

Appendix 9A. Cultural Resources Background

Background – Precontact

The body of current research of precontact occupation in San Diego County and western Imperial County recognizes the existence of at least two major cultural traditions, discussed here as Early Period/Archaic and Late Period, based upon general economic trends and material culture. Within the region, the Early Period/Archaic spans from roughly 9,500 to 1,300 years ago, and the Late Period begins approximately 1,300 years ago and ends with historic contact. The Historic Period covers the time from Spanish contact to the present (Table D.7-3). The Ethnographic Background section describes the lifeways of Native American groups at the time of European contact and into the Historic Period.

The study area encompasses at least four major environmental provinces: coastal, foothill, mountain, and desert. An understanding of the differences among these three provinces in terms of water and subsistence resource availability, and how the relative habitability of these areas changed over time based on climatic and other factors (both environmental and cultural), is essential to deciphering and explaining the specific details of the region’s cultural history.

Early Period/Archaic

For this discussion, the Early Period/Archaic includes the San Dieguito Complex and regional manifestations of what is generally termed the Archaic Complex, including the coastally oriented La Jolla, the inland valley/foothills Pauma, and the Desert Archaic.

These archaeological complexes are as yet poorly defined, as are the interrelationships between contemporaneous coastal, inland, and desert assemblages (Gallegos, 1987). The San Dieguito Complex was originally believed to represent big game hunters based on the prevalence of large points, knives, and scraping tools and relatively few milling implements in some assemblages. However, based on several decades of continuing research, the San Die-

Table Ap.9A-1. San Diego Area Culture History

Terminology for Culture History in the San Diego Area				
Geologic Time	Period	Years Before Present	Other Names	Diagnostic Cultural Material
Late Holocene	Late Period	Present	Historic/Contact Precontact / Yuman Kumeyaay / Luiseno Cuyamaca Complex San Luis Rey I, II	Bow and arrow, small triangular and side-notched points, Cremations, fish hooks, Ceramics, Obsidian Butte obsidian
		1,300		
Middle Holocene	Early Period (Archaic)	2,000		Stone bowls, triangular points Fishing gorges, burials
		3,000		
		4,000		
		5,000		
Early Holocene	Early Period (Archaic)	6,000		Dart and atlatl, cogged stones, Plummets stones, leaf-shaped Points/knives, corner-notched and stemmed points, Coso Obsidian, burials
		7,000	Pauma Complex Encinitas Tradition La Jolla Complex	
		8,000		
		9,000		Spear, crescents, lanceolate and leaf-shaped points, leaf-shaped knives, Casa Diablo and Coso Obsidian, burials
		10,000	San Dieguito Tradition/Complex	

Source: Gallegos & Associates, 2006a

guito Complex is now better typified as a non-specialized hunting and gathering society. These people had a relatively diverse economy wherein relatively mobile bands accessed and used a wide range of plant, animal, and lithic resources.

Movement of some early groups into coastal areas of San Diego County may have been spurred by the gradual desiccation of the vast Pleistocene pluvial lake system that had characterized the basins and valleys of the Great Basin until the ensuing somewhat warmer Anathermal climatic interval (ca. 11,000 to 8,000 years B.P.). This desert migration hypothesis is supported by the similarity between Mojave Desert assemblages and those of early Holocene Archaic sites in San Diego County. Several researchers have recognized the similarity of artifacts across large regions and grouped these contemporaneous complexes under the nomenclature of either the Western Pluvial Lakes Tradition or the Western Lithic Co-Tradition (Bedwell, 1970; Davis et al., 1969; Moratto, 1984; Rogers, 1939; Warren, 1967).

Some early migrations into San Diego County also may have come from the north. Recent work on the northern Channel Islands near Santa Barbara demonstrates island occupation dating back to the terminal Pleistocene, almost 12,000 years ago (Erlandson et al., 1996; Johnson et al., 2000). At this early date, a fully maritime-adapted population exploited shellfish and used seaworthy boats to ply channel waters. Fish were captured using bone gorges by 10,000 years ago (Rick et al., 2001). Such extremely early dates are lacking for the adjacent Santa Barbara mainland; presumably because the rise in sea level brought about by post-Pleistocene deglaciation would have inundated sites along the late Pleistocene/early Holocene coastlines. At this time in San Diego County, the shoreline stood two to six km farther seaward than today's coast (Masters and Gallegos, 1997). Therefore, any evidence for early coastal adaptation coeval with that of the northern Channel Islands would have been destroyed within this two to six km paleo-shoreline area by sea encroachment thousands of years ago.

The origin of coastal populations and subsequent interaction between these populations and Great Basin desert groups is a subject of some debate (Gallegos, 1987). Whatever their origins, the first occupants of western San Diego County immediately exploited the coastal and inland resources of plants, animals, shellfish, and fish (Gallegos, 1991; Kaldenberg, 1982; Kyle et al., 1998; Moriarty, 1967).

Artifact assemblages attributed to the San Dieguito Complex have also been recognized in Imperial County, where pioneer archaeologist Malcolm J. Rogers identified three phases, San Dieguito I, II, and III, each of which incorporated increasingly sophisticated tool types. Rogers believed that the phases were the product of cultural evolution in a long-lived culture (Rogers, 1966). To date, researchers have not substantiated the validity of his chronological phases, suggesting instead that the phase distinctions may be due to site-specific economic specialization or sampling error (Schaefer, 1994; Warren, 1976; Welch, 1981). A lack of chronological control for sites that may date to the early Holocene is a major issue impeding Early Period archaeological research in Imperial Valley. Neither stratified sites nor reliably dated sites of an early Holocene age have been identified in the western Colorado Desert, perhaps due in part to the highly active geomorphology of the Salton Trough. Those sites designated as San Dieguito have been defined as such on the basis of their locations on terraces above now-dry water sources, such as streams and lakeshores, and based on artifact morphology, patination (weathering), and embeddedness in stabilized desert pavements (Rogers, 1966).

Whether in the coastal or desert province, the development of a generalized economy indicates that representatives of the San Dieguito Complex and related groups can be placed within the general Early Period/Archaic pattern. Early Period/Archaic cultures occur within North America at slightly different times in different areas, but are generally correlated with local economic specializations growing out of the earlier Paleo-Indian Tradition (Willig et al., 1988). More diverse artifact assemblages and more com-

plex regional variations differentiate Early Period/Archaic cultures from Paleo-Indian traditions. Such diversification is generally thought to have resulted from the gradual shift away from a herd-based hunting focus to a more diverse and area-specific economy.

Within the study region, the earliest dated Early Period/Archaic sites are found near coastal lagoons and river valleys in San Diego County. These sites include the Harris site (CA-SDI-149), the Agua Hedionda sites (CA-SDI-210/UCLJ-M-15 and CA-SDI-10695), Rancho Park North (CA-SDI-4392/SDM-W-49), and Remington Hills (CA-SDI-11079), all dating from 9,500 to 8,500 years ago. The coastal lagoons of northern San Diego County supported large relatively sedentary populations between 8,000 and 5,000 years ago, as shown by the numerous radiocarbon-dated sites at major residential bases adjacent to these lagoons (Gallegos, 1992; Byrd and Reddy, 1999). After 3,000 years ago, there is a reduction in archaeological sites in northern San Diego County until about 1,500 years ago. In some locations, this reduction in the number of archaeological sites can be attributed to siltation of coastal lagoons and consequent depletion of shellfish and other lagoonal resources (Gallegos, 1985; Miller, 1966; Warren and Pavesic, 1963). Elsewhere, in northernmost San Diego County, recent evidence suggests that some sites dated to this period may be buried beneath river valley alluvial deposits (Byrd and Reddy, 2002). Archaeological sites dated to circa 2,000 years ago are found in the vicinity of San Diego Bay, where shellfish were still abundant, and may represent what can be considered the end of the La Jolla Complex (Gallegos and Kyle, 1998).

The La Jolla and Pauma complexes, identified as following the San Dieguito Complex in San Diego County, may simply represent seasonal or geographic variations of the somewhat older and more widespread San Dieguito Complex. Inland La Jolla Complex occupation sites have been reported in transverse valleys and sheltered canyons and were termed "Pauma Complex" by D. L. True (True, 1958a). Pauma Complex sites by definition have a predominance of grinding implements such as manos and metates, a lack of shellfish remains, greater tool variety, a greater expression of a more sedentary occupation, and a stronger emphasis on both gathering and hunting (True, 1958a; Warren et al., 1961).

Early Period/Archaic site types from 9,500 to 1,300 years ago within San Diego County include coastal habitation sites, inland hunting, gathering, and seed milling camps, and quarry sites. Material cultural assemblages during this long period are remarkably similar in many respects. These cultural deposits may well represent a process of relative terrestrial economic stability, and presumably slow cultural change. Though various culture traits developed or disappeared during the span of 9,500 to 1,300 years ago, there is a clear pattern of cultural continuity during this period.

The Archaic period in western Imperial County is not strongly represented. Although the increased aridity during the Middle Holocene (especially between 7,000 and 5,000 years B.P.) in the Mojave Desert (Spaulding, 1991) and the greater Southwest may also have characterized the Colorado Desert, it is unclear that the unfavorable climatic conditions of the Altithermal would necessarily have prompted depopulation of the area. The Salton Trough is unique in having contained a large freshwater lake that filled, dried out, and filled numerous times in prehistory in response to the western diversion of the Colorado River into the Salton Trough. While the general timing of several of these lacustral intervals is fairly well established for the late Holocene (Waters, 1983), data for earlier periods is currently lacking. The Archaic period is represented in the western Colorado Desert by occasional surface finds of isolated dart points, a cairn burial from the Yuha area dated between 1,650 and 3,850 years B.P. (Taylor et al., 1985), stratified deposits spanning the Archaic and Late Periods at Indian Hill Rockshelter in Anza-Borrego Desert State Park (Wilke and McDonald, 1989; McDonald, 1992), and by an unusually high concentration of Archaic points and crescentics at the Salton Sea Test Base (Apple et al., 1997). Indian Hill Rockshelter produced a radiocarbon date of 4,070 \pm 100 years B.P. and 11

rock-lined cache pits in the preceramic stratum. The pits have been interpreted as evidence for food storage within a logistical foraging system in which groups returned to this hunting or base camp on a seasonal or other predictable basis (Wilke and McDonald, 1989; McDonald, 1992). The Salton Sea Test Base finds were recovered from sub-sea level elevations that were inundated by Lake Cahuilla many times following their presumed dates of manufacture. The researchers believe that the points represent *in situ* occupation in a portion of Lake Cahuilla that did not receive much sediment during lacustrine intervals (Apple et al., 1997).

Late Period

During the Late Period (circa 1,300 years ago to historic contact), a material culture pattern emerged in the archaeological record similar to that documented by ethnographers and ethnohistorians. The economic pattern during this period appears to be one of more intensive and efficient exploitation of local resources. The success of these highly refined economic patterns is well evidenced by the numerous Kumeyaay/Kamia/Kwaaymii, Cahuilla, and Cupeño habitation sites scattered through the study area. The study area does not include any portions of the ethnographically recorded territory of the Luiseño. The increase in Late Period site density reflects both better preservation of the more recent archaeological record and a gradual increase in population within the region. Artifacts and cultural behaviors reflecting this Late Period pattern include small projectile points indicative of bow and arrow technology, pottery, the establishment of semi-permanent or permanent seasonal village sites, the proliferation of acorn milling sites in the uplands, the widespread distribution of obsidian from the Obsidian Butte source in Imperial County, and interment by cremation.

In San Diego County, several Late Period cultural patterns have been described, including the San Luis Rey Complex in northern San Diego County (Meighan, 1954) and the Cuyamaca Complex of the central Peninsular Range (True, 1970). A subsistence pattern characterized by winter village occupation at lower elevations with a reliance on stored resources and movement to mountain villages for the summer and fall months generally characterizes these Late Period complexes and their ethnographic counterparts.

Judging from ethnographic sources, a similar settlement pattern was established among the Cupeño and their ancestors (Hill and Nolasquez, 1973). While earlier reconstructions stressed the preeminence of inland valley village locations and exploitation of resources in those zones, more recent research has revealed that coastal areas were quite heavily populated throughout the Late Period (Byrd and Reddy, 2002; Gallegos, 2002) and that sub-optimal (more labor intensive) resources, such as *Tegula* sp., *Donax gouldii*, and small schooling fishes achieved dietary importance. Furthermore, many more specialized sites cluster around major residential sites, at least along the northernmost coast of San Diego County, suggesting declines in territorial ranges and more thorough exploitation of littoral resources (Byrd and Reddy, 2002).

Despite the documented importance of coastal resources, archaeological and ethnographic evidence indicates that not all groups included travel to the coast in their typical annual subsistence round. This seems clearly the case for Late Period inhabitants of western Imperial Valley and for the Cupeño (Hill and Nolasquez, 1973; Kroeber, 1925). Some ethnographically documented Kumeyaay groups also cycled primarily between mountain and high desert residential bases (Cline, 1979).

In the Colorado Desert, a Late Period cultural pattern subdivided into three chronologically distinct stages designated Yuman I, II, and III was originally perceived by Rogers (1945). The sequence is now

more commonly termed Patayan to avoid confusing an archaeological pattern and a linguistic/cultural group. As Schaefer (1994) points out, the precontact Patayan world, which included both Yuman and Takiic language speakers, was “multicultural and intercultural.” The Patayan sequence is based on chronologically diagnostic ceramic types (Waters, 1982a; 1982b). Patayan I ceramic types, dating between approximately A.D. 700 and A.D. 1000, are found principally along and east of the Colorado River and are rare in the western desert. Patayan II ceramics provide evidence for a rapid diffusion of pottery making into new territories and are prominent around the 12-m (40 feet AMSL) shoreline of ancient Lake Cahuilla, placing them at ca. A.D. 1000-1500. The Patayan III stage dates after A.D. 1500 and is characterized by the addition of Colorado Buff, a type that is rarely found along the 12-m shoreline, but is the most widely distributed of the Patayan ceramics types (Waters, 1982a; 1982c). It is not uncommon to recover Colorado Buff sherds in western San Diego County coastal sites (Waters, 1982a).

It is not possible to understand the Late Period of the western Colorado Desert and eastern slopes of the Peninsular Range without reference to Lake Cahuilla. Combining radiocarbon evidence from core samples and archaeological sites with ethnohistoric information, Waters (1983) determined that the Salton Trough experienced four major lacustrine episodes during the period between approximately 400 and 1,200 years ago. A fifth partial refilling has since been proposed based on faunal evidence recovered from the Dunaway Road site in southeastern Imperial County. There, specimens of immature striped mullet, a catadromous species that spawns in the Gulf of California and returns to the Colorado River, demonstrate that a recharge from the Colorado River must have occurred between A.D. 1516 and 1659 (Schaefer, 1994). The patterning of archaeological sites is along the 12-m contour that represents the high stand shoreline, especially at embayments, along sandy spits, at the mouths of major washes, and where parallel dune systems support mesquite groves (Schaefer, 1994). At times when the Colorado River rediverted its flow back to the Gulf of California, about 60 years would be required to desiccate Lake Cahuilla completely (Wilke, 1978). The recession of the final 12-m stand of Lake Cahuilla is recorded archaeologically in the numerous Late Period sites along successively descending shorelines. These include fish camps containing abundant fish bones and stone fish traps that occupy elevations well below sea level.

A major cultural ecological study of the 12-m Lake Cahuilla shoreline occupation by Wilke (1978) demonstrated that people exploited a wide variety of lacustrine-related resources including several Colorado River species, *Anodonta* sp. mussels, aquatic birds, and cattail and bulrush. In addition, typical desert plant and animals, such as screwbean, honey mesquite, grass seeds, cactus, lagomorphs, rodents, and desert tortoise, were included in the diet. Wilke concluded that sites in his study represented permanent year-round residential bases, but acknowledged that other settlement types might also have included exploitation of Lake Cahuilla shoreline resources. Following desiccation of Lake Cahuilla, major out-migrations to other areas of interior California would have occurred (Wilke, 1978). Weide offered an alternative model of lakeshore occupation that questioned the stability of lakeshore habitats and proposed that only seasonal, temporary camps were possible. Final desiccation of the lake would have simply caused adjustments in seasonal scheduling (Weide, 1974; Weide and Barker, 1974). Based on analysis of plant and animal remains from coprolites recovered from three Late Period habitation sites associated with the 12-m shoreline (including the two sites studied by Wilke), Sutton (1998) determined that the sites were not occupied during the winter. He proposed a settlement-subsistence model consisting of large spring/summer and small winter habitation sites. Based on evidence from Superstition Mountain and the Late Period component of Indian Hill Rockshelter, Schaefer (1994) argues that the Lake Cahuilla shoreline was just one optimal habitat in a seasonal round. He points out that sites along recessional shorelines exhibit the same midden characteristics, artifact densities, and artifact diversity typical of 12-m shoreline loci and that these characteristics are suggestive of

temporary, seasonal camps. Variability and flexibility in the face of changing environmental circumstances seem to have been the main principles governing Late Period adaptation throughout the area (Schaefer, 1994).

The extensive system of trails that crisscross the desert attests to the importance of long-range resource extraction and trade during the Late Period. Extensive travel and trade between the Pacific coast and well beyond the California-Arizona and California-Mexico borders are well documented in ethnohistoric accounts and in the archaeological record. Material evidence for these region-wide links exists in the widespread distribution of obsidian from the Obsidian Butte and San Felipe sources, the presence of Pacific coast and Gulf of California shellfish in Colorado Desert and eastern Peninsular Range sites, and the occurrence of desert-manufactured ceramics in Pacific coastal sites (Hildebrand et al., 2002; Waters, 1982a).

Such evidence of extensive trade and travel across broad regions helps to explain the many Late Period cultural patterns that were shared among neighboring groups in southern California. Although significant differences existed between the Takic language-speaking groups (Cahuilla and Cupeño) and Yuman language-speaking Kumeyaay/Kamia/Kwaaymii cultures, the long interaction among these groups during the Late Period resulted in the exchange of many technological, material cultural, and ideological patterns.

Ethnographic Background

The Sunrise Powerlink Project falls chiefly within ethnographically recorded Kumeyaay/Diegueño/Kwaaymii territory. The study area skirts Cupeño territory in the north-central portion of the corridor below Warner's Ranch, and may include some Cahuilla territory in the area to the west of Borrego Springs. One of the System Alternatives, the LEAPS Project or Serrano/Valley-North 500 kV, lies within ethnographic territory attributed to the Luiseño. Territorial boundaries are not precisely mapped and may have been fluid.

The Yuman-language speaking Kumeyaay (also referred to as Ipai-Tipai, Northern and Southern Diegueño, or by clan name, such as Kwaaymii) were organized into patrilineal clans. Summer domiciles consisted of simple windbreaks or sometimes caves fronted with rocks; winter houses were slightly sunken dome or gable-shaped brush structures. Platform-supported granaries were found in villages. The sweathouse is said to have been of only minor importance (Luomala, 1978; Spier, 1923). Kumeyaay territory extended from the Colorado Desert to the Pacific Ocean; however, at least during the historic period, territorial groups may have focused their seasonal movements within a subset of possible environments such as within a coast to mountain region (Shipek, 1991) or between the mountains and the desert (Cline, 1980). It is suggested that a lineage could use any part of the greater territory if resource availability allowed (Shackley, 2004). The people primarily subsisted on hunted and gathered resources with minimal horticultural practices (Shipek, 1993).

At the time of contact, the Cupan-speaking Cahuilla, and Cupeño shared similar cultures. Both groups were organized into patrilineal clans and lineages, as well as into two nonpolitical, nonterritorial patrimoieties. The Coyote and Wildcat moieties governed marriage patterns and had reciprocal ceremonial responsibilities, perhaps more so among the Cahuilla (Gifford, 1918; Strong, 1929). A ceremonial "complex" consisting of a ceremonial chief and assistant chief (paha), a dance house, and a ceremonial bundle is recorded for all three groups. How these essential roles and objects were distributed between ceremonially reciprocal clans varied among the groups (Strong, 1929) and possibly over time. Although during the precontact period, dwellings are believed to have been dome-shaped

brush shelters, rectangular forms became common during the historic period. The village chief typically had a larger house, which also was the ceremonial house, and villages contained a men's sweathouse and several acorn granaries (Bean, 1978; Bean and Shippek, 1978; Bean and Smith, 1978; Kroeber, 1925). Both groups were hunter-gatherers, but there were differences in their subsistence and settlement patterns, based on the particular environmental zones encompassed in their territories. The Cahuilla were the only Cupan speakers to inhabit the desert floor where mesquite was an important staple (Bean and Saubel, 1972).

Cupeño territory was bordered by Cahuilla and Northern Diegueño/Ipai territories on the northeast and south, respectively, and by Luiseño territory on the west. The Cupeño language was most similar to Cahuilla, and the two languages are said to have been mutually intelligible, although some Yuman elements have been added to Cupeño. The Cupeño occupied two villages, the largest being Kupa at Warner Hot Springs, and Wilakal, about four miles southeast of Kupa at San Ysidro (Strong, 1929). In 1902, the residents of Kupa were forcibly removed to the Pala Indian Reservation, where their descendants now live among Luiseño people.

It is difficult to identify ethnicity on the basis of most archaeological assemblages. For example, although the introduction of ceramics into southern California seems quite clearly to have come from Yuman-speaking areas near the Colorado River (Waters, 1982), over time the technology spread throughout all parts of the southernmost portion of California and into Baja California. Likewise, Late Period Cottonwood and desert side-notched projectile point types are ubiquitous in both Cupan and Yuman speaking areas (Moratto, 1984).

On the other hand, differences in the relative frequencies of bedrock milling element types between the Luiseño and Kumeyaay have been noted (True, 1966). In the San Luis Rey River Valley, Luiseño sites have a greater proportion of mortars to basins than is the case at Kumeyaay sites in the Cuyamaca Mountains. Much additional research is required to determine the accuracy of this hypothesis and whether this pattern extends to other areas and cultures and the extent to which it reflects local vegetation rather than ethnicity. With greater emphasis on comparing the full spectrum of the various groups' material culture, additional differences may be discernable among the Cupan and Yuman speaking peoples of southern California.

Luiseño Area. One of the System Alternatives, the LEAPS Project or Serrano/Valley-North 500 kV, lies within an area historically occupied by the Luiseño, a Takic-speaking southern California native social group (Kroeber, 1925; Bean and Shippek, 1978). Luiseño is a term that was derived for Native Americans who were administered by the Mission San Luis Rey, and later applied specifically to the Payomkawichum ethnic nation who were present in the region where the mission was founded. Meaning the "western people," the name Payomkawichum can also be applied to the closely related coastal Luiseño who lived north of the mission. The Luiseño language is derived from the Cupan segment of the Takic language branch, a part of the Uto-Aztecan linguistic family (Mithun 2001:539-540).

Luiseño territory was situated in the north half of San Diego County and the western edge of Riverside County. Their lands encompassed the southern Santa Margarita Mountains and the Palomar Mountains, and their foothills to the Pacific Ocean. It extended eastward into the San Jacinto Valley and the western foothills of the San Jacinto Mountains. Their neighbors to the north were the Juaneño (Acjachemen) who spoke a Luiseño dialect; the Cahuilla and Cupeño to the east who spoke other Takic Cupan languages; and the Ipai to the south who spoke a California-Delta Yuman language. Today, many contemporary Juaneño and coastal Luiseño identify themselves as descendants of the indigenous people living in the local area, termed the Acjachemen Nation.

The Luiseño resided in permanent villages and associated seasonal camps. Village population ranged from 50–400 with social structure was based on lineages and clans. A single lineage was generally represented in smaller villages, while multiple lineages and a dominant clan presided in larger villages. According to one of the Franciscan missionaries, “All rancherias were composed of a single relationship” (Boscana 1934:32). Each clan/village owned a resource territory and was politically independent, yet maintained ties to others through economic, religious, and social networks in the immediate region. There were contact period villages in the vicinity of this segment, near the towns of Vista, San Marcos, and Escondido, but researchers have been unable to place rancheria names from the mission registers with these locations.

The Luiseño practiced both cremation and burial of the dead. Specific individuals managed the cremations and were compensated for their services; a specialist practiced ritual cannibalism on high-ranking shamans. The death of at least those of higher rank was commemorated on the first anniversary.

Like other indigenous California groups, the primary food staple was the acorn (Bean and Shippek 1978:552), supplemented by other plant resources, fish, shellfish, waterfowl, and marine and terrestrial mammals. Villages were situated near reliable sources of water, needed for the daily leaching of milled acorn flour. Acorn mush (*weewish*) was prepared in various ways and served as gruel, cakes, or fried; it might be sweetened with honey or sugar-laden barriers; and could be made into a stew with added greens and meat. Other plant foods included pine nuts and the seeds from grass, manzanita, sunflower, sage, chia, lemonade berry, wild rose, holly-leaf cherry, prickly pear, lamb’s-quarter. Seeds were parched, ground, and prepared similar to weewish variations. Greens included thistle, miner’s lettuce, white sage, and clover, among others; thimbleberries, elderberries, and wild grape were eaten raw or dried. Cooked yucca buds, blossoms, pods, and stalks provided a sizable addition to the community’s food resources. The diet also included underground bulbs, roots, and tubers, as well as mushrooms and tree fungus. Various teas or medicinal cures were made from flowers, fruits, stems, or roots. Large and small prey included deer, antelope, rabbit, jackrabbit, wood rat, mice, and ground squirrel, as well as quail, ducks, and other birds. Fish, such as trout and salmon, were caught in rivers and creeks.

The first direct European contact with the Luiseño occurred in July 1769 with the Spanish expedition led by Gaspar de Portolá. During the next six years, eight missions and forts were founded north and south of Luiseño territory. In 1776, Mission San Juan Capistrano was founded less than ten miles north, and the populations of five northern Luiseño villages had been halved within 15 years. In 1798, Mission San Luis Rey was established within Luiseño territory and the proselytizing among the Payomkawichum began in earnest (Engelhardt 1921:8). The Luiseño were not moved to the mission and consequently, the disruption of traditional lifeways and deaths from introduced diseases were not as devastating as experienced by many other indigenous Californian groups.

Several Luiseño leaders signed the statewide 1852 treaty, locally known as the Treaty of Temecula (an interior Luiseño village), but the United States Congress never ratified it. By 1875, however, reservations for the Luiseño were established in the Palomar Mountains and nearby valleys, including Pala, Pauma, Rincon, Pechanga, La Jolla, and San Pasqual (CIAP, 2003). No reservations were established for the remaining coastal people, whose lands had already been usurped by the Mexican ranchos. Today, the San Luis Rey group is actively petitioning the Bureau of Indian Affairs’ Office of Federal Acknowledgement to review their request for federal recognition. By 2003, there were 1,340 enrolled members on four Luiseño reservations; today there are over 2,000 Luiseño, including non-enrolled but active members of the community.

Historical Background

Introduction

Because of the vast geographical extent of the study area, it includes a variety of diverse historic period resources that represent most of the major trends that have effected the development of San Diego and Imperial counties over the past 200 years. The history of the region is generally divided into the Spanish (1769-1821), Mexican (1821-1846), and American (after 1846) periods. The Spanish Period began with the establishment of a mission and presidio on a hill overlooking San Diego Bay in July 1769. The Spaniards introduced European crops, cattle, and other livestock. Their goal was to convert the Native Americans to Christianity and teach them to be agriculturists. The Mexican Period began in 1821 when Mexico achieved independence from Spain. During the 1820s, a small village began to form at the base of Presidio Hill that became the Pueblo of San Diego (present-day Old Town). The town served as a market center and port for numerous ranchos in the region that were chiefly employed in cattle raising for the exportation of hides and tallow. In 1846, San Diego was occupied by American troops and officially became part of the United States when the Treaty of Guadalupe Hidalgo formalized the transfer of territory from Mexico to the United States in 1848.

San Diego remained a small village at the bottom of Presidio Hill for the next two decades. An early attempt to develop a city on the edge of the bay, three miles south of the pueblo, was undertaken in 1850 by William Heath Davis of San Francisco. This venture collapsed within three years. In 1867, the modern city of San Diego was founded when Alonzo Horton purchased 960 acres adjacent to Davis' former holdings. A land boom in 1870 brought a successful start to the new metropolis and Horton's New Town soon replaced the old pueblo of San Diego as the region's commercial hub. Completion of a railroad connection in the mid-1880s initiated a second building boom and brought widespread urban development to many areas of San Diego County. These building booms affected the backcountry and brought increased settlement that included ranchers and miners in the mountains, and farmers in the coastal areas east of the Peninsular Range.

The following historic background is arranged thematically to discuss the various types of historic activities that have occurred within the study area including Ranching, Transportation, Farming, Mining, Displacement of the Native Americans, Urban Development, and Development of Western Imperial Valley. Portions of this study have been taken from various works previously produced by the author including an ethnohistoric study of Native Americans in eastern San Diego County (Van Wormer, 1986a), histories of the Southern Overland Trail, and Back Country Ranching that were written for California State Parks (Van Wormer, 2005; Van Wormer et al., 2006), and several reports on pioneer farmers and miners in San Diego and Imperial Counties (Van Wormer, 1986b, 1986c, 1986d, 2001, 2002; Van Wormer and Newland, 1996a, 1996b). Additional research was conducted at the San Diego Historical Society Research Archives.

Ranching

The first one hundred years of European settlement in southern California (1769-1870) has been called the pastoral era (Reed, 1946). Livestock raising dominated the period, and was practiced by three successive groups: Spanish missionaries, Mexican rancheros, and American ranchers. Each group dominated for a specific period of time, and each raised livestock differently. The manner in which each group chose to raise livestock reflected their cultural values adapted to their economic opportunities and available agricultural circumstances.

Over the second 100 years, from 1870 to 1970, livestock ranching continued to thrive in San Diego County, but had to compete with expanding crop agriculture and urbanization. Although ranching remained an important industry, diversified crops ranging from dry-farmed grains to intensively irrigated vegetable farms and citrus orchards became the dominant agricultural industries. Since 1970, livestock ranching has gradually declined in importance as increased pressure from urbanization has reduced the available large tracts of grazing land required for successful ranching.

The Southern Overland Trail

A large portion of the study area encompasses or passes close to the route of the Southern Overland Trail (Figure 1-2). Many names have been used to refer to this historic road over the decades including Southern Emigrant Trail, Gila River Trail or Route, and Butterfield Overland Stage Route. The Southern Overland Trail route enters the study area approximately one-half mile west of Palm Springs, and stays within it, closely paralleling present-day County Highway S-2, until it reaches Warner's Ranch House. From that point, the study area follows a branch of the trail – known as the San Diego to Warner's Cut Off – most of the way to Santa Ysabel, and then westward through present-day Ramona. The study area again comes near the route at its western edge near Peñasquitos Canyon.

Of the many overland trails used during the vast Gold Rush immigration of 1848-1850, the Southern Overland Trail is the least recognized for its importance. Thousands of people followed the route westward from the Rio Grande in New Mexico across the deserts of Arizona and California, and it became the major overland entrance to southern California prior to construction of the Southern Pacific Railroad. Accounts of travel over the portion of the trail between the Colorado River and Carrizo Creek have been considered some of the most distressing records of overland Gold Rush immigration (Wray, 2000). After reaching the spring at Carrizo, the overland travelers' situation gradually improved. From this point, at approximately 500 feet above mean sea level, the trail followed the Carrizo Corridor and Warner's Pass through a series of elevated valleys, including Vallecito, El Puerto (present-day Mason Valley), present-day Box Canyon, and San Felipe. This route provided reliable water and gradually lifted the emigrants out of the desert until they reached the top of the mountains, and good pastureland in San José Valley at Warner's Ranch, 55 miles to the northwest at around 2,800 feet above sea level (see Figure 1-2). At Warner's Ranch, the arduous desert crossing came to an end.

The Southern Overland Trail's origins preceded the Gold Rush by many decades. Late 18th and early 19th century Spanish and Mexican military explorations first established the route by following Native American trails. The route became well used by traders and trappers who journeyed between California and Sonora in the 1830s. During the 1840s and 1850s, invading American armies followed the route to California during the Mexican-American War, followed by thousands of Gold Rush Argonauts. Then, in 1857, overland mail service was established along the trail.

Farming

There was a time in San Diego County, and throughout the western United States, when a substantial portion of the population lived on farms. Following the Civil War, acquisition of 160 acres of farmland became the goal of thousands of men and women in the United States and numerous European immigrants. These people wanted to create a home and earn a living, or benefit from rising land values that could be anticipated with increased settlement. Pioneer farmers intended to establish agricultural communities patterned after those they had left in the east. These communities consisted of small towns and villages that provided basic services for surrounding farmsteads, which averaged from five to eight farmsteads per square mile (Kiefer, 1972).

Rural communities constituted the major type of social network developed by farm families during the 19th century. They were made up of people who lived within well-defined geographic boundaries, shared common bonds, and cooperated to solve common problems. These people did not live in small towns or villages, but on farmsteads tied together through a common school district, post office, and country store. This was the most common type of community in San Diego County from 1870 through the mid-1930s (Fuller, 1981; Van Wormer 1986a, 1986c). At their peak, between 1900 and 1910, approximately 112 rural farmstead communities existed within the county's present-day boundary (Hubbon, 1900; Van Wormer, 1986a, 1986c).

For those farming communities established on fertile ground, the late 19th century and the first two decades of the 20th were quite prosperous. The 1920s and 1930s brought 20 years of agricultural depression that resulted in the elimination of many small family-operated farms in southern California and the inclusion of the small farm lands into large agricultural tracts (Van Wormer, 1986c). In San Diego County, the number of people on farms fell 63 percent between 1930 and 1940. This decline is even more significant in light of the fact that the overall population grew from 209,659 to 289,348 in 1940, an increase of 38 percent. By 1940, the number of people living on San Diego County farms was only 2 percent of the total population, and the family-operated farm of 5,000 acres or less engaged in crop production had almost ceased to exist (Bureau of the Census, 1930, 1940). Farming as an occupation had come to support only a very minor portion of the population in San Diego County.

Mining

Large-scale mining in San Diego County's backcountry was stimulated by the discovery of gold at Julian in the late 1860s and early 1870s. Although Julian and its former sister community Banner are not directly within the study area, their establishment affected settlement and infrastructure growth in the region, and as such are important to an understanding of the history of this part of San Diego County. The discovery and development of gold at Julian was part of the much larger development of the western mining industry during the late 19th century. A number of mines are located within or near the study area and include the Shenandoah, Himalaya, and San Diego mines in Mesa Grande; the Montezuma Mine north of Ranchita; the Grapevine Mine in Grapevine Canyon; and the Elliott Dolomite Mine near Sweeney Pass.

Displacement of the Native Americans

San Felipe. During the 1850s, San Felipe Valley became a major thoroughfare of the Southern Overland Trail that led from the desert to Warner's Ranch. At this time, the valley was also known as Warner's Pass. As early as the late 1840s, travelers noted a permanent village of Native Americans in the southern end of the valley near present-day Scissors Crossing. During the 19th and 20th centuries, the Native Americans whose village had been located in the southern portion of the valley for thousands of years lost the rights to their homeland. In 1891, the San Felipe Land and Water Company made the first attempt to remove the people. In 1903, the Native Americans of San Felipe, along with the Cupeño at Warner's Hot Springs were evicted and removed to reservations (Brigandi, 1995).

Vallecito and the Eastern Kumeyaay. The southern part of present-day inland San Diego County did not see the exploration, settlement, and establishment of ranchos during the Spanish and Mexican periods that occurred in the Warner's Ranch, Santa Ysabel, and San Felipe regions. Originally, this area was occupied by the Tipai, or Eastern Kumeyaay (also identified as the Southern Diegueño/Kumeyaay). Unlike their Pacific coast counterparts, many of whom came under control of Spanish missionaries, the Eastern Kumeyaay remained relatively unaffected by the Spanish occupation of the California coast.

Early records and historical accounts of the region refer to the native inhabitants as Indians of the Cuyamaca and Jacum (Jacumba) Mountains, or the Milquatay and Jacumba Valleys. Because their territory was situated south and east of major routes of colonial travel, missionaries and Spanish soldiers generally ignored these Native Americans and, as late as 1840, they remained basically unknown.

No known attempts were made to resettle the backcountry south of Volcan Mountain until the very end of the Mexican era. Rancho Cuyamaca, a grant of approximately 8 square leagues (35,501.32 acres) was granted to Augustin Olvera on August 11, 1845, slightly less than one year before U. S. military troops occupied San Diego on July 29, 1846 (Hughes, 1975; Martin, 1971; Rush, 1965). Although Olvera took possession of and surveyed the grant in the spring of 1846, he had no time to develop the ranch prior to the American conquest that followed just a few months later (Martin, 1971).

In spite of limited and often hostile contact, the native subsistence pattern was significantly changed during the Mexican Period. By the 1830s, the Eastern Kumeyaay had developed a taste for domestic livestock, especially horses and cattle, procured through raids. An even more significant alteration had occurred by the mid-1840s, or perhaps earlier, with the adoption of agriculture. The traditional hunting and gathering subsistence system of Native Americans had therefore been replaced by a three-component subsistence system composed of hunting and gathering, agriculture, and foodstuffs from Mexican society in the form of stolen livestock.

The conquest of Alta California by the United States resulted in American penetration of present-day southeastern San Diego County. With the arrival of new settlers, the newly dominant Anglo-American culture from the eastern United States introduced ranching and forced the native population to make significant changes in their subsistence and social systems. Anglo-American contact with native peoples throughout the Southwest resulted in alterations of traditional native lifestyle because of settlers' attitudes towards the Native Americans and the environment.

Many American settlers felt that the Native Americans had no legal or moral right to land they neither fenced, farmed, permanently occupied, nor altered in any other fashion. Many Americans also failed to recognize or understand that the Native American migratory pattern meant that uninhabited dwellings were not abandoned, just waiting for the occupants to return when the seasons changed. In addition, the Western ethic that stressed man's dominance over nature resulted in the destruction of many traditional food sources, specifically through farming and livestock grazing. Also, Anglo-American settlement restricted native mobility, thereby increasing the difficulty of obtaining those few resources that remained. In southeastern San Diego County, these changes resulted in the Native Americans' eventual placement on reservations and a dependence on Anglo-American charity for survival.

Urban Development

Urbanized areas in the study area include Poway, Ramona, and Del Mar. Poway changed from a rural farm community to a residential community when subdivisions were first constructed in the early 1950s. The area has seen increased urban development since that time. The communities of Ramona and Del Mar were established in the late 19th century.

Ramona. The community of Ramona is located in the Santa Maria Valley approximately 29 miles northeast of San Diego. In 1833, the valley was granted to Don Narciso Botello as Rancho Santa Maria de Pamo. The area remained rural grazing land until 1886 when the Santa Maria Land and Water Company laid out the town site and named it Ramona after the popular novel by Helen Hunt Jackson. The new community enjoyed modest but steady growth. By 1930, it had become a town of 2,730 inhabitants

servicing the surrounding area of poultry ranchers. By the mid-1930s, ranches in and around Ramona produced 40,000 turkeys per year. The town remained a rural community until the 1970s when subdivisions began to be developed in the surrounding valleys. Construction began on San Diego Country Estates in 1972. Accelerated growth has continued since that time making Ramona a major urban suburb of east San Diego County.

Del Mar. Like Ramona, the City of Del Mar was first laid out as a subdivision and a hotel, pier, and bathhouse were built during the land boom of the late 1880s. The area was slow to develop, and the boom collapsed in 1888. The hotel burned in 1890, and the pier and bathhouse fell into disrepair and collapsed. In 1905, the South Coastal Land Company purchased the area. They established a beach community centered around a new “Hotel Del Mar.” By 1936, the town’s inhabitants numbered approximately 1,000 with a summer population of around 1,500. During the mid-1930s, the Del Mar Fairgrounds and Race Track were constructed with the help of WPA funding. The community enjoyed steady growth, which accelerated greatly after World War II. In July 1959, Del Mar became the 11th incorporated city of San Diego County, comprising 1¼ square miles, with 3,800 residents.

Development of Western Imperial Valley

In May 1901, the California Development Company, under the direction of engineer George M. Chaffey, succeeded in bringing water into the Imperial Valley from the Colorado River. Within one year, 400 miles of ditches had been excavated to irrigate more than 10,000 acres of fertile land that up until that time had remained barren desert for lack of water. The area prospered quickly and towns formed including Imperial City, Calexico, Mexicali, Holtville, Seeley, Brawley, and El Centro (Pourade, 1965). In 1907, Imperial County was formed out of the eastern portion of San Diego County with an estimated population of 6,940. El Centro was the county seat (Pourade, 1965).

Transportation. Development brought the need for better transportation routes. Between 1912 and 1915, three major projects: the completion of an automobile road down Mountain Springs Grade; construction of the Plank Road across the Algodones Sand Dunes; and, the building of the Ocean to Ocean Highway Bridge that crosses the Colorado River at Yuma, gave Imperial Valley major automobile connections with the east and west coasts. This route was eventually paved in 1924 as Highway 80 (Wray, 2004). Between 1917 and 1925, the Julian-Kane Springs Road, which closely follows current Highway 78, was completed between Julian and Kane Springs at the junction of the Brawley to Indio Road, now Highway 86. A small service station was located at Kane Springs (Wray, 2004). The Imperial Highway was completed through Sweeney Pass in the 1930s. Modern San Diego County Highway S-2 now follows this route. The town of Ocotillo developed at the junction of the Imperial Highway and Highway 80 (Wray, 2004). In addition, during the 1920s, Plaster City was established along Highway 80 to process gypsum ore from the company’s mine at Split Mountain. A railroad carries the ore from the mine to the plant (Wray, 2004).

Creation of the Salton Sea. Charles R. Rockwood established the California Development Company in 1896 and proposed to channel water from the Colorado River to present-day Imperial Valley through the construction of a canal. The canal would be constructed from just above Yuma, Arizona south into Mexico (avoiding the Imperial Valley sand dunes), west through Mexico for approximately 40 miles, and then north crossing the border back into the U.S. and arriving in the Salton Sink. George M. Chaffey, a civil engineer with experience in large-scale irrigation projects, agreed to finance the project, and as such became the president and chief engineer of the California Development Company in 1900. As stated previously, water was delivered to the Salton Sink from the Colorado River by 1901. The Imperial Land Company was established to market the land within the Salton Sink (renamed Imperial Valley

for marketing purposes) to settlers. By 1904, approximately 10,000 settlers and farmers resided in the Imperial Valley (Laflin, 1995).

Silt had been a problem for canal engineers from the beginning of water flow because of minimal grade in areas of the canal. By late summer 1904, the problem had escalated with low water levels into the Imperial Valley causing damage to hundreds of farmers' crops. The California Development Company did not have the financial stability to afford dredging the silt, and as such a plan was drafted to excavate a new intake (a cut from the Colorado River to the main canal) at a location situated four miles south of the U.S./Mexico border instead. The new intake measured 3,300 feet in length by 60 feet in width. Unusually high rainfall during 1905 caused more floods than in previous years. With the Colorado River's elevated water level, canal engineers decided that the use of the new lower intake would not be necessary. Attempts were made to close off the lower intake, but all dams (constructed of sandbags, pilings, and brush) were destroyed by the raging water. As Laflin (1995) states:

By the middle of June, the river was discharging 90,000 cubic feet of water per second; the width of the lower intake had widened from sixty feet to one hundred and sixty feet; water was overflowing the banks of the main canal, rolling across the rich Imperial Valley farmland and accumulating in the deepest part of the [Salton] Sink.

The Salton Sink became the Salton Sea as water continued to flow, and by summer 1906:

...the whole of the Colorado River was pouring out onto the delta through the cut which had widened to more than a half mile and was collecting into the New River channel and racing down the slope to the Salton Sea. The sea rose seven inches a day over an area of 400 square miles (Pourade, 1965).

Farms, homes, Imperial City, half of Mexicali, and a portion of Calexico lay under water by late 1906 (Pourade, 1965). In 1907, the Salton Sea measured 45 miles in length, 12 to 17 miles in width, and 83 feet in depth (Pourade, 1965). Water level was at an elevation of 195 feet below mean sea level, which was "76 feet above the pre-flood level of the Salton Sink" (Laflin, 1995). During 1907, original levees were reinforced and new levees were constructed along the Colorado River, and a new concrete and steel gate was constructed at the upper end of the main canal. Silted areas were dredged and water was finally being properly diverted from the Colorado River into Imperial Valley (Pourade, 1965). Settlers adjusted and rebuilt and the Imperial Valley continued to grow.

Historical Background Summary

In conclusion, because of the vast geographical extent of the study area, portions of the proposed alignments have experienced major historical trends that have affected the development of San Diego and western Imperial counties over the last 200 years. Ranchers have grazed livestock from the Mexican Period to the present day on ranges that extended from the desert to the coast. In the mid-19th century, major sections of the study area were traversed using important overland trails. During the late 19th and early 20th centuries, miners and farmers established communities in the mountains and foothills, and farming communities became common between the mountains and the coast. This influx of settlement resulted in displacement of Native Americans and their relocation to reservations. Development of the Imperial Valley during the early 20th century resulted in the establishment of vast agricultural lands within and adjacent to the east portion of the study area. Several major roads linking these farmlands to the coast traverse the proposed alignments. Since the 1950s, extensive urban growth has occurred in San Diego

County and includes the development of the cities of Ramona, Poway, and Del Mar located within the study area.