D. ARCHAEOLOGICAL RESOURCES

This section of the EIR was prepared based on review of the following sources:

- *Results of Archival Records Search & Phase I Archaeological Cluster Tract Map and Conditional Use Permit Project, San Luis Obispo, California,* Gibson's Archaeological Consulting (November 1, 2006)
- *Extended Phase One Archaeological Subsurface Testing for the Laetitia Agricultural Cluster Tract Map and Conditional Use Permit Project, San Luis Obispo County, CA*, Gibson's Archaeological Consulting (April 2007)
- *Results of Archival Records Review and Phase One Archaeological Surface Survey for the Wastewater Treatment Facility Laetitia Agricultural Cluster Tract Map and Conditional Use Permit Project, San Luis Obispo County, CA*, Gibson's Archaeological Consulting (June 30, 2007)
- Records search of the Central Coast Archaeological Information Center located at the University of California Santa Barbara.

Because of the sensitive nature of archaeological resources, detailed information is considered confidential. Confidential reports are on file with the County of San Luis Obispo Department of Planning and Building, Division of Environmental and Resource Management.

1. Existing Conditions

a. Regional Setting

The project site and surrounding region is located within ethnographic Native American territories belonging to the Obispeño Chumash. Archaeological evidence has revealed that the ancestors of the Obispeño settled in northern Santa Barbara County and San Luis Obispo County more than 9,000 years ago (Greenwood 1972; Gibson 1979).

Following an annual cycle of hunting, fishing, fowling, and harvesting, the Chumash peoples adapted to changing environmental and social conditions and grew into a large complex society that persists today. Aboriginal society underwent major changes soon after Spanish contact in A.D. 1769, primarily due to the introduction of epidemic European diseases and the consequent high mortality rate.

The paramount chief of the northern Chumash was called by the Spanish El Buchon. His main village was *Sepjato* (Avila Beach). His son, *Liacsusu* (La Purisima baptism (Lp) 246) was baptized as being from the village of *Sepjato* but his confirmation entry (Lc 57) noted he was a native of the village of *Chiliquin*. One woman from *Stemectatimi* (Lb 1817) (Los Berros Creek) and a man from *Laxicto* (Nipomo) were described as being relatives of Buchon's son. The entire Buchon family were high status members in Chumash society.

> *"A diseño for the Bolsa de Camisal land grant indicated that Los Berros Canyon was called the Monte y Arroyo de Tematall. Paul Schumacher from the Smithsonian Institution conducted excavation in Santa Barbara Counties in 1874 including a historic village along Los Berros Creek. He used descriptive terms*

> *"left bank and right bank." According to the Department of Defense Dictionary of Military Terms, "That bank of a stream or river on the left or right of the observer when facing in the direction of flow or downstream."*

The left bank of Los Berros Creek, described above, would be the south side of the creek and right bank would be the north side of the creek (J. A. Parsons; personal communication 2005). It is assumed that the reference to *"Te-me-te-ti*" is the same as the village of *Stemectatimi* in the San Luis Obispo Mission. This historic village supplied 83 people that were baptized at the mission. At least two others were baptized at La Purisima Mission. Baptisms began in 1774 with most being baptized between 1791 and 1803, the year when the village was abandoned (King, 1984). The actual location of the *"Te-me-te-ti*" village and cemetery have not yet been confirmed by archaeological surveys and testing; however, based on Shumacher's description from the 1874 survey it is assumed to be in the immediate vicinity of the project site.

The Nipomo Mesa and Los Berros areas contain more square meters of light density cultural deposit than any of the other areas in southern San Luis Obispo County. This could be partly related to sampling of larger surface survey areas because of several water projects, but it may be that the cultural deposits are more dispersed on relative flat sandy terraces, all near water. Surveys done on the south, west and north sides of Nipomo Mesa have recorded many archaeological sites along the edges of the Mesa but very few in the interior. Middle and Late period sites are common.

A number of fresh water lakes and a series of low sand dunes are located west of the Nipomo Mesa and adjacent to the Pacific Ocean. A number of small seasonal sites have been recorded in these dunes west and southwest of Nipomo Mesa. Findings generally include sparse to low density *of Tivela sp*. (Pismo clam) shells and chert flakes with rare tools and burnt rock (Gibson, 1993). Surface surveys in the Guadalupe Oil Fields just north of the Santa Maria River in southern San Luis Obispo County have provided some information on these seasonal sites. Two typical similar sites were recorded (Spanne, 1980). The antiquity of these two sites ranges between about A.D. 625 and A.D. 1085 (Gibson, 1993). A seasonal pattern of occupational movement between interior regions near oaks and along good sources of water to coastal dunes for shellfish gathering and fishing is suggested during in the Nipomo Mesa and Los Berros regions. Permanent habitation sites probably also existed in key locations.

In 1973, a Phase One surface survey of approximately 500 acres and limited subsurface testing was conducted just south of the project site. Two prehistoric sites were recorded, consisting of a chipped stone/flake concentration, a series of bedrock mortars on four rock outcrops, chipped stone and ground stone artifacts, weathered shellfish fragments, and pieces of fire cracked rock (Gibson, 1973).

b. Local Setting

An updated archival records search, Phase One surface survey (November 1, 2006), and Extended Phase One subsurface testing (April 2007) were conducted during preparation of this EIR. The results of these studies are summarized below, and make up the local setting discussion.

1) Previously Documented Archaeological Sites

Based on the archival records search, sixteen archaeological sites have been documented on and within a 0.25-mile radius of the project site. Four previously documented sites are within the boundary of the project site (SLO-412, SLO-1317, SLO-1699, and SLO-1700), including two habitation sites and two day use sites. During subsurface testing conducted for SLO-1700 in 1994, human remains were discovered, which are potentially evidence of the *"Te-me-te-ti*" cemetery (Gibson, 2007). The day use sites appear to have been used for grinding/processing foods and making tools. Based on carbon dating, deposits at SLO-1699 range from 70 B.C. and A.D. 1190, roughly a time period of 1,200 years before present (B.P.).

Archaeological deposits noted in these sites include bedrock mortars, petroglyphs, chipped stone tools, clam, shell, flakes, biface performs, cores, and fire cracked rock. Shell was sampled from one archaeological site; based on carbon dating results, the shell dates from between A.D. 990 to 1330.

2) Results of Surface Survey and Subsurface Testing

During the Phase One surface survey conducted for the proposed project, the presence of the four previously documented sites was confirmed, and an additional nine undocumented prehistoric sites and seven isolated artifacts were observed (Gibson, 2006). Six of the newly discovered sites are classified as habitation sites, and collectively contain imported seashell, fire-cracked rock, ground stone, chipped stone artifacts, a bedrock mortar, and petroglyphs (SLO-2522, SLO-2523, SLO-2524, SLO-2526, SLO-2527, and SLO-2528). These sites vary in size from 60 meters to over 400 meters in diameter. Three sites are classified as day use sites, including a food grinding mortar site, tool manufacturing, food processing, and quarrying stone for tools (SLO-2520, SLO-2521, and SLO-2525).

Based on the location of the documented archaeological sites and isolate findings in relation to the proposed development footprint, eight archaeological sites and seven isolate finding locations were tested during an extended subsurface survey. Subsurface investigations eliminated the isolate finding locations as potential archaeological sites. In addition to subsurface investigations, artifact samples were submitted for carbon date testing. The results of the subsurface investigations and testing indicated three separate periods of prehistoric occupation on the project site. Three sites, SLO-2522, SLO-2526, and SLO-2527 date to the earliest period of Chumash history between 9,420 and 8,260 years B.P. These sites could be successive similar occupations though an approximately 1,000 to 1,500 year time period. After a 6,000 year hiatus in occupation, one site, SLO-2523, was occupied at 2,400 B.P. After another 1,000-year period, three sites, SLO-1699, SLO-2424, and SLO-2528, were occupied between 1,200 and 1,350 B.P.

During subsurface testing conducted on the project site for SLO-1700 in 1994, human remains were discovered, which are potentially evidence of the *"Te-me-te-ti*" cemetery (Gibson, 2007). In addition, carbon dating of shell fragments from SLO-1699 provided mixed dates between A.D. 960 to 1330 (Gibson, 2006). These sites have been disturbed by subsurface testing and continued agricultural use. The site represents a highly significant and sensitive archaeological site.

There were 11 types of prehistoric shellfish, and one unidentified shell fish type, recorded during the subsurface testing and documentation, dating from 9,420 B.P. to 1,200 B.P. Additional materials collected and documented during testing included prehistoric bone and burnt bone fragments, stone tools, biface blanks, biface knives, utilized flake scrapers, utilized flake knives, pecked and polished pebbles, projectile points, hammer stones, stone flakes (debitage), burnt rock, carbon, asphaltum, and red ocher. Cumulatively, the wide variety of function and antiquity of prehistoric sites on the project site offer a compete inventory of the range of activities, including large and small habitation units that are part of a large social and political network connecting them with the coastal region, rock art bedrock grinding stations, and local stone tool manufacturing. The most significant sites are SLO-2522, SLO-2526, and SLO-2527, which possess great antiquity and are related to a site complex located approximately 25 miles to the west in the Pacific Ocean, 270 feet below mean sea level.

2. Regulatory Setting

a. State Policies and Regulations

1) California Environmental Quality Act (CEQA)

CEQA (Public Resources Code 21000 et seq.) requires lead agencies to consider the potential effects of a project on significant historical and archaeological resources. Significant impacts on such resources are to be avoided or mitigated to less than significant levels. Other state laws govern actions affecting cemeteries and human remains.

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (Public Resources Code Sections 21083.2 and 21084.1 and Section 15064.5 of the CEQA guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources.

An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript which is historically or archaeologically significant (Public Resources Code Section 5020.1). Section 15064.5 of the CEQA Guidelines specifies criteria for evaluating the importance of cultural resources, replacing Appendix ~~K~~ G of the CEQA Guidelines. Evaluation criteria include the following:

(1) The resource is associated with events that have made a contribution to the broad patterns of California history;

(2) The resource is associated with the lives of important persons from our past;

(3) The resource embodies the distinctive characteristics of a type, period, region or method construction, or represents the work of an important individual or possesses high artistic values; or

(4) The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by

OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations, and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Code Sections 5097.94 et seq.).

2) State Code Regulations

California Health and Safety Code Section 7050.5 regulates the procedure in the event of human remains discovery. Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the County Coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are determined to be Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC). The NAHC is responsible for contacting the most likely Native American descendent, who will consult with the local agency regarding how to proceed with the remains.

Public Resources Code Section 5097.991 states that "it is the policy of the state that Native American remains an associated grave artifacts shall be repatriated." Public Resources Code Section 5097.5 indicates it is a misdemeanor for a person to knowingly and willfully excavate upon, or remove, destroy, injure, or face any historical or prehistoric ruins, burial grounds, archaeological, or vertebrate paleontological site situated on public lands, except when expressed permission of the public agency having jurisdiction over such lands. As used in this section, the term "Public Lands" refers to land owned by, or under the jurisdiction of, the State or any city, county, district, authority, or public corporations, or any agency thereof.

b. Local Policies and Regulations

1) San Luis Obispo County Standards

The County has a vital interest in preserving its many older buildings, and prehistoric and historic sites, which not only represent the heritage of San Luis Obispo County, but also help define the character of the region today. In the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

- Construction activities shall cease, and the County Environmental Coordinator shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

- In the event archaeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County Coroner is to be notified in addition to the Environmental Coordinator so proper disposition may be accomplished. If the remains are determined to be Native American, then the County Coroner must notify the Native American Heritage Commission within 24 hours.

3. Thresholds of Significance

Appendix G of the CEQA Guidelines indicates that impacts from the project would be considered significant if the project would:

- Cause a substantial adverse change in the significant of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

Generally, intact cultural and historic deposits are considered significant. Severely disturbed or mixed deposits often are not considered significant but may have educational value. Human remains and associated goods are afforded special consideration, even when fragmentary, and are considered significant.

4. Impact Assessment and Methodology

The impact assessment focuses on identifying potential project-related impacts to archaeological resources based on information obtained through the following archival records search, archaeological surface survey, and subsurface investigations.

a. Records Search

Prior to field inspection, a records search was conducted with the Central Coast Archaeological Information Center located at the University of California, Santa Barbara, to identify areas previously surveyed and identify known cultural resources present within or in close proximity to the project area. The records search included inventories for the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historic Places, National Register of Determined Eligible Properties, California Historic Landmarks, California Points of Historic Interest, California Office of Historic Preservation Archaeological Determinations of Eligibility, and Caltrans State and Local Bridge Surveys.

b. Phase One Surface Survey

The archaeological survey consisted of one archaeologist and a Chumash representative zig-zagging back and forth usually following straight transects defined by rows of fenced grape plants, examining the surface of the various areas for any signs of prehistoric cultural materials or significant historic cultural materials. Rock outcrops in the survey area were also examined for any evidence of pictographs (paintings), petroglyphs (carvings), cupules (depressions), or bedrock mortars (acorn mortars). Based on the findings of the surface survey, subsurface testing and analysis was recommended by the consulting archaeologist to define the depth, boundaries, and significance of documented sites and cultural materials.

c. Subsurface Investigation and Data Testing

Subsurface fieldwork and testing was conducted within eight documented archaeological sites and seven isolate discovery locations within and immediately adjacent to areas proposed for development. The field team included the lead archaeologist, a geo-archaeologist, a daily field crew of three to five assistants, and local Chumash representatives. Field techniques included a

surface examination, shovel test pits, test units, onsite soil screening, collection of cultural materials, GPS mapping of units, and laboratory analysis of cultural materials. In addition, shell fragments from SLO-2522, SLO-2524, SLO-2526, SLO-2527, and SLO-2528 were submitted to the Beta Analytic Radiocarbon Laboratory for radio-carbon dating.

The results of consultation with local Chumash representatives, surface and subsurface investigations, and data testing were analyzed to determine the significance of each potentially affected site and appropriate mitigation to avoid or reduce potential direct and/or indirect disturbance of known resources present within each site.

5. Project-specific Impacts and Mitigation Measures

Implementation of the proposed project would result in direct impacts to nine significant archaeological sites, including physical damage to known resources. These impacts are clarified below by phase, the archaeological site, and the significance of the noted site. Implementation of the proposed project would result in an increase of the number of people, and access to ten significant archaeological sites located within or adjacent to residential and recreational areas and access roads. There is the potential for future residents to loot or collect materials visible on the surface, and potentially dig into the soil for artifact collection, resulting in significant, indirect impacts to known resources.

a. Project-wide

1) Direct Impacts to Known Resources

(a) Tract Improvements, ~~Equestrian Center,~~ Residential Development

Grading and trenching activities associated with the construction of residences and access roads within Phase One would directly affect known significant archaeological resources (SLO-2523, SLO-2524, SLO-2525, and SLO-2528). Grading activities associated with construction of Phase One structures and an adjacent access road would result in direct impacts to SLO-2523. Based on subsurface testing, this site contained the highest density of shell and prehistoric materials, and represents a small to medium seasonal or permanent habitation site. Human burials are potentially located near the central shell loci within the site. Protection of the shell locus of the site and Phase Three data recovery is recommended to mitigate for disturbance to the remainder of the mapped site.

Based on subsurface investigation and carbon dating, archaeological site SLO-2528 contains a complete inventory of a small residential occupational site dating approximately 1250 A.D., and the site has not been altered by agricultural activities. This site is considered highly sensitive, and complete avoidance is recommended to preserve the integrity and antiquity of the site. Based on the low density of artifacts within the affected areas of SLO-2524 and SLO-2525, Phase Three data recovery and construction monitoring is recommended to mitigate potential adverse impacts.

Grading and trenching activities associated with the construction of residences and access roads within Phase Two would directly affect known significant archaeological resources. SLO-2526 represents one of three very early prehistoric, permanent, or seasonal habitation sites, and potentially contains human burials. Based on the sensitivity and antiquity of SLO-2526,

avoidance is recommended. Data recovery may destroy the site, and is therefore not a feasible form of mitigation.

SLO-2527 is also classified as a permanent or seasonal habitation site, and potentially contains human burials. Based on subsurface testing, the central density of deposits is located outside of areas proposed for development; development of an access road and residential lots would directly affect the edge of the site. Due to the proximity to residential development, indirect impacts including illegal collection of artifacts may occur. Capping of the central locus of SLO-2527 and implementation of a Phase III data recovery program are recommended prior to development of adjacent access and lot improvements to mitigate impacts to less than significant.

The proposed project includes removal of vineyards to accommodate proposed development, and the planting of "vineyard replacement areas." Installation of approximately four acres of replacement vineyards proposed as part of the project within SLO-2522 may result in the destruction or degradation of artifacts, including possible human burials. This site is considered a highly sensitive, small to medium sized, very old habitation site. Avoidance is recommended to preserve the integrity of the site and avoid adverse impacts to known resources and potential Native American burials.

Installation of approximately three acres of new vineyards within SLO-1317 may result in the destruction or degradation of artifacts and features. Avoidance of this site and the immediately surrounding area is recommended.

AR Impact 1 **Implementation of the proposed project would directly impact known, significant archaeological sites SLO 2526 and SLO-2528. Grading and trenching activities associated with the implementation of proposed vineyard replacement areas may result in the disturbance of known, significant, subsurface archaeological materials within sites SLO-1317 and SLO-2522.**

AR/mm-1 At the time of application for subdivision improvement plans or grading permits, the applicant shall submit a revised plan showing elimination of lots 13, 14, 68, and 69. The applicant shall delineate archaeological sites SLO-1317, SLO-2522, SLO-2526, and SLO-2528 as Environmentally Sensitive Areas (ESAs) on the project plans. ESAs shall be specified in the open space easement as applicable, to ensure full protection, and shall not include a reference to archaeological resources. All new development including proposed replacement vineyards shall be located outside the designated ESAs. ESAs that are within fifty feet of construction or grading activities shall be marked for protection (e.g., with flagging) and the limits of the sensitive area shall be fenced prior to any grading.

Residual Impact Mitigation measures include recommendations to modify the proposed project design, including elimination of lots 13, 14, 68, and 69 and modification of proposed plans for replacement vineyards. Implementation of these measures would mitigate potentially significant adverse impacts to known significant archaeological sites; however, the

County cannot include design changes to a tentative map as conditions of approval. In addition, long-term monitoring of agricultural development is not feasible because crop production is a non-discretionary use. Due to the sensitivity of these sites, other measures such as Phase III testing and data recovery would result in disturbance and long-term degradation. Due to the level of grading required in these areas, soil capping is not feasible. Therefore, this impact is considered *significant and unavoidable, Class I.*

AR Impact 2 **Implementation of the proposed project would directly impact known, significant archaeological sites SLO-2523, SLO-2524, SLO-2525, and SLO-2527.**

AR/mm-2 At the time of application for subdivision improvement plans or grading permits, the applicant shall delineate the archaeological sites SLO-2523 and SLO-2527 as Environmentally Sensitive Areas (ESAs) on the project plans, and shall show clean, sterile fill placed over the central shell loci of the ESA. A layer of other conspicuous material (e.g., fill of a noticeable different color and texture than native soil) shall be placed over the native soil prior to placement of the fill material. Only sufficient fill shall be placed over the site so as to allow native soils to remain undisturbed (e.g., 18 inches for footings, 6-8 inches for driveway, parking areas, and road construction).

AR/mm-3 At the time of application for subdivision improvement plans or grading permits, the applicant shall submit to the Environmental Coordinator (and possibly subject to peer review) for the review and approval, a detailed research design for a Phase III (data recovery) archaeological investigation for SLO-2523, SLO-2524, SLO-2525, and SLO-2527. The Phase III program shall be prepared by a subsurface qualified archaeologist approved by the Environmental Coordinator. The consulting archaeologist responsible for the Phase III program shall be provided with a copy of the archaeological investigations prepared as part of the Laetitia Agricultural Cluster Tract Map and Conditional Use Permit EIR (Gibson, November 2006; Gibson, April 2007; Gibson, June 2007). The Phase III program shall include, but not be limited to, the following:

a. Standard archaeological data recovery practices;
b. Recommendation of sample size adequate to mitigate for impacts to archaeological site, including basis and justification of the recommended sample size. Sample size should be ten percent of the volume of disturbed area. If a lesser sample size is recommended, supporting information shall be presented that justifies the smaller sample size.
c. Identification of location of sample sites/test units;
d. Detailed description of sampling techniques and material recovery procedures (e.g. how sample is to be excavated, how the material will be screened, screen size, how material will be collected);

e. Disposition of collected materials;
f. Proposed analysis of results of data recovery and collected materials, including timeline of final analysis results;
g. List of personnel involved in sampling and analysis.

Once approved, these measures shall be shown on all applicable plans and implemented during construction.

AR/mm-4 Prior to approval of subdivision public improvement plans or grading permit issuance, the applicant shall submit to the Environmental Coordinator, a letter from the consulting archaeologist indicating that all necessary field work as identified in the Phase III program for SLO-2523, SLO-2524, and SLO-2525 has been completed.

AR/mm-5 At the time of application for subdivision improvement plans or grading permits for subdivision improvement plans and individual lot development, the applicant shall submit a monitoring plan, prepared by a subsurface-qualified archaeologist, for the review and approval by the Environmental Coordinator. The monitoring plan shall be applicable to all phases of development, and shall include at a minimum:

a. List of personnel involved in the monitoring activities;
b. Description of how the monitoring shall occur;
c. Description of frequency of monitoring (e.g. full-time, part time, spot checking);
d. Description of what resources are expected to be encountered;
e. Description of circumstances that would result in the halting of work at the project site (e.g., clear definition of what is considered "significant" archaeological resources?);
f. Description of procedures for halting work on the site and notification procedures; and,
g. Description of monitoring reporting procedures.

AR/mm-6 During all ground disturbing construction activities for subdivision improvements and individual lot development, the applicant shall retain a qualified archaeologist (approved by the Environmental Coordinator) and Native American to monitor all earth disturbing activities, per the approved monitoring plan. If any significant archaeological resources or human remains are found during monitoring, work shall stop within an area to be determined by the County-qualified archaeologist until such time as the resource can be evaluated by an archaeologist and any other appropriate individuals. The applicant shall implement any follow-up mitigation as required by the Environmental Coordinator.

AR/mm-7 Upon completion of all monitoring/mitigation activities under the purview of the County-qualified archaeologist, and prior to final inspection of subdivision improvements for each phase, and individual lot development,

per the approved monitoring plan, the County-qualified archaeologist shall submit a Final Archaeological Monitoring Report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been implemented. If the analysis included in the Phase III program is not complete by the time of final inspection of each phase of tract improvements, the applicant shall provide to the Environmental Coordinator, proof of obligation to complete the required analysis and submit with the Final Archaeological Monitoring Report.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

(b) Wastewater Treatment Facilities and Infrastructure

Implementation of proposed effluent disposal methods may significantly affect known site SLO-1699, including known human burials. This area is currently disturbed on the surface by existing vineyards and irrigation facilities. Weathered shell, carbon, animal bone, and human remains are all subject to possible contamination and decay from the effluent. Prehistoric soil chemistry is an important element of archaeological deposits. The build-up of salts from treated wastewater effluent resulting from the use of this area as an effluent disposal site may have significant, irreversible effects on important archaeological resources and human remains. Avoidance of SLO-1699 is recommended to ensure preservation of significant resources.

AR Impact 3 **Implementation of proposed effluent disposal methods would likely result in adverse and irreversible effects to known significant archaeological deposits and Native American remains within SLO-1699.**

AR/mm-8 Prior to approval of subdivision public improvement plans, the applicant shall show on applicable construction plans the relocation of the proposed effluent disposal area outside of known archaeological sites.

Residual Impact With implementation of the above measure, this impact would be considered *less than significant with mitigation, Class II*.

2) Indirect Impacts to Known Resources

(a) Tract Improvements, ~~Equestrian Center,~~ Residential Development

During construction of tract improvements, project amenities, individual lot development, installation of replacement vineyards, and operation of the vineyard, there is a potential for looting or illegal collection of artifacts by construction and agricultural workers. In addition, based on the proximity of proposed residential and recreational development to known significant archaeological resources, there is a potential for looting or illegal collection of archaeological deposits by residents and associated guests. Such actions would disturb and degrade archaeological sites, resulting in a potentially significant impact.

Residential lots are proposed in the vicinity of SLO-412, which is a small to medium habitation site including artifacts and evidence of prehistoric occupation. No direct impacts would occur to SLO-412; however, due to the proximity of proposed residential uses, indirect impacts may occur, including illegal collection or looting of resources.

AR Impact 4 **Implementation of the proposed project would result in indirect impacts to known, significant archaeological sites due to looting or illegal collection of artifacts.**

AR/mm-9 Prior to commencement of subdivision public improvements or site grading for subdivision improvements and individual lot development, the construction foreman, project manager(s), and all construction workers associated with the proposed project shall participate in an archaeological resources training to be conducted by the County-qualified archaeological monitor. The training shall focus on the significance of cultural resources and the legal consequences of looting, disturbing, or destroying these resources. A declaration confirming the training's occurrence shall be prepared by the monitor and signed by all persons in attendance. This signed declaration shall be submitted as part of the Final Archaeological Monitoring Report for each phase of subdivision improvements, and upon completion of applicable individual lot development, per the approved monitoring plan.

AR/mm-10 During construction activities and for the life of the project, in the event of discovered looting or disturbance of resources, all responsible parties shall be reported to the appropriate jurisdiction and local authorities for legal action pursuant to the approved archaeological resources monitoring plan.

AR/mm-11 For the life of the project, unauthorized collecting of artifacts, and other activities that could destroy or damage archaeological or cultural sites shall be prohibited. Notice shall be provided to all occupants and employees to discourage these types of activities and warn of violations and imposed fines. This measure shall be listed in the Conditions, Covenants, and Restrictions (CC&Rs) and Agriculture Management Plan for the project.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

(b) Agricultural Resources

Based on the proximity of proposed agricultural development to known significant archaeological resources, there is a potential for looting or illegal collection of archaeological deposits. Such actions would disturb and degrade archaeological sites, resulting in a potentially significant impact.

AR Impact 5 **Installation of proposed replacement vineyards would result in indirect impacts to known, significant archaeological sites.**

Implement AR/mm-9 through AR/mm-11.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

3) Impacts to Unknown Subsurface Resources

(a) Tract Improvements, ~~Equestrian Facility,~~ Residential Development

Testing results of isolate locations did not yield evidence of new archaeological sites; however, unknown, significant, subsurface resources may be present within a 200-foot radius of isolate artifact findings. Disturbance and destruction of archaeological deposits within this area would result in significant impacts. Construction monitoring conducted within potentially sensitive areas would ensure that unknown resources would be protected. In the event of archaeological discovery, the County Land Use Ordinance (LUO) requires that ground disturbance cease until the resource can be evaluated, and appropriate mitigation measures are determined.

AR Impact 6 **Implementation of the proposed project may result in the displacement and destruction of unknown, subsurface, archaeological resources.**

Implement AR/mm-5 through AR/mm-7.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

(b) Wastewater Treatment Facilities and Infrastructure

Proposed treated wastewater storage Ponds 2 and 3 are located outside of archaeological site SLO-1699; however, monitoring within 200 feet of the site boundaries is recommended to avoid impacts to unknown subsurface resources during grading and trenching activities.

AR Impact 7 **Grading and trenching activities associated with the construction of Ponds 2 and 3, and associated utility installation may result in the disturbance of unknown, significant, subsurface archaeological materials.**

Implement AR/mm-5 through AR/mm-7.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

(c) Agricultural Development

Based on the proximity of proposed replacement vineyards to known significant archaeological resources, there is a potential for looting or illegal collection of archaeological deposits. Such

actions would disturb and degrade archaeological sites, resulting in a potentially significant impact.

AR Impact 8 **Implementation of the proposed project would result in indirect impacts to known, significant archaeological sites including looting and illegal collection of resources.**

Implement AR/mm-9 through AR/mm-11.

Residual Impact With implementation of the above measures, this impact would be considered *less than significant with mitigation, Class II*.

(d) Dude Ranch

Based on a survey of the 7.7-acre dude ranch area, no resources were observed. In the event of archaeological discovery, the County Land Use Ordinance (LUO) requires that ground disturbance cease until the resource can be evaluated, and appropriate mitigation measures are determined.

6. Cumulative Impacts

The Nipomo Mesa and Los Berros areas contain more square meters of light density cultural deposits than any other areas in southern San Luis Obispo County (Gibson, 2006). Documented surveys indicate a seasonal pattern of occupational movement between interior regions near oak woodland and along good sources of water to the coastal dunes, and permanent habitation sites in key locations. Based on the archival records search conducted for the EIR, sixteen archaeological sites have been documented on and within a 0.25-mile radius of the project site. Four previously documented sites are within the boundary of the project site (SLO-412, SLO-1317, SLO-1699, and SLO-1700). Past and current developments in the immediate region have impacted archaeological sites and degraded the value of cultural materials by direct disturbance, removal of artifacts during testing, displacement, and looting.

Implementation of the proposed project would contribute to the cumulative degradation of significant archaeological resources in the South County area. The LUO requires protection of cultural resources, and the county typically requires implementation of mitigation measures including avoidance by design, intensive field investigations such as testing and data recovery programs, monitoring during construction, and long-term protection of known sensitive areas. As proposed, implementation of the proposed project would result in the direct destruction of known, significant, and highly sensitive archaeological sites. Mitigation measures, including elimination or relocation of lots and project elements, are proposed to avoid sites designated as highly sensitive due to antiquity, type, and density of artifacts, evidence of or potential for Native American human remains, and integrity of the site. Impacts to less sensitive resources would be mitigated by implementation of data recovery and monitoring.

As noted throughout the EIR, mitigation recommending avoidance of highly significant archaeological sites is not feasible, because the county cannot include revisions to the proposed tract map and subdivision improvements as conditions of approval. In addition, the county cannot condition production agriculture land uses, or enforce such conditions. Therefore, the

proposed project would result in significant and unavoidable impacts to known sites SLO-1317, SLO-1699, SLO-2522, SLO-2526, and SLO-2528. Due to the sensitivity of these sites, other measures such as Phase III testing and date recovery would result in disturbance and long-term degradation. Due to the level of grading required in these areas, or type of land use proposed (i.e., agricultural production or effluent disposal), soil capping is not feasible. Therefore, the loss of these significant archaeological sites would be cumulatively considerable.

The individual effects to separate, known, significant archaeological sites in the South County area combined with the incremental effect of the proposed project's significant and unavoidable effect to archaeological resources collectively result in a significant and unavoidable cumulative impact to archaeological resources.

AR Impact 9 **Proposed grading and construction activities would result in the direct disturbance and destruction of significant archaeological sites, which would contribute to the loss of intact archaeological resources in the South County area, resulting in a significant and unavoidable cumulative impact.**

Implement mitigation measures AR/mm-1 and AR/mm-8.

Residual Impact Mitigation measures include recommendations to modify the proposed project design, including avoidance of a known significant archaeological sites. Implementation of these measures would mitigate potentially significant and adverse impacts; however, the county cannot include conditions of approval requiring redesign of a subdivision map, and the county does not have discretionary approval for agricultural production land uses, and would not feasibly be able to ensure the long-term protection of the known archeological site. Therefore, this cumulative impact is considered *significant and unavoidable, Class I.*

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