

4.5 CULTURAL RESOURCES

This section evaluates the cultural resources impacts of the proposed Plan.

4.5.1 Existing Conditions

PRE-EUROPEAN CONTACT SETTING

The major cultural developments in the San Diego region before the arrival of Spanish colonists in 1769 are generally discussed in three major periods (Paleoindian, or Paleoamerican; Archaic; and Late Prehistoric), each marked by certain changes in the archaeological record. These archaeological changes appear to reflect a variety of shifts in technology, settlement, and land use.

Paleoamerican Period (12,000-7000 BP)

Despite decades of research, the early prehistory of coastal Southern California remains poorly understood. The archaeological record reveals that humans appeared about 13,000 years ago on the Channel Islands, where they lived primarily by fishing and shellfishing. These early island components are of interest because they seem to reflect fully developed maritime economies that were distinct from, but roughly contemporaneous with, the Clovis tradition represented throughout much of interior North America. Identified late-Pleistocene components are lacking on the mainland coast of Southern California, although several sites have yielded calibrated dates in excess of 9,000 years (Erlandson et al. 2007: 58–59). Archaeological complexes represented at these early sites include the San Dieguito complex with its finely worked scrapers and leaf-shaped and stemmed projectile points (Byrd and Raab 2007; Warren 1968), and the La Jolla complex represented by simple flaked cobble tools, relatively abundant groundstone, and flexed burials. Although the temporal and cultural relationship between San Dieguito and La Jolla continues to be debated, human populations were well established along the coast of Southern California very early in the Holocene.

Archaic Period (7000-1200 BP)

Sea-level rise had been occurring since the last glacial maximum (about 18,000 years ago), and during the early Holocene, sea levels increased. However, by around 8000 BP, sea levels began to slow to a rate of about 0.25 meters per century, a process that allowed the formation of a complex mosaic of productive lagoon and estuary habitats at many locations along the region's coastline (Masters and Aiello 2007; Masters and Gallegos 1997). These seem to have supported a significant coastal population during the early Archaic because numerous coastal components have been found that date to this interval.

Archaeological remains in these components typically represent the La Jolla complex and often contain abundant shellfish and fish remains, along with flaked cobble tools, basin metates, manos, discoids, stone balls, and flexed burials. At the same time, archaeological research suggests that the contemporaneous inland Pauma complex may represent seasonal movements of early Archaic populations between coastal and inland resource areas (True and Pankey 1985; Warren et al. 1961). If so, a relatively broad seasonal range is implied for the early portion of the Archaic.

Although the basic toolkit represented by the La Jolla complex appears to have remained consistent throughout the Archaic, there are some indications of significant shifts in settlement. Compilations of radiocarbon assays for Batiquitos Lagoon (Gallegos 1985; Warren et al. 1961), for example, provide evidence for disuse of this location between about 3000 and 1500 BP.

This and evidence from some other locations in the region led Warren (1964, 1968; Warren et al. 1961) and others (Gallegos 1985; Masters and Gallegos 1997) to postulate a population movement inland and southward in response to siltation and declining productivity of coastal lagoons in the northern portion of the region. More recent data, however, have demonstrated continued settlement and use of coastal resources throughout the late Archaic period

in the region's northern areas (Byrd and Reddy 2002). Rather than widespread population movement away from the coast, the changing coastal ecology may have resulted in more localized settlement adjustments.

Late Prehistoric Period (1500-1769)

In Southern California, the appearance of small, arrowhead-size projectile points and ceramics and the practice of cremation around 1,300 years ago mark the beginning of the Late Prehistoric period. Projectile points commonly found in Late Prehistoric assemblages include Cottonwood Triangular and Desert Side-Notched forms, both thought to mark the introduction of the bow and arrow into the region. Regional populations appear to have been relatively high during the Late Prehistoric, resulting in territorial restrictions, increased sedentism, and subsistence intensification. Villages were relatively stable and occupied for much of the year and were positioned for access to a variety of resource areas. Subsistence is thought to have focused on acorns and grass seeds, along with deer and a variety of small mammals. Along the coast, subsistence focused on the collection of shellfish and nearshore fishing.

Settlement patterns during the Late Prehistoric in the northern section of the San Diego region are not well understood, although the data do suggest some important spatial and temporal variation. The strongest settlement data come from the upper San Luis Rey River drainage system, where investigations by True and Waugh (1982) suggest a transition from a fairly wide-ranging mobility pattern into a territorially constricted pattern of seasonally bipolar movement between upland and lowland settlements. This interior-upland pattern is seen as distinct from that of the lower San Luis Rey River, where residential mobility is thought to have been even lower, with one principal village per group area.

POST-EUROPEAN CONTACT SETTING

Spanish Period (1769-1821)

At Spanish contact, the northern portion of the San Diego region was occupied by speakers of a Takic language related to those dialects spoken in the Los Angeles Basin to the north but distinct from the Yuman language spoken to the south in San Diego. These groups were later known generally as the Juaneño and Luiseño, based on their associations with either Mission San Luis Rey or Mission San Juan Capistrano. The region occupied by the Luiseño and Juaneño extended along the coast roughly between Agua Hedionda to approximately Aliso Creek in present Orange County, and inland approximately to Palomar Mountain (Johnson and Crawford 1999; Kroeber 1925). The southern coastal portion of the San Diego region was occupied by the Kumeyaay, a Yuman-speaking group also known as the Kamia, Ipai, and Diegueño. Both the Luiseño/Juaneño and Kumeyaay lived in semi-sedentary, politically autonomous villages that were typically positioned to provide access to a wide variety of resources. The high population densities achieved by the Kumeyaay and Luiseño during the Late Prehistoric period led to the development of a number of intensive land use practices that are documented ethnographically. These included intensive use of a wide diversity of plant and animal foods as well as a number of land-management techniques that were designed to improve and maintain productivity, such as regular vegetation burning, plant husbandry, and erosion control and irrigation (Bean and Shippek 1978; Johnson and Crawford 1999; Kroeber 1925).

In July 1769, the first Spanish colonists arrived in San Diego. In 1769, the Kumeyaay (Diegueño/Kamia/Ipai/Tipai) population was approximately 20,000. (NAHC 2020) The mission and presidio, strategically located on a prominence overlooking the lower San Diego River valley and the northeastern corner of San Diego Bay, were completed the following year and represented the first permanent settlement by the Spanish in Alta California.

A small community of Hispanic settlers followed, establishing a pueblo about 5 miles north of San Diego's current downtown, in the area at the foot of Presidio Hill later known as Old Town (Engstrand and Brandes 1976; Pourade 1963). The pueblo and presidio remained in the Old Town area even after the mission was moved to more favorable agricultural land in Mission Valley in 1774 (Pourade 1961). Under Spanish law, every pueblo was entitled to 4 square leagues of land. As a result, Downtown San Diego was part of the original pueblo land of San Diego, which totaled over 48,000 acres. Most of this land remained undeveloped until the Anglo-American period (Mayer 1978; Pryde 1992).

Mission San Diego and Mission San Luis Rey followed a different policy than most California missions in that after baptism and training most neophytes were allowed to return to their villages. This, despite the considerable disruption imposed by the missions, allowed Native American groups to maintain many aspects of their traditional land use practices while still adapting to and integrating with the mission economic system (Shipek 1988). At the same time, many Kumeyaay maintained active resistance to the mission system (Carrico 2008; Hoover et al. 2002; Luomala 1978; Starr 2005), and many interior portions of the San Diego region were only minimally influenced by the Spanish (Shipek 1988).

Most historians consider the overall effect of the California Mission system on California Native populations to be genocide (Madley 2016). The social order of the Missions saw the native peoples living there as unfree laborers, which reflected the dynamic of the Spanish colonial economy (Champagne and Goldberg 2021:66-68). As such, conditions for native populations within the Mission system, including disease, forced relocation, social control, violence, and heavy labor, were deadly (Jones 2015). This resulted in tens of thousands of premature deaths due to the Missions (Jones et al. 2021). By 1845, the Native Californian population had dropped by half to approximately 150,000 people (Cook 1976).

The Mission System and colonialism of the Spanish Period also led to land dispossession of the native Californian populations, which in turn exacerbated the loss of cultural practices (Akins and Bauer 2021:68). After the Missions were secularized between 1833 and 1834, this dispossession made it hard to establish legal claims to traditional Tribal territories (Hackel 2005; Lightfoot 2005). However, this change was implemented very slowly, causing the relationships between Native groups and the Missions to continue past secularization. People would stay at “their” Missions after it was dissolved because their families and ancestors had built them. Despite the inability to access traditional Tribal lands, the native population was granted mission lands up until 1846. To this day, tribal communities in California trace back their ancestry to these Missions (California State Parks n.d.-a).

The land around the California missions and the first pueblos was gradually developed during the Spanish period as new crops and animals were introduced. The padres and early settlers sought to reproduce the agricultural economy they knew in Spain in north-central Mexico and Alta California, thus creating the Mediterranean style and ambience still associated with the region (Dunmire 2004; Ford 2005; Mayer 1978). The California missions and presidios reflected the Spanish style in their architectural character and layout around courtyard gardens. The gradual introduction of European decorative plants and adaptation of native plants to the casas and courtyards eventually gave the area the colonial appearance still linked in most people’s minds with the region today. The Spanish settlers cultivated grapes for wine, olives, oranges, lemons, and a variety of vegetables. They created small canal systems for the irrigation of crops; introduced cattle, sheep, and horses and built in architectural styles derived from Spanish models (Ford 2005; Mayer 1978).

San Diego Bay was used as a port for the fur trade beginning in the early 1800s (Mayer 1978; Pourade 1961). The population of San Diego grew slowly during early 19th century. When the Mexican Revolution began in 1810, the population of the presidio at San Diego was approximately 350 people. By the time Mexico gained independence from Spain in 1821, the population of San Diego had risen to approximately 450 people.

Mexican Period (1821-1846)

The end of Spanish customs regulations and the expansion of trade under Mexico opened California to the world. In 1823, the English firm of McCullough, Hartness, and Co. sent the vessel *John Begg* to San Diego and established a permanent mercantile house, the first foreign trading house in California. On August 17, 1833, the Mexican congress passed the Secularization Act, which transferred mission-controlled land to private ownership. This act opened enormous tracts of new land to settlement, and immigration to San Diego began to increase. Concurrently, the mission system began to decline (Hoover et al. 2002; Luomala 1978; Starr 2005).

In December 1834, San Diego was organized as a pueblo with the election of its first mayor, Juan Maria Osuna, and the presidio was abandoned the following year. The main population center during the Spanish period had been the Mission San Diego de Alcalá, located well inland from the port. With enforced secularization, however, settlement around the mission was abandoned. In 1834, the first urban layout of the city, complete with a typical plaza mayor and substantial adobe buildings, arose near the presidio in the area that later came to be known as

Old Town. Large ranchos were established on the vast private land grants carved out of former mission lands. The new ranch owners were far more interested in mercantile commerce than had been the earlier Spanish padres and actively sought ways to attract foreign, and especially American, traders. Tallow and hides were the main exports in this trade (Dana 1995). By the 1840s, merchants and brokers from the northeastern United States had become a common sight around San Diego Harbor (Ford 2005: 8; Mayer 1978).

American Period (1846-Present)

The forces that led to the foundation of Downtown San Diego began to become manifest after Alta California was ceded to the United States at the conclusion of the Mexican-American War. In the 50-some years that followed, the economic and political center of the city shifted from Old Town to the present downtown area, and the basic outlines of modern San Diego were established. The process was not straightforward or unilateral, but rather a process of fits and starts.

Old Town San Diego was occupied by US forces during the Mexican-American War (1846–1848). The Treaty of Guadalupe-Hidalgo, which ended the war, ceded Alta California to the United States. The US Boundary Commission Survey team arrived in San Diego in 1849 to survey the new border area. Boundary Commissioner John B. Weller assigned Chief Surveyor, Andrew B. Gray, to survey San Diego Bay and fix the beginning point of the survey (Scott 1976: 21). The new international boundary line was located 1 marine league south of San Diego Bay.

The “port” at San Diego was little more than an off-loading beach, located in present-day Point Loma. Gray and his team camped near the Punto de los Muertos, an area settled by Spanish and Mexican residents 3 miles south of Old Town near the present-day Lindbergh Field, where access to the bay was easier. Gray quickly realized the potential for a new “American” seaport town at that site and switched his efforts toward establishing a “New Town” for San Diego (Newland 1992: 30–35; Rolle 1956: 90–91; Scott 1976: 24–26). In January and February of 1850, Gray and Army Lieutenant Thomas Johns surveyed and mapped a 160-acre subdivision and port facility adjacent to the Punto de los Muertos.

Gray then attracted successful San Francisco merchant William Heath Davis and several prominent San Diegans, including José Antonio Aguirre, Miguel de Pedrorena, and William C. Ferrell, to help finance the purchase and development of the waterfront land where Downtown San Diego now stands (Rolle 1956: 91–92; Scott 1976: 28).

This “New Town” consisted of the area bounded by present-day Broadway, Front Street, and the waterfront. Establishing New Town had its difficulties, and it was thwarted by the fact that San Diego went bankrupt. San Diego’s fortunes, however, were renewed after the end of the Civil War. By the late 1860s, there were plans for two subdivisions and talk of being the terminus for the transcontinental railroad. That did not come to fruition, but it did attract residents and established New Town for good.

There were periods of boom and bust in the years leading up to the turn of the century. With the dawn of the 20th century, business in San Diego again picked up, and the city experienced reinvigorated growth. Between 1900 and 1920, San Diego’s population more than quadrupled from 17,700 to nearly 75,000 (Mills 1960: 37; Pryde 1992: 73). This growth was due in part to events such as commencement of construction on the Panama Canal; plans to build a railroad to Yuma, Arizona; the Panama-California Exposition of 1915–1916; and the U.S. Navy’s interest in making San Diego a major naval port. Significant populations were developing in La Jolla, Ocean Beach, Mission Beach, and Point Loma. Smaller populations were in National City, Coronado, Oceanside, Encinitas, Julian, and Chula Vista (Pryde 1992: 73). San Diego’s natural harbor also attracted immigrants interested in commercial fishing, and the fishing industry and its associated canneries helped to bolster the city’s economy in the 1920s (Hoover et al. 2002; Starr 2005). The expansion of the streetcar line in the 1920s began to alter patterns of development and residence. The streetcar allowed many families to move out to suburbs that were rapidly building up on the outskirts of town (Hoover et al. 2002; Starr 2005).

San Diego suffered like every other city during the Great Depression, but the outbreak of World War II sparked an economic boom in most of the country, particularly in places like San Diego that had an established military presence. The military took over large parts of San Diego, expanding existing bases and developing new ones. San Diego’s population stood at 203,341 in 1940; within a year, it grew by 50,000 (Mayer 1978). The post-World War II

era brought recovery in the form of an increased industrial base, a growing tourist business, and the commercial exploitation of rich agricultural lands. These resources, along with expansive military bases, have continued in importance to San Diego's economic well-being to the present day. The era also brought notable shifts in the local economy and residential patterns. The aerospace industry shifted from aircraft to missiles, and a post-war housing crunch led to a construction boom, which included post-war housing tracts in the suburbs served by massive new shopping centers and smaller shopping malls. More houses farther afield meant more cars, and by 1951 San Diego had four major freeway interchanges (McKeever 1985). The 1960s brought construction of a new sports stadium, expansion of the San Diego Zoo, and the formation of the San Diego Padres major league baseball team. Tourism became one of the leading industries and has remained so to this day.

The 1960s to the 1980s saw a significant increase in populations throughout the region, and cities like Del Mar, Poway, Santee, Vista, San Marcos, and Lemon Grove were established (Pryde 1992: 77). Massive housing developments, like Mira Mesa and Rancho Peñasquitos, were built in the 1970s. Despite setbacks in recent years, the San Diego region has continued to grow and prosper.

The region today is home to 18 federally recognized tribal reservations and 17 tribal governments, the most of any county in the United States. Reservations have generally been established by Executive Order, and most of the land within the boundaries of reservations is owned by tribes and held in trust by the federal government. Native American reservations currently cover more than 116,000 acres, or approximately 4 percent of the region's land. Four tribal groupings make up the indigenous peoples of the San Diego region: the Kumeyaay/Diegueno, the Luiseno, the Cupeno, and the Cahuilla (San Diego Integrated Regional Water Management 2013; San Diego State University 2024). Tribal economic development has had an influence on the region's overall development. This is mostly due to casinos (e.g., Barona, Campo, Sycuan, Viejas), which are mainly responsible for creating 10,000 jobs, supporting a \$1 billion industry, and contributing approximately \$263 million in goods and services, and \$500 million in payroll. The tribes without gaming facilities continue to have economic development, transportation, and infrastructure needs (CNIGA 2012).

KNOWN HISTORICAL RESOURCES

Cultural resources include historic period buildings, structures, districts, and objects; archaeological sites and districts dating from either precontact, or historic times. Numerous cultural resources have been documented in the San Diego region, and some areas of the region have not yet been inventoried. The following information provides a context for the types of cultural resources in the region and a general discussion of the range of known cultural resources that may be present.

In California, cultural resources are recorded in the California Historical Resources Information System (CHRIS), which consists of the California State Office of Historic Preservation (OHP), eight information centers, and the State Historical Resources Commission. The information centers are spread across California and are the repositories for recorded historical resources in their region. The South Coastal Information Center (SCIC) holds the records for historical resources recorded in San Diego, Riverside, and Imperial Counties. According to SCIC, as of January 22, 2025, 39,500 cultural resources (including 13,500 isolated finds) in the San Diego region are recorded in CHRIS (Lennox, pers. comm., 2025).

The following is a description of the types of other listings that exist in the San Diego region for archaeological and historic architectural resources. These descriptions are adapted from the State of California OHP.

- ▶ California Historical Landmarks are buildings, sites, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value (California State Parks n.d.-b).
- ▶ California Points of Historical Interest are buildings, sites, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value (California State Parks n.d.-c).

- ▶ The California Register of Historical Resources includes buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (California State Parks n.d.-d).
- ▶ The National Register of Historic Places includes buildings, structures, objects, sites, and districts of local, state, or national significance in American history, architecture, archaeology, engineering, and culture (California State Parks n.d.-e).

Archaeological Resources: Historic Era and Precontact

Specific information on the location and description of archaeological resources generally must be kept confidential to lessen the potential for vandalism and theft by looters. The specific regulations that provide for this are discussed in Section 4.5.2, "Regulatory Setting."

Historic-era archaeological site types that have been encountered in the San Diego region vary according to the time period and activity with which they are associated. They can contain surface material or be buried. Early period, Spanish period, and Mexican period sites include adobe homesteads and presidio- and mission-related sites. These include the San Diego Presidio, Mission Dam, the San Diego Mission, and the San Luis Rey Mission.

From the Early American period up until about 1920, most archaeological sites present within in an urban environment consist of garbage dumps in wells, cisterns, or trash pits. Building foundations are also common during this period, as are industrial features. The majority of sites already identified from this period exist in developed areas of San Diego. In the San Diego mountains, mining sites are more prevalent. After the 1920s, the establishment of town dumps and sewer and water systems meant that trash-related archaeological features were less common. Archaeological material commonly found associated with historic-era sites include ceramics, glass, metal, and animal bone. Some site types, such as military and farming/ranching complexes, are found throughout the San Diego region and from any period.

Precontact sites tend to fall into distinctive categories that relate to the activities that took place. They are found throughout the region, but tend to be more common in areas close to a water source or resources (such as materials for tool making or readily available food) and on flatter ground. Like historic-era sites, they can be found on the surface or buried. Due to the propensity for settling close to water sources, precontact sites that were originally just surficial can be buried over time by alluvial action. The site types and the materials associated with them are summarized below.

- ▶ **Habitation sites.** These are seasonal or semipermanent. Activities at these sites include food preparation, milling, cooking, tool production, ceramic production, leather working, basket weaving, construction, and ritual activities.
- ▶ **Temporary camps.** A range of activities took place at these camps. This could include any of the activities performed at a habitation site, but at a temporary camp, there would have been a shorter activity period, so less material evidence would be left.
- ▶ **Artifact scatter.** An artifact scatter consists of ceramics, flaked stone, or ground stone that is not accompanied by subsurface deposits. Some animal bone or shell may also occur. An artifact scatter could represent a temporary place to stop or somewhere to process a resource from the surrounding area.
- ▶ **Lithic scatter.** This is a low-density scatter of lithic material used in tool production. Typically, it is the discard from the process that is left behind, not the actual tools.
- ▶ **Bedrock milling.** These are areas of bedrock used to process food, such as acorns or seeds. This was done with a pestle (which crushes the food) or mano (which grinds the food).
- ▶ **Quarry.** A quarry is where raw stone material was extracted for tool making. These sites were visited only briefly.
- ▶ **Shell midden.** This can be an area where shellfish was processed, or it can be associated with a habitation site or temporary camp.

- Rock art. This includes petroglyphs (patterns etched into rocks) and pictographs (patterns “painted” on rocks) that are often associated with ritual.

Major coastal villages were known to have existed along the estuaries and lagoons of the San Diego coastline and up the corresponding rivers, such as the village of Kosti or Cosoy near the mouth of the San Diego River (Kroeber 1925) and Ystagua in the Sorrento Valley area. While many precontact resources have been identified and documented in the San Diego region, many unidentified resources remain. In addition, the exact locations of some of the known sites (such as Cosoy) are yet to be confirmed.

Some areas in the San Diego region have a particularly high potential for precontact cultural resources. For example, lagoons and rivers were areas of high traffic and settlement prior to European contact due, in part, to the abundance of water, food, and other resources, while coastal communities were some of the earliest and heaviest areas of settlement during historic times due to their access to both resources and transportation.

Historic Architectural Resources

In addition to the thousands of archaeological sites recorded within the San Diego region on the California Historic Resources Inventory, numerous historic architectural resources (buildings, sites, structures, objects, or districts) are listed on federal, state, and local registers, such as the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks, and County of San Diego Historical Landmarks. Approximately 9,514 built structures are recorded in the San Diego region (Lennox, pers. comm., 2025). Some of these are part of larger districts.

There are 18 nationally designated historic districts listed in the NRHP in the San Diego region (see Table 4.5-1). This number does not represent those that may be in the process of being listed. Many of the districts are located in more urban areas, specifically in and around the city of San Diego. These include such historic districts as Cabrillo National Monument, Balboa Park, and the Gaslamp Quarter Historic District.

Table 4.5-1 Nationally Designated Historic Districts in the San Diego Region

Historic District	Location
Balboa Park	California Quadrangle 41, San Diego
Cabrillo National Monument	Near southern tip of Point Loma
El Prado Complex	Balboa Park, San Diego
Fages-De Anza Trail-Southern Emigrant Road	Anza-Borrego State Park
Gaslamp Quarter Historic District	Bounded by railroad tracks, Broadway, 4th, and 6th Streets, San Diego
Heilman Villas	Orange Avenue, Coronado
Kuchamaa	Southeast of San Diego at the U.S.-Mexico border
Marine Corps Recruit Depot Historic District	South of junction of Barnett Avenue and Pacific Highway, San Diego
Naval Air Station, San Diego, Historic District	Naval Air Station, North Island, North Shore, San Diego
Naval Training Station	Barnett Street and Rosecrans Boulevard, San Diego
Old Town San Diego Historic District	Junction of Interstate (I-) 5 and I-8, San Diego
Rancho De Los Kiores	6200 Flying L.C. Lane, Carlsbad
Rockwell Field	North Island, San Diego
Rosicrucian Fellowship Temple	2222 Mission Avenue, Oceanside
San Diego Civic Center	1600 Pacific Highway, San Diego
San Diego State College	5300 Campanile Drive, San Diego
Table Mountain District	Jacumba, unincorporated county of San Diego
University Heights Water Storage and Pumping Station Historic District	4236 Idaho Street

Source: NRHP 2025a.

In addition to the NRHP historic districts, 156 individual historic architectural resources in the San Diego region are listed in the NRHP (NRHP 2025a). There are also 17 National Historic Landmarks (NRHP 2025b). Resources listed in the NRHP are automatically listed in the CRHR. Most of these resources in the San Diego region are buildings or structures, such as the Hotel Del Coronado and the Point Loma Lighthouse; however, some archaeological sites are on the list. There are also 74 registered California State Historical Landmarks in San Diego County (California State Parks n.d.-b).

At the local level, a number of jurisdictions inventory historic architectural resources and archaeological resources that are present in their territory to develop management plans and set standards for their protection. This has become more often the case as urban areas are limited in their choices of undeveloped land and instead move toward adaptive reuse of existing buildings and features of the built environment. In addition, the County of San Diego and the Cities of San Diego, Oceanside, Poway, Escondido, Carlsbad, Encinitas, National City, Chula Vista, La Mesa, and El Cajon maintain historic resource inventories.

Ethnographic Resources and Sacred Sites

Ethnographic resources include sites, areas, and materials important to Native Americans for religious, spiritual, or traditional uses. These can encompass the sacred character of physical locations (mountain peaks, springs, and burial sites) or particular native plants, animals, or minerals that are gathered for use in traditional ritual activities. Villages, burials, rock art, rock features, and traditional hunting, gathering, or fishing areas. Such resources are recognized under CEQA as “tribal cultural resources,” defined in Public Resources Code 21074 to include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” (Public Resources Code 21074[a]). They may be eligible for listing in the California Register of Historical Resources (CRHR) and may also be included in the California Sacred Lands File maintained by the California Native American Heritage Commission (NAHC). For specific development or transportation projects, the NAHC provides a list of tribes with traditional and cultural affiliations to the project area but does not disclose resource’s locations (NAHC 2016). Tribal consultation under AB52 (PRC 21080.3.1) is typically initiated through these notifications; tribes have 30 days to request consultation, and agencies must begin discussions within 30 days of a tribe’s request.

4.5.2 Regulatory Setting

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

National Historic Preservation Act

The National Historic Preservation Act (NHPA) (54 U.S. Code [USC] 300101 et seq.), originally passed in 1966, established the national policy for preserving historic properties in the United States. It provides the foundation for more specific legislation and regulations guiding cultural resource protection across federal, state, and local levels. Section 106 of the NHPA requires federal agencies to consider the effects of their projects (known as “undertakings”) on historic properties and to give the Advisory Council on Historic Preservation an opportunity to comment. The goal of the Section 106 process is to identify historic properties potentially affected; assess potential impacts; and seek ways to avoid, minimize, or mitigate any adverse effects related to historic properties.

National Register of Historic Places

The NRHP is the official list of historic properties, including historic sites, buildings, and structures, recognized by the federal government as worthy of preservation for their significance to the history of their community, state, or the nation. It was established in 1966 through the NHPA. The NRHP serves as a planning tool for federal, state, and local governments, as well as private organizations and individuals, to identify and protect historic resources. Properties listed in the NRHP must be considered during the planning of all federally funded, licensed, or assisted projects. Listing does not restrict the rights of private property owners unless a federal action is required.

Eligibility for the NRHP rests on two factors: significance and integrity (National Park Service 1997). In order to be eligible for inclusion in the NRHP, a property must meet one or more of the significance criteria listed below and retain integrity.

- ▶ **Criterion A**—Association with “events that have made a significant contribution to the broad patterns of our history.”
- ▶ **Criterion B**—Association with “the lives of persons significant in our past.”
- ▶ **Criterion C**—Resources “that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”
- ▶ **Criterion D**—Resources “that have yielded, or may be likely to yield, information important to history or prehistory.”

In addition to significance, the NRHP recognizes a property’s integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.) was passed in 1990 and establishes the rights of Native American lineal descendants for ownership and control of Native American human remains and cultural objects. NAGPRA requires that an inventory of Native American human remains and funerary objects must be compiled by federal funded agencies and all museums and educational institutions receiving federal funds. Additionally, NAGPRA makes it illegal to traffic in Native American remains and cultural items without the right of possession, whether or not they derive from federal or Native American lands. The second major purpose of NAGPRA is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands. All Indian tribes or Native Hawaiian organizations must be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act (Section 3 [c][1]).

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (16 USC 470aa–47011) was passed in October of 1979 to increase the protection of unique archaeological resources on public and Indian lands. Section 9 of this act provides for the confidentiality of archaeological resource and their locations. This prevents looting and destruction of these resources.

The Department of Transportation Act

Section 4(f) of the Department of Transportation Act (49 USC 303, formerly 49 USC 1651[b][2] and 49 USC 1653f), applies specifically to projects receiving funding or approvals from the U.S. Department of Transportation. It prohibits the Federal Highway Administration and other US Department of Transportation agencies from approving projects that “use” land from publicly owned parks, recreation areas, wildlife and waterfowl refuges or public and private historic sites, unless specific conditions are met. These conditions include (1) that there is no feasible and prudent alternative to using that land and (2) that the proposed action includes all possible planning to minimize harm to the affected property. A project may also proceed if the Secretary of the Interior determines that the impact will be “de minimis.”

The Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation

The Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation, issued in 1983, provide technical guidance for preserving historic and archaeological resources. Although not regulatory, these

guidelines help ensure consistency across federal, state, and local preservation efforts. They are also used to guide the identification, evaluation, documentation, registration, and treatment of historic properties and to promote best practices in preservation planning.

The Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior's Standards for Rehabilitation were established in 1986 to promote consistent approaches to the rehabilitation of historic properties and buildings. These standards are guidelines for returning a property to a state of utility through repair, alterations, or additions while preserving the building's historic character. The goal is to retain and protect the cultural and architectural values of a historic property, while accommodating efficient contemporary use (36 CFR 67).

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings

The Secretary of the Interior's Standards for the Treatment of Historic Properties provide a set of 34 guidelines for preserving, rehabilitating, restoring, and reconstructing historic buildings and materials (36 CFR 68). The standards promote responsible, consistent practices in the treatment of historic resources but are not regulatory in nature. Instead, they offer technical guidance to assist federal, state, and local decision makers in achieving high-quality preservation outcomes across a range of project types.

STATE LAWS, REGULATIONS, PLANS, AND POLICIES

California Historical Landmarks Program

The California Historical Landmarks Program was established to recognize and protect buildings, sites, and features of statewide historical, cultural, anthropological, or other significance. To be designated as a California Historical Landmark, a resource must meet established criteria, be nominated by the director of California State Parks and be approved by the State Historical Resources Commission with the consent of the property owner. The program supports the preservation and interpretation of designated landmarks, which often include mission sites, early settlements, battlefields, and gold rush-era locations (Public Resources Code [PRC] Sections 5020.4, 5021, 5022, 5022.5, 5031, and 5032).

California Points of Historical Interest Program

The California Points of Historical Interest Program identifies sites, buildings, and features that have historical, cultural, or anthropological importance at the local or regional level. This program allows for the recognition of historic properties that may not meet the more stringent criteria of the California Historical Landmarks Program but still merit consideration in local planning. While these designations offer limited protection, they raise awareness and can influence development decisions. The program requires coordination with local government officials as part of the designation process (PRC Sections 5020.4, 5021, 5022, 5022.5, 5031, and 5032).

California Register of Historical Resources

The CRHR is the state's official list of historically significant buildings, structures, sites, objects, and districts. It serves as a key reference in identifying and evaluating historical resources under CEQA. The CRHR includes resources that are historically or archaeologically significant at the local, state, or national level. Properties can be listed individually or as contributors to a historic district. The CRHR is maintained by the Office of Historic Preservation and provides guidance for preservation planning, permitting, and mitigation efforts. The list of these resources can be used for state and local planning purposes, the eligibility determinations can be used for state historic preservation grant funding, and listing in the CRHR provides a certain measure of protection under CEQA. This is because a historical resource must be considered "historically significant" under CEQA, as discussed below, if the resource meets CRHR criteria. (Section 15064.5[a]).

For a resource to be eligible for listing in the CRHR, it must have historical significance at the local, state, or national level based on one or more of the following criteria, as outlined in 14 CCR Section 4852:

- ▶ Criterion 1—It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- ▶ Criterion 2—It is associated with the lives of persons important in our past.
- ▶ Criterion 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.
- ▶ Criterion 4—It has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of these criteria, a historical resource must also retain integrity, meaning the resource should preserve enough of its original physical characteristics to convey its significance. Integrity is assessed through seven aspects: location, design, setting, materials, workmanship, feeling, and association.

A resource’s eligibility is ultimately judged in relation to the criterion or criteria under which it is nominated, as well as its ability to clearly reflect its historical importance during its period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource must also be judged with reference to the particular criteria under which it is eligible for listing in the CRHR per California Code of Regulations Title 14, Section 4852(c).

California Environmental Quality Act

CEQA requires that public agencies consider the potential impacts of discretionary projects on historical and archaeological resources. Under PRC 21001(b), it is the policy of the State of California to preserve historic environmental qualities and to protect examples of major periods of California’s history for future generations. The CEQA Guidelines require that historical and archaeological resources be taken into account during environmental review (CEQA Guidelines 15064.5).

CEQA and Historical Resources

The CEQA Guidelines (Section 15064.5[a]) define a historical resource as including the following:

- ▶ A resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR);
- ▶ A resource listed in a local register of historical resources (as defined at PRC Section 5020.1[k]);
- ▶ A resource identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or
- ▶ Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. (Generally, a resource is considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the CRHR; see discussion of the CRHR above.)

A project that causes a “substantial adverse change” to a historical resource, such as demolition, relocation, or alteration, may be considered to have a significant environmental impact (CEQA Guidelines Section 15064.5[b]). Impacts can be considered less than significant if mitigation is implemented consistent with the Secretary of the Interior’s Standards for Rehabilitation.

CEQA and Archaeological Resources

If the cultural resource in question is an archaeological site, the CEQA Guidelines (Section 15064.5[c][1]) require that agencies determine whether it meets the definition of a historical resource. If the archaeological site qualifies as a historical resource, potential adverse impacts must be considered and mitigated in the same manner as a historical resource (CEQA Guidelines Section 15064.5[c][2]). If it does not qualify, it must still be assessed under PRC Section 21083.2, which provides protections for unique archaeological resources.

CEQA (PRC Section 21083.2[g]) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

- ▶ contains important data for scientific research,
- ▶ offers valuable information for the public, or
- ▶ has a high potential to contribute to existing knowledge.

When a unique archaeological resource could be damaged or destroyed, feasible mitigation, including avoidance or data recovery, must be considered during project planning.

CEQA Guidelines Sections 15064.5(d) and (e)

CEQA Guidelines Sections 15064.5(d) and (e) require that if human remains are discovered during project activities, work must stop in the immediate area and procedures outlined in PRC Section 5097.98 and Health and Safety Code Section 7050.5 must be followed. These procedures ensure the respectful and legally compliant treatment of human remains, including consultation with Native American representatives if the remains are determined to be of Native American origin.

CEQA Guidelines Sections 15126.4(b)

Under CEQA Guidelines Sections 15126.4(b), when a project may cause a substantial adverse change to the significance of a historical resource, feasible mitigation measures must be identified that can avoid or reduce the impact. These include options such as preservation in place or documentation and recovery and may also involve consultation with appropriate California Native American representatives when tribal cultural resources may be affected. The County of San Diego and other lead agencies have adopted procedures for conducting surveys and engaging in early consultation to identify areas of cultural concern prior to project-level development.

Public Resources Code Sections 5097.5, 5097.98, and 622.5

PRC Section 5097.5 states that a person “shall not knowingly excavate, harm, or destroy any historic or prehistoric ruins or sites on public lands, unless granted permission by the public agency that has jurisdiction over those lands.” It goes on to state that if this section is violated, the action is classified as a misdemeanor, punishable by fine or imprisonment. The section outlines the specific parameters of addressing the violation. PRC Section 622.5 further provides that any person who willfully injures, defaces, or destroys objects of archaeological or historical value—on either public or private property—without authorization is guilty of a misdemeanor.

PRC Section 5097.98 requires that if Native American human remains are discovered, the county coroner must notify the California NAHC. The NAHC will then identify the most likely descendant (MLD). Once identified, the landowner must work with the MLD(s) to determine appropriate treatment of the remains. This may include preservation in place, removal, or reburial. The law requires that landowners engage in good faith consultation with the MLDs and consider their recommendations for respectful treatment. The process must be “meaningful and timely,” and decisions should account for the cultural values of the descendants, preservation, and take into account the view of all involved parties.

Health and Safety Code Section 7050.5: Human Remains

Health and Safety Code (HSC) Section 7050.5 requires that if human remains are discovered in any location other than a dedicated cemetery, all excavation or disturbance must stop. The county coroner must be contacted immediately and must inspect the site. If the coroner determines, or has reason to believe, the remains are of Native American origin, the coroner must notify the NAHC by telephone within 24 hours. It is a misdemeanor to knowingly remove, disturb, or disinter human remains from any location other than a dedicated cemetery without legal authorization.

Health and Safety Code Sections 18950-18961: State Historical Building Code

HSC Sections 18950–18961, known as the State Historical Building Code, provides alternative standards for the preservation, rehabilitation, restoration, and relocation of qualified historic buildings. These alternative building regulations allow for flexibility in meeting modern code requirements while retaining a building’s historic character and features. The goal is to facilitate adaptive reuse and preservation while ensuring occupant safety and promoting energy efficiency.

LOCAL LAWS, REGULATIONS, PLANS, AND POLICIES

County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608: Resource Protection Ordinance

The County of San Diego’s Resource Protection Ordinance (RPO) (San Diego County Code of Regulatory Ordinances Sections 86.601–86.608) requires that cultural resources be evaluated during the county’s discretionary environmental review process. If a resource is determined to be significant under the RPO, it must be protected. The RPO prohibits trenching, grading, clearing, grubbing, or any other development activity that could damage precontact or historic sites. Exceptions are allowed only for scientific research conducted under an approved research design prepared by a professional archaeologist certified by the Register of Professional Archaeologists. Sites identified as RPO significant must be avoided and preserved in place.

County of San Diego: Grading, Clearing, and Watercourses Ordinance

This ordinance requires that grading operations cease if human remains or materials of cultural significance to California Native American tribes are discovered during construction. (San Diego County Code of Regulatory Ordinances Section 87.429). Additionally, grading plans must be modified if unanticipated cultural resources are found, and appropriate mitigation measures must be implemented in coordination with the county and tribal representatives. (San Diego County Code of Regulatory Ordinances Section 87.216[a][7]).

San Diego County Local Register of Historical Resources (San Diego County Administrative Code Section 396.7)

The San Diego County Local Register of Historical Resources (San Diego County Administrative Code Section 396.7) serves as the county’s official list of historic resources. Modeled after the CRHR, the Local Register of Historical Resources helps guide planning and preservation decisions at the county level. Properties listed in or eligible for the NRHP or the CRHR are automatically included in the Local Register of Historical Resources. Other properties may also qualify based on local criteria outlined in Section 396.7. The Local Register of Historical Resources is intended to help agencies, property owners, and the public identify and protect historic resources from substantial adverse change, whenever it is practical to do so.

County of San Diego General Plan Conservation and Open Space Element

The Conservation and Open Space Element of the County of San Diego’s General Plan outlines goals and policies to preserve and protect the region’s significant cultural resources (County of San Diego 2011). Under Goal COS-7, the Conservation and Open Space Element emphasizes the importance of identifying, evaluating, and preserving historic buildings, structures, objects, districts, and archaeological sites that reflect the county’s diverse cultural history. The Conservation and Open Space Element promotes the integration of cultural resource considerations into the county’s land use planning and environmental review processes. It also encourages coordination with local tribes, historical organizations, property owners, and professional consultants to ensure that important cultural resources are maintained for the benefit of current and future generations.

Local Jurisdictions’ Preservation Policies and Regulations

Every local government in California can adopt their own ordinances to protect historic and archaeological resources. These ordinances typically include goals, policies, and actions that support the identification,

protection, and appreciation of a community's cultural heritage. The County of San Diego, along with many of its cities, has adopted local cultural resources preservation ordinances. These are listed below in Table 4.5-2.

Table 4.5-2 City and County Cultural Resources Preservation Ordinances

Historic District	Location
City of Carlsbad	Municipal Code, Title 22
City of Chula Vista	Municipal Code, Title 21
City of Coronado	Municipal Code, Title 84
City of Del Mar	Municipal Code, Chapter 30.58
City of El Cajon	Municipal Code, Chapter 17.55
City of Encinitas	Municipal Code, Chapter 30.34.050
City of Escondido	Municipal Code, Chapter 33, Article 40
City of Imperial Beach	None
City of La Mesa	Municipal Code, Title 25
City of Lemon Grove	None
City of National City	Code of Ordinances, Chapter 15.34, Chapter 18.12
City of Oceanside	Code of Ordinances, Chapter 14A
City of Poway	Municipal Code, Chapter 17.45
City of San Diego	Municipal Code, Chapter 14, Article 3, Division 2
City of San Marcos	None
City of Santee	Municipal Code, Chapter 15.60
City of Solana Beach	Municipal Code, Title 17.60.160
City of Vista	Municipal Development Code, Chapter 15.12
County of San Diego	County Administrative Code, Article XXII

Source: Compiled by Ascent in 2025.

4.5.3 Significance Criteria

Appendix G of the CEQA Guidelines provides criteria for determining the significance of a project's environmental impacts, in the form of initial study checklist questions. Unless otherwise noted, the significance criteria specifically developed for this EIR are based on the checklist questions that address the criteria in CEQA Guidelines Appendix G. In some cases, SANDAG has combined checklist questions, edited their wording, or changed their location in the document in an effort to develop significance criteria that reflect the programmatic level of analysis in this EIR, and the unique characteristics of the proposed Plan.

Checklist questions for cultural resources are included in Section V of Appendix G. For purposes of this EIR, the Appendix G questions have been combined and modified. Specifically, Appendix G Section V question (a) regarding historical resources and question (b) regarding archaeological resources are addressed in CULT-1. Question (c) regarding disturbance of human remains is addressed in CULT-2.

The significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in or eligibility for (1) inclusion in the CRHR; (2) inclusion in a local register or its identification in a historical resources survey meeting the requirements of PRC Section 5024.1; or (3) as determined by a lead agency for purposes of CEQA (CEQA Guidelines Section 15064.5[b][2]).

For purposes of this EIR, implementation of the proposed Plan would have a significant cultural resources impact if it would:

CULT-1 Cause a substantial adverse change in the significance of a historical resource or unique archaeological resource.

CULT-2 Disturb any human remains, including those interred outside of formal cemeteries.

The analysis discloses impacts to cultural resources. There is insufficient evidence to support a meaningful analysis of how the proposed Plan's cultural resources impacts would be worsened by climate change. Therefore, a climate change analysis for cultural resources impacts is not included in this section.

4.5.4 Environmental Impacts and Mitigation Measures

CULT-1 CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE OR UNIQUE ARCHAEOLOGICAL RESOURCE

Analysis Methodology

This analysis examines the impacts on historical and unique archaeological resources that would result from implementation of the proposed Plan. The analysis identifies the general types of proposed Plan-related activities with the potential for impacting historical architectural resources and archaeological resources and then analyzes the impacts.

A substantial adverse change to the significance of a historical resource is defined as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5); this definition can also be applied to a substantial adverse change to a unique archaeological resource.

Construction activities are more likely to disturb archaeological resources than operational activities because such resources are most likely to be encountered during initial ground disturbance. Impacts of operational activities on archaeological resources are unlikely to be significant, unless there are potential vibration impacts from rail transit operations.

For forecasted regional growth and land use change projects, as well as planned transportation network improvements and programs, the likelihood of encountering archaeological resources is thus analyzed based on whether projects would require grading, excavation, or other ground-disturbing activities. Even minimal grading activities can encounter resources because they have been discovered only inches below the surface. Ground-disturbing activities associated with infill, redevelopment, and infrastructure expansion have the potential to unearth these resources.

This analysis clearly distinguishes impacts on archaeological resources from those on historic architectural structures. Construction activities are more likely than operational activities to affect historical resources of an architectural nature ("historic architectural resources") because such resources may be physically altered or demolished. Effects of operational activities on historic structures are generally unlikely to be significant, except in cases where rail transit or roadway improvement (such as interchange reconfiguration) could result in indirect impacts such as changes to setting, viewshed, or long-term vibration. Such impacts may affect the integrity of a historic architectural resource's setting, and by extension, its significance).

Impact Analysis

2035

Regional Growth and Land Use Change

As discussed in Section 4.5.1, "Existing Conditions," numerous historic architectural resources and archaeological resources have been documented throughout the San Diego region. These include historic architectural resources (e.g., historic buildings or structures) listed on federal, state, and local registers as well as unique archaeological resources, some of which include human remains. While many of these resources have been identified and documented within the San Diego region, there are likely many more resources that remain undiscovered.

As shown in Table 2-1, in Chapter 2, "Project Description," of this Draft EIR, from 2022 to 2035, the region is projected to gain 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035 regional SCS land use pattern is shown in Figure 2-4. Approximately 93 percent of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). Regional growth and land use change would result in a wide range of construction and ground-disturbing activities, such as excavation, grading, and clearing, which remove or disturb the upper layer of soils. Because archaeological resources have been found within inches of the ground surface in some areas of the San Diego region, like the downtown area, these resources can be encountered even during minor grading and ground-disturbing activities. In addition, redevelopment and intensification of land uses may result in the demolition or substantial alteration of historic architectural resources in or near established urban areas or town centers, where these built resources are typically located.

As Section 4.5.1 describes many areas throughout the San Diego region have a high potential to yield archaeological and historic architectural resources. While most growth from 2022 to 2035 would occur in established urban areas, such as Downtown San Diego, Chula Vista, and National City, new growth in the region may occur in areas such as the Otay and North County Metro communities where archaeological and historic architectural resources are present, and historically or archaeologically significant resources have been found throughout the county (County of San Diego 2011). Built historical resources tend to be concentrated in historical town centers along the urban coastal region but are also located in unincorporated areas of the county, such as Lakeside, Otay, and North County Metro. Built historical resources are also generally located along major roadways, such as I-8 and SR 78. In addition, some built resources exist in the unincorporated county that are historically significant but have not yet been designated (County of San Diego 2011). Regional growth and land use change forecasted to occur throughout the region from 2022 to 2035 would result in additional construction and ground-disturbing activities, such as excavation, grading, clearing, demolition, alteration, and structural relocation.

Forecasted regional growth and land use change may also result in indirect impacts on cultural resources, particularly where development occurs adjacent to or within open space areas, parks, or culturally sensitive landscapes. These effects could include increased foot or vehicle traffic, changes in site visibility or access, or erosion, especially in areas already experiencing recreational pressure. In addition, indirect impacts may arise in cases where traditional cultural properties or cultural landscapes extend into areas targeted for infrastructure expansion or urban infill. These effects are typically site-specific and would require project level review and consultation with Native American tribes to assess significance and determine appropriate mitigation.

Encountering such resources does not necessarily result in impacts on those resources. For instance, a new development could be constructed near an old neighborhood that has significant resources but not result in direct impacts because no demolition or alteration would occur, nor would the development result in indirect impacts if no changes would occur to the setting or viewshed. An archaeological resource could be encountered by earth-moving activities, but laws and regulations are in place to protect archaeological resources by preservation in place and by requiring feasible mitigation if preservation in place is not possible.

As described in Section 4.5.2, "Regulatory Setting," numerous federal, state, and local laws, regulations, and programs are in place to protect cultural resources. For example, HSC Sections 18950–18961 and the Secretary of the Interior's Standards for Rehabilitation provide regulations for the restoration or rehabilitation of historic architectural resources to preserve their original or restored architectural elements and features, while providing a safe building for occupants. Additionally, the Secretary of the Interior's Standards for the Treatment of Historic Properties were developed to help protect historical architectural resources by promoting consistent preservation practices. Local policies and ordinances, including the County of San Diego's Resource Protection Ordinance (RPO), can provide historical resources with added protection by requiring cultural resource surveys during the discretionary project review process and allowing eligible resources to be locally designated as significant. This process helps avoid substantial adverse changes by ensuring that resources are identified early in project planning and that project designs are modified to avoid or minimize direct impacts to those resources. Where avoidance is not feasible, the RPO requires that mitigation measures be implemented, thereby preserving the context, integrity,

or contributing features that give a resource its significance. Also, local jurisdictions have responsibilities to identify and mitigate adverse effects on significant historical resources under CEQA.

While adherence to existing laws, regulations, and programs would reduce impacts on archaeological and historic architectural resources upon implementation of the proposed Plan, there is no assurance that they would reduce these impacts to a less-than-significant level for all projects. Given the potential for land use changes to cause substantial adverse changes in the significance of historical and unique archaeological resources coupled with the nonrenewable nature of these resources if disturbed or altered, implementation of the proposed Plan would result in ground-disturbing activities related to regional growth and land use change that would likely cause a substantial adverse change in the significance of a historical resource or unique archaeological resource. This is a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR-75, improvements to rural corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the LOSSAN Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

Due to the rich historic and precontact background of the San Diego region, the potential for identified and unidentified historical resources to be found in transportation network improvement and program areas exists. Some of the improvements in the proposed Plan slated for completion between 2022 to 2035 would involve only operational changes that would not include construction of new transportation or transit facilities, such as increasing service frequencies or creating new transit routes, and therefore would have little impact on historic resources and unique archaeological resources. However, improvements that would involve construction of new infrastructure or facilities could encounter sensitive resources. Transportation construction projects would require grading, and potentially trenching, activities that remove or disturb the upper layer of soils and could unearth underlying archaeological resources and cause a direct disturbance to historical resources or unique archaeological resources.

In addition, construction of transportation network improvements may result in the demolition or substantial alteration of historical resources in or near established urban areas or town centers. Transportation network improvements would also introduce operational visual, audible, vibrational, and other effects that could indirectly affect historic architectural resources or alter the setting that contributes to the resources' historic value, as well as negatively affect the structures through increased levels of corrosive air contaminants (Inkpen 2004), which may damage the exterior of historic buildings. For example, the vibration analysis in Chapter 14.3 indicates that vibration during operation of proposed transportation network improvements could exceed levels of significance for structural damage, and that the vibration impact may not be mitigated to a less-than-significant level by the vibration-reducing measures included in NOI-2b. Therefore, operational effects could result in a substantial adverse change in the significance of historic architectural resources, which would be a significant impact.

Major rail-related transportation network improvements would include continued double-tracking at certain locations on the LOSSAN Rail Corridor and construction for the San Ysidro Mobility Hub. These improvements have the potential to affect archaeological resources that may be present along the shores, estuaries, lagoons, and bluffs of the San Diego coastline, as well as areas that have not been previously developed. If demolition of buildings is necessary for these projects and improvements, then historic architectural resources could also be disturbed. Various rail improvements to the Trolley and SPRINTER lines also have the potential to encounter historical resources because historic period archaeological materials are routinely identified during excavations and monitoring of construction activities in Downtown San Diego and the coastal region.

Additional major transportation network improvements that could affect archaeological and historic architectural resources include new Managed Lanes and Managed Lane Connectors on SR 52, SR 78, I-5, I-15, I-805; direct access ramps at I-15/Clairemont Mesa Boulevard, I-5/Voigt Drive, and I-15/San Diego State University West; shoulder widening and straightening improvements on SR 67 from Maplevue to Dye Road, and additional improvements to local arterial streets. These projects also have the potential to affect archaeological and historic architectural resources resulting from ground disturbance or demolition.

Given the magnitude and location of several of the transportation network improvements and programs occurring between 2022 and 2035 and the number of additional transportation network improvements, new ground disturbances are anticipated. As a result, additional archaeological and historic architectural resources would be encountered during construction activities between 2022 and 2035.

Upon implementation of the individual transportation network improvements and programs included as part of the proposed Plan, both known and unknown archaeological and historic architectural resources would be encountered. As discussed above, although adherence to existing laws, regulations, and programs would avoid or reduce impacts on cultural resources when they are encountered during the construction of transportation network improvements, there is a likelihood that they would not reduce all impacts to a less-than-significant level for all future projects. Implementation of the proposed Plan would likely result in ground-disturbing activities and operational effects related to transportation network improvements and programs that would cause a substantial adverse change in the significance of a historical resource or unique archaeological resource. This is a significant impact.

2035 Conclusion

Implementation of the proposed Plan would result in regional growth and land use change and transportation network improvements and programs that would likely cause a substantial adverse change in the significance of a historical resource or unique archaeological resource. Therefore, this impact (CULT-1) in the year 2035 is significant.

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Chapter 2, "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units are in the Cities of San Diego (51.6%), Chula Vista (17.1%), and the unincorporated jurisdictions.

As discussed in the 2035 analysis, many areas throughout the San Diego region have a high potential to contain precontact and historic-era resources. In addition to the resource-sensitive areas mentioned in the 2035 analysis, the additional growth forecasted in both the unincorporated county and western portion of the region between 2036 and 2050 would result in new development in established urban areas. Additional construction and ground-disturbing activities, such as excavation, grading, clearing, demolition, alteration, or structural relocation, would occur.

Forecasted growth and land use change would also result in indirect physical impacts on open space areas, and thus increase the likelihood of physical impacts on historical resources located within those areas. For instance, increased recreational use of open space areas could promote erosion or increase the likelihood of damage to sensitive cultural or archaeological resources through increased traffic (foot or otherwise). These ground-disturbing activities, associated with infill, redevelopment, or expansion of infrastructure, have the potential to impact archaeological and historic architectural resources. With additional growth, increased development intensities, and increased use of open space areas, the extent of impacts on archaeological and historic architectural resources by 2050 would likely be greater than that experienced by 2035 because more resource-sensitive land would be disturbed over time.

As more land is disturbed and altered for new development and redevelopment between 2036 and 2050, the possibility of irreversible losses of significant archaeological and historic architectural resources becomes greater.

As discussed in the 2035 analysis, although adherence to the existing laws, regulations, and programs would reduce impacts on archaeological and historic architectural resources upon implementation of the proposed Plan, there is a likelihood that they would not reduce these impacts to a less-than-significant level. Given the potential for land use changes to cause substantial adverse changes in the significance of historical and unique archaeological resources, coupled with the nonrenewable nature of these resources if disturbed or altered, implementation of the proposed Plan would likely result in ground-disturbing activities related to regional growth and land use change that would cause a substantial adverse change in the significance of a historical or unique archaeological resource. This is a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities, which will continue during this period. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

As true in the 2035 analysis, potential exists for identified and unidentified archaeological and historic architectural resources to occur in transportation network improvement and program areas. Some of the improvements in the proposed Plan that would be implemented between 2036 and 2050 would include only operational changes that would not include construction of new transportation or transit facilities, such as increasing service frequencies or new transit routes in existing right-of-way. However, those that would involve construction of new infrastructure or facilities could result in impacts. Major rail projects and improvements, such as continued double-tracking along certain LOSSAN corridor locations and construction of the Purple Line, have the potential to impact archaeological and historic architectural resources resulting from ground disturbance or demolition. Highway improvements, such as Managed Lane construction along I-5, I-15, I-805, SR 52, and SR 56, would require grading and potentially trenching activities that remove or disturb the upper layer of soils and could encounter underlying archaeological resources. Shoulder widening and road straightening along rural highways, such as SR 76, SR 79, SR 94, and I-8, would occur in areas that have seen relatively little development would disturb new ground and could also demolish historic architectural resources.

Any ground disturbances associated with these transportation network improvements may unearth underlying archaeological resources, causing a direct disturbance to buried resources. Given the magnitude and location of several of the transportation network improvements occurring between 2036 and 2050, and the number of additional transportation network improvements over those previously implemented by 2035, additional significant ground disturbances are anticipated. It is possible that more archaeological and historic architectural resources would be disturbed between 2036 and 2050. Transportation network improvements would also introduce operational visual, audible, vibrational, and other effects that could indirectly affect historic architectural resources or alter the setting that contributes to the resources' historic value, as well as negatively affect the structures through increased levels of corrosive air contaminants (Inkpen 2004), which may damage the exterior of historic buildings. For example, the vibration analysis in Chapter 14.3 indicates that vibration during operation of proposed transportation network improvements could exceed levels of significance for structural damage, and that the vibration impact may not be mitigated to a less-than-significant level by the vibration-reducing measures included in NOI-2b. Therefore, operational effects could result in a substantial adverse change in the significance of historic architectural resources, which would be a significant impact.

As discussed in the 2035 analysis, although adherence to the existing laws, regulations, and programs would reduce impacts on archaeological and historic architectural resources upon implementation of the proposed Plan, there is no assurance that they would reduce these impacts to a less-than-significant level for all future projects. Implementation of the proposed Plan would likely result in ground-disturbing activities and operational effects related to transportation network improvements and programs that would cause a substantial adverse change in

the significance of the resource. Given the potential for transportation facilities to cause substantial adverse changes in the significance of archaeological and historic architectural resources coupled with the nonrenewable nature of these resources if disturbed or altered, this is a significant impact.

2050 Conclusion

Implementation of the proposed Plan would result in regional growth and land use change and transportation network improvements and programs that would cause a substantial adverse change in the significance of a historical resource or unique archaeological resource. Therefore, this impact (CULT-1) in the year 2050 is significant.

MITIGATION MEASURES

CULT-1 CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE OR UNIQUE ARCHAEOLOGICAL RESOURCE

2035, 2050

CULT-1a Develop Project-Level Measures for Development Projects and Transportation Network Improvements.

During project-level CEQA review of development projects or transportation network improvements that would cause a substantial adverse change in the significance of a CEQA-defined historical resource or significantly affect a unique archaeological resource, the County of San Diego, cities, and other local jurisdictions can and should, or SANDAG shall, and other transportation project sponsors can and should, develop project-level protocols and mitigation measures, consistent with CEQA Guidelines Section 15126.4(b), to avoid substantial adverse changes to CEQA-defined historical resources and unique archaeological resources. The local lead agency can and should, SANDAG shall, and other transportation project sponsors can and should allow for adequate resources to identify (through survey, consultation, or other means) resources to develop minimization and avoidance methods where possible, and will/can and should consult with appropriate Native American representatives to provide necessary input as to resources that are of concern. These may include natural areas that contain resources of importance to tribes if they are historical resources or unique archaeological resources. These identification efforts shall be conducted by qualified professionals, as defined by the Secretary of the Interior's professional standards. Project-level mitigation measures include, but are not limited to, the following:

Archaeological Resources

- ▶ Where feasible, avoid impacts on archaeological resources through preservation in place by:
 - avoiding archaeological sites entirely during project design and construction;
 - dedicating archaeological sites as permanent easements;
 - capping or covering archaeological sites with a layer of chemically stable soil prior to development of tennis courts, parking lots, or similar facilities
- ▶ If preservation in place is not feasible, reduce impacts on archaeological sites through a data recovery program consistent with CEQA Guidelines Section 15126.4(b). (A data recovery program for archaeological sites may include excavation of a representative portion of the site—determined in consultation with the lead agency—to collect information necessary to address significant research questions.)

Historic Architectural Resources

- ▶ Conduct maintenance, repair, stabilization, rehabilitation, restoration (including that which may be required to address operational impacts), preservation, conservation, relocation, or reconstruction to reduce impacts on historic architectural resources, and have a qualified architectural historian or historic architect review mitigation plans to review consistency with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

- ▶ If avoidance of a built historic architectural resource is not feasible, apply additional mitigation options consisting of, but not limited to, specific design plans for historic districts, or plans for alteration or adaptive reuse of a historical resource that follow the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings.
- ▶ If demolition of a historic structure must occur, apply mitigation options such as recordation including a building description, historical narrative, and photographic documentation of the building and appropriate as-built drawings similar to the Historic American Building Survey documentation outlined by the National Park Service (National Park Service 2023).

CULT-1b Implement Monitoring and Data Recovery Programs for Development Projects and Transportation Network Improvements.

During project-level CEQA review and during construction of development projects, the County of San Diego, cities, and other local jurisdictions can and should, or during construction of transportation network improvements, SANDAG shall, and other transportation project sponsors can and should, implement monitoring and data recovery measures to reduce impacts on both known and undiscovered CEQA-defined historical resources of an archaeological nature and unique archaeological resources, including but not limited to the following:

- ▶ Require areas identified in any required archaeological resource identification report or monitoring and mitigation plan to be monitored during the grading phase of individual projects by a qualified archaeologist and tribal monitor, consistent with CEQA and AB 52 requirements.
- ▶ Should an archaeological deposit or feature be encountered during construction activities that is determined to be a historical resource or unique archaeological resource by a qualified archaeologist, stop ground-disturbing activities and prepare or implement an Archaeological Data Recovery Program (ADRP) in consultation with, when applicable, qualified local agency staff with technical expertise in archaeological and cultural resources management and California Native American tribes, consistent with CEQA and AB 52 requirements.
- ▶ Integrate curation of archaeological materials and associated records in a regional center focused on the care, management, and use of archaeological collections if the artifact must be excavated; if the archaeological materials are Indigenous in nature, this must be approved by the regionally affiliated Native American tribe. This does not include Native American human remains and associated burial items, the disposition of which must be determined in consultation with the Most Likely Descendants, pursuant to PRC Section 5097.98 (see Impact CULT-2).

SIGNIFICANCE AFTER MITIGATION

2035, 2050

Implementation of the proposed Plan would result in significant impacts on historical and unique archaeological resources through construction and ground-disturbing activities in 2035 and 2050. Implementation of mitigation measures CULT-1a and CULT-1b would reduce impacts through proper resource handling, surveys, regulatory compliance, and mitigation monitoring. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, this impact (CULT-1) would remain significant and unavoidable.

CULT-2 DISTURB ANY HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF DEDICATED CEMETERIES, IN VIOLATION OF EXISTING LAWS AND REGULATIONS PROTECTING HUMAN REMAINS**Analysis Methodology**

Both forecasted regional growth and land use change and planned transportation network improvements and programs have the potential to encounter buried human remains during grading, excavation, and other ground-disturbing activities. Construction activities are more likely to disturb human remains than operational activities because human remains are most likely to be encountered with initial ground disturbance.

Impacts of the proposed Plan are analyzed in combination with existing laws and regulations, such as HSC Section 7050.5, PRC Section 5097.98, and local ordinances, to determine significance. For forecasted regional growth and land use change projects, as well as planned transportation network improvements, the likelihood of encountering human remains is analyzed based on whether projects would require grading, excavation, or other ground-disturbing activities. Even minimal grading activities can encounter remains because they have been discovered only inches below the surface. Ground-disturbing activities associated with infill, redevelopment, and infrastructure expansion have the potential to unearth remains.

PRC Sections 5097 through 5097.7 specify the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. HSC Section 7050.5 addresses the protection of human remains discovered in any location other than a dedicated cemetery. These, together with the provisions in the CEQA Guidelines, provide specific guidance and requirements for addressing such remains before resuming excavation or disturbance of the project site. The HSC and PRC sections provide consultation and treatment options as well as outline appropriate communication protocols and discuss the need to maintain respect for and dignity of the remains and associated materials.

Impact Analysis**2035****Regional Growth and Land Use Change**

As shown in Table 2-1 in Chapter 2, "Project Description," of this Draft EIR, from 2022 to 2035, the region is forecasted to have an increase of 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035 regional SCS land use pattern is shown in Figure 2-5. Approximately 93.3% of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). As discussed in more detail in Section 4.11, "Land Use," and Section 4.14, "Population and Housing," the land use pattern in the proposed Plan is based on adopted general plans of the local jurisdictions in the San Diego region. Overall, the proposed Plan accommodates anticipated growth consistent with local plans and would not induce unplanned growth. The likelihood of encountering human remains is greatest for projects that include grading or excavation of areas on which past ground disturbance has been minimal, because undisturbed soils are more likely to retain intact archaeological deposits or human burials that have not been previously exposed or removed during earlier activities. . Because human remains have been found within inches of the ground surface throughout the San Diego region, even minimal grading activities can impact these resources. Excavation and soil removal of any kind, irrespective of depth, have the potential to encounter human remains. This would include areas of expansion in unincorporated portions of the region where there has previously been less development.

Although the majority of regional growth and land use change will occur in the more densely populated coastal region, between 2022 and 2035 it is expected that some development will also increase in unincorporated portions of the region. While new development and redevelopment would mostly result in the intensification of previously developed areas, ground-disturbing activities associated with infill, redevelopment, or expansion of infrastructure have the potential to unearth buried human remains.

Given the regional growth and land use change forecasted by 2035, implementation of the proposed Plan would result in the intensification of land uses along established transportation corridors and waterways where human remains may be located. For instance, human remains have been found in the San Diego River valley. The types of activities that would result in significant impacts on human remains (i.e., excavation, grading, soil removal associated with infill, redevelopment, or expansion of infrastructure) would increase between 2022 and 2035 as development intensifies to accommodate the forecasted growth. With more construction anticipated to occur within previously undisturbed areas, there is an increased potential to discover archaeological deposits or buried human remains. As discussed in Section 4.5.2, "Regulatory Setting," Native American human remains have specific provisions for treatment in PRC Section 5097.98 and HSC Section 7050.5, as well as other laws and regulations. By halting all construction activities if human remains are found, impacts on those remains or any other remains or associated burial items also in that area can be reduced.

Regional growth and land use change projects implementing the proposed Plan would be required to adhere to the laws and regulations discussed above and listed in Section 4.5.2. These laws outline appropriate treatments and the protocols for discussions regarding treatment options with MLDs; therefore, impacts associated with the disturbance of human remains would be less than significant.

Transportation Network Improvements and Programs

Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR-75, improvements to rural corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the LOSSAN Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

The transportation network improvements and programs in the proposed Plan that would be completed by 2035 would have varying degrees of impacts on human remains. Some of these improvements would involve only operational changes that would not include construction of new transportation or transit facilities, such as increasing service frequencies or new transit routes within existing rights-of-way. These changes would have minimal effects on human remains. However, transportation improvements that would involve construction of new infrastructure or facilities could result in impacts as the likelihood of encountering human remains is greatest for projects that include grading or excavation of areas on which past grading or excavation activities have been minimal.

Construction of transportation network improvements, such as Next Gen Rapid Transit and shoulder widening and road straightening along SR 67, would likely involve ground disturbance, including in areas of previously undisturbed land. Because human remains have been found within inches of the ground surface in some areas of the San Diego region, even minimal grading activities can impact these resources. Excavation and soil removal of any kind, irrespective of depth, have the potential to yield human remains. Given the magnitude and location of several of the transportation network improvements occurring by 2035, particularly in areas that have not previously been developed or extensively graded, it is possible that, as more land is disturbed, buried human remains may be unearthed, and the extent of these impacts would increase over time.

If human remains were encountered during construction, work would halt in that area, and the procedures set forth in PRC Section 5097.98 and HSC Section 7050.5 would be undertaken. Impacts associated with the disturbance of human remains would be less than significant because existing laws and regulations would ensure the appropriate handling of any human remains that are encountered.

2035 Conclusion

Implementation of the proposed Plan has the potential to uncover buried human remains through ground-disturbing activities in 2035. The requirement to follow existing laws and regulations ensures that any human remains encountered are treated appropriately. Therefore, this impact (CULT-2) is less than significant.

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Chapter 2, "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units are in the Cities of San Diego (51.6%), Chula Vista (17.1%), and the unincorporated jurisdictions. While regional population is expected to slightly decrease by 4,112 people (-0.1%), development under the proposed Plan would still result in significant new land disturbances and infrastructure expansion to accommodate job and housing growth. Much of this growth is anticipated in areas farther inland, such as Escondido and San Marcos, and in the unincorporated county, where historic ground disturbance has been less extensive than in coastal communities. As a result, construction and development in these areas may more frequently occur in previously undisturbed or lightly disturbed soils, increasing the potential to encounter intact cultural resources, including human remains.

While most new development and redevelopment associated with the proposed Plan would result in the intensification of previously developed areas, ground-disturbing activities associated with infill, redevelopment, or expansion of infrastructure have the potential to unearth human remains. By 2050 there would be increasing development under the proposed Plan in areas farther inland, for example, in Escondido and San Marcos. These areas have previously experienced less ground disturbance relative to the coastal region. As with the 2035 analysis, when more land is disturbed and altered for new development and redevelopment anticipated as part of the proposed Plan, the possibility for encountering human remains becomes greater.

As discussed in the 2035 analysis, if human remains were to be encountered during construction, work would halt in that area and the procedures set forth in PRC Section 5097.98 and HSC Section 7050.5 would be undertaken. Impacts associated with the disturbance of human remains would be less than significant because existing laws and regulations would ensure the appropriate handling of any human remains that are encountered.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities, which will continue during this period. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

As with the 2035 analysis, due to the rich historic and precontact background of the San Diego region, the potential for human remains to occur within the transportation network improvement and program areas associated with the proposed Plan exists. Some of the improvements in the proposed Plan implemented by 2050 would involve only operational changes that would not include construction of new transportation or transit facilities, such as increasing service frequencies or new transit routes within existing rights-of-way. These improvements should have no impact on human remains because they would be in previously disturbed areas. However, transportation improvements that would involve construction of new infrastructure or facilities could result in impacts on buried human remains.

For example, widening of the highways or construction of new Managed Lanes and Next Gen Rapid Transit would require grading and possibly other ground-disturbing activities that remove or disturb the upper layer of soils, which could unearth underlying buried resources, including human remains.

Any ground disturbances associated with these transportation network improvements and programs may unearth underlying human remains. This includes improvements that would occur in previously undisturbed areas, which have a higher likelihood of containing intact buried resources. Given the magnitude and location of several of the transportation network improvements and programs occurring by 2050, and the number of additional transportation network improvements over those previously implemented by 2035, additional significant ground disturbances are anticipated. It is, therefore, possible that more buried human remains would be encountered by 2050.

As discussed in the 2035 analysis, if human remains are encountered during construction, work would halt in that area and the procedures set forth in PRC Section 5097.98 and HSC Section 7050.5 would be undertaken. Impacts associated with the disturbance of human remains would be less than significant because existing laws and regulations would ensure the appropriate handling of any human remains that are encountered.

2050 Conclusion

Implementation of the proposed Plan has the potential to uncover buried human remains through ground-disturbing activities in 2050. The requirement to follow existing laws and regulations ensures that any human remains encountered are treated appropriately. Therefore, this impact (CULT-2) is less than significant.

MITIGATION MEASURES

No mitigation measures are required for this impact.

4.5.5 Cumulative Impacts Analysis

C-CULT-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON CULTURAL RESOURCES

The area of geographic consideration for cumulative impacts on cultural resources is the Southern California and Northern Baja California region. Because local and regional settlement patterns are closely linked, it is important to evaluate the loss of cultural resources across this entire geographic area to adequately consider how the loss of resources would impact the understanding of the closely interrelated prehistory and history of the peoples who have inhabited the Plan area. Historical resources should be considered based on their importance both within their local setting and in the regional framework. A projection approach for cumulative analysis of cultural resources allows for an overarching discussion of regional loss of interrelated cultural resources associated with general patterns of regional urbanization, growth, and land use changes. A significant cumulative impact on cultural resources would occur if the proposed Plan would result in incremental effects that are considered cumulatively significant when considered in combination with the impact projections in adopted plans, and impacts on cultural resources resulting from existing and probable future projects. Significant cumulative impacts related to cultural resources would occur if cumulatively there would be a substantial increase in impacts with regard to the significance of historic or unique archaeological resources, or disturbance of human remains in a manner inconsistent with applicable laws.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, San Diego Associate of Government's Connect SoCal 2024-2050 RTP/SCS EIR (SCAG 2024) for the Southern California region, the County of San Diego General Plan Update EIR (County of San Diego 2011), and the California-Baja California 2021 Border Master Plan (Caltrans 2021). Many local jurisdictions provide guidance and protective measures for cultural resources in their general plans and other local planning documents. There are generally no regional plans pertaining to such resources for the Northern Baja California region. The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land port of entries (POEs) and transportation infrastructure serving those POEs in the California-Baja

California region. The Master Plan does not have an associated environmental analysis document, and no detailed analysis of cultural resource impacts was conducted for this Master Plan (Caltrans 2021).

Impacts of the Proposed Plan

Areas in the San Diego region are known to have a high potential for prehistoric, historic, and cultural resources. Implementation of the proposed Plan would result in the construction of development projects and transportation network improvements that would result in a wide range of construction and ground-disturbing activities, such as excavation, grading, and clearing, which remove or disturb the upper layer of soils. Because cultural resources have been found within inches of the ground surface in some areas of the San Diego region, in some locations these ground-disturbing activities would cause a substantial adverse change in the significance of a historical or unique archaeological resource (Impact CULT-1).

Implementation of the proposed Plan would necessitate construction activities that in some locations would cause a substantial adverse change in the significance of a historical or unique archaeological resource through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historical or unique archaeological resource would be materially impaired. Operational improvements, such as increased service frequencies and expanded transit routes, are anticipated to occur within existing disturbed rights-of-way and would not involve ground disturbance. Therefore, operational impacts are not expected to result in significant impacts on archaeological resources. However, operational impacts such as long-term vibration may still affect historic architectural resources through indirect physical stress or damage. These effects may be significant, and additional mitigation may be required depending on site-specific conditions and proximity to vibration-sensitive structures. This would occur within each horizon year analyzed (2035 and 2050). Therefore, impacts related to a substantial adverse change in the significance of a historical or unique archaeological resource would be significant.

As described in Section 4.5.4, "Environmental Impacts and Mitigation Measures," the proposed Plan would result in ground-disturbing activities associated with regional growth and land use change and planned transportation network improvements that in some locations would unearth and impact buried human remains in 2035 and 2050. Impacts would be less than significant because adherence to existing laws and regulations associated with the disturbance of human remains as detailed in Section 4.5.2, "Regulatory Setting," ensures the appropriate handling of any human remains that are encountered (Impact CULT-2).

Impacts of Related Projects

Land development and infrastructure projects throughout the region and state, such as transportation infrastructure, energy generation and transmission corridors, and commercial and residential land development, would likely result in impacts if these projects occur in areas containing significant cultural resources. For example, projects planned in the Southern California region, such as the Navy OTC Revitalization Project, San Diego International Airport (SDIA) Airport Development Plan, High-Speed Train (HST), and City of San Diego Pure Water North City, would result in impacts related to destruction or alteration of historical resources (U.S. Department of the Navy 2020; SDCRAA 2020; HSRA 2005; City of San Diego n.d.). The HST project in the San Diego region would result in construction of track, bridges and elevated guideways, stations, and other features that may result in destruction or alteration of cultural resources (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on cultural resources. The EIR for the SDIA Airport Development Plan also identified significant and unavoidable impacts to historical resources (SDCRAA 2020). Both the Navy Old Town Campus Revitalization and City of San Diego Pure Water North City Project would result in impacts; impacts associated with historical resources would be significant and mitigated to a level of less than significant respectively (U.S. Department of the Navy 2020; City of San Diego n.d.).

Impact Projections in Adopted Plans

Implementation of SCAG's 2024-2050 RTP/SCS would result in significant and unavoidable impacts related to adverse changes in the significance of archaeological and historic architectural resources and disturbance of human remains. In addition, the SCAG 2024-2050 RTP/SCS's influence on growth would contribute to regionally

significant impacts on cultural resources and be cumulatively considerable (SCAG 2024). The EIR prepared for the County of San Diego General Plan Update found that, with mitigation, implementation of the updated General Plan would result in less-than-significant direct or cumulative impacts on historical, archaeological, or disturbance of human remains (County of San Diego 2011). The California-Baja California Border Master Plan does not provide analysis of impacts on cultural resources; however, projects included in the Master Plan could have adverse impacts on cultural resources due to ground disturbance necessary for construction of infrastructure.

Cumulative Impacts and Impact Conclusions

2035

A significant cumulative impact on cultural resources is expected to occur in 2035 due to the incremental effects of the proposed Plan when viewed in combination with impacts of cumulative projects and the impact projections in adopted plans within the Southern California and Northern Baja region. Regional growth, infill development, and infrastructure projects would continue to result in ground-disturbing activities that could affect the significance of historical or unique archaeological resources, even with applicable regulatory protections in place. The proposed Plan would contribute to this cumulative impact through increased development in areas with known and potential cultural resources. Because its contribution would add to a regional pattern of resource loss and disturbance, particularly from ground-disturbing activities, it would be considered cumulatively considerable under CEQA. While the Plan requires compliance with applicable laws and policies for cultural resource protection, these measures would not fully avoid the potential for adverse effects. Therefore, the proposed Plan would contribute to a significant cumulative impact on historical and unique archaeological resources. Because the proposed Plan's impacts on historical and unique archaeological resources are significant, they are also cumulatively considerable in 2035 (Impact C-CULT-1).

In addition, implementation of the proposed Plan combined with development associated with other regional plans and related projects would result in adverse impacts on human remains from development activities. Development associated with the proposed Plan, as well as in the SCAG region, would be required to comply with federal, state, and local regulations, as described in Section 4.5.2, "Regulatory Setting," if human remains are encountered. Cumulative projects located in Mexico would not be subject to compliance with such regulations. However, the proposed Plan's contribution to these cumulative impacts would be less than cumulatively considerable, because required compliance with federal, state, and local regulations would ensure the appropriate handling of any human remains that are encountered (Impact C-CULT-1).

2050

The cumulative analysis presented above for 2035 is also applicable to year 2050. By that time, continued regional growth, expanded land use, and additional transportation improvements would result in a significant cumulative impact on cultural resources across the Southern California and Northern Baja California region. By 2050, there would be increased development and infrastructure activities in areas farther inland that have previously experienced less ground disturbance relative to the coastal region, increasing the likelihood of substantial adverse changes in the significance of historical or unique archaeological resources. Because the proposed Plan contributes to this regional pattern of development, including in areas known to contain sensitive cultural resources, its incremental effects would be cumulatively considerable. Although the Plan includes compliance with applicable cultural resource protection regulations, these measures may not fully avoid or mitigate its contribution. Therefore, the proposed Plan would contribute to a significant cumulative impact on historical and unique archaeological resources. Because the proposed Plan's impacts on historical and unique archaeological resources are significant, they are also cumulatively considerable in 2050 (Impact C-CULT-1).

By 2050, implementation of the proposed Plan combined with development associated with other regional plans and related projects would result in adverse impacts on human remains from development activities. Development associated with the proposed Plan, as well as in the SCAG region, would be required to comply with federal, state, and local regulations, as described in Section 4.5.2, "Regulatory Setting," if human remains are encountered. Cumulative projects located in Mexico would not be subject to compliance with such regulations. However, the proposed Plan's contribution to these cumulative impacts would be less than cumulatively

considerable, because required compliance with federal, state, and local regulations would ensure the appropriate handling of any human remains that are encountered (Impact C-CULT-1).

MITIGATION MEASURES

C-CULT-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON CULTURAL RESOURCES

2035, 2050

Mitigation measures CULT-1a and CULT-1b call for measures to avoid or substantially reduce adverse changes in the significance of a cultural resource and protect cultural resources listed on or eligible for listing on the CRHR. These measures also require the implementation of monitoring and data recovery programs during construction. The mitigation measures would be included in project-level planning, design, and CEQA reviews. The measures would be required as part of transportation projects under the proposed Plan for which SANDAG is the lead agency, and would be recommendations when other local jurisdictions act as lead agency. However, their implementation would not reduce impacts to less than significant because it cannot be guaranteed that all future project-level impacts under the proposed Plan can be mitigated to a less-than-significant level. Because mitigation measures CULT-1a and CULT-1b would not reduce the proposed Plan's incremental impacts to less than significant, the proposed Plan's incremental contributions to cumulative cultural resources impacts in years 2035 and 2050 would remain cumulatively considerable post mitigation.