monitoring tribe for the project regarding such resources, their significance, the respectful and dignified treatment of those resources, and all feasible mitigation measures and avoidance alternatives. Pursuant to California PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological and tribal cultural resources. If, however, the applicant(s) is able to demonstrate that avoidance of a significant and/or unique cultural resource is infeasible and a data recovery plan is authorized by the city as the lead agency, the city shall engage in

further consultation with the consulting Tribes and the TCA monitoring tribe for the project regarding the drafting and finalization of a recovery plan.

6. When tribal cultural resources are unearthed during ground-disturbing activities for the project, the applicant shall partner with the consulting Tribes and the TCA Native American monitor to reach a feasible treatment solution. If avoidance or preservation are not feasible, then an excavation program shall be undertaken by the PI in partnership with the consulting Tribes and the TCA Native American monitor to achieve respectful treatment of and minimal disturbance to the resources. Any sampling or scientific testing, invasive or otherwise, of tribal cultural resources shall only be conducted with the permission of the consulting Tribes and TCA Native American monitor; a TCA Native American monitor and other tribal representatives, at the discretion of the consulting Tribes, shall be present during any sample collection or scientific testing. The applicant and the city shall engage with the consulting Tribes and the TCA Native American monitor to reach an accord on how best to treat tribal cultural resources unearthed during ground-disturbing activities with the primary objective of a dignified and respectful treatment in accordance with their cultural and spiritual traditions. The final disposition of tribal cultural resources shall be decided upon by the consulting Tribes and the TCA Native American monitor, including repatriation or reburial on site.
7. If suspected Native American human remains are encountered, California Health and Safety Code Section 7050.5(b) states that no further disturbance shall occur until the San Diego County Medical Examiner has made the necessary findings as to origin. Further, pursuant to California PRC Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Suspected Native American remains shall be examined in the field and kept in a secure location at the site. The applicant shall ensure that the consulting Tribes and the TCA Native American monitor shall be present during the examination of the remains. If the San Diego County Medical Examiner determines the remains to be Native American, the Native American Heritage Commission must be contacted by the Medical Examiner within 24 hours. The NAHC must then immediately notify the “Most Likely Descendant” about the discovery. The Most Likely Descendant(s) shall then make recommendations within 48 hours and engage in consultation concerning treatment of remains as provided in PRC 5097.98. No scientific testing, invasive or non-invasive, shall be permitted on any human remains.
8. In the event that fill material is imported into the project area, the fill shall be clean of tribal cultural resources and documented as such. Commercial sources of fill material are already permitted as appropriate and will be culturally sterile. If fill material is to be utilized and/or exported from areas within the project site, then that fill material shall be analyzed and confirmed by an archeologist and TCA Native American monitor that such fill material does not contain tribal cultural resources.
9. No scientific testing, invasive or non-invasive, shall be permitted on any recovered tribal cultural resources without the written permission of the consulting Tribes and the TCA monitoring tribe for the project.
10. Prior to the release of the grading bond, a monitoring report and/or evaluation report, if appropriate, shall be provided to the city and project archaeologist for approval, and such report shall describe the results, analysis, and conclusions of the monitoring program, along with the

consulting Tribes and the TCA Native American monitor’s notes and comments. Said report shall be subject to confidentiality as an exception to the Public Records Act and will not be available for public distribution.

The above measures are intended as guidance for the development of an agreement, which may or may not be accompanied by a mitigation measure in a CEQA document. Each project will be evaluated for the presence or potential presence of TCRs individually, and when an agreement is deemed appropriate, measures will be tailored to that specific project.

#### **8.2.2.5 Data Recovery and Curation**

TCRs can also be archaeological sites that are eligible under NRHP Criterion D/CRHR Criterion 4 because they possess information that is important in history or prehistory. In such a case, data recovery excavations are one method of mitigating adverse effects if avoidance/preservation is not feasible. Data recovery or curation, or both, may not be appropriate for TCPs or TCRs and thus would be a last resort. Data recovery plans must be prepared by the PI in partnership with the consulting TCA tribe(s) for the project prior to approval by city staff and implementation.

#### **8.2.2.6 Tribal Access to Traditional and Sacred Lands**

Adverse effects to sites where avoidance/preservation is not feasible or for previously destroyed sites may be mitigated through partnership with affiliated TCA tribe(s) to either restore access and/or highlight the influence of traditional tribal culture within the context of the city. The following are examples of potential arrangements to create physical and/or historical access to affected sites:

1. Allowing tribes onto open spaces for ceremonial use or collection of culturally-important plants,
2. Informational signage throughout the city,
3. Incorporating tribal themes/designs into city designs,
4. Restoration of developed areas,
5. Incorporating Indigenous place names in public spaces
6. Tribal partnership in stewardship of undeveloped open space

## **9.0 CULTURAL RESOURCES PROCEDURES**

This section is divided into review and evaluation procedures for the two cultural resources sub-disciplines of architectural history (Section 9.1) and archaeology (Section 9.2), followed by sections on impact analyses/mitigation measures and conditions (Section 9.3) and curation (Section 9.4). For properties that potentially contain both archaeological and architectural history resources, the technical report may be combined with both disciplines represented or may be separate stand-alone reports for each discipline. A more streamlined process is also provided for evaluations of architectural history resources on properties that do not require an archaeological report.

## **9.1 ARCHITECTURAL HISTORY**

### **9.1.1 Sensitivity Model Review**

In determining the need for a historic resource evaluation, the city shall first review the architectural history sensitivity model map to determine the sensitivity of the project site for architectural historical (also referred to as built environment) resources. If the review of the architectural history sensitivity model map shows the project is located within an area of moderate or high sensitivity for historic resources, and the project would demolish or significantly alter an existing building or structure that is not exempt from evaluation per Section 9.1.5.1 below, the city shall require the applicant to retain a professionally qualified consultant to prepare a California OHP's DPR 523 series Historical Resources Inventory form (DPR Form) if the property has not been professionally evaluated, or not within the previous five years. If the property has been professionally evaluated more than five years prior, then an update to the prior evaluation shall be required. Refer to Section 9.1.6 for DPR Form and technical report preparation guidance. For areas outside of moderate or high sensitivity, a DPR Form is generally not required (see Section 9.1.5.1 below for when it may be required).

### **9.1.2 Records Searches and Literature Review**

In the event only a stand-alone DPR Form is required for a property, then a records search at the South Coastal Information Center (SCIC) may not be required by the city.

If a full historic resource evaluation technical report is required, then evaluation of the resource shall begin with a records search and literature review at the SCIC. The records search must include the project site under consideration. The consultant, meeting the applicable PQS shall utilize best judgment for the review of a radius around the project area. All records searches must be no more than one year old at the time of submission to the city.

The reporting of records search results within technical reports must include the title and author of each report, its SCIC report number, author, and date. In addition, technical reports must include an accounting of all previously-recorded resources within the records search radius, and whether or not each is located within the project area. Given privacy concerns surrounding the distribution of records search information for property that is not included in the project, the actual results of the records search for the radius around the project area shall not be transmitted to the city or any third party.

### **9.1.3 Site Visit**

All historic evaluations, whether documented on DPR Forms or in technical reports, shall include a site visit conducted by the qualified consultant or their staff. The purpose of the site visit is to observe the property's physical setting and context, record original construction design, materials and modifications over time, identify potential related structures, objects, features, and/or designed landscapes, etc. Representative photographs of the exteriors shall be taken and included in the DPR Form/technical report.

### **9.1.4 Archival Research**

The research may use sources including county records, historical aerials, historical USGS topographic maps, General Land Office (GLO) Plat maps and patent records, available permits and assessor property

records, in an attempt to gather historical property and building information relevant to the construction and use of the building. Archival research may also be conducted to gather more detailed property history and information regarding owners and residents (directory listings and chains of title), the use of the building, architectural designs and styles, and other history, as necessary.

The following resources should be consulted, if available and appropriate, as part of the archival research conducted in preparation of the DPR Form (the list is not exhaustive):

- *California Inventory of Historic Resources*
- The National Register Information System
- *California Historical Landmarks*
- Office of Historic Preservation’s *Built Environment Resources Directory* (BERD)
- *Historic Spots in California* (Kyle 2002) and relevant publications on local history
- The City of Carlsbad historic resources inventory (see Policy 7-P.1 of Goal 7-G-1 of the General Plan) or other relevant documents including but not limited to other city document inventories and building permits, etc.
- Local historical societies and relevant online repositories including ancestry.com and newspapers.com for census records, city directory listings and historic period articles, etc.
- Historical aerial photographs and historical maps to provide information on the past land uses of the property and locations of historical buildings
- County Assessor records
- Chain of title showing historical ownership

All archival research efforts, regardless of outcome and particularly if such research failed to yield information on cultural resources, should be documented in the DPR Form and/or technical report, including the name of repositories and any personnel assisting in the research, the date that the research was conducted, the individual conducting the research, and what sources were consulted or reviewed.

## **9.1.5 Evaluations of Significance**

### **9.1.5.1 Properties Exempt from Evaluation of Eligibility**

Buildings, structures, and facilities less than 45 years old at the time of study are exempt from evaluation as modern resources, unless previously determined to be historically significant or unless determined by a qualified professional to be of exceptional significance and meeting Criterion Consideration (g) of the NRHP (a property achieving significance within the past 50 years and is thereby subject to the guidance in National Register Bulletin 22 [Sherfy and Luce 1979, rev. 1998]) or to meet other Criteria Considerations listed in National Register Bulletin 15 (NPS 1997a). A previous evaluation of

significance for such a property that is more than five years old shall be subject to an update prepared by a consultant meeting applicable PQS.

#### **9.1.5.2 General Methods**

All evaluations of eligibility shall be conducted relative to all of the NRHP and CRHR eligibility criteria and city significance criteria (Title 22, Sections 22.06.020 and/or 22.06.030), regardless of the type of resource. Such resources include historic, archaeological, cultural, and tribal cultural resources.

#### **9.1.5.3 Architectural History and Built Environment**

Evaluation of eligibility for a built environment resource cannot be completed until evaluated within its historic context. Developing a historic context generally begins with compiling information from sources on relevant historical themes. National Register Bulletin 15 defines a theme as “a means of organizing properties into coherent patterns based on elements such as environment, social/ethnic groups, transportation networks, technology, or political developments that have influenced the development of an area during one or more periods of prehistory or history. A theme is considered significant if it can be demonstrated, through scholarly research, to be important in American history.” Historical research, scaled appropriately for the size and nature of the undertaking, should be conducted to identify and develop the appropriate themes to determine whether those themes are significant and to establish the context within which to assess significance of the built environment or for archaeological resources. If a significant historic context is identified by the qualified professional, then evaluation requires an identification of the essential physical features, commonly referred to as “character-defining features,” that must be present to represent the property’s significance under the identified historical significance criteria. Following procedures outlined by OHP and NPS, the qualified professional must determine if the character-defining features are visible enough to convey their significance, often through a comparison of archival materials or similar properties elsewhere; determine which aspects of integrity are particularly important to the property and if they are present; and, if present, with what period of significance the resource is associated.

#### **9.1.5.4 Historic Districts**

As described in Section 2.4, a historic district in the City of Carlsbad is “a geographic area which possesses a significant concentration, linkage, or continuity of improvements united historically, culturally, or architecturally by plan, history, or physical development.” When determining whether or not a district is present, consideration must be paid to whether or not individual buildings or sites contribute to the significance of the district as a whole. Contributing elements are those that possess some aspect that reflect the significance or historic theme, such as a common architectural style or relation to a pattern of historic events. Non-contributing elements are often not associated with the district’s period of significance (typically built later), or may be associated with the period of significance, but may be minor structures or heavily remodeled such that they fail to convey the significance of the district as a whole. Elements may or may not also be individually significant.

#### **9.1.6 DPR 523 Forms and Technical Reports**

The minimum requirement for a site that contains buildings, structures or objects that are at least 45 years old is a DPR Form completed by a qualified professional, unless exempt per Section 9.1.5.1 above. At the City’s discretion, a full historic resource evaluation technical report including the DPR Form as an appendix may be required for any site following review of the initial DPR Form. However, a full historic

resource evaluation technical report is required for initial submittal of sites identified by the qualified professional as potentially historically significant under federal, state, or city criteria. The DPR Form shall be prepared following professional industry standards and best practices, and shall address the property’s improvements, as defined by Title 22, Section 22.02.040.

The DPR form shall include at minimum the Primary and the Building, Structure and Object records with Continuation sheets or other record forms as appropriate. Content shall include a detailed physical description with captioned and referenced current photographs, historic context and background of the property, and evaluation of significance under federal, state and local criteria with the appropriate National Register status code. Backup material such as historic photos, historic aerials, permits, and County Assessor Building Record, etc., may be included in a brief appendix. If the DPR form is an update to a prior evaluation, then a Continuation sheet shall be prepared for attachment with a copy of the original DPR form. The form(s) shall be submitted to the City with a brief cover letter and resume of the preparer’s qualifications. The DPR Form shall be submitted to the city for acceptance prior to discretionary or administrative project CEQA review.

Historic resource evaluation technical reports shall be prepared by a professionally qualified consultant as part of the CEQA documentation for the project. Such a technical report will generally be required for identified potential historic districts, and for historic resource designation requests. The technical report shall additionally address impacts and mitigation measures (see Section 9.3 below). Moreover, potential historic districts identified by the qualified professional shall require a full technical report with DPR Forms attached for all contributors and non-contributors within the potential historic district boundary.

Lastly, in the event that a project is subject to Section 106, a technical report shall be prepared in accordance with the Advisory Council on Historic Preservation guidance to the satisfaction of the pertinent federal permitting/funding agency and OHP.

## **9.2 ARCHAEOLOGICAL AND TRIBAL CULTURAL RESOURCES**

### **9.2.1 Sensitivity Model Review**

In determining the need for an archaeological resource evaluation, the city shall first review the archaeological sensitivity model map to determine the sensitivity of the project for archaeological resources, as well as tribal cultural resources. In the event that the project is wholly located within an area of low sensitivity for these types of resources and the project site or location of work has not been previously graded or otherwise disturbed, the city shall require the applicant to retain a professionally qualified consultant to first request a records search from the SCIC at San Diego State University. The SCIC is a clearinghouse (part of the CHRIS) that contains previous cultural resources reports, site records, historic maps, text, and lists of historically important sites, buildings, districts, and other locations. The SCIC results may indicate that the project area has never been surveyed by a qualified professional. In those cases, the city shall require the implementation of a survey using professionally qualified consultants.

If the review of the sensitivity models reflects either moderate or high sensitivity, the city shall require a professionally qualified consultant to be retained to carry out a records search and literature review with SCIC, and any additional survey or evaluation that may be required based on the qualified consultant’s professional judgement, as well as the recommendations of consulting TCA tribe(s) for the project. Regardless of whether or not a project site lies within an identified moderate or high sensitivity

area, staff may require a cultural resource assessment based on staff discretion and the unique circumstances associated with a given project proposal.

## **9.2.2 Records Searches and Literature Reviews**

All archival research conducted as part of identification efforts for a particular project area within the boundaries of the city shall begin with a record search and literature review at the SCIC. All records searches must be no more than one year old at the time of submission to the city.

The records search must include the project under consideration. The consultant, meeting the applicable PQS shall utilize best judgment for the review of a radius around the project area.

In addition to the site records and reports on file at the SCIC, the Office of Historic Preservation's Historic Property Data File (HPDF) for San Diego County, on file at the SCIC, should be consulted to obtain an inventory of evaluated resources from the historic period. The California Historical Resource Status Codes (OHP 2004, plus updates) for each inventoried resource in the HPDF in the records search radius should be consulted to determine if the resource has been determined eligible for, or listed in, the NRHP or the CRHR.

In addition to information from the records search at the SCIC, the following sources should be consulted, if available and appropriate:

- *California Inventory of Historic Resources*
- The National Register Information System
- *California Historical Landmarks*
- *Historic Spots in California* (Kyle 2002)
- Historic GLO land patent records and plat maps available from the BLM's General Land Office Records
- The City of Carlsbad historic resources inventory (see Policy 7-P.1 of Goal 7-G-1 of the General Plan) or other relevant documents including but not limited to other city document inventories and building permits, etc.
- Caltrans Bridge Local and State Inventories
- *Handbook of North American Indians* for lists and maps of nearby Native American villages
- Local historical societies
- Historical aerial photographs and historical maps to provide information on the past land uses of the property and locations of historical buildings
- County Assessor records
- Ethnographic research and studies

- Elder testimony
- Oral history
- Tribal government archival information
- Testimony of a qualified archaeologist certified by the relevant Tribe
- Testimony of an expert certified by the relevant Tribe
- Tribal government declarations or resolutions
- Statement from a certified Tribal Historic Preservation Officer
- Historical/anthropological records

All archival research efforts, regardless of outcome and particularly if such research failed to yield information on cultural resources, should be documented in the technical report, including the name of repository and any personnel assisting in the research, the date that the research was conducted, the individual conducting the research, and what sources were consulted or reviewed.

The reporting of records search results within technical reports must include the title and author of each report, its SCIC report number, author, and date. In addition, technical reports must include an accounting of all previously-recorded resources within the records search radius, and whether or not each is located within the project area. Given privacy concerns surrounding the distribution of records search information for property that is not included in the project, the results of the records search for the radius around the project area shall not be transmitted to the city or any third party.

As part of the identification efforts, the NAHC should be contacted to carry out a search of the Sacred Lands File. The NAHC holds files containing information about sacred lands and other cultural resources of importance to Native Americans. The NAHC will also provide lists of Native American contacts that may be able to provide information about Native American cultural resources in and near the project area, should the AB 52 process not result in tribal comment on TCRs. The list should be forwarded to any federal agencies that will carry out Section 106 consultation.

### **9.2.3 Field Surveys**

All surveys must be conducted using the Secretary of the Interior’s standards for the identification of Historic Properties, including any future updates, and in accordance with these Guidelines. For archaeological surveys, fieldwork must be systematic and pedestrian, using parallel transects no more than 15 meters apart, unless wider transect widths are justified by the PI. Vehicular, All Terrain Vehicle, or horseback surveys are not permitted for survey or identification; however, consultants who are only using such means to transport themselves to a site location for a site-specific investigation may utilize any method of transportation that is acceptable to the landowner. For surveys of the built environment, typically a pedestrian survey will be conducted, but can include combination of a vehicular survey if appropriate at the discretion of the qualified professional consultant. Field surveys are generally considered valid for five years, and a new or an updated survey will be required for surveys older than five years. However, should a case be made to the city that demonstrates: 1) that the ground conditions have not changed since a previous, older survey; 2) that no additional sites and/or resources have been

identified within one-quarter mile of the survey area; and 3) that the methods used in older surveys are consistent with these guidelines, then an updated survey may not be required.

In accordance with Council Policy No. 83, it is the city's policy that TCA Tribes be invited to participate in all archaeological pedestrian field surveys. Moreover, it is the city's policy that any archaeological fieldwork that disturbs the ground shall be carried out in coordination with a Native American monitor representing a TCA tribe, under the following parameters. Cultural resources surveys that are intended to inventory built environment resources only (not archaeology) are exempt from this requirement.

- If the city is the project proponent, then the city's archaeological consultant shall provide written proof, upon contract or task order award, that a TCA Native American monitor has been invited to participate in the archaeological pedestrian field survey, and retained in the event that ground-disturbing archaeological fieldwork is required.
- If the city is not the project proponent but is only serving as the lead agency under CEQA, and the proponent or property owner retains the services of an archaeologist to survey his or her property and no documentation of outreach or participation by a TCA Native American monitor can be provided, then the archaeological inventory shall be deemed incomplete until outreach to the tribe, and a tribal survey if requested by the tribe, is carried out. If the proponent or property owner's consultant archaeologist conducts archaeological fieldwork that disturbs the ground and no documentation of participation by a TCA Native American monitor can be provided (subject to the exception below), then the archaeological inventory shall be deemed incomplete until a tribal survey is carried out.
- In the event that a TCA Native American monitor elects to not participate in the archaeological field survey or does not report at the agreed upon time and location, then the survey may proceed without the monitor present and the resulting technical study shall be deemed complete with the incorporation of documentation demonstrating reasonable and good faith effort to include a TCA Native American monitor. In such a case, the tribe shall be provided a copy of the archaeological inventory report for review and comment prior to submittal to the city.

Site recording shall include any physical evidence of human activities over 45 years old. Any cultural resource that contains at least three artifacts in a 10-square-meter area or consists of one or more features should be considered a site. Any indications of cultural presence in the project area that fail to meet the definition of a site should be recorded as isolates or noted on a location map. The PI shall exercise professional judgment when drawing site boundaries and in recording resources, which must be justified in the technical report.

#### **9.2.4 Site Records and Survey Reports**

Site recording, or updates to previously recorded sites, shall be documented by the qualified professional using the most current revision of the California OHP's DPR 523 series Historical Resources Inventory forms (DPR Form) following the *Instructions for Recording Historical Resources* (OHP 1995). Photography and submeter Global Positioning System (GPS) precision for mapping of site boundaries is strongly encouraged. All completed DPR 523 forms should be sent by the qualified professional to the SCIC as soon as possible, so that primary numbers and trinomials (if appropriate) can be assigned, which will then be included in the technical reports in place of the temporary numbers assigned in the field.

Survey or inventory reports for all required archaeological surveys of a project area shall be prepared in a manner consistent with the California OHP’s Archaeological Resource Management Reports: Recommended Contents and Format, the “Secretary of the Interior’s Standards and Guidelines for Identification” (48 FR 44720-23; NPS 1998), and the NPS’s publication, “The Archeological Survey: Methods and Uses” (1978: Government Publishing Office [GPO] stock #024-016-00091).

## **9.2.5 Evaluations of Significance**

### **9.2.5.1 Properties Exempt from Evaluation of Eligibility**

Structures, objects and facilities less than 45 years old at the time of study are exempt from evaluation as modern resources, unless determined to be of exceptional significance and meeting Criterion Consideration (g) of the NRHP (*A property achieving significance within the past 50 years and is thereby subject to the guidance in National Register Bulletin 22* [Sherfy and Luce 1979, rev. 1998]). Historic archaeological sites that consist of refuse dumps containing only surface items that are less than 45 years old are also exempt from evaluation.

### **9.2.5.2 General Methods**

All evaluations of eligibility for cultural and tribal cultural resources shall be conducted relative to all of the NRHP, CRHR and local eligibility criteria, regardless of the type of resource.

### **9.2.5.3 Archival Research**

For historic-era archaeological sites, additional property-specific archival research may be required, beyond that which is conducted generally during an inventory or survey. The research may use sources including county records, historical aerials, historical USGS topographic maps, GLO Plat maps and patent records, and assessor property records in an attempt to gather historical property and structure information relevant to the use of the site. Archival research may also be conducted to gather more detailed information regarding the history and use of the property, as necessary.

### **9.2.5.4 Historic Districts**

As described in Section 2.4, an archaeological district is “a significant concentration, linkage, or continuity of sites important in history or prehistory” by plan or by physical development (Keller and Keller n.d.; OHP 1995). When determining whether or not a district is present, consideration must be paid to whether or not individual structures, objects or sites contribute to the significance of the district as a whole. Contributing elements are those that possess some aspect that reflects the significance or historic theme. Non-contributing elements may be associated with the period of significance of the district but may be minor or heavily remodeled such that they fail to convey the significance of the district as a whole. Elements may or may not also be individually significant. The consulting tribe(s) for a project that includes a potential historic district that is archaeological in nature must be consulted regarding the significance of the district, as well as impacts and proposed treatment measures.

### **9.2.5.5 Archaeological Excavation**

In all cases where evaluation of eligibility of cultural resources cannot be ascertained from survey-level data alone, and when impacts to the resource cannot be avoided through project design and thus archaeological testing is necessary, the PI, in consultation with the consulting TCA Native American

tribe(s), shall prepare and implement a testing program to guide evaluation of cultural resources using research themes and questions, as presented below. The testing program should be consistent with the “Secretary of the Interior’s Standards and Guidelines for Evaluation” (48 FR 44723- 26; NPS 1998).

Prior to the initiation of subsurface excavation, the PI shall review utility maps, when appropriate, to determine what areas lack subsurface integrity due to utility trenches or past earth-moving activities. The PI shall utilize Underground Service Alert (USA) North services (<http://www.usanorth.org/>; 1-800-227-2600) to assist in the identification of subsurface utility lines, in accordance with state law.

Any archaeological testing shall be limited to disturbing the surface area only to the extent needed to determine research potential for National Register eligibility or for other specified management purposes. Generally, disturbance should be no more than 5 percent of the surface area of the resource or four cubic meters, whichever is less. No complete (100 percent) surface collections are allowed under these Guidelines for evaluations of eligibility in order to avoid a significant effect during testing. Suggested subsurface testing methods include shovel test pits (STPs) or augering placed systematically across the site and one by one meter excavation units. Testing must proceed downward until either culturally-sterile soil is encountered, or, if possible, the maximum depth of project disturbance is reached, so that the full extent of impacts is understood early. If the full extent cannot be tested for any reason, then monitoring may be required during ground-disturbance. Even after testing, if new deposits are found, previously unknown during testing, then unanticipated discovery measures would apply.

The following documentation should be prepared during all excavation work: (1) general site photographs taken before, during, and at the completion of excavation work; (2) photographs of at least one wall of every excavation unit and all features; (3) excavation records and field notes for each unit, level, and feature; (4) individual feature records; (5) scale profile drawings of unit walls with associated Munsell soil color readings; and (6) photograph record forms, field catalog forms, and sample artifact catalog forms (may be combined with field catalog forms).

#### **9.2.5.6 Research Topics and Questions for Archaeological Sites**

The significance of a historic property can be assessed only when it is evaluated within its historic context. Developing a historical context generally begins with compiling information from sources on relevant historical themes. National Register Bulletin 15 defines a theme as “a means of organizing properties into coherent patterns based on elements such as environment, social/ethnic groups, transportation networks, technology, or political developments that have influenced the development of an area during one or more periods of prehistory or history. A theme is considered significant if it can be demonstrated, through scholarly research, to be important in American history.” Historical research, scaled appropriately for the size and nature of the undertaking, should be conducted to identify and develop the appropriate themes, to determine whether those themes are significant, and to establish the context within which to assess significance of the built environment or for archaeological resources.

The California OHP requires the use of a research design that “should present important research questions recognized for the region and relevant to the study, based on previous research” (OHP 1989:9). Research questions serve to guide research methods and to assess the potential for the recovery of scientifically valid data, ethnographic background, or oral history that are likely to satisfy any of the four CRHR and NRHP criteria. Sources of data sought in the evaluations of eligibility shall be selected by the PI, using professional judgment and in consultation with the consulting TCA tribe(s), as appropriate for the nature and type of the resource being evaluated and may vary according to criterion

and resource. Sources may include, but are not limited to: archaeological data; architectural style; records, maps, and historical accounts in the archival record; oral history information; ethnographic and precontact contexts, and comments from TCA tribes. Comments from tribes can only be included in the consultation and administrative record if express permission has been granted by the commenting tribe. For documentation of compliance with AB 52 or SB 18, the city may maintain a confidential (non-public) administrative record of tribal comments, when such comments have been identified by the tribe as being restricted from public distribution.

Following are examples of research themes and questions; however, the PI will utilize professional judgement in developing the research design that is appropriate for the resource being evaluated. Research themes and questions may be suggested by consulting tribes and shall be taken into consideration during the testing. In the event that testing is not supported, then evaluations of eligibility shall utilize all other available data and may result in an assumption of eligibility for the purpose of the project only.

### **Precontact Sites**

Research topics for the precontact sites in the project area include activities and site function, internal site organization, subsistence patterns, and chronology and temporal patterning.

Activities and Site Function. Collecting site function and activities data is an important research theme in regard to explaining the past. Cultural material and feature data could explain the relationship between humans and their environment. Research questions could include:

- Is there a full range of activities represented, such as would be characteristic of a habitation site, or is there only a limited set of activities characteristic of a location? For example, are activities limited to resource procurement, or do they represent more permanent occupation?
- Is there evidence of flaked stone tool use?
- Is there evidence of flaked stone tool manufacturing?
- Is there evidence of food processing?
- Is there evidence of food preparation and cooking?
- Is there evidence of overnight stays?
- Is there evidence for flaked stone tool production and what techniques were used?
- Is there evidence for ceremonial activity?
- Do the site activities suggest a contribution to broad settlement patterns or mobility patterns?

Data requirements to address these questions include tools classified functionally and debitage classified technologically. If subsurface features (hearths, ovens) are present, the type and number of features will also help address these questions.

Internal Site Organization. Habitation sites are often composed of features that can be ascribed to living, food processing, refuse, religion or ceremonial functions, and many other aspects of precontact society. Identification of such features, and analysis of the internal site organization, can give insight into the social organization. Pertinent research questions could include:

- Are there distinct manufacturing, processing, food preparation, or ceremonial areas within the site?
- Were male and female activities conducted in different areas of a site?
- If bedrock milling features are present, are distinct activity areas associated with each outcrop containing bedrock milling features, or was a single activity area used by everyone using any of the bedrock milling features at the site?
- Does the arrangement of the features within the site suggest a broader precontact community design or sense of planning?

Data requirements include maps of the spatial distribution of tools, debitage, subsistence remains, and features. If the site is small and there are few categories that do not vary spatially, this domain cannot be addressed.

Subsistence Patterns. How precontact populations acquired food and water is a fundamental question studied by archaeology. While reflections of subsistence patterns are found in various features within habitation sites, such as hearths and midden deposits, reconstruction of subsistence systems often require information from multiple sites. These kinds of patterns may be indicative of eligibility under NRHP Criterion A or CRHR Criterion 1. Research questions could include:

- Where were the food procurement locations utilized by the occupants of the site?
- What resources were brought to the sites, and were they processed, prepared, or consumed at the site?
- Is there evidence for specialization or intensification of resource use?
- Are subsistence strategies narrowly focused on a few resources, or are they broad-based?
- Do subsistence strategies change through time?
- Can changes in the natural or cultural environment account for change?
- Do the site activities suggest a contribution to broad subsistence patterns or mobility patterns?

Specialization would be indicated by large numbers of the remains of a few species. Intensification would be indicated by reliance on resources that require greater amounts of labor to procure or process. Data categories necessary to address these questions include faunal remains, protein and blood residue analysis, artifact use-wear analysis, and landscape-site associations.

**Chronology and Temporal Patterning.** In order for archaeologists to study cultural similarities and differences in cultures of the past, they must first put sites in temporal order. Patterns may be indicative of eligibility under NRHP Criterion A or CRHR Criterion 1. Research questions could include:

- Can the site be assigned to a particular period, complex, or phase?
- Were the sites used at the same time as other nearby sites or sequentially?
- Were the sites used continuously for a short or long period of time?
- Were there periods of time when the sites were not used (continuous occupation or periodic abandonment)?
- What portions of local chronological sequences are represented by cultural resources in the project area?
- What are the chronological ranges for particular projectile point types?
- Can we identify chronological patterns in lithic raw material procurement practices or flaking technologies? If so, can these be used to date sites lacking other diagnostic artifacts?
- Do significant correlations exist between the timing of climatic shifts and technological innovations?
- Do the sites suggest a contribution to broad cultural change?

Chronological dating of sites often relies on the presence of subsurface material rather than surface material alone. Substantial subsurface material combined with a necessary degree of site integrity and preservation may aid in the dating of the archaeological site. Sites most likely to contribute to this theme include habitation sites that may contain thermal features, refuse deposits, and stratified middens. These sites may contain stone artifacts, such as projectile points, with temporally indicative stylistic characteristics. Also, charcoal, animal bone, and shell may be dated by radiocarbon assay. Some indication of the time range (relative dating) for obsidian artifacts may be obtained from measurement of obsidian hydration rinds.

**Trade and Exchange.** Archaeological information about trade and exchange comes mostly from exotic lithic and shell materials. These are materials with no known local source that must have been obtained from elsewhere through trade or exchange. Research questions could include:

- What inferences about mode of exchange can be made between the site area and the source area(s)?
- Do exotic artifacts present at the site reflect inter-tribal relationships or broad patterns of mobility or settlement?

### **Historic Archaeological Sites**

Material from rural archaeological sites from the nineteenth and early twentieth centuries can provide information about the developing domestic economy of farmsteads and ranches, changes in socio-

economic status, and changes in the spatial organization of activities within the farmstead. Early settlers may have been relatively self-sufficient, producing most food for their own consumption on the farm. Over time they may have increasingly participated in the developing market economy, exchanging their agricultural products for manufactured goods obtained from towns. Some farmers/ranchers may have specialized in a single crop or product and ceased to produce food for domestic consumption, obtaining all food from stores in the nearest town. The socio-economic status of rural residents may also have changed, based on increased access to markets for their agricultural products and changing commodity prices. By about 1920, most rural residents fully participated in the national economic system and agriculture had become mechanized. For the period after about 1920, there is little information that historical archaeology can provide about rural ranching and farming that is not already known from historical sources.

Research topics could include:

- Self-sufficiency versus participation in a market economy. Were food and household items produced on the farm or obtained from local, regional, or national sources? Did the degree of self-sufficiency decrease over time?
- Socio-economic status. What was the socio-economic status of rural residents, as reflected in material possessions? Did socio-economic status change over time?
- Organization of activities. What was the spatial organization of activities within the farmstead and did this change over time in conjunction with increased production for the market?

More specific research questions should be developed based on the historic context for the resource being evaluated.

Data categories necessary to address the research topics and questions include artifacts from before 1920 classified functionally. Technological attributes will provide a date range. Features, such as foundations, wells, privies, pits, walls, and fences will provide information on the organization of activities.

#### **9.2.5.7 Evaluation Reports**

Evaluation reports for archaeological sites will provide a precontact or historic context for the resource(s) evaluated, the methods employed, the results of archival research, the results of subsurface testing, and an evaluation of the resource using all four NRHP and CRHR eligibility criteria. Note that tribal consultation by the agency may be required in order to complete the evaluations, and so any partial evaluations advanced by consultants during pre-project planning studies must clearly identify any resources that require consultation to complete. As previously addressed, proposed research topics, as well as field and laboratory methods should be discussed with the consulting TCA tribe(s) prior to implementation of the evaluation program.

### **9.3 IMPACT ANALYSES AND MITIGATION MEASURES**

#### **9.3.1 Thresholds**

In the event that any cultural resources or tribal cultural resources are found to be eligible for either the CRHR, NRHP, City of Carlsbad Register, or all three (hereafter, “eligible cultural resources”), then an

impact assessment must be conducted, as described below. Assessment of impacts to non-eligible cultural resources, as required by CEQA (unique archaeological resources) and National Environmental Policy Act (NEPA) will be addressed separately by the project’s CEQA and NEPA documentation.

As discussed in Section 3, the determination of whether or not a historical resource under CEQA will be significantly affected by a project parallels the comparable process under federal law. A significant impact under CEQA, or an adverse effect under Section 106, occurs when a project may alter, directly or indirectly, any of the characteristics of a resource that negatively affect its significance. These include reasonably foreseeable effects caused by the project, or those that may occur later in time or those that may be cumulative. Examples of adverse effects include, but are not limited to: physical destruction or damage to all or part of the property; alteration, restoration, rehabilitation, repair, maintenance, stabilization, or remediation; removal of the property from its historic location; change of the character or physical features; introduction of visual, atmospheric, or audible elements; neglect; or transfer, lease, or sale out of federal ownership (36 CFR 800.5[a][2] et seq.).

It is important to be specific as to the effect that will occur to the resource. This will assist in the determination of impact significance and, if warranted, the measures that are appropriate to mitigate the impact. Adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the SOI’s standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance.

In addition, impacts to a Historical Resource (as defined by CEQA) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)].

Therefore, the PI, in consultation with the city, project applicant, and, if applicable, TCA Tribes, shall make a recommendation as to whether or not the project will have a significant impact on a cultural resource; the city will make the final determination regarding the significance of impacts. This

determination may be combined with an evaluation of eligibility report if sufficient information exists to make a determination of effect.

For the purpose of these Guidelines, there are three categories of measures: Standard Conditions (for complete avoidance and preservation); Standard Treatment Measures (agreed-upon mitigation that will minimize or mitigate adverse effect without further review); and Non-Standard Treatment Measures (for other mitigation measures that are atypical, require phased implementation, or are otherwise not accounted for herein). The findings are summarized below and the following section provides details of each condition.

- If there are eligible cultural resources within the project area that will not be affected by the project because the criteria for adverse effect are not met, then the report shall specify a finding of “No Adverse Effect to Historic Properties” for Section 106 and/or “No Significant Impact to Historical Resources” under CEQA. The CEQA document findings would be “Less Than Significant Impact to Historical Resources.”
- If there are eligible cultural resources within the project area that will not be affected by the project because of the incorporation of Standard Conditions presented in the following section, then the report shall specify a finding of “No Adverse Effect to Historic Properties, with Standard Conditions” for Section 106, and/or “No Significant Impact to Historical Resources, with Standard Conditions” under CEQA. This finding applies only to complete avoidance and preservation of eligible resources. The standard conditions must be included in the CEQA document as mitigation measures or conditions of approval. The CEQA document findings would be “Less Than Significant Impact with Mitigation Measures Incorporated.”
- If there are eligible cultural resources within the project area that will be adversely affected by the project and the Applicant has determined that one or more of the Standard Treatment Measures provided in the following section will minimize or mitigate adverse effect, then the report shall specify a finding of “Adverse Effect to Historic Properties, with Standard Treatment Measures” and/or “Significant Impact to Historical Resources, with Standard Treatment Measures.” The standard treatment measures must be included in the CEQA document as mitigation measures or conditions of approval. The CEQA document findings would also be “Less Than Significant Impact with Mitigation Measures Incorporated.”
- If there are eligible cultural resources within the project area that will be adversely affected by the project, and the Applicant has determined that Non-Standard Treatment Measures are required to minimize or mitigate adverse effect, then the report shall specify a finding of “Adverse Effect to Historic Properties, with Non-Standard Treatment Measures” and/or “Significant Impact to Historical Resources, with Non-Standard Treatment Measures.” A treatment plan must be prepared to specify the non-standard mitigation, phased mitigation, or other circumstances not accounted for in the standard treatment measures. The CEQA document findings would also be “Less Than Significant Impact with Mitigation Measures Incorporated.”

If there are eligible cultural resources within the project area that will be adversely affected by the project, and the city has determined that, even with Standard Conditions, Standard Treatment Measures, and/or Non-Standard Treatment Measures incorporated, adverse effects will not be minimized or mitigated, then the report shall specify a finding of “Adverse Effect to Historic Properties”

for Section 106 and/or “Significant Impact to Historical Resources” under CEQA. A treatment plan must be prepared to specify the non-standard mitigation, phased mitigation, or other circumstances not accounted for in the standard treatment measures. The CEQA document findings would also be “Less Than Significant Impact with Mitigation Measures Incorporated.”

## **9.3.2 Preferred Treatment Options and Mitigation Measures**

### **9.3.2.1 Standard Conditions**

Avoidance is the preferred treatment method for all eligible cultural resources, including archaeological sites, TCPs, TCRs, historic structures, and ethnographic landscapes. The project proponent for a specific project area must consider redesigning the development project to avoid adverse effects to resources. This could include converting a lot that had been planned for residential development to open space designation or redesigning a road to curve around a Historic Property. However, not all eligible cultural resources can be avoided; if such redesign is not feasible, then the Applicant may be asked to justify why that is the case prior to project approval or permit issuance, and this may require additional consultation with interested parties and TCA Tribes. Please also see Section 8.2.2 for treatment options and mitigation measures specifically designed to protect tribal cultural resources.

#### **Standard Condition 1: Conservation Easement**

Avoidance and preservation of eligible cultural resources can only be accomplished when a legal mechanism prevents future development and there are appropriate measures in place for long-term maintenance. For archaeological resources on privately owned property, this will require the dedication of a conservation easement over the site, recorded with the county, to restrict development in perpetuity. The easement may be held either by the city, the county, a non-profit corporation, or a TCA tribe, as long as the land owner and the easement holder are not the same. For archaeological resources on city-owned property, this will require the placement of a deed restriction and incorporation into the appropriate city department’s operations and management plan (O&M Plan). For archaeological resources within public rights-of-way or under roadways, where a legal encumbrance is not possible, then the city Planning Division shall note the confidential location both on the archaeological sensitivity model and in a confidential section of the project’s file, and all future projects in that location shall be subject to additional tribal consultation prior to ground disturbance.

Management of the preserved site will be the responsibility of a qualified third-party preserve manager (which also may be the city, the county, a non-profit corporation, or a TCA tribe) and in accordance with the applicable O&M Plan with sufficient long-term funding. Management shall include but is not limited to the following measures, as deemed appropriate: fence and gate repair; sign replacement; regular monitoring and associated reporting by a professional archaeologist for damage; erosion control; trash removal; vegetation and weed control; security patrols; vandalism abatement; and removal of trespassers. No signs indicating the presence of tribal cultural resources shall be permitted. In addition, the following activities are prohibited within the boundaries of preserved sites, unless otherwise agreed to by the consulting TCA tribe(s), even if such activities are permissible in other areas of larger biological or open space preserves, within which the site may be located:

- Unseasonable watering; use of fertilizers, pesticides, biocides, herbicides or other agricultural chemicals
- Use of off-road vehicles and use of other motorized vehicles except on existing roadways

- Agricultural cultivation activity of any kind
- Recreational activities, including, but not limited to, camping, with the exception of the use of a pedestrian trail adjacent to the site boundaries
- Construction, reconstruction, erecting or placement of any building, billboard or sign (except for that which is designed to keep the public out), or any other structure or improvement
- Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials
- Lighting fires, incendiary devices, or flammable substances
- Planting, introduction, or dispersal of nonnative or exotic plant or animal species (animal grazing is permitted for fire control)
- Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting artifacts, minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the sites, or granting or authorizing surface entry for any of these purposes
- Altering the surface or general topography of the sites, including but not limited to any alterations to habitat, building roads or trails, over paving or otherwise covering the sites with concrete, asphalt or any other impervious material, except for capping as described below or another form of capping with no objection from the consulting TCA tribe(s)
- Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required by law for fire control and prevention or treatment of disease
- Mechanical or chemical weed abatement activities (hand and grazing methods are acceptable)
- Manipulating, impounding or altering any natural water course, body of water or water circulation on the sites, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters
- Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, permit conditions, or applicable policies

Conservation Easements may also be used to preserve resources of the built environment, and the terms and limitations of such easements will need to reflect the type of resources being preserved.

The Applicant shall provide a copy of the recorded Conservation Easement as proof of the restriction of future activities that could affect the integrity of the site. Proof of compliance must be submitted to the City Planner, or city project manager, for a city project, in accordance with the schedule that was agreed upon through consultation.

### **Standard Condition 2: Inadvertent Discoveries**

For projects with no known subsurface resources and a finding of no effect or no impact to cultural resources, the city may apply a condition to require monitoring in the event grading encounters

inadvertent discoveries if deemed to be warranted based on the location, soils, depth of grading or other characteristics.

### **Standard Condition 3: Secretary of the Interior’s Standards**

Often a project involving a historically significant built environment resource will present plans and details that a qualified professional determines are consistent with the Secretary of the Interior’s Standards for the Treatment of Historic Properties (with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings as appropriate for the particular project). When the city concurs and recommends approval of such a project, then a condition of approval will require demonstration of consistency with the Secretary’s Standards throughout the permitting process prior to approval of city final inspections. The condition could require the applicant to procure a third-party inspection report prepared by a qualified professional to confirm consistency if deemed prudent by the city in order to comply with the condition.

#### **9.3.2.2 Standard Treatment Measures (Mitigation)**

If avoidance and preservation of eligible cultural resources is not feasible, then implementing one of the following Standard Treatment Measures may minimize or mitigate adverse effects. If a project will implement one or more of these measures without modification (except where allowed, below), and the agencies, in consultation with the TCA Tribes, determine that no other mitigation is necessary, then the standard treatment measures will become mitigation measures or conditions of approval without the need for developing a separate treatment plan.

In this case, the determination of effect must be explicit about the site-specific requirements for each treatment measure, include a schedule for implementation relative to pre-construction, construction, and post-construction phases, and provide the means by which proof of compliance will be provided. If the city concludes that enough modifications to the measures have occurred that change the following pre-approved measures in a manner than could alter the purposes for which they are intended, then a separate treatment plan may be required to negotiate Non-Standard Treatment Measures. The new treatment plan would supersede the original, voided plan but be implemented in the same timeframe and project phase as the original.

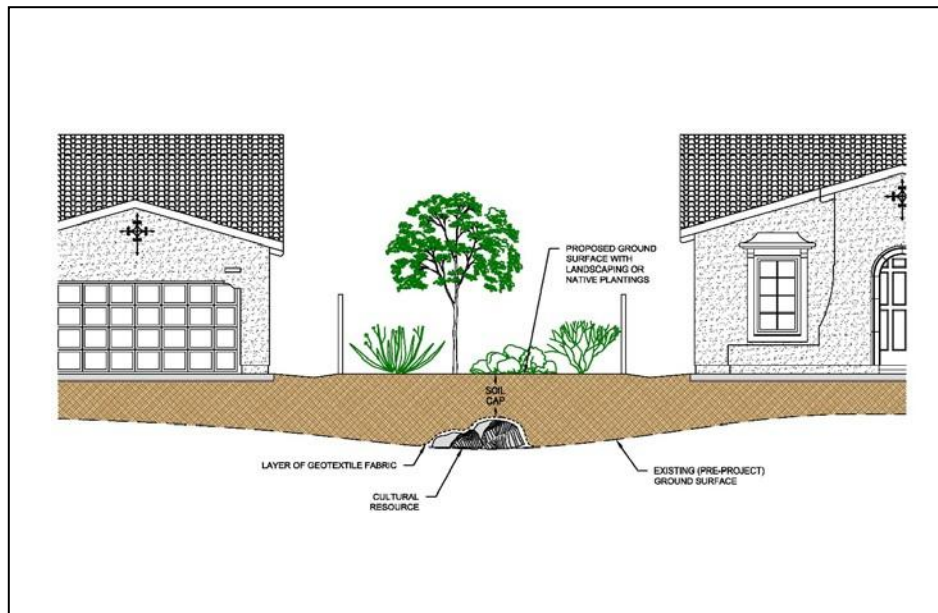
#### **Standard Treatment 1: Capping**

In certain cases, the use of capping with natural materials will be desirable as a supplement to a conservation easement. This could include sites that are located in highly visible areas where public access could otherwise present a risk to the preservation of the site, where existing topography or future grade differentials could cause erosion and stabilization issues, or where there is not sufficient horizontal separation from project activities, but that vertical separation could be achievable. In these scenarios, the use of capping with soil, vegetation, and/or geotextile fabric may be preferred over complete exposure of the site. Figure 5 illustrates this in concept. Exceptions to these guidelines can be negotiated in consultation with all parties.

Where capping is considered an appropriate treatment measure, the following guidelines will be employed:

- The thickness of the soil cap must take into consideration the size and shape of the site, particularly the elevation of above-surface features like bedrock outcrops.

- The methods used to cap the resource must be designed to avoid damage to the resource during the process of installing the cap (such as prohibition of heavy equipment during installation).
- Caps may be covered with vegetation (without invasive root systems) to discourage erosion and unauthorized digging.
- No buildings or structures shall be placed on top of the cap.
- Non-motorized pedestrian paths may be placed over the cap, but only when constructed of natural materials such as bark or pea gravel (i.e., no pavement, brick, imported stone) and only when the entire site is capped by at least 18 inches of soil.
- No signage to indicate the location of a site beneath the cap shall be installed.
- Design and final implementation of the capping plan will be developed and monitored by a qualified professional archaeologist and Native American monitor, when appropriate.
- The area subject to capping must be legally restricted from future development, in perpetuity (with a conservation easement or documented in accordance with Standard Condition #1 above if located within public rights-of-way); however, long-term management can be scaled accordingly.
- As appropriate, the capping should include a combination of layers of culturally-sterile and chemically-compatible soil of different colors and/or the layering of cyclone, chain link, or orange barrier fencing to discourage digging.



**Figure 5. Conceptual capping of a site, in conjunction with a deed restriction (illustration courtesy of Bonadelle Neighborhoods).**

## **Standard Treatment 2: Data Recovery Excavation**

Archaeological sites that are eligible under NRHP Criterion D / CRHR Criterion 4, at minimum, are significant because they possess information that is important in history or prehistory. In such a case, data recovery excavations are one method of mitigating adverse effect. Data recovery may not be appropriate for TCPs or TCRs and shall not be employed over the objection of the tribe or cultural group that associates with the resource. Should data recovery of a Native American site be pursued, then the consulting TCA tribe(s) shall partner with the PI to either propose alternatives to the data recovery plan or coordinate the plan in advance of implementation.

Should data recovery be an appropriate mitigation measure, the finding of effect shall specify the specific sites, number and size of units, and volume of excavation and is subject to city approval. Data recovery of precontact sites cannot be utilized as a Standard Treatment Measure over the objection of TCA tribes.

The data recovery will be documented in a confidential technical report that provides a discussion of the research topics that guided data recovery, discusses the field and laboratory methods employed, describes the recovered artifacts, updates the feature sketch map, and discusses how the recovered material contributed to addressing the research topics. A catalog of the recovered artifacts will be provided in a report appendix.

For historic archaeological sites, a sample of artifacts recovered from each site, not to exceed 10 percent (by artifact count, unless the Principal Investigator recommends another basis for this calculation) of the collection, may be permanently curated at an approved curation facility (see below). The sampling should not be restricted to diagnostics only, but shall represent the full spectrum of cultural materials observed at the site. The remaining 90 percent of collected artifacts shall be offered to a local historical society for incorporation into publicly accessible or educational collections. Unclaimed collections will remain in the possession of the applicant and used as appropriate for public display within the facilities in the development.

For precontact archaeological sites, the standard disposition of collected cultural material shall be returning the cultural material to the consulting TCA tribe(s) for reburial within the project area, or other disposition, as agreed upon by the tribe(s), the Applicant, and the city. If the consulting tribe(s) agree that curation is the preferred treatment, the artifacts and other cultural materials would be curated at a San Diego County facility meeting the requirements of 36 CFR Part 79 (see Section 9.4, Curation).

## **Standard Treatment 3: Project-Specific Public Interpretation and Education**

Any eligible cultural resource may be interpreted for the benefit of the general public through the development and installation of one or more interpretive panel(s) in parks, along trails, or at scenic overlooks. The consultation conducted with TCA tribe(s) would determine whether or not this measure is appropriate for Native American cultural resources. The number, location, and content of the panels shall not disclose the locations of confidential archaeological sites. Panels will measure approximately two feet by three feet and will be displayed along newly constructed trails within the permit area. Panels may be upright (as shown in Figure 6) or may be lower and angled.

Panels will be printed, manufactured, and installed by appropriate and experienced professionals. Immediately following installation, photographs and GPS coordinates of the installed signs will be

provided to the city as proof of compliance with this requirement. Should the subject of the panels or signs be Native American culture, then the consulting TCA tribe(s) shall be afforded an opportunity to review and comment on the draft panels, prior to manufacturing.



**Figure 6. Example of an interpretive panel.**

#### **Standard Treatment 4: Construction Monitoring**

Monitoring by a qualified professional archaeologist, Native American monitor, and/or tribal representative shall only be used after reasonable and good-faith efforts, as determined by the city and through consultation, have been made to identify eligible cultural resources or significant tribal cultural resources prior to project approval. Monitoring can also be used to ensure avoidance of eligible cultural resources or significant tribal resources during ground-disturbing activities. Monitoring is appropriate in the following circumstances (and shall follow the requirements and provisions of Section 8.2.2.4 when tribal cultural resources are involved):

- when buried archaeological or known or potential tribal cultural resources are likely in the vicinity, but their specific location is unknown;
- when ground-disturbing activities will come within 100 feet of a recorded non-tribal eligible cultural resource;
- When within, or within close proximity to, a known or potential TCR;
- when installing or verifying the placement and integrity of temporary exclusionary (orange barrier or silt) fencing around resources that must be avoided; and/or
- when “pioneering” (breaking ground for) temporary/preliminary access roads for geotechnical trenching or boring.

Monitoring is considered a last resort to minimizing or mitigating adverse effects and is not the default treatment for all projects. Any monitoring required must be justified and balanced by a reporting schedule.

#### **Standard Treatment 5: HABS/HAER/HALS-Like Documentation**

The Historic American Building Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscape Survey (HALS) programs are administered by the NPS, in consultation with the federal agency and SHPO. These programs provide documentation for eligible buildings and structures. For the purpose of these Guidelines, federal agencies, NPS, and SHPO are not involved; however, documentation comparable with this program may be utilized. It should be noted that this documentation does not mitigate certain impacts to CEQA-defined Historical Resources to a less-than-significant level.

#### **Standard Treatment 6: CC&Rs**

The collecting, digging, disturbance, or removal of any artifact or other precontact or historic object located in an open space area, conservation easement, a lot subject to a deed restriction, or to any archaeological site or Historic Property that may become unearthed in the future, is prohibited. Notification of such restrictions shall be included in a restrictive type of covenant recorded on each parcel. Homeowners shall not be provided the locations of known cultural resources and archaeological sites, as these are confidential and restricted from public dissemination under state and federal law. A copy of the recorded covenant shall be provided to the city as proof of compliance.

#### **Standard Treatment 7: Tribal Access Agreements**

Upon transfer to the holder of any portion of a conservation easement that is intended to preserve confidential Native American or tribal resources, and upon request from a TCA tribe to gain access to the tribal resource for visitation, the city shall develop a right-of-access authorization for requesting tribes, in cooperation with the landowner. The authorization shall specify the terms under which tribal access can be legally achieved and shall define the acceptable and prohibited uses thereof, and appropriate liability waivers. Use of this Standard Treatment Measure cannot occur over the objection of the private landowner, if applicable.

#### **Standard Treatment 8: Contractor Awareness Training**

There always remains a possibility that unanticipated discoveries may occur during project construction. For this reason, an archaeological sensitivity training program (Contractor Awareness Training) will be developed in conjunction with the TCA monitoring tribe for the project and delivered by a qualified professional archaeologist and Native American monitor during a pre-construction meeting for construction supervisors prior to beginning any ground-disturbing work in the project. The sensitivity training program will provide information about notification procedures when potential archaeological material is discovered, procedures for coordination between construction personnel and monitoring personnel, and information about other treatment or issues that may arise if cultural resources (including human remains) are discovered during project construction. This protocol shall be communicated to all new construction personnel during orientation, prior to the employee beginning ground-disturbing work on the project, and on a poster that is placed in a visible location inside the construction job trailer.

### **Standard Treatment 9: Controlled Grading Procedures**

A program of controlled grading may be implemented during the excavation of soil that is identified as part of a cultural deposit at a particular location. Controlled grading is a method employed to peel away layers of soil to reveal cultural materials in a manner that significantly enhances the opportunity to identify and understand the relationship of artifacts and features within a site. Controlled grading will not be required for soil that is identified as non-cultural formational soil or fill dirt imported to the site. The determination of the transition from cultural soil to formational soil will be made jointly by the project archaeological consultant, the Native American representative, and the project geologist, if applicable.

While project-specific conditions may require modifications to this method, controlled grading generally involves the use of a small piece of equipment or a road grader to peel away native soil using shallow cuts made in approximately five-inch-deep layers. The grading equipment will push the shallow cuts of soil to the outside of the cultural deposit area. This deposited soil may be sampled and screened to ensure adequate detection of any cultural materials that may be present. The project archaeologist and Native American representative will direct the controlled grading process, including the pace of the grading and the depth of layers to be removed. The potential exists that discoveries may temporarily suspend the controlled grading process if significant discoveries are made that require focused archaeological excavations.

As successive layers of the precontact site are exposed, any cultural features or artifact concentrations that are exposed and identified will be excavated as part of the data recovery program. In the event that a human burial or human remains are exposed, the protocol stated in the data recovery program will be implemented. The archaeological monitor and Native American monitor will follow closely behind the grading equipment and mark any cultural material with pin flags. Each artifact will be recorded to provide horizontal and vertical locational data. If no cultural deposits are encountered, the road grader will continue to make passes until one of two conditions are met (whichever occurs first):

- Grading will continue to a depth of 30 centimeters below the depth of any recorded artifacts, suggesting an end to the potential for cultural deposits, or
- Non-cultural formational soils are encountered that predate any human occupation of this location.

Once the cultural deposit has been completely removed, the controlled grading process will be terminated and mass grading may proceed.

### **Standard Treatment 10: Post-Review Discoveries**

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources, even for phases that do not have known resources present. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 100-foot radius of the discovery and the following procedures apply.

A qualified professional archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards for precontact and historic archaeologist, and Tribal Representatives(s) from the TCA Tribe(s) shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment and in consultation with the TCA Native

American tribal representative. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist and the TCA Native American tribal representative determine that the find does not represent a cultural resource, then work may resume immediately and no agency notifications are required.
- If the professional archaeologist and the TCA Native American tribal representative determine that the find does represent a cultural resource from any time period or cultural affiliation, then he or she shall immediately notify the city and applicable landowner. The city shall consult with the other permitting agencies, if applicable, and the TCA tribe(s) on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work cannot resume within the no-work radius until the city, through consultation as appropriate, determines that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, then he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the San Diego County Medical Examiner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and Assembly Bill 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, then the Medical Examiner will notify the Native American Heritage Commission, which then will designate a Native American Most Likely Descendant (MLD) for the project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. Further, pursuant to California PRC Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the landowner does not agree with the recommendations of the MLD, then the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space zoning designation or conservation easement as appropriate; and/or recording a reinterment document with the County in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

### **Standard Treatment 11: CRHR Nomination and Approval**

If a tribal cultural resource(s) is unearthed and the city determines the resource(s) to be significant under CEQA and the associated statutory criteria, in consultation with Tribes, the city may require the project applicant to prepare a completed California Register of Historical Resources (CRHR) nomination packet on required Department of Parks and Recreation forms (DPR forms) and secure review and approval from the State Historic Resources Commission (SHRC) to ensure the listing of such resources on the CRHR.

### 9.3.2.3 Non-Standard Treatment Measures

Based on the number and type of resources within a project, or based on the construction timing of the project, there may be a need to develop and negotiate certain types of conditions or mitigation measures that are not provided for above. These may be alternative ways of resolving adverse effect, may require the phased implementation of mitigation measures for long-term buildout, or may be conditions related to resources that the city and project proponent have agreed upon.

Compensatory mitigation (such as the analysis and proper curation of pre-existing artifact collections) is one such measure; however, in recognizing that no two cultural resources are the same, care must be taken to ensure that such a mitigation measure, if entertained, actually mitigates the impacts caused by a project.

In such circumstances where a non-standard treatment measure is considered, the Applicant shall propose mitigation measures in a treatment plan that is submitted to the city for review and consultation with the other applicable agencies and tribes.

Project proponents with identified historic structures – that are to be preserved, restored and/or rehabilitated in accordance with the Secretary of the Interior’s Standards as part of the project – may desire to take advantage of the Mills Act or other available historic preservation benefit or incentive. A condition could formalize the particular process and intent of the applicant to apply for such benefit(s) or incentive(s) without committing the city to a particular outcome of the application process. For more information on the Mills Act or other benefits and incentives, refer to City of Carlsbad Information Bulletin (IB) 161 Historic Preservation, and to Carlsbad Municipal Code Title 22, Historic Preservation, Chapter 22.10. The Mills Act applies to built environment resources but not to archaeological sites or tribal cultural resources.

## 9.4 CURATION

Should permanent curation be necessary (such as for curation of historic-era archaeological artifacts), archaeological specimens, including their associated documentation (i.e., field notes, photographs, maps, and environmental materials such as pollen, soils, sediments, bone, and shell), shall be curated using the standards set out in 36 CFR Part 79 to the greatest extent that facilities in southern California meet such standards. The San Diego Archaeological Center is the preferred location for curated collections of historic (non-Native American) artifacts and precontact artifacts that are not claimed by a TCA tribe. Other curation facilities may become available in the future. Approval for the use of alternative facilities is at the discretion of the city, in consultation with the applicable federal agencies and SHPO.

Native American human remains, grave goods, items of cultural patrimony, and sacred objects encountered during the undertaking that are located on state or private land shall be treated in accordance with the requirements of Section 7050.5 of the California State Health and Safety Code and Section 5097.98 of the California PRC, which collectively penalize the intentional disturbance or removal of human remains and require that activity stop in the event of a discovery of human remains so that the Medical Examiner and, if applicable, NAHC, can determine the identity and/or historical significance of the find.

## 10.0 PALEONTOLOGICAL RESOURCES PROCEDURES

### 10.1 SENSITIVITY MODEL REVIEW

In reviewing the paleontology sensitivity map or GIS layer, the city shall first determine whether or not the proposed project site is located in an area with no, low, moderate, or high sensitivity. Based on this review and the volume of proposed earthwork, one of several scenarios may apply:

- For projects located entirely within areas of no paleontological sensitivity, the result of the sensitivity model review shall be reported in the CEQA document (for non-exempt projects). No standard conditions or mitigation measures shall apply to the project.
- For projects located in areas of low or moderate paleontological sensitivity with a proposed cut volume (export or remedial grading) of less than 200 cubic yards (CY), the result of the sensitivity model review shall be reported in the CEQA document (for non-exempt projects). Standard conditions for unanticipated discoveries shall apply to the project (see Section 10.4.1).
- For projects located in areas of high paleontological sensitivity with a proposed cut volume (export or remedial grading) of less than 200 CY, the city shall require preparation of a Paleontological Resources Memo (as outlined in Section 10.2).
- For projects located in areas of low, moderate, or high paleontological sensitivity with a proposed cut volume (export or remedial grading) of between 200 and 1,000 CY, the city shall require preparation of a Paleontological Resources Memo (as outlined in Section 10.2).
- For projects located in areas of low, moderate, or high paleontological sensitivity with a proposed cut volume (export or remedial grading) of more than 1,000 CY, the city shall require preparation of a Paleontological Resources Assessment (as outlined in Section 10.3).

### 10.2 PALEONTOLOGICAL RESOURCES MEMO

Based on the results of the sensitivity model review (see above, Section 10.1), the city may require preparation of a memorandum-style letter report by a qualified Principal Paleontologist (as defined in Section 5.3.2). The Paleontological Resources Memo shall include the results of a paleontological records search requested from the San Diego Natural History Museum (SDNHM), a document and literature review, an analysis of potential project impacts to paleontological resources, and recommendations for the project. The SDNHM is the primary institution holding fossils and paleontological records for San Diego County and therefore represents the principal source of information concerning the fossil-bearing geologic units and existing fossil localities within the city of Carlsbad. The paleontological records search area shall include a one-mile radius buffer around the proposed project site.

For proposed projects located in areas entirely mapped as low sensitivity, if there is no reliable evidence that older geologic formations with a moderate or high sensitivity will be impacted during construction (e.g., geotechnical borings demonstrating the thickness of surficial Holocene-age sedimentary deposits

underlying the site, presence of existing fossil localities near the site), the qualified Principal Paleontologist shall err on the side of concluding that no impacts are anticipated.

### **10.3 PALEONTOLOGICAL RESOURCES ASSESSMENT**

Based on the results of the sensitivity model review (see above, Section 10.1), the city may require preparation of a Paleontological Resources Assessment by a qualified Principal Paleontologist (as defined in Section 5.3.2). The Paleontological Resources Assessment shall consist of a technical report that includes the results of a paleontological records search (including a one-mile radius buffer around the proposed project site) requested from the SDNHM, a detailed document and literature review, a detailed assessment of the paleontological resource sensitivity of the geologic units underlying the project site, a detailed analysis of potential project impacts to paleontological resources, and recommendations for the project.

As part of the document review, any available geotechnical studies covering the proposed project site shall be reviewed. Geotechnical studies that include details about the subsurface conditions within the project site (typically obtained through field investigations, including excavation of geotechnical borings and/or trenches) can provide valuable information for the impact analysis (e.g., the extent of previously placed artificial fill, or the thickness of surficial Holocene-age sedimentary deposits overlying more deeply buried older geologic formations). In addition, by comparing grading plans with geotechnical data concerning the location and depth of the various geologic units underlying the project site, it is possible to more precisely determine where and at what depths construction-related impacts to paleontological resources are possible. If unavailable for review when the Paleontological Resources Assessment is being prepared, geotechnical data shall be reviewed by the Principal Paleontologist prior to the start of construction.

During the review process, the necessity of a pedestrian field survey of the proposed project site shall be evaluated based on a review of current aerial imagery (e.g., Google Earth). If aerial imagery indicates that the project site lacks areas where bedrock is or may be exposed, a field survey will likely be of little value. However, if aerial imagery indicates that there may be previously undisturbed strata of the underlying geologic units exposed at the surface within the project site, a field survey may be recommended by the Principal Paleontologist. Any paleontological resources encountered during the field survey shall be recorded in field notes (including GPS coordinates) and photo-documented for inclusion in the Paleontological Resources Assessment. In addition, descriptions of the sediments exposed on the project site shall be included along with a determination as to whether the field survey observations are or are not consistent with the mapped geology depicted in the paleontology sensitivity GIS layer. An evaluation of the potential for specific observed sediments to be conducive to the preservation of fossils shall also be included in the report.

### **10.4 STANDARD CONDITIONS AND MITIGATION MEASURES**

Based on the results of the sensitivity model review by city staff and, if applicable, the impact analysis by a qualified Principal Paleontologist (summarized in the Paleontological Resources Memo or Paleontological Resources Assessment), standard conditions or mitigation measures shall be implemented by the city for the proposed project, as outlined below.

### 10.4.1 No Impacts Anticipated

If the results of the sensitivity model review, the Paleontological Resources Memo, or Paleontological Resources Assessment indicate that the project is unlikely to result in impacts to paleontological resources (e.g., all proposed earthwork will only impact artificial fill or only impact geologic units of low sensitivity), the CEQA document shall require the adoption of standard conditions to address unanticipated discoveries. In the case of a CEQA-exempt project, these standard conditions may be recommended by the qualified Principal Paleontologist.

**Standard Condition PALEO-A1:** If suspected paleontological resources are discovered by on-site project personnel (e.g., environmental resource monitors, geotechnical consultants, or construction personnel) during construction, construction personnel shall immediately halt ground-disturbing activities within a 50-foot radius of the fossil discovery site. Work shall be diverted until the city can consult with a qualified Principal Paleontologist (as defined in the City of Carlsbad Tribal, Cultural, and Paleontological Resources Guidelines) to evaluate the significance of the find. If the fossil discovery is determined to be significant by the Principal Paleontologist, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Work may resume in the area of the fossil discovery once the fossil has been recovered and the Principal Paleontologist deems the site has been mitigated to the extent necessary. Additional earthwork following the fossil discovery may be monitored for paleontological resources on an as-needed basis, at the direction of the Principal Paleontologist.

**Standard Condition PALEO-A2:** In the case of an unanticipated discovery, the recovered fossils shall be prepared, identified, catalogued, and donated to a recognized professional repository along with associated field notes, photographs, and compiled fossil locality data. For projects in the City of Carlsbad, the recommended repository is the San Diego Natural History Museum. Donation of the fossils shall be accompanied by initial financial support for specimen storage. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. This report shall be submitted to the City of Carlsbad, as well as to the designated repository. The applicant shall bear the financial responsibility for supporting these activities.

### 10.4.2 Impacts Anticipated

For projects with a proposed cut volume (export or remedial grading) of less than 1,000 CY where the results of the Paleontological Resources Memo indicate that the project has the potential to impact paleontological resources, the CEQA document shall require the adoption of standard mitigation measures for paleontological monitoring, as provided below:

**Mitigation Measure PALEO-B1:** Prior to the start of grading, a qualified Principal Paleontologist (as defined in the City of Carlsbad Tribal, Cultural, and Paleontological Resources Guidelines) shall be retained to oversee the paleontological mitigation program and will follow the recommendations of the Paleontological Resources Memo prepared for the project. A letter of retention signed by the Principal Paleontologist shall be submitted to the city for approval prior to the issuance of any grading permits.

**Mitigation Measure PALEO-B2:** The Principal Paleontologist or designee shall be present at the pre-construction meeting to consult with construction personnel about safety, coordination, and the role of Field Paleontologists during earthwork activities. A Field Paleontologist shall be present during all earthwork that has the potential to impact paleontological resources, and shall have the authority to temporarily direct, divert, or halt construction activities to allow recovery of fossil remains. If fossils are discovered, the Field Paleontologist shall recover them and their contextual data using scientific collecting practices. Any extended work stoppage required to complete the salvage of large vertebrate fossils or a bone bed quarry will be coordinated with the contractor. Collection, screenwashing, and picking of sediment samples that have the potential to contain micro-vertebrate fossil remains during monitoring may also be required.

**Mitigation Measure PALEO-B3:** Fossil remains collected during the monitoring and salvage phase of the mitigation program shall be prepared, identified, catalogued, and donated to a recognized professional repository along with associated field notes, photographs, and compiled fossil locality data. For projects in the City of Carlsbad, the recommended repository is the San Diego Natural History Museum. Donation of the fossils shall be accompanied by initial financial support for specimen storage. Regardless of whether or not fossils are discovered during monitoring, a final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected (if any), and significance of recovered fossils (if any). This report shall be submitted to the City of Carlsbad, as well as to the designated repository, prior to the finalization of building permit requirements. The applicant shall bear the financial responsibility for supporting these activities.

For projects with a proposed cut volume (export or remedial grading) of more than 1,000 CY where the results of the Paleontological Resources Assessment indicate that the project has the potential to impact paleontological resources, the CEQA document shall require the adoption of standard mitigation measures for retention of a Principal Paleontologist to prepare and implement a Paleontological Mitigation and Monitoring Plan (PMMP) for the project, as provided below:

**Mitigation Measure PALEO-C1:** Prior to the start of grading, a qualified Principal Paleontologist (as defined in the City of Carlsbad Tribal, Cultural, and Paleontological Resources Guidelines) shall be retained to prepare and implement a Paleontological Mitigation and Monitoring Plan (PMMP) for the project. The PMMP shall be submitted to the city for approval prior to the issuance of any grading permits. The PMMP shall address, at a minimum:

- research design for the project, listing research questions and the data requirements for addressing those questions;
- designation of the professional repository to receive any recovered fossils;
- requirements for attendance at the pre-construction meeting and implementation of paleontological resources Worker Environmental Awareness Program training for all earthmoving personnel;
- details about areas to be monitored and the level of monitoring (spot checks, part time or full time), protocols and authorization for work stoppages, and safety procedures;
- procedures for determining the significance of any observed fossils;

- fossil salvage methods, including collection and processing of sediment samples with the potential to contain micro-vertebrate fossil remains, and methods for collecting required contextual data;
- methods for fossil preparation, identification, and curation at the designated repository;
- requirements for preparing and submitting a final summary mitigation report at the conclusion of monitoring; and
- the identity of the financially-responsible party supporting the mitigation program.

**Mitigation Measure PALEO-C2:** The Principal Paleontologist or designee shall be present at the pre-construction meeting to consult with construction personnel about safety, coordination, and the role of Field Paleontologists during earthwork activities. A Field Paleontologist shall be present during all earthwork that has the potential to impact paleontological resources, and shall have the authority to temporarily direct, divert, or halt construction activities to allow recovery of fossil remains. If fossils are discovered, the Field Paleontologist shall recover them and their contextual data using scientific collecting practices outlined in the PMMP. Any extended work stoppage required to complete the salvage of large vertebrate fossils or a bone bed quarry will be coordinated with the contractor. Collection, screenwashing, and picking of sediment samples that have the potential to contain micro-vertebrate fossil remains during monitoring may also be required.

**Mitigation Measure PALEO-C3:** Fossil remains collected during the monitoring and salvage phase of the mitigation program shall be prepared, identified, catalogued, and donated to a recognized professional repository along with associated field notes, photographs, and compiled fossil locality data. For projects in the City of Carlsbad, the recommended repository is the San Diego Natural History Museum. Donation of the fossils shall be accompanied by initial financial support for specimen storage. Regardless of whether or not fossils are discovered during monitoring, a final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected (if any), and significance of recovered fossils (if any). This report shall be submitted to the City of Carlsbad, as well as to the designated repository, prior to the issuance of building occupancy permits. The applicant shall bear the financial responsibility for supporting these activities.

## 10.5 CURATION

The recovered fossils, along with associated contextual geological and paleontological data (including copies of field notes, field photographs, and stratigraphic sections), and a copy of the final mitigation report shall be deposited at the SDNHM, which serves as the regional repository for paleontological resources discovered and recovered within San Diego County.

## 11.0 DOCUMENT REVIEW AND CONSULTATION

As discussed earlier, the city is ultimately responsible for compliance with these Guidelines. As such, the city Planning staff will be responsible for receiving applications, reviewing documentation generated under these Guidelines, carrying out non-federal Native American consultation, preparing CEQA documentation, and, ultimately, making a project decision.

## 11.1 APPLICATION REQUIREMENTS

Applicants or consultants implementing these Guidelines are required to submit one bound copy and one PDF on a CD of every cultural resources and paleontological resources technical document prepared for the project. The hard copy is intended for city use. Depending on the number of consulting tribes and parties, if electronic copies are not acceptable, additional hard copies of the reports may be requested by the city. All hard and electronic copies of technical documentation containing confidential information that is restricted from public distribution must be bound separately in a confidential appendix, and clearly marked on the cover of the document.

## 11.2 COMPLETENESS REVIEW

A completeness review of the cultural and paleontological technical documentation will be conducted by the planning staff. Upon receipt of the documentation, the city shall first acknowledge in writing the date on which the materials were received. This begins a 30-day review period for the city staff to review the submitted materials and identify any additional technical information that is necessary. The checklist prompts the city to verify specific information. This includes:

- Does the project boundary provided by the applicant take into account all areas of ground disturbance, conservation, construction staging, infrastructure, and off-site mitigation?
- Is the records search/ literature review less than one year old?
- Has a search of the Sacred Lands File with the NAHC been conducted within the past year?
- Have the project area and any off-site improvement areas been surveyed for cultural resources in accordance with the methods in these Guidelines?
- Is there documentation that Native American tribes were invited to participate and/or participated in the archaeological field survey and any archaeological testing?
- Are all identified cultural resources recorded and evaluated under all four NRHP and CRHR criteria, and applicable City of Carlsbad criteria?
- Have the criteria of adverse effect been applied to all significant cultural resources?
- Have Standard Conditions, Standard Treatment Measures, or Non-Standard Treatment Measures been proposed, if applicable?
- Have the appropriate reports been prepared and submitted for paleontological resources in accordance with the methods outlined in these Guidelines?
- Have the applicable standard Mitigation Measures been applied in line with the findings of the Sensitivity Model Review, Paleontological Resources Memo, or Paleontological Resources Assessment?
- What federal agency approvals or permits, if any, will be required?
- What state agency approvals or permits, if any, will be required?

- What local agency approvals will be required?

If the documentation is not complete or is not in conformance with these Guidelines, it will be returned to the project proponent with an explanation and request for additional information. Until the requested information is submitted to the city, processing of the cultural and paleontological resources compliance will pause. However, tribal consultation will proceed in accordance with the schedules noted in AB 52 and SB 18, as applicable.

### **11.3 CONSULTATION**

The city shall verify that all information identified on the Cultural Resources Compliance Review Checklist has been received and that no additional cultural resources information is required in conjunction with determining the overall project's completeness in accordance with Section 15060 of the CEQA Guidelines. When such determination is made, the city shall issue a written Notice of Completeness to the applicant and shall initiate the following actions within 14 days:

- Only if applicable, the city shall notify the point-of-contact for each agency that is expected to issue a federal approval or permit for the project by letter (or other agreed upon notification method). The notice shall serve to alert the agency that consultation under Section 106 may be required and request coordination of efforts.
- The city shall mail project notification letters to each tribe who requested notification letters under AB 52 and afford them an opportunity to consult on the project if they respond affirmatively within 30 days.
- If the project requires a federal permit, approval, or funding, the city shall mail separate project notification letters to each tribe identified on the NAHC contact list to solicit information about the project and shall copy the federal agency on all letters.
- If the project requires a General Plan or Specific Plan adoption or amendment, or the dedication of open space that includes a tribal resource within it, the city shall mail separate project notification letters to the tribes identified on the SB 18 list obtained from the NAHC and offer them an opportunity to consult if they respond within 90 days.
- The city shall notify any other consulting parties it determines appropriate.
- The city shall conduct the consultation in accordance with the regulatory requirements, which may require meetings, field visits, providing copies of or making revisions to cultural resources technical reports and documents, or both.

### **11.4 COMPLIANCE VERIFICATION**

The city shall be responsible for ensuring that any mitigation or permit conditions are implemented. Upon verification that all requirements are satisfied in full, and unless the mitigation requires further coordination and review by other agency staff, the city shall issue a written notice to the other lead agencies to notify them of the completion of mitigation requirements.

This page intentionally left blank

## 12.0 REFERENCES CITED

Abbott, Patrick L.

1999 *The Rise and Fall of San Diego*. Sunbelt Publications, San Diego.

Advisory Council on Historic Preservation (ACHP)

2012 Native American Traditional Cultural Landscapes and the Section 106 Review Process: Questions and Answers. Electronic document dated July 11, 2012, <http://www.achp.gov/docs/landscapes%20q%20&%20a%207-11-12.pdf>.

2018 Information Paper on Cultural Landscapes: Understanding and Interpreting Indigenous Places and Landscapes. Electronic document available at <https://www.achp.gov/sites/default/files/whitepapers/2018-06/InformationPaperonCulturalLandscapes.pdf>. Accessed in November 2024.

2021 Consultation with Indian Tribes in the Section 106 Review Process: A Handbook. Electronic document available at <https://www.achp.gov/sites/default/files/2021-06/ConsultationwithIndianTribesHandbook6-11-21Final.pdf>.

Allen, Mary and John Harmon, Jr.

n.d. A History of Carlsbad. Friends of the Library. Carlsbad Historical Society. [http://www.carlsbadhistoricalsociety.com/Carlsbad%20Historical%20Society\\_files/AHistoryofCarlsbad.htm](http://www.carlsbadhistoricalsociety.com/Carlsbad%20Historical%20Society_files/AHistoryofCarlsbad.htm).

Anderson, Dan

2007a Carlsbad: Rancho Agua Hedionda. Carlsbad, California. <http://www.carlsbad.ca.us/hedionda.html>.

2007b Carlsbad History Tour. Carlsbad, California. <http://www.carlsbad.ca.us/hedionda.html>.

Aviña, Rose Hollenbaugh

1976 *Spanish and Mexican land grants in California*. Arno Press, New York.

Basgall, Mark E.

1987 Resource Intensification Among Hunter-Gatherers: Acorn Economies in Prehistoric California. *Research in Economic Anthropology* 9:21-52.

Bean, Lowell J., and Florence C. Shipek

1978 Luiseño. In *Handbook of North American Indians, Volume 8: California*, edited by Robert F. Heizer, pp. 550-563. Smithsonian Institution, Washington, D.C.

Bureau of Land Management (BLM)

2016 General Land Office Records. U.S. Department of the Interior, Bureau of Land Management. <http://www.glorecords.blm.gov/default.aspx>.

California Indian Assistance Program (CIAP)

2004 2004 Field Directory of the California Indian Community. California Indian Assistance Program (CIAP), Department of Housing and Community Development, State of California. Sacramento.

## Carlsbad, City of (city)

- 2015 City of Carlsbad General Plan's Arts, History, Culture, and Education Element. Department of Community Development.  
<https://www.carlsbadca.gov/home/showpublisheddocument/3432/637434861113400000>.

## Carlsbad Spa

- 2016 Home and History. Carlsbad Mineral Water Spa.  
<http://www.carlsbadmineralspa.com/ralspa.com/>.

## Carrico, Richard

- 2008 *Strangers in a Stolen Land*. Sunbelt Publications, San Diego.

## Castillo, Edward D.

- 1978 The Impact of Euro-American Exploration and Settlement. In *Handbook of North American Indians, Volume 8, California*, edited by R. F. Heizer, pp. 99-127. Smithsonian Institution, Washington D.C.

## Christenson, Lynn E.

- 1990 *The Late Prehistoric Yuman People of San Diego County, California: Their Settlement and Subsistence System*. Ph.D. dissertation, Department of Anthropology, Arizona State University, Tempe. UMI Dissertation Services, ProQuest, Ann Arbor.

## Cleland, Robert G.

- 1941 *The Cattle on a Thousand Hills: Southern California, 1850-1870*. Huntington Library, San Marino, California.

## Clevenger, Joyce M., Roxana Phillips, and Dennis Gallegos

- 1990 Cultural Resource Evaluation at Prehistoric and Historic Sites at Rancho Lilac, San Diego County, California. ERC Environmental and Energy Services, Co., San Diego. Report #1122412 on file at the South Coastal Information Center, San Diego State University.

## Cohen, K.M., S.C. Finney, P.L. Gibbard, and J.-X. Fan

- 2013 The ICS International Chronostratigraphic Chart, Episodes 36: 199–204.  
<http://www.stratigraphy.org/ICSchart/ChronostratChart2024-12.pdf>.

## Coombs, Walter A. and Deméré, Thomas A.

- 1996 A late Cretaceous nodosaurid ankylosaur (Dinosauria: Ornithischia) from marine sediments of coastal California. *Journal of Paleontology* 70:311-326.

## Cultural Systems Research

- 2005 Citation in progress.

## Evans, Michael J., Alexa Roberts, and Peggy Nelson

- 2001 Ethnographic Landscapes. *CRM* 24(5): 53-56.

## Ford, Tracy. L., and Kirkland, James I.

- 2001 Carlsbad ankylosaur (Ornithischia, Ankylosauria): an ankylosaurid and not a nodosaurid. In *The Armored Dinosaurs*, edited by K. Carpenter, pp. 239-260. Indiana University Press, Bloomington

## Gallegos, Dennis

- 1991 Antiquity and Adaptation at Agua Hedionda, Carlsbad, California. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J. M. Erlandson and R. H. Colten, pp. 19-41. Perspectives in California Archaeology, Volume 1. Institute of Archaeology, University of California, Los Angeles.

## Governor's Office of Planning and Research (OPR), State of California

- 2005 Tribal Consultation Guidelines: Supplement to General Plan Guidelines. Governor's Office of Planning and Research, Sacramento, CA.  
[https://lci.ca.gov/docs/011414\\_Updated\\_Guidelines\\_922.pdf](https://lci.ca.gov/docs/011414_Updated_Guidelines_922.pdf).
- 2017 Technical Advisory, *AB 52 and Tribal Cultural Resources in CEQA*, June 2017  
[https://lci.ca.gov/ceqa/docs/20200224-AB\\_52\\_Technical\\_Advisory\\_Feb\\_2020.pdf](https://lci.ca.gov/ceqa/docs/20200224-AB_52_Technical_Advisory_Feb_2020.pdf)

## Gudde, Erwin G.

- 1969 *California Place Names: The Origin and Etymology of Current Geographical Names*. Third edition. University of California Press, Berkeley and Los Angeles.

## Gunther, Jane D.

- 1984 Riverside County, California, *Place Names: Their Origins and Their Stories*. Rubidoux Printing Company, Riverside, California.

## Hanks, Richard A.

- 2012 *This War Is for a Whole Life: The Culture of Resistance Among Southern California Indians, 1850-1966*. Ushkana Press, Dorothy Ramon, Learning Center, Inc., Banning, California.

## Horne, Melinda C., and Susan K. Goldberg

- 2001 Cultural Background. In *Metropolitan Water District of Southern California, Eastside Reservoir Project, Final Report of Archaeological Investigations, Volume I: Project Overview and Summary of Archaeological Investigations*, edited by Melinda C. Horne and Susan E. Rapp, Chapter 3. Report prepared by Applied Earthworks, Hemet, California for Metropolitan Water District of Southern California, Los Angeles.

## Keller, Timothy J., and Genevieve P. Keller

- n.d. How to Evaluate and Nominate Designated Historic Landscapes. National Register Bulletin 18. National Park Service.

## Kennedy, Michael P.

- 1975 Geology of the San Diego metropolitan area, California. California Division of Mines and Geology Bulletin 200, Section A: 9–39.

## Kennedy, Michael P., and Tan, Siang S.

- 2007 Geologic Map of the Oceanside 30' x 60' Quadrangle, California. California Department of Conservation California Geological Survey.  
[http://ca.water.usgs.gov/sandiego/data/gis/geology/kennedy2005/RGM2\\_Oceanside\\_2007\\_Pamphlet.pdf](http://ca.water.usgs.gov/sandiego/data/gis/geology/kennedy2005/RGM2_Oceanside_2007_Pamphlet.pdf).

- Kimbrough, D.L., P.L. Abbott, D.C. Balch, S.H. Bartling, M. Grove, M., J.B. Mahoney, and R.F. Donohue.  
2014 Upper Jurassic Peñasquitos Formation—Forearc basin western wall rock of the Peninsular Ranges batholith. In, D.M. Morton and F.K. Miller (eds.), *Peninsular Ranges Batholith, Baja California and Southern California: Geological Society of America Memoir 211: 625–643.*
- Koerper, Henry C., Paul Langenwalter II, and Adella Schroth  
1991 Early Holocene Adaptations and the Transition Problem: Evidence from the Allan O. Kelly Site, Agua Hedionda Lagoon. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J. M. Erlandson and R. H. Colten, pp. 81-88. *Perspectives in California Archaeology, Volume 1.* Institute of Archaeology, University of California, Los Angeles.
- Kyle, Douglas  
2002 *Historic Spots in California.* Stanford University Press. Stanford, California.
- Luomala, Katharine  
1978 Tipai-Ipai. In *Handbook of North American Indians, Volume 8, California*, edited by R.F. Heizer, pp. 592-609. Smithsonian Institution, Washington.
- Masters, Patricia M. and Dennis R. Gallegos  
1997 Environmental Change and Coastal Adaptations in San Diego County during the Middle Holocene. In *Archaeology of the California Coast During the Middle Holocene*, edited by J. M. Erlandson and M. A. Glassow, pp. 11-21. *Perspectives in California Archaeology, Volume 4.* Institute of Archaeology, University of California, Los Angeles.
- Melnick, Robert  
1984 *Cultural Landscapes: Rural Historic Districts in the National Park System*, NPS, Park Historic Architecture Division.
- McClelland, Linda F., J. Timothy Keller, Genevieve P. Keller, and Robert Z. Melnick  
1999 *Guidelines for Evaluating and Documenting Rural Historic Landscapes.* National Register Bulletin 30. U.S. Department of the Interior, National Park Service. <http://www.nps.gov/history/nr/publications/>.
- Murphey, Paul C., Georgia E. Knauss, Lanny H. Fisk, Thomas A. Deméré, and Robert E. Reynolds  
2019 Best Practices in Mitigation Paleontology. *Proceedings of the San Diego Society of Natural History 47: 1–43.*
- National Park Service (NPS)  
1978 *The Archaeological Survey: Methods and Uses.* Government Publishing Office [GPO] stock #024-016-00091). National Park Service, Washington, D.C. [https://www.nps.gov/parkhistory/online\\_books/king/index.htm](https://www.nps.gov/parkhistory/online_books/king/index.htm).
- 1997a *National Register Bulletin: How to Apply the National Register Criteria for Evaluation.* National Park Service, Washington, D.C. [https://www.nps.gov/subjects/nationalregister/upload/NRB-15\\_web508.pdf](https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf)
- 1997b *The Secretary of the Interior’s Historic Preservation Professional Qualification Standards.* National Park Service, Washington, D.C. <https://www.federalregister.gov/documents/1997/06/20/97-16168/the-secretary-of-the->

[interiors-historic-preservation-professional-qualification-standards.](#)

- 1998 *Secretary of the Interior's Standards and Guidelines for Identification*. 48 FR 44720-23. National Park Service, Washington, D.C. <https://www.govinfo.gov/content/pkg/FR-1998-04-24/pdf/98-10972.pdf>
- 2000 "Defining Landscape Terminology". *Guidelines for the Treatment of Cultural Landscapes*. National Park Service, Washington, D.C. <https://www.nps.gov/crps/tps/landscape-guidelines/terminology.htm>
- 2024 *National Register Bulletin: Identifying, Evaluating, and Documenting Traditional Cultural Places*. National Park Service, Washington, D.C. <https://irma.nps.gov/DataStore/DownloadFile/713282>

#### Office of Historic Preservation (OHP)

- 1990 Archaeological Resource Management Reports (ARMR): Recommended Contents and Format. February 1990. California Office of Historic Preservation, Sacramento, CA. <https://ohp.parks.ca.gov/pages/1069/files/armr-remediated.pdf>.
- 1995 Instructions for Recording Historical Resources. California Office of Historic Preservation, Sacramento, CA.
- 2004 Technical Assistance Bulletin #8: User's Guide to the California Historical Resource Status Codes & Historic Resources Inventory Directory. California Office of Historic Preservation, Sacramento, CA. <https://ohp.parks.ca.gov/pages/1069/files/tab8.pdf>.

#### Office of Planning and Research (OPR)

- 2005 State of California Tribal Consultation Guidelines; Supplement to General Plan Guidelines. [https://lci.ca.gov/docs/011414\\_Updated\\_Guidelines\\_922.pdf](https://lci.ca.gov/docs/011414_Updated_Guidelines_922.pdf)
- 2017 Guidelines for the Implementation of the California Environmental Quality Act.

#### Phillips, George H.

- 2014 *Chiefs and Challengers: Indian Resistance and Cooperation in Southern California, 1769-1906*. University of Oklahoma Press, Norman.

#### Pourade, Richard

- 1961 *The History of San Diego: Time of the Bells*. San Diego Historical Society. <http://www.sandiegohistory.org/books/pourade/time/timechapter9.htm>.

#### Robertson, Donald B.

- 1998 *Encyclopedia of Western Railroad History, Volume IV, California*. The Caxton Printers, Caldwell, Idaho.

#### Robinson, W.W.

- 1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. University of California Press, Berkeley.

#### San Diego History Center

- 2016 Cave Johnson Coutts (1821-1874). Biography. San Diego History Center.  
<http://www.sandiegohistory.org/archives/biographysubject/cjcouts/>.
- Scott, E., and K. Springer  
 2003 CEQA and fossil preservation in southern California. *The Environmental Monitor*, Winter: 4-10, 17.
- Scott, E., Springer, K., and Sagebiel, J.C.,  
 2004 Vertebrate paleontology in the Mojave Desert: The continuing importance of “Follow- Through” in preserving paleontological resources. In M. W. Allen and Reed, J. editors, *The Human Journey and ancient life in California’s deserts: proceedings from the 2001 Millennium Conference*, 65-70.
- Shepard, Richard S.  
 1996 Luiseño Rock Art and Sacred Landscape in Late Prehistoric Southern California. Unpublished Master’s thesis, Institute of Archaeology, University of California, Los Angeles.
- Sherfy, Marcella and W. Ray Luce  
 1979 National Register Bulletin: Guidelines for Evaluating and Nominating Properties that have Achieved Significance within the Past Fifty Years. Revised 1998. National Parks Service, Washington, D.C. <https://www.nps.gov/subjects/nationalregister/upload/NRB22-Complete.pdf>.
- Sutton, Mark Q.  
 2011 The Palomar Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(4):1-74.
- Sutton, Mark Q. and Jill K. Gardner  
 2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1-64.
- Society of Vertebrate Paleontology (SVP)  
 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Released 2010 by the SVP Impact Mitigation Guidelines Revision Committee.
- 2019 Best Practice Guidelines for Repositing and Disseminating Contextual Data Associated with Vertebrate Fossils. First edition released December 2016; revised December 2019.
- 2025 Best Practice Guidelines for Mitigation of Adverse Impacts on Paleontological Resources.
- True, D.L.  
 1958 An Early Complex in San Diego County, California. *American Antiquity* 23:255-263.
- 1980 The Pauma Complex in Northern San Diego County. *Journal of New World Archaeology* III(4).
- 1990 Site Locations and Water Supply: A Perspective from Northern San Diego County. *Journal of New World Archaeology* VII(4):37-60.
- True, D.L., Clement W. Meighan, and Harvey Crew

1974 *Archaeological Investigations at Molpa, San Diego County*. University of California Publications in Anthropology 11.

True, D.L., R. Pankey, and Claude N. Warren

1991 *Tom-Kav: A Late Village Site in Northern San Diego County, California, and Its Place in the San Luis Rey Complex*. University of California Publications, Anthropological Records, vol. 30. University of California Press, Berkeley.

True, D. L. and Georgie Waugh

1982 Proposed Settlement Shifts During San Luis Rey Times, Northern San Diego County. *Journal of California and Great Basin Anthropology* 4:34-54.

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214-230.

Warren, Claude N.

1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams. Eastern New Mexico University Contributions in Anthropology 1(3):1-14. Portales, New Mexico.

Waugh, Georgie

1986 *Intensification and Land-Use: Archaeological Indications of Transition and Transformation in a Late Prehistoric Complex in Southern California*. Ph.D. dissertation, Department of Anthropology, University of California, Davis. UMI Dissertation Services, ProQuest, Ann Arbor, Michigan.

White, Raymond C.

1963 Luiseño Social Organization. *University of California Publications in American Archaeology and Ethnology* 48(2):91-194.

Wilson, K.L.

1972 Eocene and related geology of a portion of the San Luis Rey and Encinitas quadrangles, San Diego County, California. Unpublished M.A. thesis, University of California, Riverside, 135 p.