

5.4 CULTURAL RESOURCES

5.4.1 OVERVIEW AND SUMMARY

This section identifies cultural resources within the proposed Master Plan Update project area and Well Site locations A and B, and the proposed water treatment facility site. The section evaluates impacts on cultural resources from the implementation of the proposed Master Plan Update. Construction of components under the proposed Master Plan Update resulting from ground disturbing activities associated with the proposed well installation and water treatment plant construction could result in potentially significant impacts to archaeological resources and human remains. The proposed mitigation measures would reduce potentially significant impacts to cultural resources, including potential archaeological sites, to levels that are less than significant (Class II). All other impacts, including impacts related to the water right permits, would be less than significant (Class III).

5.4.2 DATA SOURCES AND METHODOLOGY

A Phase I Cultural Resources Investigation for the Wells A and B sites and the proposed water treatment facility site was completed by Compass Rose.¹ This report is included in **Appendix 5.4**. The specific locations of the remaining components under the proposed Master Plan Update have not been identified, thus site-specific cultural resources investigations were not performed.

Methodologies

Historical and Cultural Resources

The methodology for determining whether the lands in the project area meet the eligibility requirements for listing as a historic resource under City, state, and federal eligibility criteria was based on archival research to determine the historic context of the properties within the project area, as well as on-site evaluation of the physical and visual integrity of each building. This included:

1. identification of potential historical, architectural, and cultural resources within the project area;
2. evaluation of the potential for listing as historic resources at the City, state, and federal levels;
3. assessment of the direct and indirect impacts of the proposed project on historical resources identified in this study;
4. evaluation of the direct and indirect impacts of the proposed project on the property; and
5. mitigation measures for impacts to historical resources that may result from the project as proposed.

¹ Compass Rose Archaeological, Inc., *Phase I Cultural Resources Investigation, City of Solvang Water System Master Plan Update, Santa Barbara County, California* (2011).

As part of the Phase I Cultural Resources Investigation, Compass Rose requested a search for cultural, historical, and archaeological records with the Central Coast Information Center (CCIC), located at the University of California, Santa Barbara. Compass Rose also conducted a pedestrian survey of the potential wells and water treatment facility sites on September 29, 2011. The survey area covered the various well sites and connecting pipelines within the Santa Ynez River floodplain, the proposed water treatment facility, and the main water pipeline connecting all the wells to the treatment facility. The survey methodology consisted of walking linear transects spaced in no greater than 15 meter intervals. Compass Rose also carefully examined rodent burrow spoils, erosion, and machine cuts for evidence of buried deposits.

On November 19, 2011, in accordance with the requirements of SB 18, the City notified Native American tribes in the area of its intent to proceed with the Master Plan Update and offered consultation. A total of 20 tribes were contacted. On December 15, 2011, the City held a consultation meeting with representatives of the Santa Ynez Band of Chumash Indians.

5.4.3 APPLICABLE REGULATIONS

5.4.3.1 Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act² of 1966 established the National Register of Historic Places (NRHP) as the official federal list of cultural resources that have been nominated by State Offices for their historical significance at the local, state, or national level. Properties listed in the NRHP, or “determined eligible” for listing, must meet certain criteria for historical significance and possess integrity of form, location, and setting. Under Section 106 of the Act and its implementing regulations, federal agencies are required to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or that are listed in the NRHP. The regulations provided in 36 CFR Part 60.4 describe the criteria to evaluate cultural resources for inclusion in the NRHP. Cultural resources can be significant on the national, state, or local level. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and they:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;

² 16 U.S.C. Section 470

- C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

These factors are known as “Criteria A, B, C, and D.” In addition, the resource must be at least 50 years old, except in exceptional circumstances. Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of the changes to the property. Archaeological sites are evaluated under Criterion D, the potential to yield information important in prehistory or history.

The Section 106 review process involves a four-step procedure:

- Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).

Secretary of the Interior’s Standards for the Treatment of Historic Properties

The Secretary of the Interior (SOI) is responsible for establishing standards for the preservation and protection of buildings and other cultural resources eligible for listing in the National Register.³ The 1990 document *Secretary of the Interior’s Standard for the Treatment of Historic Properties* outlines specific standards and guidelines for the preservation, rehabilitation, restoration, and reconstruction of historically designated structures. Preservation standards and guidelines apply to those buildings that require ongoing maintenance to sustain its existence for historicity. Rehabilitation standards and guidelines involve the reuse of a historic structure or property while maintaining portions that maintain historic value. Restoration standards and guidelines are applicable to projects that remove portions of a building from another historic period in order to reconstruct missing features from the restoration period. Reconstruction standards and guidelines apply to new developments that replicate a historic period or setting. Each set of standards provides specific recommendations for the proper treatment of specific building materials, as well as parts of building development.

³ National Park Service, U.S. Department of Interior, “About Us,” <http://www.nps.gov/nr/about.htm>, 2008.

Federal Antiquities Act

Paleontological resources are classified as non-renewable scientific resources and are protected by several federal and state statutes, most notably by the 1906 Federal Antiquities Act,⁴ which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. Because the proposed project does not include any federal lands, this statutory scheme does not apply.

5.4.3.2 State Regulations

State Office of Historic Preservation

The State Office of Historic Preservation maintains the California Register of Historical Resources (CRHR), an authoritative listing of the state's significant historic resources as well as architectural, archaeological, and cultural resources. The CRHR includes properties listed in or formally determined eligible for the National Register, pursuant to Section 4851(a) of the Public Resources Code, and also lists selected California Registered Historical Landmarks. The State Office of Historic Preservation also maintains the Directory of Properties in the Historic Property Data File; however, properties on the Property Data File are not protected or regulated.

The State Office of Historic Preservation sponsors the CHRIS, a statewide system for managing information on the full range of historical resources identified in California. CHRIS is a cooperative partnership among the citizens of California, historic preservation professionals, 11 information centers, and various agencies. CHRIS provides an integrated database that furnishes site-specific archaeological and historical resources information on known resources and surveys to government, institutions, and individuals. CHRIS also supplies a list of qualified consultants. Information for the project area is available through CHRIS's Central Coast Information Center.

California Register of Historical Resources

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local

⁴ Federal Antiquities Act of 1906, PL 59-209; 16 US Code 431 et seq.; 34 Stat. 225.

planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act.

To be eligible for listing in the California Register, a resource must meet at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States
2. Associated with the lives of persons important to local, California or national history
3. 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
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources 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 that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

California Historical Landmarks

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors or the City/Town Council in whose jurisdiction it is located; be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, 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 value. Points of Historical Interest designated after

December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point. If a Point is subsequently granted status as a Landmark, the Point designation will be retired.

Health and Safety Code

It should be noted that sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with the California Health and Safety Code and Public Resources Code as reviewed below:⁵

In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

SB 18 Consultations

California Senate Bill (SB) 18⁶ requires cities and counties to notify and consult with California Native American Tribes about proposed local land use planning decisions in order to protect Traditional Tribal Cultural Places.⁷ Cities and counties must obtain a list of the California Native American tribes from the Native American Heritage Commission (NAHC) whose traditional lands within the agency's jurisdiction may be affected by a proposed adoption or amendment of a general plan or specific plan. Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes of the opportunity to conduct consultations on the proposed project. Prior to the adoption or substantial amendment of the general plan or specific plan, a local government must refer the proposed project to those tribes on the Native American contact list that have traditional lands within the agency's jurisdiction.

⁵ California Health and Safety Code, Sections 7050.5 and 5097.98

⁶ California Government Code, Sec. 65040.2, 65092, 65351, 65352, and 65560 and California Civic Code, Sec. 815.3

⁷ California Senate Bill 18, Chapter 905, Statutes of 2004.

To help local officials meet these new obligations, SB 18 requires the Governor's Office of Planning and Research (OPR) to amend its General Plan Guidelines to include advice to local government on how to consult with California Native American tribes.

Developed in consultation with the NAHC, the OPR guidelines include advice for consulting with California Native American Tribes for:⁸

- the preservation of, or the mitigation of impacts to, cultural places;
- procedures for identifying through the NAHC the appropriate California Native American tribes;
- procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of cultural places; and
- procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of cultural places.
- the preservation of, or the mitigation of impacts to, cultural places;
- procedures for identifying through the NAHC the appropriate California Native American tribes;
- procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of cultural places; and
- procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location character, and use of cultural places.

5.4.3.3 Local Regulations

City of Solvang

General Plan

The City of Solvang General Plan Conservation Element provides the following goals, policies, and objectives with respect to cultural resources:

Goal 3.1 To protect and conserve the City's natural and cultural resources.

⁸ California Government Code, Section 65040.2(g).

Objective 5.0	Prevent the loss of important historical, archaeological, and paleontological resources.
Policy 5.a	The City shall complete and inventory of local historic resources and cultural landmarks and shall establish a list of significant resources (such as the Santa Ynez Mission) to be preserved.
Policy 5.b	The City shall require that sites proposed for future development are to be evaluated by certified archaeologists and/or paleontologists in accordance with the California Environmental Quality Act. Where potentially significant adverse impacts are identified, the City shall require appropriate mitigation measures such as in situ preservation or professional retrieval.
Policy 5.c	The City shall implement the objectives and policies established in the community design element of the general plan which promote the preservation of historic landmarks, focal points, and special features.

Santa Barbara County

Santa Ynez Valley Community Plan

The Santa Ynez Valley Community Plan⁹ includes a discussion of historical and archaeological resources in the Santa Ynez Valley, including the area surrounding the City of Solvang. The plan includes the following goals, policies, actions, and development standards pertaining to history and archaeology.

GOAL HA-SYV	Preserve and Protect Significant Cultural, Archaeological and Historical Resources in the Santa Ynez Valley Planning Area to the Maximum Extent Feasible.
Policy HA-SYV-1	Archaeological resources shall be protected and preserved to the maximum extent feasible.
Policy HA-SYV-2	Historic resources shall be protected and preserved to the maximum extent feasible.

⁹ County of Santa Barbara, *Santa Ynez Valley Community Plan* (October 2009).

Policy HA-SYV-3	The County shall encourage and support measures to educate residents and visitors about the Valley's historical resources.
Policy HA-SYV-4	Traditional cultural, historical, and spiritual properties of concern to the Santa Ynez Tribal Elders Council should be protected and preserved to the maximum extent feasible.

5.4.4 EXISTING CONDITIONS

The proposed revised water diversion would allow water supply to be withdrawn from the Santa Ynez River, west of the Alisal Bridge for approximately 1.5 miles. The proposed well installation sites are within this area and are adjacent to the active channel and associated floodplain of the Santa Ynez River. Suburban density residential development and agricultural uses lie immediately to the north of the proposed well locations.

The area proposed for construction of a water treatment plant is located within largely undeveloped parcels west of Alisal Road. Existing suburban density residential developments are to the west and north; a golf course lies to the east, across Alisal Road; and the Santa Ynez River lies to the south.

Other features of the proposed Master Plan Update would be constructed throughout the City of Solvang and within its sphere of influence.

5.4.4.1 Chronological Overview of Regional Prehistory and History

The following summarizes the prehistory along the Santa Barbara Channel area, which includes the Solvang and Santa Ynez Valley, from the *Phase I Cultural Resources Investigation*.¹⁰

Based on mortuary practices and the development of artifacts used in social activities, archaeologists estimate that Chumash society developed within its historic boundaries for over 7,500 years. This long period of development of the Chumash society was possible because the Santa Barbara Channel area contained a higher concentration of resources than adjacent areas, and the society occupying this area was more powerful than the surrounding societies. In addition, compared to the majority of societies which acquired their territories more recently, the length of time during which the indigenous Santa Barbara Channel society developed was relatively long. By the time the first Europeans made contact with the Chumash, the society was uniquely adapted to its environments and well organized as a result of its evolution over this long period of time.

¹⁰ Compass Rose Archaeological, Inc., *Phase I Cultural Resources Investigation, City of Solvang Water System Master Plan Update, Santa Barbara County, California* (2011).

Evidence of Earliest Occupation

Knowledge of occupations during the Pleistocene in the Santa Barbara Channel area is very limited because the size of groups was small and because charcoal, bones, and shells are not as likely to be preserved in earlier sites. The rise in sea level associated with the melting of ice at the end of the Pleistocene probably inundated or eroded away some early coastal sites. Also, it is difficult to define the earliest occupations at most early sites due to poor preservation of stratigraphic features. The earliest date of human occupation in the general Santa Barbara Channel area has not been determined, though, based on archaeological evidence throughout North America, archaeologists believe that the area was settled prior to 11,000 years ago. The association of large fluted points in stratigraphic contexts with large Pleistocene animals at sites in the Great Plains and the Southwest indicates that the earliest populations in the western United States hunted large game animals. Recent discoveries of large fluted points on the California coast, including one in western Santa Barbara County, in addition to those found at Tulare Lake and at dry lakes in eastern California, indicate the presence of early large game hunters in Southern California. At the end of the Pleistocene, climatic warming and resulting changes in environmental conditions led to extinction or geographical displacement of most large Pleistocene animals. The changes in plants and animals caused by a changing environment, coupled with the growth of human populations, resulted in changes in subsistence patterns.

Early Period

The Early Period, which dates to approximately 6,000-600 B.C., is the first period for which archaeologists have identified remains of permanent settlements with cemeteries in California. During the Early Period, the number of ornaments, charms, and other artifacts increased, indicating a growth in social complexity. Several cemetery and residential contexts have been excavated in Chumash territory that are approximately 7,000 years old. Artifacts and food remains recovered from these contexts indicate that people living along the coast fished with bone hooks, used boats, or rafts to trade with the Channel Islands, and occasionally caught sea mammals and large fish. The presence of deer bones, other animal bones, stone points, and knives indicates that hunting was also important.

Early mainland residential sites frequently contain large numbers of milling stones (manos and metates) that archaeologists believe were used to process small seeds. The mortar and pestle, historically used to pulp large seeds such as acorns and islay (wild cherry pits), were also present in smaller quantities during the Early Period. Yields of large seeds such as acorns and islay are typically lower than smaller seeds, so they were less reliable as a food staple. People in the Early Period began storing large quantities of seeds for use in years of low crop yields. Through obtaining and using new sources of energy, the society developed its abilities to store more food and make greater capital investments, such as building

large boats and making large nets. The storage of ample amounts of food enabled people to increase their reliance on crops with widely fluctuating yields. There was a comparable increase in reliance on marine fishing both on the mainland and the islands.

Most early settlements consisted of small hamlets that were defensively situated on elevated landforms. During the Early Period, some settlements increased in size with the largest containing several hundred people. Large settlements were often less defensively situated than their smaller predecessors. Analysis of artifacts used to maintain social relationships and their distribution in mortuary contexts indicates that political power was largely dependent on the acquisition of wealth and ritual power.

Differences have long existed between archaeologists concerning the permanence of Early Period settlements. This diversity of opinion is a result of both inadequate information concerning the range of types of Early Period sites and the absence of a consensus regarding the causes of permanent settlements. The discovery of cemetery areas at many Early Period sites, the similar frequencies of artifact types found at most sites, and the frequent presence of later period residential sites near Early Period sites, have been interpreted as reflecting the use of many Early Period sites as settlements. Large Early Period sites are surrounded by smaller and possibly less permanent sites, of the same period. The distribution of sites indicates that Early Period populations were distributed differently than those of the Middle and Late periods.

During the Early Period, regional ceremonial centers were located at a few large settlements at major features of the landscape, such as points and sloughs. During the latter part of the Early Period, these centers were large, even in comparison with historic villages. Away from major centers, small to medium sized Early Period settlements are found near historic settlements and other Late Period sites, as well as on ridge tops, where little evidence for long-term occupation during the later periods has been found. It appears that between large Early Period regional centers, most settlements were smaller and populations more dispersed than during later periods. Visits between settlements may have resulted in seasonal and even longer abandonment of many small settlements.

Differences in the contents of burial lots found at large and small Early Period settlements on Santa Cruz Island indicate that the occupants of large ceremonial centers had more valuable ceremonial regalia than those of small settlements. The inhabitants of small villages probably lived at more than one settlement during the year, and the inhabitants of large settlements may have maintained only one residence. Although the Early Period settlement pattern apparently resulted in the formation of many sites which were not continuously inhabited, the degree to which the population was sedentary may differ little from the period between prehistory and history.

Middle Period

The end of the Early Period and the beginning of the Middle Period (ca. 600 B.C.) is marked by changes in ornaments and other artifacts, as well as changes in the organization of cemeteries, which indicate the development of hereditary control of political and economic power. The presence of separate cemetery areas containing a predominance of either ritual objects or wealth objects at early Middle Period sites indicates the presence of a system of checks and balances between chiefs and priest-judge executioners. At the beginning of the Middle Period, the more powerful ritual objects, such as stone pipes, libation vessels, stone effigies, and pointed charmstones, were owned by people who were not political leaders but who had inherited rights to perform rituals. Similar systems of checks and balances were necessary to maintain stability in social systems throughout California, and these systems evolved shortly after the development of hereditary leadership positions. Similar changes in social organization occurred at the time of the Early-Middle period transition throughout North America and were accompanied by migrations into areas that were marginal to major population centers.

There was a tendency over time to choose less defensive village locations as villages became integrated into larger political units, and those away from important boundaries were less often the focus of surprise attacks. Changes in warfare and settlement situations indicate that, as economic integration increased in importance, there was a corresponding increase in the importance of political integration of large areas to protect the operation of the economic system. The importance of reducing warfare to enable trade is indicated by description of Chumash traditional history recorded from Fernando Librado by John P. Harrington. The descriptions indicate that one reason for the political integration of the Lulapin Province (central Chumash) was to reduce warfare which adversely affected trading.

Late Period

Differentiation of bead types indicates the development of new economic subsystems. After ca. A.D. 1000, there was a rapid growth of systems which culminated in the highly developed economic system observed by the Spanish explorers. After the 1542 Cabrillo voyage, many small Chumash settlements were abandoned and some of the largest historic towns were founded. This change in population distribution can be attributed to growth in importance of trade centers and the development of more integrated political confederations, which were necessary to encourage trade. Their economic system enabled the Chumash to make efficient use of the wide diversity of environments present within their territory. Most of the plants and land animals used as food on the mainland were completely absent or present in low densities on the Channel Islands. Foods which could be easily stored, such as acorns, wild cherry pits, and seeds, were obtained by islanders in trade from the mainland. Since environments of people living in inland valleys lacked marine resources, fish and other seafoods were obtained from

people living on the coast and from islanders trading at mainland coastal villages. The pooling of resources, which resulted from the development of their economic system, served to reduce the negative effects of local crop failures.

Religious institutions regulate behavior by molding perceptions of society and the physical world. Changes in the types and distributions of objects used in ritual contexts indicate corresponding changes in religious systems. The rarity of ritual objects in Late Period burial lots reflects control over religion by institutions that owned the ritual objects. By the Late Period, more powerful objects were controlled by institutions. Changes in whistles, historically used in the organization of ceremonies, indicate a growth in the importance of organized ceremonies. Objects associated with supernatural power, such as charmstones, effigies, and sunstick stones, did not change greatly over time. It appears that most Chumash religious ceremonies had their roots in the Early Period when objects similar to those used historically were regularly placed in mortuary associations and owned by religious leaders.

5.4.4.2 Ethnographic Overview

At the time of historic contact, the Alisos Canyon area was occupied by the Ynezeño branch of the Chumash, who were a Hokan speaking people. Chumash people occupied an area that extended south along the California coast from San Luis Obispo County into Los Angeles County, and east to the fringes of the San Joaquin Valley, and included the Channel Islands of San Miguel, Santa Rosa, Santa Cruz and Anacapa. The Ynezeño Chumash were subdivided from their culturally similar neighbors to the north and south, the Obispeño and Barbareño Chumash, on the basis of linguistic dialects (noted by the early Spanish missionaries of the area) rather than on any apparent difference in social or economic organization. The Ynezeño (so named because of their association with Mission Santa Ynez) spoke one of four Chumashan dialects considered as forming a core group of more closely related forms. Chumash society developed over the course of some 9,000 years and has been described as having achieved a level of social, political, and economic complexity not ordinarily associated with hunting and gathering groups. Traditionally, the Chumash were noted by the Spanish for their large domed houses, wood and stone craftsmanship, basketry, and foremost for the plank canoe (tomol). Ethnographic information on Chumash culture is most extensive for the coastal populations, and the culture and society have been well documented for groups such as the Barbareño and Ventureño Chumash. Much of what is known of the Ynezeño has been provided by the journals of early Spanish expeditions and by accounts of Chumash informants.

The Chumash possessed a stratified society containing an upper, middle, and lower class. Moreover, attributes usually attributed to chiefdom societies, such as ownership of resources/property, craft

specialists, large permanent population centers (villages), a sodality consisting of religious elitists (Antap), and a market economy, were all a part of Chumash culture at the time of historic contact.

Politically, there were at least six ethnographically known Chumash provinces. The following are the provinces from north to south and their corresponding capitals, respectively: (1) Gaviota (capital at Shisholop or Upop), (2) Dos Pueblos (capital at Mikiw), (3) Santa Barbara (capital at Synhten), (4) Ventura (capital at Shishopop), (5) Mugu (capital at Muwu or Simomo), and (6) Malibu (capital at Humaliwu). In addition, there were apparently two religious federations, Muwu and Upop.

All high status (Wots and shamans) or wealthy people were required to join a religious sodality known as the Antap. The Antap was the principal religious cult, which dominated all aspects of Chumash religious and political society at the time of Spanish contact. Chumash religion could be accurately described as celestial, revolving around the worship of the sun, and various stars and planets comprising the Chumash pantheon (Sky People).

The Ynezeño, like their neighbors, exploited a wide variety of marine and terrestrial resources within an ecosystem similar to that of their neighbors. The predominant food resources for groups living in the inland valleys and foothills included acorns, sage, yucca, and deer. For the coastal inhabitants, shellfish and marine species common to the sandy beaches and offshore kelp beds were added. Settlement patterns have been depicted as consisting primarily of permanently inhabited village, augmented by outlying satellite camps that were occupied on a temporary, perhaps seasonal, basis. These temporary camps were used by small, perhaps family groups and were located in areas of increased, often localized, resource availability.

5.4.4.3 Historical Overview

The introduction of the Spanish mission system into Ynezeño territory brought about dramatic changes in the aboriginal way of life. Between the time of the establishment of the Mission Santa Ynez and that of Mexican independence, and the secularization of mission lands (1834), ancient lifeways gradually began to disappear. Villages were abandoned, hunting and gathering activities were disrupted as newly introduced agricultural practices altered the landscape, and large portions of the native population had been assimilated into the missions, died of introduced disease, or fled to other areas. This cultural decimation continued and perhaps was amplified during the post mission or Mexican period, until their near cultural extinction in the later Anglo (American) period. Chumash culture has been documented by John P. Harrington and C. Hart Merriam, and well summarized by Blackburn, Hudson, and others.

Establishment of the Missions Santa Ynez and La Purisima, and the town of Santa Barbara brought the first permanent European settlement into the area. Mission development initiated agricultural operations

into the Santa Barbara area and introduced various European crops and animals. After secularization of mission lands in 1834, former church lands became open to settlement. Potentially important early historic period sites include structures and features associated with the establishment of the mission and ranch operations.

In 1846, United States forces occupied California, and in 1848, the U.S. formally gained control with the signing of the Treaty of Guadalupe Hidalgo. By 1850, the population, accelerated by the Gold Rush, had increased enough to justify admission to the Union. Following the brief mining frenzy, the economic focus began to shift from cattle ranching to farming, and between 1860 and 1900, farming became the major industry of the area. Completion of the Southern Pacific Railroad line through the area in the 1880s accelerated growth by making access easier for immigrants. Potentially important sites from the American Period could include locations or structures from the early farming era (1850–1940s) and other structures from the early twentieth century associated with significant events, persons, or early industry.

5.4.4.4 Existing Cultural Resources

The general geographic setting for the proposed Master Plan Update project area, including Well Sites and B, and the water treatment facility site, is described in **Section 3.0, Environmental Setting**.

Master Plan Update Project Area

Cultural resources recorded in the Master Plan Update project area include:

- Prehistoric/ethnohistoric (village sites, bedrock mortars, lithic scatters, cemeteries, isolated burials, midden deposits, resource collection and exploitation sites, ceremonial sites, etc.)
- Historic (i.e., Spanish, Mexican, and Historic American periods): various structures, foundations, earthworks, trails and roads related to oil, mining, ranching, farming, and other activities

According to the City of Solvang General Plan Conservation Element, archaeological resources are found over a wide area in and around the City due to the extent of Native American settlement. In particular, these resources are found in locations where permanent water supplies are available. These resources range from limited activity sites such as resource extraction camps, rock shelters with dwellings, burial grounds, and ceremonial structures.¹¹

Archaeological surveys and studies have been performed throughout much of Solvang, including surveys in the vicinity of Mission Santa Ines, along Alamo Pintado Creek, along the Santa Ynez River,

¹¹ City of Solvang, *Solvang General Plan Conservation and Open Space Element* (1988), 28.

and the area near Chalk Hill Road. Key archaeological finds in Solvang include prehistoric resources along Alisal Creek, just south of Santa Ynez River. Other key finds include portions of the Mission Santa Ines aqueduct system located in the general area northwest of the intersection of Alamo Pintado Road and State Route 246, and the Mission corral located southwest of the existing Mission Santa Ines.

Based upon the prehistoric and historic settlement patterns identified through earlier studies in the City, unknown archaeological resources could be found throughout much of Solvang. The areas most likely to contain such resources are located primarily along banks and terraces overlooking the Santa Ynez River, Alisal Creek, Alamo Pintado Creek, and Adobe Creek, and are considered by the City as “areas of high sensitivity.” The City considers most of the remaining area to be of “moderate sensitivity” in that the potential for locating archaeological resources is not as high as it is for areas in the immediate vicinity of major watercourses.¹²

There are more than a dozen buildings and landmarks in and around Solvang that reflect various periods of history including early California Mission, late nineteenth century American settlement, and early twentieth century Danish settlement.

Wells and Water Treatment Plant Sites

A Phase I Cultural Resources Investigation was completed by Compass Rose for the wells and water treatment plant sites. During the field surveys for the Phase I Cultural Resources Investigation on the wells and water treatment plant sites, no prehistoric cultural resources or historic artifacts or deposits were observed. However, according to record maps at the Central Coast Information Center (CCIC) at the University of California, Santa Barbara, CA-SBA-2641 is adjacent to the proposed treatment plant and waterline locations. There are no records of subsurface testing at this site on file, and therefore, exact site boundaries and depth, as well as potential site significance have not been established. Further, although no artifacts were observed on the surface within the recorded boundaries of CA-SBA-2641 during the recent Compass Rose survey, or within or adjacent to the proposed treatment plant and waterline, it is possible that subsurface cultural materials may exist and may extend into the impact zone.¹³

The Native American Heritage Commission indicated in a comment letter regarding the project that there are no sacred lands indicated in the project vicinity.¹⁴

¹² City of Solvang, *Solvang General Plan Conservation and Open Space Element* (1988), 28.

¹³ Compass Rose Archaeological, Inc., *Phase I Cultural Resources Investigation, City of Solvang Water System Master Plan Update, Santa Barbara County, California* (2011).

¹⁴ Please see to **Appendix 1.0** for written comment letter from the Native American Heritage Commission.

Compass Rose archaeologists inspected the water treatment plant and well sites during the field survey on September 29, 2011.¹⁵ Compass Rose observed that the water treatment plant area is partially paved for Glen Way. Compass Rose inspected ground surfaces adjacent to Glen Way for evidence of cultural resources. In Well Site A, dense riparian vegetation covers the steep to moderately steep slopes below and south of Fjord Drive. The remaining area is free from vegetation. The Well Site B area includes an agricultural field and an ongoing sand and gravel operation. Grading for sand and gravel extraction at this area has drastically altered the natural landform and may have destroyed any cultural resources in that area.¹⁶

5.4.5 THRESHOLDS OF SIGNIFICANCE

In order to assist in determining whether a project would have a significant effect on the environment, the *California Environmental Quality Act (CEQA) Guidelines* identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions.

Specifically, Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form) lists the following threshold, whereby a project may be deemed to have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *State CEQA Guidelines* Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

5.4.6 ENVIRONMENTAL IMPACTS

The environmental impact analysis presented below is based on determinations made in the Notice of Preparation (NOP) for issues that were determined to be potentially significant with mitigation incorporated, or for issues identified by reviewing agencies, organizations, or individuals commenting on the NOP that made a reasonable argument that the issue was potentially significant (see Responses to NOP, **Appendix 1.0**).

¹⁵ Compass Rose Archaeological, Inc., *Phase I Cultural Resources Investigation, City of Solvang Water System Master Plan Update, Santa Barbara County, California* (2011).

¹⁶ Ibid.

5.4.6.1 Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5

Impacts

Construction

Master Plan Update

Development under the proposed Master Plan Update would involve construction activities at locations throughout the City's service area during the 20-year project timeline. Since the location of these activities is not yet known, site specific investigations were not performed for the entire Master Plan Update area and field reconnaissance was limited to the areas for Well Sites A and B, and the proposed water treatment facility. The current water supply infrastructure may be over 50 years old at the time it is replaced. Therefore, it could meet the general minimum age requirement for listing in the California Register of 50 years or older. However, the aging waterlines, fire hydrants, and valves are common features found in any urban setting and are mostly located in paved and otherwise disturbed areas. These features are unlikely to meet any of the criteria established by the SOI or for listing in the California Register as they do not have any important historical associations, and are unlikely to have distinctive design characteristics, and they are unlikely to yield information important to history.

However, since historic resources surveys have not been completed for the study area, there is a potential that construction activities could disturb sites in the City that qualify as historic. Therefore, construction associated with the proposed Master Plan Update implementation would have the potential to damage or change the significance of a historic resource as defined in Section 15064.5. The impact to historical resources would be potentially significant.

Changes to Water Right Permit

The proposed revision to the water right Permit 15878 would result in an extension of the Existing Reach of Diversion as shown in **Figure 2.0-4** which would allow construction and operation of water facilities downstream of the existing area of diversion. Historical resources impacts associated with facilities throughout the proposed Master Plan Update project area, including the Extended Reach of Diversion downstream of Alisal Bridge, are discussed above and below.

Proposed Wells and Water Treatment Facilities

Other than the necessary infrastructure improvements, there are no structures in the sites proposed for the wells to be located in Well Sites A and B. The proposed water treatment facility would include a small

building to house mechanical equipment, as shown in **Figure 2.0-6**. There are no historical buildings or structures that would be modified or removed.

The California State Historic Resources Inventory, the National Register of Historic Places, the California State Historical Landmarks, and the California Points of Historical Interest, were also consulted, and no properties were found on any of the listings within or adjacent to the project area. The proposed project would install new wells and a water treatment facility, and would not involve removing any facilities of historical significance as defined in Section 15064.5 of the *State CEQA Guidelines*. There are no historic structures located within the areas designated for future wells (Wells Sites A and B) or the proposed water treatment facility site that could be affected by construction activities. Therefore, the impact to historical resources would be less than significant.

Operation

Operation of new facilities under the Master Plan Update and water right Permit 15878 revisions, including the proposed wells and water treatment facility, would not involve any ground disturbing activities that could potentially change the significance of a known historical resource. Therefore, operational of the activities would have no effect on the significance of historical resources. There would be no impact.

Mitigation Measures

The following mitigation measures shall be implemented:

- CUL-1** Before altering or otherwise affecting a building or structure 45 years of age or older, the City shall retain a qualified Architectural Historian to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation. Its significance shall be assessed by a qualified Architectural Historian, using the significance criteria set forth using the significance criteria set forth for historic resources under the *State CEQA Guidelines* Section 15064.5 and shall meet OHP [Office of Historic Preservation] standards.

Residual Impacts

Implementation of **Mitigation Measure CUL-1** would ensure that any structure of 50 years of age or older are evaluated for their significance as historical resources prior to being replaced. Impacts from alteration of a historic structure would be reduced to less than significant with mitigation (Class II).

The proposed future wells to be located in Well Sites A and B, and the proposed water treatment facility would have a less than significant impact to historical resources (Class III).

5.4.6.2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to *State CEQA Guidelines* Section 15064.5

Impacts

Construction

Master Plan Update

As indicated by previous studies in the area, including the Phase I Cultural Resources Report prepared for the wells and water treatment sites and the City's General Plan, there is a high potential to encounter archaeological resources throughout the City. Construction activities involving ground-disturbing activities under the Master Plan Update could result in impacts to previously unidentified archaeological resources. Even if archaeological resources are identified during cultural resource surveys, there is always a potential to encounter additional unknown or undiscovered subsurface archeological resources during ground disturbing activities.

Impacts would be potentially significant.

Changes to Water Right Permits

The proposed revision to water right Permit 15878 would result in an extension of the Existing Reach of Diversion as shown in **Figure 2.0-4** which would allow construction and operation of water facilities downstream of the existing area of diversion. Archaeological resources impacts associated with facilities throughout the Master Plan Update project area, including the Extended Reach of Diversion downstream of Alisal Bridge, are discussed above and below.

Proposed Wells and Water Treatment Facilities

One archaeological site, CA-SBA-21641, was identified in the records search for the wells and water treatment sites. The site was recorded adjacent to the water treatment plant site. Based on the information housed at the CCIC, this site has not been tested for the existence of a subsurface deposit, precise boundaries, or potential significance. Therefore, to the extent that subsurface deposits may extend into the construction area for the water treatment plant, the ground disturbing activities could uncover subsurface archaeological resources of significance. In addition, while no surface resources were

identified at the wells sites A and B during the field survey, the potential remains to impact subsurface archaeological resources during ground disturbing activities. The impact would be potentially significant.

Operation

Operation of facilities to be developed under the Master Plan Update, including the six proposed new wells and the water treatment plant, would not involve any ground disturbance that could potentially uncover archaeological resources. Therefore, there would be no impact from operation under the Master Plan Update or operation of the wells to be located in Well Sites A and B, and water treatment plant project. The proposed changes to water right Permit 15878 would not involve any ground disturbance and would not have impacts on archaeological resources.

Mitigation Measures

The following mitigation measures shall be implemented:

CUL-2 Prior to implementation of any Master Plan Update component that involves ground disturbance in native soils (with the exception of activities at Well Site A, Well Site B and the proposed water treatment plant location previously surveyed), the City of Solvang will arrange for the completion of a Phase I Cultural Resources Assessment by a qualified Cultural Resources Professional. The qualified Cultural Resources Professional shall meet the Secretary of the Interior's professional qualification standards (36 Code of Federal Regulations 61). The Phase I Cultural Resources Assessment for each project under the Master Plan Update may include, but not be limited, to the following tasks, per the recommendations of the Cultural Resources Professional:

- An archaeological/historical/cultural resources records search shall be conducted at the Central Coastal Information Center (CCIC), located at the University of California, Santa Barbara to identify potential impacts that may be caused by the project.
- Consultation shall occur with the Native American Heritage Commission (NAHC) in Sacramento regarding the possibility of special Native American sites that may be located in the vicinity of any project components shall be conducted. Consultation shall occur with local Native American representatives with knowledge regarding Native American sites in the project area and shall be contacted in regard to each construction phase if the qualified Cultural Resources Professional determines that there is the potential to impact Native American resources.
- A field survey by the appropriate qualified Cultural Resources Professional shall be conducted. A qualified Archaeologist shall be retained to visually examine the ground surface for evidence of prehistoric (Native American) or historic (non-Native

American) archaeological materials, or other potential historic features (e.g., structures, bridges, mines, or wells), in areas where ground disturbance is proposed in native soils.

- The results of any additional Phase I Cultural Resource Studies shall be documented in a technical report prepared according to Archaeological Resource Management Report (ARMR) guidelines and OHP standards.

CUL-3 If potential archaeological or paleontological resources are encountered during ground-disturbing activities or construction, work at that location shall be immediately stopped and redirected until a City approved archaeologist and Native American representative are retained by the City to evaluate the significant of the find pursuant to further investigation. If the resources are found to be significant, the applicant shall be subject to further recommendations for mitigation as determined by the archaeologist in consultation with Native Americans and the Planning & Community Development Director.

CUL-4 Any construction involving ground-disturbing activities shall be monitored by an archaeologist and a local Santa Ynez Chumash tribal monitor. If evidence of the archaeological resource is exposed, the monitors may halt construction for a limited time to propose mitigation in consultation with the project manager. When earth-disturbing work in the sensitive area is completed, monitoring will no longer be necessary, unless the archaeological resource or other cultural resources are encountered during construction.

Residual Impacts

Implementation of **Mitigation Measures CUL-2, CUL-3, and CUL-4** would reduce to less than significant with mitigation (Class II).

5.4.6.3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Impacts

There are no known areas in or around the City that have a significant potential for paleontological resources.¹⁷ In addition, extensive excavation activities for buildings and infrastructure have taken place in the City and no unique paleontological or geologic resources have been encountered. Therefore, the

¹⁷ City of Solvang, *Solvang General Plan Conservation and Open Space Element* (1988), 28.

potential to affect a unique paleontological resource or geologic feature would be low. The impact would be less than significant.

Mitigation Measures

No mitigation measure is required.

Residual Impacts

The wells and the water treatment facility proposed in the Master Plan Update would have less than significant impacts on paleontological resources (Class III).

5.4.6.4 Disturb any human remains, including those interred outside of formal cemeteries

Impacts

Construction

Master Plan Update

Other than wells to be located in Well Sites A and B, and a proposed water treatment facility site, there were no site-specific studies conducted for proposed facilities included in the proposed Master Plan Update. Construction activities under the Master Plan Update could involve ground disturbance that may disturb unrecorded human remains. In the event that unrecorded human remains are encountered during construction, they could be adversely affected and result in a potentially significant impact.

Changes to Water Right Permit

The proposed revision to the water right Permit 15878 would result in an extension of the Existing Reach of Diversion as shown in **Figure 2.0-4** to include areas downstream of Alisal Bridge, which would allow construction and operation of future well facilities in Well Sites A and B. Impacts to unrecorded human remains associated with facilities throughout the Master Plan Update project area, including the Extended Reach of Diversion, are discussed above and below.

Proposed Wells and Water Treatment Facilities

No recorded historic or Native American cemeteries were identified in the project area for the proposed wells and water treatment facilities.¹⁸ However, there is always the potential to encounter unanticipated human remains and such an impact is considered potentially significant.

Operation

Operation of facilities to be developed under the Master Plan Update, including the future wells in Well Sites A and B, and a proposed water treatment plant, would not involve any ground disturbance that could potentially uncover human remains. Therefore, there would be no impact.

Mitigation Measures

CUL-5 In the event of a discovery of human bones, suspected human bones, or a burial, all excavation in the vicinity will halt immediately and the area of the find will be protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bones are human, or if a qualified archaeologist is not present, the City will notify the Santa Barbara County Coroner before additional disturbance occurs. The City will ensure that the remains and vicinity of the find are protected against further disturbance until the Coroner has made a finding with regard to PRC 5097 procedures, in compliance with California Health and Safety Code Section 7050.5(b). If it is determined that the find is of Native American origin, the City will comply with the provisions of PRC Section 5097.98 regarding identification and involvement of the Native American Most Likely Descendant (MLD).

Residual Impacts

With the implementation of the proposed **Mitigation Measures CUL-4** and **CUL-5**, impacts would be less than significant (Class II).

¹⁸ Compass Rose Archaeological, Inc., *Phase I Cultural Resources Investigation, City of Solvang Water System Master Plan Update, Santa Barbara County, California* (2011).

5.4.7 CUMULATIVE ANALYSIS

5.4.7.1 Cumulative Impacts

Evaluation of potential cumulative impacts on cultural resources is limited to the City of Solvang because impacts to cultural resources are confined to specific sites. Both pre-historic and historic resources are expected to be confined to local development patterns, and not found in a broader significance pattern (per *State CEQA Guidelines* and the National Historic Preservation Act).

Development in the region could result in the damage or destruction of known archaeological and historical resources, as well as any existing undiscovered subsurface artifacts. The vicinity of the City, including areas in the unincorporated Santa Barbara County is known to include both prehistoric and historic cultural resources. Although no evidence of prehistoric resources was discovered during field surveys of the Master Plan Update project area, archaeological sites are located in the vicinity. Historic resources and prehistoric sites could also occur elsewhere in the City and in Santa Ynez Valley. The numerous laws, regulations, and statutes, on both the federal and state levels, that seek to protect cultural resources would apply to development within and outside the City.

Mitigation Measures CUL-1, CUL-2, CUL-3, CUL-4 and CUL-5 will reduce the Master Plan Update's contributions to cumulative cultural resources impacts in the City of Solvang and Santa Ynez Valley community by ensuring that appropriate surveys are conducted to identify cultural resources. Cultural resources discovered within the Master Plan Update project area will be properly recorded and handled, and known existing resources in the Master Plan Update project area will be appropriately recorded and preserved.

5.4.7.2 Cumulative Mitigation Measures

No additional mitigation is required.

5.4.7.3 Residual Cumulative Impacts

The Master Plan Update's contribution to the cumulative impact would not be considerable (Class III).