SECTION 4.4

Cultural Resources

4.4 CULTURAL RESOURCES

This section is based primarily on a Revised Historical Resources Assessment (Dudek, April 2010), Archaeological Resources Phase 3 Data Recovery Scope (Dudek, May 2010~~November 2009~~) prepared for the project, and a peer review of those documents and supplemental analysis provided by McKenna et al. These reports and the McKenna et al. peer review considered previous cultural resources investigations conducted for the site, which included Phase I, extended Phase I ~~–~~and Phase II investigations and archaeological records check, supplemental historic research, consultation with Native Americans, and field research. In addition, on July 6 and October 21, 2010, as part of the analysis for this EIR, the City of Goleta (City), Envicom Corporation, and McKenna et al. conducted additional consultation with the local Chumash representative members of the Coastal Band of the Chumash Nation, along with a member of the Santa Ynez Band and an unaffiliated member.

4.4.1 Existing Conditions

Historical Resources

The project site is currently undeveloped and has previously been cleared and graded in connection with prior agricultural use of the site. The site is currently used, in part, to stockpile soil under a stockpile permit from the City. Site inspections and review of historical aerial photographs dated from 1928 to present reveal that there are no structures on the property, there is no evidence that structures were historically present, and there are no historically significant engineered ground features.

Archaeological Resources

The data on file at the UC Santa Barbara Central Coastal Information Center list a minimum of 79 archaeological studies conducted within one mile of the project site, including studies that directly address all or portions of the project site. These previous surveys resulted in the identification of 33 archaeological sites within one mile of the project site. The majority of these archaeological sites have been described as specialized or limited activity sites (one or two activities), although some larger habitation and burial sites have also been identified.

The project site contains a portion of CA-SBA-56, a habitation site with areas of dense shell midden development. Through a series of investigations in the 1980s, the central area of CA-SBA-56, located south and outside of the project site, has been determined to be eligible for listing ~~on~~ in the National Register of Historic Places (NRHP) and has been determined to meet the criteria for listing ~~on~~in ~~–~~the California Register of Historical ~~–~~ Resources~~Places~~. Therefore, CA-SBA-56 is considered a significant historical archaeological resource under CEQA, per CEQA Guidelines Section 15064.5(a)~~–~~(3)(D). This determination is justified primarily by the presence of human remains and the extensive midden deposits within the core area of the archaeological site (within Lot 20 immediately south of the project site), and the potential for this site to yield scientific data about history or prehistory that cannot be obtained except through archaeological investigations. CA-SBA-56 is the primary focus of this EIR section, although the project site comprises only a portion of the larger CA-SBA-56 site.

Other previously identified archaeological sites located near the project site include: CA-SBA-55, a habitation site with shell midden (this site appears to have been previously destroyed by modern development activities); CA-SBA-1203, a small village site with midden deposits; CA-SBA-3636, lithic scatter; CA-SBA-52, described as a village site with a cemetery and eligible to

be listed on the NRHP; and CA-SBA-1203, CA-SBA-1653, and CA-SBA-1655, which essentially encircle CA-SBA-56. A simple interpretation of these resources suggests the entire region was occupied over the past 9,000 +/- years, with shifts in the actual locations of occupation, but with substantial evidence of the occupation(s) being scattered throughout the area. CA-SBA-56 is one area where resources are still identifiable and relatively intact, providing a scientifically identifiable and significant resource representing a relatively small percentage of the prehistoric use of the Goleta Slough environment.

On-Site Investigations and CA-SBA-56 Description

Archaeological site CA-SBA-56 ~~has been known to exist since~~was formally identified when David Banks Rogers first mapped the area in the 1920s. Over the course of many years, specifically in the 1980s, 1990s, and 2000s, various archaeological investigations within and around the known site area were conducted mostly to define and refine the boundaries of CA-SBA-56 and to obtain enough archaeological data to determine its significance with respect to dates of occupation and function. To date, a minimum of 23 studies have been conducted at CA-SBA-56, involving various levels of surface and subsurface surveys and testing. These studies have resulted in refinements of site boundaries, the identification of areas of intact and/or disturbed or destroyed components, and the confirmation that the remains represent a multi-occupational site (at least two major periods of occupations and each spanning hundreds of years of use). Occupations are believed to include the Early Period ("Oak Grove," 8,000 to 3,350 years before present [B.P.] and Late Period "Canalino," 800 to 150 B.P.) (SAIC, 1999). There is also ample evidence for major gaps in occupation, likely the result of environmental conditions that would have affected accessibility of the site area, such as higher water levels.

In summary, CA-SBA-56 is a relatively large site with a dense, central midden deposit (located generally south and outside of the project site), an area ~~and areas~~ of intermediate artifact density within the project site, and low-density artifact scatter on the periphery of the project site and extending~~to the~~ north and outside of the project site. The area identified in previous reports as main residential midden is located within the boundary of Willow Springs I. Development of Willow Springs I avoided direct impacts to this midden area through development design. Within the Willow Springs II site, two areas have been identified~~: as including the~~ an "intermediate artifact scatter" and a "low-lying area," which contains a low~~-to moderate~~ artifact scatter density. Despite the distinctions between the various site areas, artifacts have been identified throughout the area, emphasizing the contiguous presence of cultural materials associated with CA-SBA-56 and resulting in the current site boundaries.

Intermediate Artifact Scatter

Occupation of the Intermediate Artifact Scatter has been dated to the Late Period, 7~~6~~50 and 6~~7~~50 years before present (B.P.). This contrasts with dates of 6,600 and 6,700 B.P. for occupation of the central midden area south of the project site, associated with the Early Period.

A portion of the intermediate artifact scatter area within CA-SBA-56 is located along the ridgeline within the Willow Springs II project site. This area has a moderate amount of chipped stone flakes and low amounts of fragmented animal bone, but nearly no shellfish. These remains appear to be contemporaneous with the main residential midden occupation of CA-SBA-56 within the Willow Springs I project Lot 20. They have been described as representing a specialized activity area peripheral to the main residential midden. The cultural materials associated with this area are capable of providing additional~~, albeit limited,~~ information about the Late Period occupation of CA-SBA-56 ~~chronology~~ (e.g. when the site was occupied~~:~~),

~~subsistence (~~food collection strategies~~);~~ stone tool manufacturing processes~~,~~ and trade (based on the presence of imported obsidian and fused shale stone). These tasks would have been peripheral to the main residential midden. Chumash scholars have identified additional exploration of Later Period occupation at CA-SBA-56 as a principal objective of future archaeological research (Erlandson et al., 2004). The area of intermediate artifact scatter within the project site is approximately 1.30 acre (56,462 square feet). No human remains were identified *in situ* in this area. The intermediate artifact scatter area exhibits ground disturbances up to four inches in depth that have occurred as a result of previous agricultural grading activities.

Low Lying Areas Surrounding the Main Residential Midden

The low-lying areas peripheral to the main residential midden and intermediate artifact scatter areas contain sparse densities of cultural material (e.g. one stone tool flake or less than one gram of shell) or none at all. Nearly all of the cultural materials encountered within this area were recovered from the upper eight inches of soil (the plow zone), including an identified animal bone that was highly fragmented, suggesting most of these materials have been previously disturbed and somewhat displaced. The shellfish and flaked tools recovered in this area lack some locational integrity, and appear to provide little additional information about CA-SBA-56 that cannot be acquired from the more substantial portions of the site. The very low density of archaeological remains found in the low-lying areas peripheral to the core CA-SBA-56 deposits are consistent with Extended Phase I findings from the Willow Springs I project (Erlandson et al., 2004). However, it is noted that despite the above findings, there remains the potential for important artifacts to exist within this area. The low-lying area within the Willow Springs II boundary totals 1.26 acres (54,747 square feet). The low-lying area is disturbed up to 12 inches below the surface as a result of past agricultural grading activities. While no human remains were identified *in situ* in this area, a single human femur was reportedly reburied within this area in the late 1990s.

Extent of Prior Data Collection and Evaluation

The larger CA-SBA-56 site, including portions outside of the Willow Springs II project boundaries, has been subjected to extensive archaeological field surveys, which have included:

- Geomorphological analysis;
- Analysis of historic land uses and disturbances through historic photograph analysis;
- A minimum of ten surface surveys resulting in the recovery of 591+ artifacts;
- The identification of one human femur (and other bone determined to be non-human);
- Disking for better visual inspections;
- A minimum of 29 Shovel Test Pits (STPs);
- A minimum of 56 controlled trenches and examination of one looter's trench;
- Excavation of 14 controlled excavation units (four were located within the Intermediate Artifact Scatter Area and 10 were placed in the low-lying areas);
- Recovery of column samples;
- Hundreds of artifacts from subsurface contexts;
- One human burial (left *in situ*);
- Reports of at least two possible hearths; and
- Carbon-14 dates confirming the two major periods of occupation (Early Period and Late Period).

Based on the level of testing presented above, the site has been subjected to a significant level of testing and evaluation, resulting in a relatively large body of data that, to date, has not been synthesized. Although there is evidence within the larger archaeological site for two major periods of prehistoric occupation and a relatively large artifact assemblage, no ~~definitive evidence of a~~ high density midden habitation area has been identified within the portions of the ~~larger~~ archaeological site comprising the project site. The cultural materials within the intermediate artifact scatter represent less intensive occupation, potentially only inhabited seasonally by smaller groups of families, or year-round, but for a shorter time span. ~~(e.g features, living surfaces, etc.). This suggests the actual habitation site is outside this area of investigation and the areal extent of CA-SBA-56 may, in fact, be larger than mapped and additional components of the site may be located outside the boundaries of the Willow Springs II project area.~~

Native American Concerns

The Coastal Band of the Chumash Nation representatives (members of the Chumash Native American Community) have been involved in past archaeological studies and testing on the project site. As part of the Willow Springs II application and EIR, the project applicant and the City of Goleta consulted the entire list of Chumash individuals provided by the Native American Heritage Commission as having knowledge of the cultural resources at the project site, including the local Coastal Band of the Chumash Nation (CBCN), to identify concerns and appropriate mitigation ~~into the project design~~. Although the applicant organized several additional meetings with the local Native American community (including on May 19, 2010), the City of Goleta held ~~This included~~ two formally noticed meetings, one ~~held~~ on July 6 and the second on October 21, 2010 at the City offices to discuss cultural resources issues affecting the Willow Springs II project and site area. The first meeting was an opportunity for the consulting archaeologist for the EIR (J. McKenna) to understand cultural resource issues of importance from the Native American community prior to preparing the Cultural Resources section of the Draft EIR. At the second meeting, Ms. McKenna presented preliminary findings of her research on the cultural resources previously identified and potentially affected by the project. ~~,~~ ~~with p~~Participants ~~,~~at the meetings ~~including~~ included: the City of Goleta staff, the applicant, representatives of the local Coastal Band of the Chumash Nation and the Santa Ynez Chumash Indian Reservation, unaffiliated Chumash, and Envicom Corporation and their consulting archaeologist, McKenna et. al. The Chumash representatives consider CA-SBA-56 to be a prehistoric site significant to their heritage and do not consider the integrity or lack of integrity of the archaeological deposits relevant to the importance of the site. They also consider the single human femur that was reportedly reburied within the project site significant to their heritage.

Regulatory Framework

Federal

The National Historic Preservation Act addresses the protection of archaeological, cultural, and historic resources. In addition, the American Religious Freedom Act directs regulators to protect sacred sites for all Americans including American Indians.

State Authorities and Administering Agencies

State regulations applicable to this cultural resource analysis are limited to the California Environmental Quality Act (CEQA), California Public Resources Code Sections 21000, *et seq.*, and the State CEQA Guidelines (CEQA Guidelines), California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000, *et seq*. CEQA considers cultural resources part of the

environment to be protected. The CEQA Guidelines provide a framework for the analysis of impacts to cultural resources, including archaeological resources.

In considering impact significance under CEQA, the significance of the resource itself must first be determined. At the State level, consideration of a significant historic archaeological resource is measured by cultural resource provisions considered under CEQA Sections 21083.2 and 21084.1 and CEQA Guidelines Section 15064.5 ~~and 15126.4~~, and the ~~draft~~ criteria regarding resource eligibility to the California Register of Historical Resources (CRHR). One way in which, ~~Generally~~ under CEQA, a historical resource (these include built-environment historic and prehistoric archaeological resources) is considered significant is if it meets the criteria for listing on the CRHR. These criteria are set forth in CEQA Guidelines Section 15064.5(a)(3) and defined as any object, building, structure, site, area, place, record, or manuscript that:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
b) Is associated with lives of persons important in our past.
c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
d) Has yielded, or may be likely to yield, information important in prehistory or history.

Section 15064.5 of the CEQA Guidelines also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under California Public Resources Code (PRC) Section 5097.98.

Impacts to "unique archaeological resources" and "unique paleontological resources" are also considered under CEQA, as described under CEQA Section ~~PRC~~ 21083.2. A unique archaeological resource is defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge there is a high probability that it meets one of the following criteria:

a) The archaeological artifact, object, or site contains information needed to answer important scientific questions, and there is a demonstrable public interest in that information.
b) The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type.
c) The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource is an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological resources and resources which do not qualify for listing on the CRHR receive no further consideration under CEQA.

Under CEQA Section 21084.1 and CEQA Guidelines Section 15064.5(b), a project would potentially have significant impacts if it would cause substantial adverse change in the significance of a historical resource determined as such under CEQA Guidelines Section

15064.5(a), including an archaeological or paleontological resource determined to meet the criteria for listing on the CRHR. ~~one of the following:~~

~~) A historical resource (i.e., a cultural resource eligible for the CRHR).~~

~~) An archaeological resource (defined as a unique archaeological resource which does not meet CRHR criteria).~~

~~) A unique paleontological resource or unique geologic feature (i.e., where the project would directly or indirectly destroy a site).~~

~~) Human remains (i.e., where the project would disturb or destroy burials).~~

Under CEQA Section 21083.2 and CEQA Guidelines Section 15064.5(c), a project would potentially have significant impacts if it would have a significant effect on a unique archaeological or paleontological resource.

Under CEQA Guidelines Section 15064.5(d) and (e), a project would potentially have significant impacts if it would involve the discovery or probable likelihood of discovery of human remains determined to be Native American remains and would result in a substantial adverse change to those remains, such as disturbing or destroying burials.

A non-unique archaeological or paleontological resource is given no further consideration other than the simple recording of its existence by the CEQA lead agency.

Potential impacts to identified cultural resources need only be considered if the resource is a "historical resource" under the provisions of CEQA Section 21084.1 and CEQA Guidelines Section 15064.5 or a "unique archaeological resource" under the provisions of CEQA Section~~s~~ 21083.2 and CEQA Guidelines Section 15064.5~~ and 15126.4 and the eligibility criteria~~. If a resource cannot be avoided, then the resource must be examined vis-à-vis the provisions of CEQA Sections 15064.5 and 15126.4. In many cases, determination of a resource's satisfaction of the criteria for eligibility to be listed in the CRHR can only be made through extensive research and archaeological testing. No mitigation measures are required unless previously undiscovered cultural resources are detected. Mitigation under CEQA must address impacts to the values for which a cultural resource is considered significant. To mitigate adequately, it must therefore be determined what elements make a site eligible for the CRHR. The first line of mitigation is complete avoidance, when feasible, of all cultural resources.

4.4.2 Thresholds of Significance

~~1)A significant historical resource is further defined under the City's *Environmental Thresholds and Guidelines Manual* as one that a) possesses integrity of location, design, workmanship, material, and/or setting; b) is at least fifty years old; and c) demonstrates one or more of the following criteria:~~

~~1)Is associated with an event, movement, organization, or person that/who has made an important contribution to the community, state, or nation;~~

~~2)Was designed or built by an architect, engineer, builder, artists, or other designer who has made an important contribution to the community, State, or nation;~~

~~3)Is associated with a particular architectural style or building type important to the community, State, or nation;~~

~~4)Embodies elements demonstrating a) outstanding attention to design, detail, craftsmanship, or b) outstanding use of a particular structural material, surface material, or method of construction or technology;~~

~~5)Is associated with a traditional way of life important to an ethnic, national, racial, or social group, or to the community-at-large;~~

~~6)Illustrates broad patterns of cultural, social, political, economic, or industrial history;~~

~~7)Is a feature or a cluster of features which convey a sense of time and place that is important to the community, State, or nation; or~~

~~8)Is able to yield information important to the community or is relevant to the scholarly study of history, historical archaeology, ethnography, folklore, of cultural geography~~.

The City of Goleta's ~~adopted thresholds~~*Environmental Thresholds and Guidelines Manual* ~~indicates~~ states that a project would result in a significant impact on a cultural resource (historical and archaeological) if:

a. The project ~~it~~ results in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of such a resource would be materially impaired.

Similarly, Section 15064.5(b) of the CEQA Guidelines provides that a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment and a substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. This threshold is the basis from which the project's impacts to historical archaeological resources are determined below in Section 4.4.3 *Project Impacts*.

4.4.3 Project Impacts

Historical Resources

As described above, there are no historical structures within or in the immediate vicinity of the project site. As such, the potential for the project to result in any impacts on historical structures would be considered less than significant.

Archaeological Resources

Impacts to CA-SBA-56 (Impact CR-1)

A portion of the proposed development would cover 2.56 acres of CA-SBA-56. In lieu of normal site disturbance from mass grading in this area, the project grading has been designed to cap the archaeological deposits, thereby preserving the deposits in place and minimizing or avoiding impacts. Placement of fill as a way to cap archaeological resources is an accepted method in the archaeological field for protecting resources and has been used as mitigation in practice. Placement of this cap involves first removing of the vegetation from the surface and removal of the soil stockpile in the east portion of the property, followed by placing geogrid fabric over the native soils, and subsequently, placing compacted fill above the geogrid fabric. The compacted fill soil would consist of earthen material from the existing on-site stockpile and approximately 15,475 cubic yards of imported soil from the Willow Springs North property. As such, the

geogrid fabric would be placed between the native soil and the fill soil as a barrier to distribute the loading (weight) from soil compaction activities and structures, such that compression impacts to the integrity of underlying soils and archaeological resources would be minimized. While post-development investigations of the long-term effects of surface loading on the integrity of underlying capped archaeological resources have not been completed, it remains a generally accepted method in the archaeology community and is supported by geologic engineering with respect to the effectiveness. (Also refer to Earth Systems Pacific letter dated March 7, 2012, in Appendix C, for more information regarding fill soil and building foundation loads on soils within archaeologically sensitive areas.) ~~Fill soils would reach depths up to 6 feet over the relatively lower elevation areas.~~

Construction activities, including compaction, grading, utility pipeline installation, structural foundation construction, paving and landscaping would occur predominantly within the layer of fill soils above the geogrid fabric (except for portions of utility pipelines, discussed further below). However, potential direct and indirect impacts to archaeological resources could occur from the cap placement construction activity, from utility pipeline installation into native soil, loss of research potential where development would preclude future access to the resources, and the potential for construction workers and future residents to disturb resources in the adjacent areas. These impacts are considered **potentially significant (Impact CR-1)** and are described further below.

Impacts from Site Preparation

As part of the capping process, the existing ground surface in the building and surface areas would be prepared for geogrid fabric and fill placement by removing any debris, vegetation, tree stumps, large roots, and other deleterious material. Vegetation on-site is limited to grasses and forbs and would not include deep root zones. In addition, soils have been previously disturbed to depths of 12 inches in the low-lying area of CA-SBA-56 and 4 inches in the intermediate scatter area. However, given that cultural resources have been observed at the surface of the site, vegetation removal and surface disturbance of soils, has the potential to result in significant impacts to archaeological resources that may be located near the surface.

Impact from Chemical Incompatibility of Fill Soil

Archaeological resources could be impacted if fill soil is not chemically compatible with the underlying native soils. The pH of the CA-SBA-56 soil within the project site was tested at four locations and was found to be relatively uniform with a range between 6.25 and 6.65 (ISERA Group, 1995). The pH of the fill soils should match as closely as possible to the pH of the native soils; however, if the fill soil ranges in pH from 5.5 to 7.5, it is expected that no changes to the cultural resources would occur. The project would include the use of fill from on-site stockpiles, as well as a stockpile from the Willow Springs North property to cap the resources. The pH of these soils is not known at this time. Until the pH is determined and a suitable pH fill soil is verified there could be a potentially significant impact from the potential for chemically incompatible soils.

Impacts from Utility Pipeline Excavations Within Native Soils

The project includes the installation of utilities pipelines that would partially occur within the underlying native soils (i.e. below the proposed fill) within a designated “low-lying” area of CA-SBA-56 (i.e. an area with extremely sparse densities of cultural resource materials) at the southeast portion of the site. The low-lying areas have been previously disturbed to a depth of 12 inches. To make connections to existing water supply pipelines located below the surface,

portions of the pipelines within the underlying soils would occur at two locations: 1) a 3-foot long, 3-foot wide, and 6-inch deep trench; and 2) a 40-foot long, 3-foot wide, and 2-foot deep trench. In addition, a proposed 4-foot diameter sewer manhole may also disturb existing native soils during placement. Although the surface of this "low-lying" area has been subject to past grading, there remains a potential for artifacts to occur within these proposed excavation depths; therefore, impacts to archaeological resources as a result of installation of portions of the utility lines within native soils (below proposed fill) are considered potentially significant.

Precluding Future Access to Resources (Indirect Impact)

The placement of development, including roads and structures, above a portion of CA-SBA-56 would result in the loss of readily available access to underlying archaeological resources that provide significant information regarding history and prehistory. This loss of access to these resources is an indirect impact of the project and is considered potentially significant.

Impacts from Grading Outside of CA-SBA-56

Areas of the project site not within the boundaries of CA-SBA-56 would not be overlain with geogrid and capped in place. Site preparation and grading of these areas would involve vegetation removal followed by conventional mass grading, including over-excavation and re-compaction of existing soil. The over-excavation would occur within soils that have been previously disturbed at the surface and are either native or previously placed fill. Once excavated, the soil would be replaced in compacted lifts and non-expansive fill soil would be placed below locations of foundations, as required by the California Building Code as adopted by the City and the project Soils Engineering Report (dated May 11, 20011). Although the boundaries of CA-SBA-56 were delineated through extensive Phase I archaeological surveys and Extended Phase I subsurface excavations, ~~this~~ and grading would occur outside the identified boundaries of CA-SBA-56, there remains a potential that previously unmapped cultural material could be uncovered, as the general area was historically used by Native Americans, and the potential for new significant discoveries remains a concern. In addition, the subsurface boundary of CA-SBA-56 could be disturbed by adjacent grading operations should the over-excavation work inadvertently expand into the archaeological area, or if sloughing of the archaeological area into the over-excavation area were to occur. Therefore, potentially significant impacts to archaeological resources could occur as a result of site preparation and grading activity for areas outside the ~~identified archaeological~~ CA-SBA-56 site boundary~~ies~~.

Impacts from Off-Site Grading

The project would import approximately 15,475 cubic yards of stockpiled fill soil from the Willow Springs North property to cover the on-site archaeological areas. The boundaries of CA-SBA-56 extend north into the Willow Springs North property. The soil stockpiles are located outside the CA-SBA-56 boundaries; however, there is a potential for grading activity (i.e. the excavating and moving of soils from the Willow Springs North property to the project site) to inadvertently impact archaeologically sensitive soils on the Willow Springs North property. In addition, the fill placement and construction of Camino Vista Road would require the fill to be "keyed-in" or "day-lighted" with CA-SBA-56 soils where the north boundary roadway is directly adjacent to these archaeological sensitive soils to the north. These activities within the Willow Springs North property could result in potentially significant impacts to archaeological resources.

Impact From Construction Workers (Indirect Impact)

During project construction, there is a potential that construction workers could, inadvertently or with intention of looting, disturb native soils containing significant archaeological resources on-site or in nearby areas. Impacts to archaeological resources outside the project boundary during construction are considered potentially significant.

Impact Associated with Increased Population at the Site (Indirect Impact)

Upon occupancy of the proposed residential development, there would be an increase in the potential for people to uncover archaeological resources either inadvertently or with the intent of looting resources. There is increased potential for residents and visitors to enter archaeologically sensitive areas within the Willow Springs North property, including identified human burial sites. Impacts from increased residents in proximity to the archaeological resources are considered potentially significant.

Disturbance of Human Remains (Impact CR -2)

One specimen of human remains (a reburied femur) is reported to exist within the project site (Santoro, 1995). While the specific location of the reburied femur is unknown, research has identified the location of the reburied femur. As such, the bone is still within the boundary CA-SBA-56. The femur was reportedly discovered near the surface during a monitoring program (Snethkamp 1990) and within earthen material re-deposited to that location. It was speculated that the material originated from within the main residential midden area (south of the project site) and was transported during prior grading activities (ISERA Group, 1995).

Representatives of the Coastal Band of the Chumash Nation have expressed that this reburied femur is significant to their cultural heritage. They currently view any disturbance to the femur as unacceptable, including exposing it or relocating it from its current location. These representatives have also expressed that any development on top of ~~it~~ the reburial (e.g., structures, roads, play courts, etc.) would be considered degrading to its cultural significance. In consideration of the Chumash community concerns, once agreement was reached regarding the assumed location of the reburial, a redesign ~~has been~~was agreed to by the applicant and the redesign was incorporated into the project with the intent to avoid relocating, exposing, or placing permanent development above this sensitive resource. The avoidance design of the project was developed in consultation with the local Chumash representatives at the October 21, 2010 meeting. While permanent development directly over the resource would not occur~~, as planned~~, given the unknown depth of the burial, there is a potential that site surface preparation, landscape installation, or any long-term site maintenance that involves digging could inadvertently disturb or expose the resource. Therefore, for purposes of this analysis, the project's potential impacts on this human remain are considered **potentially significant**.

4.4.4 Cumulative Impacts

Previous development within Santa Barbara County has resulted in the loss of much of the evidence of the prehistoric occupation and use of the area. Current development projects within the City, as provided in Section 3.0 Related Projects, includes a minimum of 46 projects ranging from relatively small residential developments to larger residential development, commercial and industrial developments, and mixed-use developments. Of these, 27 are pending approval; 9 have been approved (but not yet started); 5 are under construction, and another 5 are currently occupied. Projects near the project site include a residential complex on Los Carneros Road; an approved residential complex near Baker, Violet, and Daffodil Lanes; a commercial

development on Hollister Avenue and a Marriot Residence Inn on Hollister. Of these, the Marriot Residence Inn would involve impacts to cultural resources, but all of the project sites are considered sensitive for archaeological resources, as the entire Goleta Slough area is considered sensitive for such resources. The Marriot Residence Inn is associated with CA-SBA-58. The potential for cumulative impacts associated with the project in addition to other development in the area is considered significant.

The previous protection of the ~~core~~central midden area of CA-SBA-56 ~~to some degree~~ limits the extent of potential direct impacts to the resource ~~within the project area~~. The proposed capping of the intermediate artifact scatter area of CA-SBA-56 within the project site would reduce the project's incremental contribution to cumulative impacts. However, as described above, the project would still result in the potential for significant impacts on archaeological resources. These impacts are also considered significant contributions to cumulative impacts on archaeological resources.

4.4.5 Mitigation Measures

Historical Resources

The project would not result in the potential for significant impacts on historical structures and therefore mitigation measures are not required.

Archaeological Resources

A Phase 3 Data Recovery Program (Dudek, 2010) is proposed by the project applicant to recover information relative to the specific nature, age, integrity, and significance of cultural resources within those areas of CA-SBA-56 identified as the intermediate artifact scatter area prior to being capped and filled. No further data recovery is currently proposed for the lower density scatter, as it was determined that additional sampling in this area is not likely to yield additional information important in prehistory.

The level of data collection to mitigate for the impact *Precluding Future Access to Resources*, includes the excavation of four controlled excavation units. The four units would measure~~ing~~ 1 meter by 1 meter and be spaced 40 meters (130 feet) apart to collect a representative sample from the area to be capped, such that the archaeological deposit can be appropriately characterized. The Phase 3 Program would also include the compilation and synthesis of the testing data completed during the various Phase 2 studies. This sample of four additional Phase 3 excavation units, combined with previously compiled data from both surface and subsurface contexts, will provide information on special variability that exists within the area of CA-SBA-56 that was occupied during the Late Period. This limited sample combined with previous analysis and research would minimize further disturbances to the sensitive area.

~~Data recovery activities, themselves, have been known to cause impacts to sensitive resources. The Phase 3 Program, as proposed, includes four controlled units within the intermediate artifact scatter area. McKenna et al. notes that the excavation of four additional units is a relatively small sample (0.0007% of the surface area) that would likely not provide additional data substantially different from previously compiled data sets and would not be considered a statistically valid sample. These proposed excavations would also increase impacts (disturbance) on the remaining resources. It is McKenna et al.'s opinion that sufficient data has been collected during the numerous previous studies. Hundreds of artifacts, hundreds of linear meters of trench data, aerial photographs, carbon dates, etc., were previously collected, which~~

~~could be analyzed and synthesized (assuming these artifacts are available). A systematic analysis of the previously recovered artifacts and ecofacts for the entire archaeological site would be sufficient to complete a comprehensive Phase 3 archaeological report assuming there is enough appropriate material available for analysis. The following mitigation measures are required:~~

Mitigation for Impacts to CA-SBA-56 (Impact CR-1)

CR 1-1 The permittee shall ~~develop~~provide a ~~pre-project implementation~~ Phase 3 Data Recovery Program (Phase 3) developed by a City-approved archaeologist to address CA-SBA-56 in a comprehensive manner. **Plan Requirements:** The Phase 3 ~~Data Recovery Program Plan~~ shall be prepared pursuant to City Cultural Resource Guidelines and include the excavation of four 1 X 1 meter excavation units in the Late Period occupation, intermediate artifact scatter area. ~~The placement of t~~These units shall ~~should~~ be ~~determined~~placed to avoid previously disturbed areas (e.g. trenches, STPs, or other controlled units). The units shall ~~should~~ also be placed in areas being directly impacted by the current development area and where the most information may be obtained. The Phase 3 shall include:

- Research design;
- Discussion of relevant research questions that can be addressed by the CA-SBA-56 resources;
- Methods to be used to gather data, including data from previous studies;
- Laboratory methods to analyze the data;
- An assessment of artifacts recovered and any corresponding field notes, graphics, lab analyses; and
- Results of investigations.

The Phase 3 shall be funded by the permittee and shall be prepared by a City-approved archaeologist. The Phase 3 shall be documented in a draft and final report and shall be reviewed and approved by a City-retained archaeologist. Pursuant to City Cultural Resource Guidelines, the final report, archaeological collections, field notes, and other standard documentation shall be permanently curated at the UCSB Repository for Archaeological Collections.

The Phase 3 shall specify that a Chumash Native American observer shall be retained by the permittee to observe all excavation activity associated with the Program. The observer shall maintain daily notes and documentation necessary, and provide the observation notes and documentation to all interested Chumash representatives who request to be informed of the Phase 3 excavation progress.

~~**Plan Requirements and**~~ **Timing:** A Phase 3 research design prepared pursuant to City Cultural Resources Guidelines, and a copy of a contract (including a detailed scope of work) between the permittee and a City-approved archaeologist and Chumash Native American observer for the Phase 3 program, and the subsequent draft and final Phase 3 report, shall be reviewed and approved by the City and City-retained archaeologist (funded by the permittee) prior to recordation of the final map. The permittee shall provide a bond subject

to City approval to the City for completion of the Phase 3 that shall be ~~returned~~ released upon completion of the Phase 3 mitigation and all contract requirements as determined by the City in writing. All excavation and curation requirements shall be met ~~within 60 days following City approval of the final Phase 3 report~~ prior to issuance of any Land Use Permit for grading .

Monitoring: The Phase 3 Data Recovery Program shall be submitted for approv~~ed~~ by the City and City-approved archaeologist prior to recordation of the final map. City staff and the City-retained archaeologist shall periodically site inspect to verify completion of the Phase 3 field work, including presence of the City-approved archaeologist and Chumash Native American observer. The City-retained archaeologist shall review and approve the draft and final Phase 3 reports. The permittee shall provide the City with a letter from the UCSB Repository for Archaeological Collections indicating that all required materials have been accepted for curation.

~~The first step in preparing the Phase 3 shall include the assessment of available artifacts recovered from CA-SBA-56 and any corresponding field notes, graphics, lab analysis and results. It is anticipated that the artifacts are located in the lab at UCSB, the Natural History Museum, or may be available from the local representative(s) of the Chumash Nation. The archaeologist shall determine whether sufficient data and artifacts exist to prepare a complete record that would serve as a Phase 3 report. Once the determination has been made, one of the following approaches shall be carried out:~~

~~Preferred Mitigation: If sufficient compilation of artifacts is achieved based on existing surveys, rather than conducting additional excavations, a systematic analysis of the previously recovered artifacts and ecofacts shall be undertaken and presented in a comprehensive Phase 3 archaeological report. It shall include a Research Design, a discussion of relevant research questions that can be addressed by these CA-SBA-56 resources, a discussion on methods to gather these data, and laboratory methods to analyze the data.~~
~~Should the archaeologist determine that a sufficient compilation of artifacts is not available, then a Phase 3 Data Recovery Program involving additional soil surveys (excavations) shall be completed in accordance with the following:~~
~~A minimum of 16 controlled excavation units will be needed to obtain supplemental data to replace information not readily available. The placement of these units should be determined to avoid previously disturbed areas (e.g. trenches, STPs, or other controlled units). The units should also be placed in areas being directly impacted by the current development area and where the most information may be obtained.~~
~~All excavations shall be conducted under the supervision of a qualified archaeological consultant with a trained archaeological field crew. All fieldwork should be undertaken in the presence of a local representative of the Coastal Band of the Chumash Nation.~~

~~If it is necessary to prepare a Phase 3 under the second approach, impacts to archaeological resources could occur as a result of greater soil disturbances. While it is preferred that these additional potential impacts be avoided, with monitoring and limiting the number of test pits, and given the fact that the Phase~~

~~3 analysis would retrieve archaeological information prior to future access to the resources as a result of the project, potential impacts associated with conducting the Phase 3 excavations are considered less than significant.~~

CR 1-2 All site preparation and construction activities, including project-related activities such as grading of the north side of Camino Vista Road, movement of stockpile soils ~~from Willow Springs North~~, site preparation for geogrid installation within the archaeological area, and standard grading over-excavation areas, utility installation and placement of fill, etc. shall be monitored by a qualified archaeological monitor(s) and local Chumash Native American observer(s). In accordance with local guidelines, the monitor(s) shall have the following authorities:

a. The archeological monitor(s) and Chumash Native American observer(s) shall be on-site on a full-time basis during any earthmoving activities, including preparation of the area for capping; grading; trenching, or other excavation activities. The monitors shall ~~will~~ remain on-site until it is determined through consultation with the permittee ~~applicant~~, City staff, archaeological consultant, and Native American representative that monitoring is no longer warranted;

b. To have the authority to halt any activities impacting known or previously unidentified cultural resources and to conduct an initial assessment of the resource(s);

c. In the event potential human remains (including a single bone fragment of unknown origin) are uncovered at any time, mitigation requirements established under Mitigation Measure CR 1-7 below shall be carried out;

d. If an artifact is identified as an isolated find, recover the artifact(s) with the appropriate location data and include the item in the overall inventory for the site;

e. If a feature or concentration of artifacts is identified, halt activities in the vicinity of the find, notify the permittee ~~applicant~~ and City, and prepare a proposal for the treatment of the find(s). This treatment may range from additional study to avoidance, depending on the nature of the find(s);

f. Prepare a comprehensive archaeological technical report documenting the results of the monitoring program and include an inventory of recovered artifacts, features, etc.;

g. Prepare the artifact assemblage for curation with an appropriate curation facility (e.g. UCSB or local Native American facility). Include an inventory with the transfer of the collection; and

h. File an updated archaeological site survey record with the UCSB Central Coastal Information Center.

Plan Requirements and Timing: Prior to approval of any Land Use Permit for any grading ~~and/or excavation~~, the permittee shall prepare a Construction Monitoring Plan. Plan specifications for the monitoring shall be printed on all plans submitted for grading, and building permits. The permittee shall enter into

a contract with a City approved archaeologist(s) and Chumash Native American observer(s) and shall fund the provision of on-site archaeological/cultural resource monitoring during initial grading, and excavation activities prior to any LUP issuance for grading.

Monitoring: City staff shall approve the Construction Monitoring Plan and ensure there is a valid contract with an archaeologist and a Native American representative, and shall conduct periodic field inspections to verify compliance during ground disturbing activities.

CR 1-3 Placement of fill soils over the archaeological area of the project site shall include the following surface preparation and fill placement measures:

a. Remove all organic material from the archaeological site surface by hand (including brushing, raking, or use of power blower). Use of motorized vehicles for vegetation removal is prohibited. All vegetation shall be removed at ground surface such that no soil disturbance results.

b. Remaining root balls and masses in the ground after hand removal of vegetation stems/trunks shall be sprayed with topical pesticide per manufacturers specifications to ensure no further growth. The resulting dead vegetation masses shall be left in place. Complete surface vegetation removal and die-off of root massing must be achieved prior to geogrid placement.

c. No remedial grading, sub-grade preparation or scarification shall occur prior to placement of the geogrid fabric.

d. A bioaxial geogrid (Tensar ~~BX1200~~TX 160 or equivalent) shall be laid over the ground surface throughout CA-SBA-56 site boundaries and a 50 foot buffer area. The geogrid type and verification of its technological capability shall be provided by a qualified geotechnical engineer

e. Placement of fill soils on top of the geogrid fabric shall be done in no greater than 8-inch lifts with rubber-tired equipment.

f. The first six inches of fill shall be yellow sand that signals to any future sub-surface activity (e.g. landscaping activity) that excavation shall not extend deeper.

g. Geogrid fabric shall be capable of preventing compaction and load impacts on underlying archaeological resources.

h. Fill soils shall have a pH ranging from 5.5 to 7.5 only.

i. Fill soils shall be free of archaeological resources.

j. Fill soils shall be spread from the outside with rubber track heavy equipment, such that the equipment shall only be working on top of the fill soils. The fill soils shall be placed ahead of the loading equipment so that the machine does not have contact with the archaeological site surface.

k. The fill soils shall be sufficiently moist so that they shall be cohesive under the weight of the heavy equipment as the material is spread out over the archaeological site and buffer area.

l. The project soils engineering report shall be revised to include the above measures with respect to site preparation with the archaeological area to ensure consistency in requirements.

Plan Requirements and Timing: Prior to approval of any Land Use Permit for any grading ~~and/or excavation~~, the permittee ~~applicant~~ shall prepare a Construction Monitoring Plan. Plan specifications for the monitoring shall be printed on all plans submitted for grading, landscaping, and building permits. The permittee ~~applicant~~ shall enter into a contract with a City approved archaeologist(s) and Chumash Native American observer(s) and shall fund the provision of on-site archaeological/cultural resource monitoring during initial grading, and excavation activities prior to any LUP issuance for grading.

A qualified geotechnical engineer shall provide the geogrid type and verification of its technological capability as part of the grading plan review and approval in consultation with the City Community Services Department.

Monitoring: City staff shall approve Construction Monitoring Plan and ensure there is a valid contract with an archaeologist and a Chumash Native American observer, and shall conduct periodic field inspections to verify compliance during ground disturbing activities.

CR 1-4 All fill soils to be used within the project site shall be chemically compatible with the existing native soils within the area of CA-SBA-56 within the project site. As provided in Mitigation Measure CR 1-3h, the soils shall range between 5.5 and 7.5 in pH. Soil samples and lab testing results shall demonstrate compatibility. Soil tests shall be conducted according to the following:

a. An experienced licensed environmental professional or licensed geologist shall complete the soil sample collection process.
b. The licensed environmental professional or licensed geologist shall determine the appropriate spacing. Samples shall include soil borings that extend the entire depth are taken from throughout the stockpiles, and represent all soils that originated from different sources or exhibit differing characteristics with the stockpiles.
c. Laboratory testing on the soil shall be performed and evaluated for all samples (an extrapolated average pH over the entire stockpile shall ~~would~~ not be sufficient).

Plan Requirements and Timing: The permittee ~~Applicant~~ shall submit lab results to the City prior to issuance of any Land Use Permit~~s~~ for grading.

Monitoring: Laboratory results showing acceptable pH levels for fill soils shall be submitted to the City for review and approval~~ed~~ prior to issuance of any Land Use Permit~~s~~ for grading.

CR 1-5 Excavations for all utility connection lines and landscaping within the CA-SBA-56 boundary shall not encroach below imported fill soils, except where specified as for water pipeline and sewer manhole installation. Water pipeline areas shall be limited to: 1) a 3-foot long, 3-foot wide, and 6-inch deep trench; and 2) a 40-foot

long, 3-foot wide, and 2-foot deep trench at the southeast portion of the project site. Sewer manhole installation shall be limited to a single 4-foot diameter sewer manhole near the southeast portion of the project site.

Plan Requirements and Timing: This requirement shall be printed on all plans submitted for any LUP for grading, any LUP for construction, building, grading, or demolition permits. The area where excavation is to go below fill soils as specified herein shall be clearly marked on the plans.

Monitoring: City staff shall conduct periodic field inspections to verify compliance during ground disturbing activities.

CR 1-6 The transitional area of grading between the CA-SBA-56 boundary, which shall be capped in place and filled to reach final elevations, and the areas outside the CA-SBA-56 boundary, which would undergo over-excavation, re-compaction, and fill, shall be conducted with methods to protect the integrity of the preserved archaeological boundary from adjacent subsurface grading activity. The permittee shall develop a grading plan that includes~~, but is not limited to~~:

a. Measures for clearly delineating the CA-SBA-56 boundary in the field prior to initiating grading and through the end of grading. A qualified archaeologist acceptable to the City shall be consulted on the appropriate delineation boundaries.

b. A typical cross-section diagram that clearly illustrates the grading methods to be employed along these boundaries, temporary grading elevations, bottom of excavated area, and any slopes or shoring, and finished elevations,

c. The top of the cut or slope shall be sufficiently outside the delineated archaeological boundary to prevent inadvertent disturbances to resources.

d. If the transition area is to be temporarily sloped during grading (as opposed to temporary shoring), the cut angle from the top of slope to the bottom of slope within the over-excavated area shall be at an angle that is considered stable based on the soil classification type and CALOSHA specifications for stable angles.

e. Once filled, the geogrid fabric shall be extended beyond the archaeological boundary as a buffer such that it covers the length of the underlying cut slope.

f. Any other measures determined by and approved by the City to provide equivalent mitigation and protection of the integrity of the preserved archaeological boundary.

Plan Requirements and Timing: Prior to any LUP issuance for grading, a detailed plan shall be prepared and stamped by the project soils engineer, and submitted for approval from the City Planning and Environmental Services ~~and~~ Department in consultation with the Community Services Department. The protective delineation and grading methods for the transition area shall be printed on the project grading plans.

Monitoring: City staff shall conduct periodic field inspections to verify compliance prior to ground disturbing activities (for the delineation) and during ground disturbing activities.

CR 1-7 Procedures shall be prepared and shall be followed in the event human remains are discovered.

Plan Requirements: Prior to initiating scarification or grading activity, the permittee shall meet on-site with the City approved archaeologist, ~~applicant and~~ the construction crew, and ~~shall meet on-site with~~ the local Chumash representative(s), identified as the Most Likely Descendent (MLD) by the State Native American Heritage Commission. Discussions between the MLD, the permittee ~~landowner, the Lead Agency~~, and the consulting archaeologist shall identify the procedures to be followed in the unlikely event human remains are uncovered. These procedures shall include those identified by California Public Resources Code 5097.98 and the City's Cultural Resource Guidelines. ~~T~~he County coroner shall be contacted if human remains are discovered. Satisfactory disposition of the remains shall be agreed upon by all parties so as to limit future disturbance.

Timing: Prior to initiating vegetation removal or grading activity, the permittee, the City approved archaeologist, ~~applicant~~ and construction crew shall meet on-site with the local Chumash Native American representative(s). Procedures required under PRC 5097.98 shall be printed as notes on all approved grading and construction plans.

Monitoring: City staff shall periodically site inspect onsite monitoring activities and shall respond according to procedures in the event human remains are discovered.

CR 1-8 A pre-construction workshop, funded by the permittee, shall be conducted by a City-approved archaeologist(s) and Chumash Native American observer(s).

Plan Requirements: Attendees shall include the permittee, archaeologist(s), Chumash Native American observer(s), construction supervisors, and heavy equipment operators to ensure that all parties understand the Construction Monitoring Plan and their respective roles and responsibilities. All construction and/or landscaping personnel who would work on the site during any phase of ground disturbance within the documented boundary of CA-SBA-56 shall be required to attend. The names of all personnel who attend the workshop shall be recorded and shall be issued hardhat stickers identifying that they have received workshop training. This workshop shall be videotaped and shown to any new personnel that may be added during ground disturbing activities. Names of newly trained personnel shall be recorded and they shall be issued the identifying hardhat stickers.

The workshop shall include:

a. review of the types of archaeological resources that may be uncovered;
b. the provision of examples of common archaeological artifacts and other cultural materials to examine;

c. an explanation of why monitoring is required and identify monitoring procedures;
d. a description of what would temporarily stop construction and for how long;
e. a description of a reasonable "worst case" new discovery scenario such as the discovery of intact human remains or a substantial midden deposit;
f. an explanation of reporting requirements and responsibilities of the construction supervisor; and
g. a discussion of prohibited activities, including unauthorized collecting of artifacts.

Timing: The permittee shall provide workshop specifications, date/time, and list of attendees to the City prior to issuance of any Land Use Permit for any ~~site preparation, ground disturbing,~~ grading~~,~~ and~~/or~~ issuance of any Land Use Permit for construction ~~activities~~. The workshop shall be held prior to the start of any site disturbance.

Monitoring: City staff shall attend the workshop and shall periodically site inspect for compliance during any site preparation, ground disturbing, grading, and/or construction activities.

CR-1-9 During construction activities, fencing shall be installed to prevent construction traffic and activity within the CA-SBA-56 boundaries on the Willow Springs North property. The fencing shall establish a 50-foot buffer around the perimeter boundary of CA-SBA-56 on the Willow Springs North property, with the exception of the area adjacent to the Camino Vista Road alignment. Fencing along the south boundary of CA-SBA-56 shall be co-terminus with the grading/soil disturbance limits of the roadway construction.

Plan Requirements and Timing: The permittee ~~applicant~~ shall identify required fencing on the project plans and the fencing shall be installed and photo-documentation submitted to City prior to issuance of any Land Use Permit~~s~~ for construction.

Monitoring: City staff shall review plans for inclusion of fencing and review photo-documentation of fence installation prior to issuance of any Land Use Permit~~s~~ for construction and shall perform periodic field checks to ensure fencing is maintained onsite as required.

CR 1-10 To minimize the potential for future looting of archaeological resources by new residents and visitors, the permittee ~~applicant~~ shall implement long-term management of the site, including the remaining areas of CA-SBA-56. Management shall include:

a. Establish a neighborhood watch program (also known as "site stewardship") with a designated contact person with phone numbers for people to report suspicious activity in or near the site.

~~a.Notice shall be provided at the time of purchase or occupancy.~~

~~c.~~b. Permit access to the site by local Native American representatives to insure protection of the resources, pursuant to an access agreement acceptable to the City in writing.

~~d.~~c. Yellow colored sand shall be used as a buffer between the geogrid and the fill soils atop CA-SBA-56.

Plan Requirements and Timing: The permittee shall submit to the City the site stewardship program details~~, notice to potential buyers,~~ and agreement for access to the site with local Native Americans prior to recordation of the final map. The requirement for the yellow sand buffer shall be identified on applicable project plans as determined necessary by the City prior to issuance of any Land Use Permit for grading and any Land Use Permit for construction~~issuance~~. The purpose and presence of the yellow sand "buffer" shall be explained to maintenance personnel to ensure future maintenance activities do not impact site resources.

Monitoring: City staff shall review and approve the required submittals prior to recordation of the final map and prior to any Land Use Permit issuance for grading and any Land Use Permit for construction, as appropriate.

Mitigation for Disturbance of Human Remains (Impact CR-2)

CR 2-1 To ensure that the reburial area of the human femur bone is not disturbed by site surface preparation, landscaping installation and maintenance, or overall site or road maintenance, the permittee shall undertake special precaution in soil disturbances within the area of interest. The permittee shall prepare a plan for this specific area that includes~~, but is not limited to,~~ the following:

a. A plan to delineate the sensitive area in the field to avoid any subsurface disturbance in its immediate vicinity;

b. A specialized landscape plan and plant palette that includes shallow-rooted vegetation that would not disturb the burial over the long-term;

c. Placement of landscaping to avoid digging directly in location of the burial;

d. Creation of an 8 to 2 inch layer of yellow sand or some other commonly recognized earthen material below the surface, but above the burial, that would signal to a maintenance worker or landscaping installer to not dig below that layer.

Plan Requirements and Timing: The permittee shall submit the plan to the City ~~site stewardship program details, notice to potential buyers, and agreement for access to the site with local Chumash Native American representatives~~ prior to recordation of the final map. The requirement for the yellow sand buffer shall be identified on applicable project plans as determined necessary by the City prior to issuance of any Land Use Permit~~s~~ for grading and any Land Use Permit for construction. The purpose and presence of the yellow sand "buffer" shall be explained to maintenance personnel to ensure future maintenance activities do not impact site resources.

Monitoring: City staff shall review and approve the required submittals prior to

issuance of any Land Use Permits for grading and any Land Use Permit for construction.

4.4.6 Residual Impacts

The project would provide preservation-in-place for the archaeological resources within the project site.

Implementation of Mitigation Measure CR 1-1 would provide a comprehensive and systematic analysis of artifacts and ecofacts to more fully document the resources without causing further ground disturbances. This would reduce the potential impact from loss of future access to these resources to less than significant.

Implementation of Mitigation Measures CR 1-1, CR 1-2, CR 1-3, CR 1-5, CR 1-6, CR 1-7, CR-1-8, and CR 1-9 would reduce the potential for direct impacts to resources that may be inadvertently uncovered during construction activity or from intentional exploration of construction workers to less than significant.

Implementation of Mitigation Measure CR 1-4 would ensure the fill soil is chemically compatible with the existing native soils to reduce potential impacts from corrosion of the underlying resources to less than significant.

Implementation of Mitigation Measure CR 1-9 would reduce potential long-term impacts from residents and visitors to the site to less than significant.

With regard to Chumash Native American concerns regarding the reburied femur, Mitigation Measure CR 2-1 was crafted in consultation with the local Chumash Native American representatives and would mitigate their concerns regarding potential degradation of the resource. Potential degradation of the burial would be reduced to less than significant.

Given the above, the project's impacts (and its contribution to cumulative impacts) would be reduced to **less than significant** (**Class II**).