

4.4 CULTURAL RESOURCES

4.4.1 INTRODUCTION

This section of the Revised Draft Environmental Impact Report (Revised Draft EIR) evaluates the potential impacts to cultural resources (historical, archaeological, and paleontological) from the implementation of the proposed UC Santa Cruz Student Housing West project (“SHW project” or “proposed project”).

The section also presents potential impacts related to cultural resources from the anticipated construction and operation of the separate, but related, Porter and Rachel Carson Colleges dining facilities expansion project, which would serve residents of the SHW project and the existing colleges (see **Section 4.4.8** below).

Cultural resources include historic and prehistoric archaeological sites and features, historic structures and buildings, historic districts, and other prehistoric and historic objects and artifacts. Paleontological resources include (vertebrate, invertebrate, and plant fossils, and fossil localities). California Environmental Quality Act (CEQA) Guidelines also include “unique geologic resources” under the category of cultural resources. Under the category of cultural resources, CEQA also considers impacts to human remains, including Native American burials found in the context of an archaeological site.

The analysis is tiered from the 2005 LRDP EIR and therefore a brief description of the prehistoric and historic context, derived largely from the 2005 LRDP EIR, is provided in this section. The section focuses on presenting information derived from project site surveys, archaeological literature, and archival searches prepared for the proposed project by Condor Country Consulting, Inc.

The section is largely the same as the section in the Draft EIR, because the proposed improvements under the revised project would be located on the same two project sites and the off-site utilities would be within the areas that were surveyed and evaluated in the Draft EIR. In addition, comments received on the Draft EIR related to cultural resources were reviewed and the key issues raised in the comments are summarized below:

- The boundary of the historic district was established not only to identify an assembly of historic buildings and structures, but also to relate to the history of use, circulation, and natural landscape elements that shaped the human activities that occurred on this site. Development of the Hagar site has the potential to affect the historic district.
- Do any of the requirements in the management plan for the Cowell Lime Works Historic District affect the Hagar site proposal?

- The UC Santa Cruz Physical Design Framework includes a guideline for areas near the historic district. This guideline should be listed in the Draft EIR and the consistency of the proposed development with this guideline should be evaluated.
- The Draft EIR takes a very narrow view of cultural resources, focusing on only archaeological sites or historic resources listed in historic registries. The aesthetics of the campus and the meadow condition are a cultural resource. The definition of what qualifies as a historic resource includes “any... site, area, place... which a lead agency determines to be historically significant or significant in the ...economic, agricultural, educational, social, political... or cultural annals of California may be considered to be an historical resource... in light of the whole record.” The historical significance of the Hagar site includes its role within the context of both the history of the site in ranching and its history in the design of UCSC itself when it was first developed in the 1960s. There is substantial evidence that the East Meadow qualifies under historical resource criteria.
- As with the Kresge College redevelopment project EIR, an architectural historian should be retained for the SHW project to evaluate the historical, legacy values of the campus as a place, both physical and academic, architectural, landscape, and culturally and socially. It is important to document the ways this project affects the legacy of UCSC, given the fact the value of the campus in its built and environmental character -- such as the unique landscape and its preservation of the meadows, and the emphasis on the college system -- has been so widely documented.
- A complete and comprehensive review of the impacts to the historic district, the Rachel Carson College campus from the construction of oversized towers, to all protected views, and to both campus entrances is required. The Campus must conduct a comprehensive review, which includes the history of the entire UC Santa Cruz campus from its beginning.

These comments are addressed in the revised analysis presented in this section.

4.4.2 ENVIRONMENTAL SETTING

The UC Santa Cruz main campus lies in the hills above the city of Santa Cruz, and it is located at the northern end of Monterey Bay. The campus is located northwest of the historic center of the city of Santa Cruz.

The campus crosses three major ecological zones ranging upslope from south to north. The southern one-third of the campus (lower campus) consists of open grasslands covering rolling hills that slope southward toward Monterey Bay. To the north of the grasslands, the central one-third of the campus (central campus) includes redwood- and oak-forested slopes and grassy meadows, dissected by stream gullies. The upper one-third of the campus (north and upper campus) consists of a mix of meadows, redwood/oak, and madrone forest areas, and includes a cluster of springs (Edwards et al. 1978). Two roughly north-south oriented drainage systems divide the campus, the Moore Creek drainage on the west side and the Jordan Gulch drainage system on the eastern side of the campus. Cave Gulch runs along the

western margin of the campus in some areas. Several smaller gullies run roughly eastward from the eastern margins of the campus into Pogonip City Park.

Substantial land-altering activity and development occurred on the campus and surrounding area during the latter half of the 19th century and early decades of the 20th century, including redwood logging, limestone quarries and kilns, and development related to cattle ranching. Since the mid-1960s, modern campus development has substantially altered about 600 acres of the campus.

The proposed project study area is located in unsectioned land of the Cañada del Rincon en El Rio San Lorenzo de Santa Cruz Rancho and in Section 11 of the Santa Cruz 7.5-minute USGS topographic map. The study area comprises approximately 27 acres divided between two sites within the campus. The first site is located in the western portion of the campus, west of Heller Drive (“Heller site”) and the second site is located in the southeastern portion of the campus near the intersection of Glenn Coolidge and Hagar Drives (“Hagar site”). Adjacent to each site is a utility corridor and other off-site utility improvements.

Construction at the 13-acre Heller site would occur within the current footprint of the Family Student Housing (FSH) complex, which lies between Empire Grade Road and Heller Drive. The FSH complex is comprised of apartment buildings, a childcare facility, and parking, as well as roads and pedestrian pathways. The proposed project includes the demolition of the existing FSH complex and the construction of new housing, parking, utilities, and support spaces. Heller Drive is the main north-south roadway in this portion of the campus and it serves as the west entrance to the campus from Empire Grade Road. The environment in this portion of the campus is composed of developed areas as well as undeveloped land consisting of mixed evergreen forest, coastal live oaks, coyote bush scrub, and open grassland. The landscape surrounding the Heller site includes: (1) colleges, student housing, parking lot, and recreational fields and facilities to the east; (2) an informal recreational field, pond, and the intersection of Heller Drive and Empire Grade Road to the south; (3) an undeveloped woodland of mostly mixed evergreen and oak forest with rolling open grassland to the west, which descends west to Empire Grade Road; and (4) Porter Meadow, an expansive meadow on rolling topography to the north.

The approximately 17.3-acre Hagar site lies on a hillside with gently rolling topography that slopes south toward Glenn Coolidge Drive. The site lies on an undeveloped portion of the campus locally known as the East Meadow. Dense annual grasses cover this area. A sinkhole is present in the southeastern corner of the site. The East Meadow continues to the north of the site, and the undeveloped meadow continues to the west beyond Hagar Drive.

The Cowell Lime Works Historic District and the Center for Agroecology and Sustainable Farm Systems (CASFS) farm lie further to the west. The northern boundary of the historic district is at least 500 feet from the Hagar site. Although a proposed underground utility corridor extends southwest of the intersection of Glenn Coolidge and Hagar Drives entering the northern boundary of the Cowell Lime Works Historic District, the end of the corridor is at least 100 feet east of any historic structures. To the east lies Glenn Coolidge Drive and undeveloped grasslands that extend onto the adjacent Pogonip, a City of Santa Cruz open space; and to the south lies UC Santa Cruz employee housing.

4.4.3 PREHISTORIC AND HISTORICAL RESOURCES

4.4.3.1 Prehistoric Overview

Archaeological sites on the Central Coast of California have been documented by several researchers, including Breschini and Haversat (1980, 1989), Cartier (1993a,b), Dietz et al. (1988), Dietz and Jackson (1981), and Hylkema (1991). Since the 1990s, surface data, including 1,200 radiocarbon dates from nearly 300 Central Coast sites has led to the identification of emerging patterns that have contributed to the development of cultural and regional chronologies for the Central Coast (Breschini and Haversat 2005). In the Santa Cruz area, Hylkema (1991, 2002) for the coast, and Hildebrandt and Mikkelsen (1993a, b) for the interior, provide syntheses of archaeological research in the region.

While few sites have been identified from the Paleoindian through the Early Archaic (8000 to 3500 B.C.) in the Santa Cruz area, numerous sites have been dated to the Middle Archaic (3500 B.C. to A.D. 1250) and Late Archaic (A.D. 1250 – A.D. 1769) (Jones 1991; Moratto 1984). At least one site near Santa Cruz is believed to be from the Late Prehistoric Period (A.D. 1000 to about A.D. 1600) (Fitzgerald and Ruby 1997; Hylkema 1991). The earliest confirmed evidence of prehistoric occupation in the Santa Cruz region comes from an archaeological site located 4 miles northeast of the campus near Scotts Valley, CA-SCR-177, where radiocarbon dates from charcoal clearly associated with a feature suggest that occupation might have begun approximately $6,970 \pm 150$ to $7,050 \pm 110$ years Before Present (B.P.), and possibly earlier (Cartier 1989, 1993a; Fitzgerald and Jones 1999).

Archaeological testing across the UC Santa Cruz campus has resulted in the discovery of two human burials and nearly 1,300 artifacts from 23 sites and several isolated features and artifacts (UC Santa Cruz 2005). Artifact types and radiocarbon dates suggest occupation of campus land from as early as 3550 B.C. to A.D. 1750 (UC Santa Cruz 2005).

Archaeological evidence indicates that native groups of the region participated in extensive trade networks. They successfully pursued a wide range of subsistence practices including hunting large and small terrestrial and marine animals; fishing and shell fishing; and gathering and processing plant foods.

As throughout much of central California, acorns were an important plant food staple. They developed a technological expertise in bow making (after about A.D. 500), basketry, and the creation and use of boats (Jones and Klar 2007; Jones et al. 2007). In addition to the well-known plant and animal foods, important resources available locally included Monterey banded chert, which Native Americans used for the manufacture of chipped stone tools such as arrowheads, scrapers, and awls. The Monterey Bay was also an exceptional source of abalone (*Haliotis* sp.) and olive snail (*Olivella*) shells, raw material for the manufacture of shell ornaments and beads that Native Americans traded throughout California and much of the West, and which were important wealth items often placed in graves (Jones et al. 2007).

The Protohistoric Period (1602 to 1797 A.D.) – the time during which native cultures began to experience nonnative influences – is demarcated by the first contact with Europeans. Sebastián Vizcaíno, a Spanish explorer, landed in the area of Monterey in 1602, and missions were established in the Santa Cruz region beginning in 1770. The Spanish referred to the indigenous population in this region as Costano or "coast people;" historically they have become known as Costanoan. The Costanoans were composed of eight ethnically and linguistically linked groups (Shipley 1978:84 and Levy 1978:485). Costanoans were historically recognized as having been part of the Utian linguistic family along with their neighbors to the north, the Miwoks (Shipley 1978:84). Levy (1978:485) suggests that in 1770, just before missionization, the Costanoan group was composed of approximately 50 politically autonomous nations and tribelets. A group known as the Awaswas occupied the Santa Cruz area at this time.

Mission life, nonnative diseases and cultural disruption took a severe toll on the Costanoan population. One effect was that groups of mixed ethnicity congregated in a few native communities. In many cases, these individuals are identified in records (such as those of the Indian Land Claims Act) only as "Mission Indian;" thus, it is now often difficult or impossible to trace descendants from a specific locale. However, many descendants of the San Francisco Bay and Monterey Bay region formerly referred to as Costanoan now identify themselves as Ohlone. Several of these tribal groups are seeking federal recognition.

4.4.3.3 Historic Overview

The Protohistoric Period (A.D. 1600 to A.D. 1800) in California – the time during which Native American cultures began to experience non-native influences is demarcated by the first contact with Europeans. Sebastián Vizcaíno, a Spanish explorer, landed in the area of Monterey in 1602 (Chapman 1920; Heizer 1947; Wagner 1929). In 1769, the expedition led by Captain Gaspar de Portolá was the first nonnative exploration party to visit the area between the San Lorenzo River and Wilder Creek (Rice et al. 2012). The first mission, Carlos Borroméo de Carmelo, was established in Carmel in 1770 (Rice et al. 2012). The

Spanish established a mission in Santa Cruz near the San Lorenzo River in 1791 as part of Spanish colonization efforts in Alta California.

The Spanish likely used campus lands for grazing and/or agricultural fields during the Mission period (Edwards and Kimbro 1986; Hoover et al. 1966; ARG 2006). It is possible that lime for plaster and whitewash was produced locally during the Mission period, as well as high quality limestone and wood for firing the kilns (Piwarzyk 1994; ARG 2006), but this has not been documented.

After Mexico won its independence from Spain in 1821, the Mexican government began systemized secularization of church lands (Haas 1995). Starting in 1834, the mission properties were distributed among Spanish/Mexican immigrants and, rarely, Native American citizens (Haas 1995). The lands that were to become the UC Santa Cruz campus consisted of portions of three Mexican-era land grants, Rancho de la Cañada del Rincon en el Rio San Lorenzo de Santa Cruz, Rancho Zayante, and Rancho Rufugio (State Lands Commission 1982).

In 1848, Mexico lost the Mexican-American War (1846-48) to the United States, and California became a state shortly thereafter (Bauer 1992). When gold was discovered at Sutter's Mill near Sacramento in 1848, thousands of gold-seekers from all over the world began a rush to California (Holliday 1981). This major influx of population resulted in a rapid increase in demand for goods and services, including house-building supplies. At this time, quicklime, a principal ingredient in mortar, plaster, and stucco, shipped from the east around Cape Horn, was very expensive (Wheeler 1998). In 1851, entrepreneurs Isaac Davis and Albion Jordan discovered that high-quality limestone was available in Santa Cruz, and they bought a 160-acre parcel on the future campus site, near High and Bay Streets, and constructed three lime kilns for the production of quicklime (ARG 2006). The site provided all the necessary resources, including high-quality limestone, abundant redwood to fuel the kilns, and access to a port for shipping. Davis and Jordan produced 21,000 barrels of lime in 1855, one third of Santa Cruz County's production in that year (ARG 2006).

When Albion Jordan retired in 1863, Isaac Davis entered a partnership with Henry Cowell. The lime business flourished, and by 1865 the Cowell and Davis Lime Company was operating eight lime kilns, including the original kilns near the campus's main entrance, the Upper Quarry Kiln on the Upper Quarry rim, the Bridge Kiln near McLaughlin Drive, and the Elfland Kiln near College Ten. By 1880, the company had become one of the three largest lime companies in California (Eselius 2003; ARG 2006). The business included quarrying and lumbering operations, a wooden tramway for hauling limestone and lumber, and a cooperage to manufacture barrels for shipping, a drayage operation to transport the barrels to the warehouse and wharf, and company schooners to transport the material to San Francisco for shipping. A ranch home, worker's houses, a carriage house, and other facilities had also been established

on the campus site, along with buildings to support agricultural operations to feed and power the lime industry.

In 1888, when Davis died, Henry Cowell took control of the entire lime company operation and land holdings, renaming it Henry Cowell Company (later, the Henry Cowell Lime and Cement Company). When Henry Cowell died in 1903, his son, Ernest Cowell, took over management of the family business. Because much of the easily accessible redwood had been logged, and in response to improved quicklime production technology, Ernest introduced a new oil-burning lime kiln, which was constructed adjacent to the other kilns near the future campus entrance. However, the demand for quicklime had already begun to decline. The Santa Cruz Portland Cement Company, which opened in Davenport in 1905, began producing cement with superior building qualities. In 1906, the devastating San Francisco earthquake demonstrated that brick and mortar were poor building materials for this region. The Cowell Ranch quicklime operations began a major decline, and the lime kiln complex near the campus entrance was closed during the early decades of the 20th century, although the Upper Quarry and other kilns on the campus site continued in operation until 1946. During the first decades of the 20th century, the agricultural operations on the lower ranch became more important, although quarrying continued sporadically for several decades (ARG 2006).

In 1951, plans were begun for the construction of a new campus within the University of California system, to be located within the south-central coastal region south of San Francisco. By 1961, The Board of Regents of the University of California system had chosen Santa Cruz as the location of the new campus. Architect John Carl Warnecke and landscape architect Thomas Church planned the campus on the Oxford and Cambridge University model of small, independent liberal arts colleges (Fischer 1968; Garret 1967). They conceived the campus as a group of “scholarly villages,” with each village representing a different academic discipline. They designed the colleges to be semi-autonomous in function and distinct in architectural and academic style. They designed each college and its associated libraries, walkways and dormitories to appear and function as integral parts of the immediate natural landscape (Carter 1971). This design concept has been carried out in the plan and architecture of the colleges built to date.

Regarding role of the East Meadow in the history in the design of UC Santa Cruz, a review of the UC Santa Cruz Long Range Development Plans (LRDP) dating back to the first LRDP (1963) was conducted. That review revealed that the place of the East Meadow in the design of the campus has not been the same throughout the history of the campus. While the Great Meadow, which lies west of Hagar Drive, is almost consistently identified for preservation, the East Meadow, which lies between Hagar Drive and Coolidge Drive, was identified for development of campus facilities in several of the earlier plans. The 1963 LRDP, which set forth a land use plan that emphasized the college system, designated areas in the middle and upper portions of the East Meadow for development. The 1978 LRDP identified the East

Meadow as an inclusion area, an area where University affiliated non-academic facilities, such as a police or fire station; non-profit uses, and commercial and residential uses oriented to serve the University community, could be established. The 1988 LRDP re-designated the majority of the East Meadow as Protected Landscape, although it also provided for some development in the northern portion of the meadow. The 2005 LRDP maintained the designations from the 1988 plan but carved out an approximately 25-acre area at the southern end of the East Meadow as Campus Resource Land that may be developed in the future. Although the more recent LRDPs emphasize the preservation of the meadow and allow only limited development in the northern and southern portions of the meadow, the preservation of the East Meadow has not been a part of the design of the campus throughout its planning history. In light of this, the University does not believe that the East Meadow should be considered a historic resource.

With respect to the importance of the East Meadow in the ranching and lime production history of the campus, while the meadow was historically used for grazing cattle, it does not contain any historic resources related to the ranching operations or lime production that would make the East Meadow a historical resource.

The University notes that it is outside the scope of this EIR to evaluate whether the campus as a whole has historical legacy value.

4.4.3.4 Record Search and Literature Review

On December 11, 2017, Condor Country Consulting, Inc. archaeologist conducted a records search (#17-1613) at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) for the UC Santa Cruz Student Housing West project. Condor Country Consulting, Inc. staff also reviewed technical reports, site records, and maps provided by the Campus.

The literature search indicated that 16 prior cultural resource surveys and/or studies occurred within a 0.5-mile radius of the Heller site and seven included at least a portion of the Heller site (Table 1 in **Appendix 4.4**). The search indicated that 63 prior archaeological resources surveys and/or studies occurred within a 0.5-mile radius of the Hagar site. Nine prior surveys or studies included at least a portion of the Hagar site (Table 2 in **Appendix 4.4**). The last intensive survey that covered the entire Hagar site occurred in 1977 (Edwards et al. 1977).

The literature review indicated that there are no recorded archaeological sites or historic resources in the Heller site or within the utility corridor associated with the Heller site. There are three previously recorded archaeological sites within 0.5-mile of the Heller site (**Table 4.4-1**). They include prehistoric archaeological sites CA-SCR-142, CA-SCR-143, and historic-era site CA-SCR-359H (Edwards and

Simpson-Smith 1990; Elliott 2005; Reese 2005a-d; Stafford and Stafford 1976a, b). Prehistoric archaeological site (CA-SCR-142) is the closest of these three sites, and it is mapped approximately 400 feet south of the Heller site (Edwards and Simpson-Smith 1990a, b; Reese 2005a-c; Stafford and Stafford 1976).

Within the Hagar site, there is one previously mapped archaeological site and one feature. There is one historic district mapped in its associated utility corridor (**Table 4.4-2**). These cultural resources include historic site CA-SCR-277H, historic isolate P-UCSC-012H, and the Cowell Lime Works Historic District (CA-SCR-198H) (ARG 2005a; ARG and Pacific Legacy, Inc. 2005b; Calciano and Collet 1973a; Edwards and Simpson-Smith 1986; Maley 2007; Podzorski and Toenjes 1978; Reese 2005b, 2009a, b; UCSC 2007). The Cowell Lime Works Historic District (CA-SCR-198H) is an historic resource listed on the National Register of Historic Places (NRHP) (NPS 2007; UCSC 2007), and as such, it is automatically listed in the California Register of Historic Resources (CRHR). Historic site CA-SCR-277H is recorded as the location of a destroyed Mission-period agricultural site (Edwards and Simpson-Smith 1986; Edwards and Kimbro 1986). Distinctive plow marks were visible in aerial photographs in 1931 but recorders in 1986 observed no artifacts or non-artifactual constituents on the ground (Calciano and Collet 1973b; Edwards and Simpson-Smith 1986; Edwards et al 1978; Kimbro, n.d; Kimbro 1978). Historic isolate P-UCSC-012H is located on the Hagar site; but as an isolate, it is not eligible for the NRHP. The nearest prehistoric site, CA-SCR-094 is mapped on the opposite side of Glenn Coolidge Drive and it extends south and southwest of the Hagar site (Edwards 1986; Lönnberg 1974; Reese 2005e). Faculty housing has been constructed on a portion of this site (Souza et al. 1984).

Table 4.4-1
Prior Cultural Resources documented within 0.5-miles of the Heller Site

Site	Age	Description	Recorders and Year	NRHP/CRHR Status
CA-SCR-142	Prehistoric	Sparse lithic scatter; possibly destroyed	Edwards, R. and, C. Simpson-Smith 1990; Reese, E. 2005a-c; Stafford, D. and, J. Stafford 1976a	Unevaluated; presumed eligible
CA-SCR-143	Prehistoric	Sparse to moderately dense lithic scatter; shell midden habitation site	Elliott, M. 2005; Stafford, D. and, J. Stafford 1976b;	Unevaluated; presumed eligible
CA-SCR-359H	Historic	The reservoir site consists of three earthen dams, a brick water tower, a stone spillway, and a historic refuse feature situated around the reservoir bed	Reese, E. 2005d	Unevaluated; presumed eligible

Table 4.4-2
Prior Cultural Resources documented within 0.5-miles of the Hagar Site

Site	Age	Description	Recorders and Year	NRHP/CRHR Status	Within Study Area
CA-SCR-094 P-000098	Prehistoric	Sparse lithic scatter. The 2005 site record update places the site outside proposed project boundaries.	Lönnberg, A. 1974; Reese, E. 2005d; Souza, et al. 1984;	Unevaluated; presumed eligible but probably not eligible due to lack of physical integrity	N
CA-SCR-181	Prehistoric	Lithic scatter	Toenjes, J. 1978	Unevaluated; presumed eligible	N
CA-SCR-182H P-44-000184	Historic	Historic railway and limestone quarry feature	Dexter, S.D.; Ratcliff, F. 2008; Pryor, J. 1978; Reese, E. 2005f	Unevaluated; presumed eligible; some segments do not contribute to site eligibility	N
CA-SCR-184H; P-44-000186	Historic	Historic dugout structure	Reese, E. 2005g; Toenjes, J. 1978;	Unevaluated; presumed eligible	N
CA-SCR-186H	Historic	Ranch features, presumed associated with Cowell Ranch. Wood fence, 2 metal water tubs, 1 cement water trough, metal water pipes in Moore Creek drainage below Oakes Provost House	Elliott, M. 2005; Pryor, J. 1978;	Unevaluated; possibly eligible in association with related ranch features	N
CA-SCR-000277H; P-44-000276	Historic	Mission-period agricultural field	Edwards, R.L. and, C. Simpson-Smith 1978	Unevaluated; Likely ineligible as site is not extant	Y
*CA-198-H; P-44-000200	Historic	Cowell Lime Works Historic District.	ARG 2005a; ARG and Pacific Legacy, Inc. 2005b; Maley et al. 2007; Calciano and Collet 1973a; Maley 2007; Podzorski, P.V. and J. Toenjes 1978, Reese, E. 2009a,b; UCSC 2007	NRHP and CRHR listed (NPS 2007)	Y (utility corridor only)
CA-SCR-359H	Historic	The reservoir site consists of three earthen dams, a brick water tower, a stone spillway, and a historic refuse	Reese, E. 2005b,d	Unevaluated; presumed eligible	N

Site	Age	Description	Recorders and Year	NRHP/CRHR Status	Within Study Area
		Feature situated around the reservoir bed.			
P-44-000579	Historic	900 High Street, Santa Cruz, CA 95060; First Congregational Church	Aratin, S. and, Galvin and Associates 2005	Unevaluated; presumed eligible	N
P-44-000587;CA-SCR-UCSC-003;	Historic	Historic barn or outbuilding foundation. Limestone and concrete foundation of structure visible in 1931 aerial photo.	Reese, E. 2005h	Unevaluated; presumed eligible	N
P-44-000855	Historic District	Cowell Home Ranch District	Eselius, D.G. 2006	NRHP Listed; CRHR Listed	N
P-44-000954	Historic District	Theatre / Horse Barn	Charles Hall and, MW, Page & Associates 1976a	NRHP Listed; CRHR Listed	N
P-44-000955	Historic District	UC Santa Cruz Campus Police/ Cookhouse	Charles Hall and, MW, Page & Associates 1979b	NRHP Listed; CRHR Listed	N
P-44-000956	Historic District	Carriage House	Charles Hall and, MW, Page & Associates 1979a	NRHP Listed; CRHR Listed	N
P-44-000957	Historic District	Blacksmith Shop	UCSC 2007	NRHP Listed; CRHR Listed	N
P-44-000958	Historic District	Blacksmith Shop Feature 1	Reese, E. 2009b	NRHP Listed; CRHR Listed	N
P-44-001023	Historic District	Granary and Paymasters House; day care Center	Charles Hall and, MW, Page & Associates 1976b	NRHP Listed; CRHR Listed	N
P-44-001024	Historic District	Bull Barn and Worker's Housing	Charles Hall and, MW, Page & Associates 1976c	NRHP Listed; CRHR Listed	N
P-44-001025	Historic District	Cooperage and Lime Kilns	Charles Hall and, MW, Page & Associates 1976d	NRHP Listed; CRHR Listed	N
P-44-001026	Historic District	Barn	Charles Hall and, MW, Page & Associates 1976e	NRHP Listed; CRHR Listed	N

Site	Age	Description	Recorders and Year	NRHP/CRHR Status	Within Study Area
P-44-001027	Historic District	Two Barns	Charles Hall and, MW, Page & Associates, 1976f	NRHP Listed; CRHR Listed	N
P-44-001041	Historic	Building - 650 Spring Street	Charles Hall and, MW, Page & Associates 1976g	Unevaluated; presumed eligible	N
P-UCSC-012H	Historic (Possibly modern)	(Isolate) Metal water trough	Pacific Legacy, Inc. 2005	Unevaluated; ineligible (isolate)	Y
<p><i>*The Cowell Lime Works Historic District is in the utility corridor of the Hagar site; however, the proposed project will not affect any of its buildings, structures, or features.</i></p>					

4.4.3.5 Field Surveys

In June 2016, Pacific Legacy, Inc. conducted a cultural resources investigation of a 57-acre study area for the UC Santa Cruz West Campus Housing Study, which included the entire 13-acre Heller site as well as areas both to the north and south of the Heller site, including the playing field and the area between the playing field and the Western Entrance of the campus. Pacific Legacy's investigation included an archival and records search of the study area and its surrounding 0.5-mile radius; contact with the Native American Heritage Commission (NAHC) and potential Native American stakeholders; and a field inventory of the study area on June 8, 2016. The purpose of the inventory was to identify cultural resources that may be adversely impacted by ground disturbing activities associated with the development of student housing in the 57-acre study area. Using a transect interval of 15 meters, Pacific Legacy, Inc. Senior Archaeologist Mr. Marc Greenberg, MA examined all accessible portions of the study area.

On November 24, 2017, Principal Archaeologist Mr. Sean Dexter from Condor Country Consulting, Inc. conducted a pedestrian survey of the study area and utility corridors for the proposed project (Dexter and Fitzgerald 2017). Mr. Dexter also carefully surveyed the mapped boundaries of prehistoric site CA-SCR-142 and its surrounding area, as the exact boundaries of the site were uncertain (Stafford and Stafford 1976; Edwards and Simpson-Smith 1990a, b; Reese 2005a-c). Mr. Dexter conducted a 10-to 15-meter spaced transect survey except when environmental conditions or the presence of a previously recorded site necessitated tighter transects (5 meters). Mr. Dexter examined all accessible portions of the study area and utility corridors, paying particular attention to areas of greater surface variability,

specifically areas exposed along existing footpaths, roads, and because of bioturbation by rodents. While Mr. Dexter conducted no subsurface testing, he did utilize his trowel to scrape and carefully examine the subsurface and remove leaf litter and other obstructions (Dexter and Fitzgerald 2017).

At the Heller site, Mr. Dexter surveyed from the southern intersection of Heller Drive and Empire Grade Road north to the recorded boundaries of prehistoric site CA-SCR-142. Mr. Dexter attempted to relocate site CA-SCR-142, a prehistoric lithic scatter but was unable to relocate the site (Edwards and Simpson-Smith 1990a, b; Reese 2005a-c; Stafford and Stafford 1976). Mr. Dexter had 95 percent surface visibility in the recorded site boundaries, clear weather conditions, and excellent visibility of the subsurface due to extensive bioturbation by squirrels and other rodents. Mr. Dexter observed no cultural resources in the recorded boundaries of the site on the campus (East) side of Empire Grade Road in the site vicinity. He then continued north examining a playing field cut before continuing east around the study area boundary following the footprint of the FSH complex (Dexter and Fitzgerald 2017). Mr. Dexter continued his survey along the western side of Heller Drive following it until he diverged northeast to north around the FSH complex. Mr. Dexter walked transects to the far northern end of the proposed utility corridor. Visibility ranged from 80 percent near the southeastern end of the FSH complex to 40 percent in the area near Building 2, to 50 percent along the proposed utility corridor. Visibility was affected by developed lands (pavement, asphalt, built structures), as well as undeveloped natural lands with dense grasses and foliage. The study area terrain varies, but it includes slopes of 5 to 10 degrees north to south, and it is bordered on the west by steeper (~30° slopes) that descend toward Cave Gulch and Wilder Creek. Soils present included medium-brown silty loam with 5 to 10 percent angular or subangular gravels (Pacific Legacy 2016:7). Mr. Dexter observed no cultural resources during his survey of the Heller site study area or its associated utility corridor (Dexter and Fitzgerald 2017).

Mr. Dexter conducted a 15-meter-spaced transect survey of the entire Hagar site, including the proposed utility corridor that extends east of the intersection of Hagar and Glenn Coolidge Drives and northeast of Glenn Coolidge Drive into the boundary of the Cowell Lime Works Historic District (CA-SCR-198). Surface visibility during the survey was very poor -- approximately 5 percent due primarily to dense grasses; however, visibility was good closer to Glenn Coolidge Drive. While the utility corridor associated with the Hagar site extends into the Cowell Lime Works Historic District (CA-SCR-198), Mr. Dexter determined that there would be no impacts to any of the structures, buildings, or features that comprise the district. Mr. Dexter did not observe site CA-SCR-094 within the Hagar site. Mr. Dexter noted no physical trace of site CA-SCR-277 in the field in 2017. Any remnant of a plowed agricultural field within the Hagar site is eroded and/or destroyed, despite the Campus using the field only for cattle grazing.

Mr. Dexter observed one isolated Monterey banded chert core reduction flake within the Hagar site. He also observed a metal cattle trough in the study area (Dexter and Fitzgerald 2017). This is the same trough described by Pacific Legacy (2005) as P-UCSC-012H in UC Santa Cruz grid section (or Quad #) 107 as an “iron water trough in southeast corner of pastures between Hagar and Glenn Coolidge Drives.” The trough measures 2.5 feet by 1.5 feet and has a stopper plug in the drain marked “Voss.” Pacific Legacy, Inc. describes the trough as being in “fair to poor condition” and states that it is badly rusted (Pacific Legacy, Inc. 2005). In their report, Pacific Legacy state it is unknown if the trough is in-situ from the Cowell Ranch era (Pacific Legacy 2005). Mr. Dexter said the trough was modern (post-1931).

No listed or potential historic resources are present on either of the two project sites and, thus, no architectural historian was required to be retained for this Revised Draft EIR.

4.4.3.6 Archaeological Resources

Within the Heller site, there are no recorded prehistoric or historic-era archaeological resources. Within the Hagar site, there are two previously recorded unevaluated archaeological sites, and one isolated feature. However, historic-era site CA-SCR-277 is no longer extant; no physical trace of this landscape feature is extant. Mr. Dexter has noted that P-UCSC-012H appears modern (post-1940), and does not date to the period of significance of the Cowell Lime Works Historic District (1853-1920).

CA-SCR-198H: The Cowell Lime Works Historic District includes archaeological sites, features, and buildings relating to industrial limestone quarrying and lime production, including lime kilns, including a cooperage, supporting barns, residential structures, and historic circulation routes, dating to the latter 19th century and early decades of the 20th century (ARG 2005,a,b; ARG and Pacific Legacy, Inc. 2006:2; Edwards and Kimbro 1986; Maley 2007; Reese 2009a; UCSC Maps Collection Photo 1931; UCSC 2007). A row of worker’s cabins along the east rim of the Jordan Gulch, opposite the Cooperage were once located within the Cowell Lime Works. The cabins are no longer extant, and the associated archaeological deposits are not identified as contributing elements to the historic district. The Campus conducted archaeological studies in the location of some of these cabins. The Cowell Lime Works Historic District was listed in the NRHP on November 21, 2007 and it is cross-listed in the CRHR (NPS 2007).

CA-SCR-277: This historic-era site was located in the East Meadow and it is described as a Mission-period agricultural field that was associated with the Mission Santa Cruz; however, there is no primary documentary evidence to suggest that this is a Mission-period agricultural field (Edwards and Simpson-Smith 1986; Edwards and Kimbro 1986; Edwards et al 1978). This site was located in pasture land to the north of where Hagar Drive intersects Glenn Coolidge Drive on the Hagar site. It crosses into the far northern portion of the Hagar site. Caliciano and Collet (1973) observed aerial photographs on file at UC

Santa Cruz that showed distinctive plow marks of a pattern associated with single blade (bitted) hand-guided and/or ox plows cutting through the shallow topsoil to expose the limestone base (Calciano and Collet 1973b; Edwards et al 1978; Fairchild Aerial Surveys, Inc. 1931). Calciano and Collet (1973b) noted that “weeds” in the meadow in 1973 were of Mediterranean origin, which suggested to them the possibility of early Spanish activity in the southeastern portion of the East Meadow. Edwards and Kimbro (1986) noted that the Spanish established the Mission Santa Cruz 2 miles southeast of the UC Santa Cruz campus, and state that its fields were spread over many miles from Santa Cruz to Año Nuevo (Edwards et al. 1978; Edwards and Kimbro 1986). Mr. Dexter noted no physical trace of this site during an examination of Google Earth historical maps from 1993 forward, or in the field in 2017. Any remnants of agricultural fields within the Hagar site are presumed eroded and destroyed.

P-UCSC-012H: This isolate is described as a metal water trough for cattle (Pacific Legacy 2005). It is located in the southeastern corner of the pasture between Hagar and Glenn Coolidge Drives in UC Santa Cruz grid section 107. The trough measures 2.5 feet by 1.5 feet and has a stopper plug in the drain marked “Voss.” This hardware labelled “Voss,” was most likely was manufactured by the agricultural supply company VOSS Automotive, Inc., in Wipperfurth, Germany, which was founded in 1931 and manufactured agricultural supply products through the 1950s. The trough is in poor condition and badly rusted. As an isolated feature, the trough is not eligible for the NRHP. Given the dating of the hardware of definitively post 1931, it is not from a period of significance of the nearby historic district, although it is clearly associated with the tail end of the period of Cowell Ranch operation. Despite not being a unique archaeological resource, Condor Country Consulting, Inc. recommends that the trough be photo documented, and relocated to the Cowell Lime Works Historic District.

4.4.3.7 Human Remains

There are no known prehistoric or historic period burials or cemeteries in the study area, proposed utility corridors, or within a 0.5-mile radius of the study area.

4.4.3.8 Historical Resources

The Cowell Lime Works Historic District is an historic property under Section 106 of the National Historic Preservation Act (NHPA) and an historical resource under CEQA §15064.4(a)(3), (NPS 2007; UCSC 2007). The Hagar site development is at least 500 feet from the northern boundary of the historic district. The utility corridor extends within approximately 100 feet of the closest building, the historic Powder House. However, the proposed project would not cause an adverse effect on the significance of the historical district, as only the proposed utility corridor would enter the far northeastern boundary of the district. The University of California at Santa Cruz plans to place the utility corridor below the

surface, so there would be no lasting visual or aesthetic effects to the historic district. Outside of the utility corridor, the Hagar site does not contain any historical resources.

4.4.4 PALEONTOLOGICAL CONTEXT

Paleontological resources, with a few rare exceptions, occur only in sedimentary deposit formations or deposits. On the UC Santa Cruz campus, several major marine formations contain fossils. The information below is drawn from the Geology section of the UC Santa Cruz 2005 LRDP EIR (UCSC 2006).

The Santa Cruz region provides a record of geologic and paleontologic history that spans more than 120 million years, beginning in the late Cretaceous period (Jennings and Burnett 1961; Cummings et al. 1962; Clark 1981). In the Santa Cruz region, fossil discoveries investigated since the early 1900s (Branner et al. 1909), have occurred almost exclusively in marine sediments. The marine rocks in this region of Santa Cruz County have yielded significant invertebrate and vertebrate fossils, including several taxa of marine mammals. Marine formations on the UC Santa Cruz campus include Santa Margarita sandstones, Santa Cruz mudstone, and Quaternary marine terrace deposits (UCSC 2006).

Only limited areas within the main campus have any potential for yielding fossils, due to the paucity of sedimentary rocks within the campus boundaries. There are three potentially fossil-bearing formations on the main campus: the Santa Margarita sandstones, doline fill deposits in area underlain by marble, and Quaternary marine or non-marine terrace deposits. Santa Margarita sandstone formations in the Santa Cruz region have yielded significant marine vertebrate fossils. Although no such finds have occurred in the Santa Margarita sandstone formation on the campus, this may be because there has been no development in these areas. Santa Margarita sandstone formations on the campus thus are considered to have high potential to include significant fossils. No fossil finds have been documented in doline fill deposits and Quaternary marine terrace sediments in the region, nor have any fossil finds been made on the campus, despite extensive development in areas underlain by doline and Quaternary marine and on-marine terrace deposits. While these deposits may have some potential to yield fossils, the potential to encounter fossils in these formations on the campus appears to be low (UCSC 2006).

Condor Country Consulting, Inc. consulted a geologic map of the campus and a report produced for UC Santa Cruz's LRDP Draft EIR by its consultants in 2005, to determine whether geologic formations and rock units determined to be fossiliferous were present within the study area or the utility corridors. Paleozoic schist with nearby pockets of Quaternary doline fill underlies the Heller site, while Paleozoic marble underlies the Hagar site (UCSC 2006). There is a possibility that undocumented doline fill deposits may be present beneath the marble on the Hagar site.

4.4.5 UNIQUE GEOLOGIC FEATURES

Santa Cruz County includes, in its Geographic Information System (GIS) database, significant hydrological, geological, and paleontological features, which are rare or unique and representative in Santa Cruz County because of their scarcity, scientific or educational value, aesthetic quality, or cultural significance (Santa Cruz County 2005; UCSC 2006). The County database identifies limestone caves worth protecting in the Wilder Creek area (UCSC 2006). The existing Campus Natural Reserve (CNR) includes limestone caves along Cave Gulch, including Empire Cave, on the western margin of the campus. The caves lie within 500 feet of the Heller site. These caves may qualify as unique geologic features because of their scientific value and because such caves are relatively rare. Some of the caves, which possess unusual hydrological and lithologic features, also host several special-status species (UCSC 2006).

4.4.6 REGULATORY CONSIDERATIONS

4.4.6.1 Federal Laws and Regulations

National Historic Preservation Act, Section 106

The National Historic Preservation Act establishes the National Register of Historic Places (NRHP), and defines federal criteria for determining the historical significance of archaeological sites, historic buildings and other resources (ACHP 2016). To be determined eligible for the NRHP, a potential historic property must meet one of four historical significance criteria (listed below), and must possess sufficient deposition, architectural, or historic integrity to retain the ability to convey the resource's historic significance. Resources determined to meet these criteria are eligible for listing in the NRHP and are termed historic properties. A resource may be eligible at the local, state, or national level of significance.

A property is eligible for the NRHP if it possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and it:

1. is associated with events that have made a significant contribution to the broad patterns of our history;
2. is associated with the lives of a person or persons of significance in our past;
3. embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or
4. has yielded or may be likely to yield information important in prehistory or history.

A resource that lacks historic integrity or does not meet one of the NRHP criteria of eligibility is not considered a historic property, and effects to such a resource are not considered significant under the NHPA.

4.4.6.2 State Laws and Regulations

California Environmental Quality Act

Under the *California Environmental Quality Act Guidelines* Section 15064.4, a project 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. The Guidelines define cultural resources as including both historical and archaeological properties, set forth criteria for establishing the significance of historical resources, and state that cultural resources that meet the criteria of eligibility for the CRHR are significant historical resources under CEQA. The criteria for eligibility of resources to the CRHR closely mirror the NRHP criteria listed above.

California Register of Historic Resources

In 1992, the California Register of Historical Resources was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the National Register process. The criteria are nearly identical to those of the National Register but focus on resources of statewide, rather than national, significance (California Natural Resources Agency 2016). The CRHR encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding, and affords certain protections under CEQA. The CRHR automatically includes resources listed on the National Register. Specifically, the CRHR includes the following resources:

- Resources formally determined eligible for, or listed in, the National Register of Historic Places State
- Historical Landmarks numbered 770 or higher
- Points of Historical Interest recommended for listing by the State Historical Resources Commission (SHRC)

Resources nominated for listing and determined eligible in accordance with criteria and procedures adopted by the SHRC including:

- individual historic resources and historic districts;

- resources identified as significant in historical resources surveys which meet certain criteria; and
- resources and districts designated as city or county landmarks pursuant to a city or county ordinance when the designation criteria are consistent with California Register criteria.

California Historical Landmarks

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of the criteria listed below (OHP 2017a). The resource also must be approved for designation by the County Board of Supervisors or the City/Town Council in whose jurisdiction it is located; be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value (OHP 2017b). Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point. If a Point is subsequently granted status as a Landmark, the Point designation will be retired.

SB 18 Consultation

California Senate (SB) 18 requires cities and counties to notify and consult with California Native American Tribes about proposed local land use planning decisions in order to protect Traditional Tribal Cultural Places. Cities and counties must obtain a list of the California Native American tribes from the Native American Heritage Commission (NAHC) whose traditional lands within the agency's jurisdiction may be affected by a proposed adoption or amendment of a general plan or proposed project. Prior to the adoption or substantial amendment of the General Plan or Proposed project, a local government must refer the proposed project to those tribes on the Native American contact list that have traditional lands within the agency's jurisdiction. SB 18 is not applicable to the University of California.

Health and Safety Code

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

In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Sheriff-Coroner must be notified if potentially human bone is discovered. The Sheriff-Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Sheriff-Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. (California Legislative Information 2017)

4.4.7 IMPACTS AND MITIGATION MEASURES

4.4.7.1 Significance Criteria

The impact of the proposed project on cultural resources would be considered significant if it would exceed the following standards of significance, in accordance with Appendix G of the CEQA Guidelines, the UC CEQA Handbook, and the 2005 LRDP EIR:

- Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.4;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.4;
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

CEQA requires that projects address impacts to significant archaeological and historic resources, which it terms “historical resources”; to unique archaeological, paleontological, and geologic resources; and to human remains, including native American remains in an archaeological context (Public Resources Code [PRC] §21083.2, 21084.1; CEQA Guidelines §15064.4 and Appendix G, V). However, not all cultural resources meet the CEQA criteria that define historical resources or unique archaeological resources.

Determination of whether a project has a potential for significant cultural resources impacts is a two-step process. First, cultural resources inventories of the project area are conducted to determine whether any cultural resources are present. Second, the significance of each identified resource is assessed relative to significance criteria established by CEQA, as outlined below. Project impact assessment focuses on those resources that meet CEQA significance criteria. The following sections delineate CEQA resource significance criteria.

CEQA Resource Significance Criteria. Cultural resources considered under CEQA may be either historical resources or unique archaeological, paleontological, or geologic resources. Human remains are also treated as cultural resources. The Public Resources Code and the State CEQA Guidelines provide criteria for the assessment of the significance of cultural resources in order to determine whether they are historical resources or unique archaeological, paleontological, or geologic resources. Resources that do not meet the significance criteria are not given further consideration under CEQA. A definitive assessment of resource significance may require archaeological testing or detailed historical research, which has not been conducted for all resources identified as potentially meeting the criteria set forth in CEQA. In these circumstances, identified resources in most cases are assumed significant, and treated as such, until they can be formally assessed. The exception to this practice is that isolated prehistoric and historic artifacts and features, and fragments of historic features disassociated from their historic context generally are considered not to be significant because, once recorded, their potential to provide additional information of value is slight.

Historical Resources. Under CEQA §15064.4(a)(3), an historical resource is defined as “any object, building, structure, site, area, place, record or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California.” A resource is usually considered for its historical significance after it reaches the age of 50 years. This threshold is not absolute; it was chosen as a reasonable span of time after which a professional evaluation of historical significance can be made. Because PRC §5024 mandates that State Agencies inventory all state-held buildings over 50 years of age, this standard is commonly used in determining which buildings should be assessed under CEQA.

PRC 5024.1 establishes the CRHR, and defines an historical resource as a resource listed in, or determined to be eligible for listing in, the CRHR; included in a local register of historical resources; or deemed significant pursuant to CRHR criteria. All California properties already listed in the NRHP and those formally determined to be eligible for the NRHP, as well as specific listings of State Historical Landmarks and State Points of Historical Interest, are automatically included in the CRHR. Under PRC 5024.1, a resource may be listed in or determined eligible to the CRHR if it meets any of the following criteria:

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

Archaeological deposits that have been extensively disturbed or redeposited, or historic features and buildings that have been substantially altered or moved, often are considered to have lost the integrity of the historic period, and thus may not be eligible for listing in the CRHR.

Cultural resources that are not eligible for the CRHR generally are not considered further under CEQA, unless they qualify as unique resources (see below).

Unique Archaeological, Paleontological, and Geologic Resources. Public Resources Code also provides criteria that define “unique archaeological resource.” Under PRC § 21083.2(g), a unique archaeological resource is a resource for which it can be clearly demonstrated that without merely adding to the current body of knowledge there is a high probability that it:

- Contains information needed to answer important scientific questions and there is a demonstrable public interest in that information;
- Is directly associated with a scientifically recognized important prehistoric event; and
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.

While CEQA Guidelines Appendix G refers to unique paleontological and geologic resources, CEQA does not define these terms. For the purposes of this EIR, the relevant provisions of the statute used to define a unique archaeological resource are employed. In addition, California state law explicitly considers vertebrate paleontological sites and fossil footprints, and it provides for their recordation (Archaeological, Paleontological, and Historic Sites Statute at PRC 5097 et seq.).

4.4.7.2 CEQA Checklist Items Adequately Analyzed at the 2005 LRDP Level or Not Applicable to the Project

Although redevelopment of the FSH complex on the Heller site was evaluated in the 2005 LRDP EIR, the currently proposed Heller site housing is substantially different from the previous proposal. With regard to the Hagar site, that site was not envisioned for development under the 2005 LRDP. Therefore, although the analysis below uses the prior LRDP level analysis to the extent appropriate, none of the CEQA checklist items listed above under Significance Criteria are scoped out; all of the items are addressed in the project-level analysis below. Furthermore, the cumulative impacts analyzed in the 2005 LRDP EIR are re-analyzed to address the proposed development of the Hagar site and the higher density of development proposed for the Heller site.

4.4.7.3 Methodology

The proposed project would involve extensive grading and excavation at the Heller and Hagar sites and their associated utility corridors. Consistent with LRDP Mitigation CULT-1A, previous survey coverage of both sites and utility corridors was assessed. A review of the all technical reports, site records, and maps indicated that all of the Heller site had been surveyed; however, the Hagar site had not been intensely surveyed using transects since 1977. Consequently, consistent with LRDP Mitigation CULT-1B, Condor Country Consulting, Inc. conducted a survey of the project site on November 24, 2017. In addition, Condor Country Consulting conducted a survey of the areas adjoining the Heller site, including a survey of the utility corridor for that site.

4.4.7.4 2005 LRDP EIR Mitigation Measures Included in the Proposed Project

Table 4.4-3, 2005 LRDP EIR Mitigation Measures, presents the mitigation measures in the 2005 LRDP EIR that are applicable to the proposed project. Since these previously adopted mitigation measures are already being carried out as part of implementation of the 2005 LRDP, they are included in, are a part of the proposed project, and will not be readopted. Implementation of these mitigation measures is assumed as part of the proposed project impact analysis.

**Table 4.4-3
2005 LRDP EIR Mitigation Measures**

Mitigation Measure	Description
CULT-1A	As early as possible in the project planning process, the Campus shall define the proposed project's area of potential effects for archaeological resources. The Campus shall determine the potential for the proposed project to result in cultural resource impacts, based on the extent of ground disturbance and site modifications anticipated for the proposed project. The Campus shall also review confidential resource records to determine whether complete intensive archaeological survey has been performed on the site and whether any previously recorded cultural resources are present.
CULT-1B	Where native soils will be disturbed, the Campus shall provide and shall require contractor crews to attend an informal training session prior to the start of earth moving, regarding how to recognize archaeological sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify the campus if any are found. In the event of a find, the Campus shall implement LRDP Mitigation CULT-1G, below.
CULT-1C	For project sites that have not been subject to prior complete intensive archaeological survey, the Campus shall ensure that a complete intensive surface survey is conducted by a qualified archaeologist during project planning, design, and prior to soil disturbing activities. If an archaeological deposit is discovered, the archaeologist will prepare a site record and file it with the California Historical Resource Information System. In the event of a find within the area of potential effects, the Campus shall consult with a qualified archaeologist to design and conduct an archaeological subsurface investigation and/or a construction monitoring plan of the project site to ascertain the extent of the deposit relative to the project's area of potential effects, to ensure that impacts to potential buried resources are avoided.
CULT-1D	If it is determined that the resource extends into the project's area of potential effects, the Campus shall ensure that the resource is evaluated by a qualified archaeologist, who will determine whether it qualifies

Mitigation Measure	Description
	as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines §15064.4. This evaluation may require additional research, including subsurface testing. If the resource does not qualify, or if no resource is present within the project APE, this will be reported in the environmental document and no further mitigation will be required unless there is a discovery during construction.
CULT-1E	If a resource within the project's area of potential effects is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), the Campus shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, or other means that will permit avoidance or substantial preservation in place of the resource.
CULT-1F	If avoidance or substantial preservation in place is not possible for an archaeological site that has been determined to meet CEQA significance criteria, the Campus shall retain a qualified archaeologist who, in consultation with the Campus, shall prepare a research design, and plan and conduct archaeological data recovery and monitoring that will capture those categories of data for which the site is significant, prior to or during development of the site. The Campus shall also ensure that appropriate technical analyses are performed, and a full written report prepared and filed with the California Historical Resources Information System, and also shall provide for the permanent curation of recovered materials.
CULT-1G	If an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. The Campus shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. LRDP Mitigation CULT-1F shall also be implemented.
CULT 1H	If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, the campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the site to be preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, the Campus shall implement LRDP Mitigation CULT-3A
CULT-2A	For projects within Cowell Ranch Historic District overlay, the Campus shall implement LRDP Mitigations AES-4A and AES-4B.
CULT-2B	As early as possible in the project planning process, the Campus shall define the project's area of potential effect for historic structures. The Campus shall determine the potential for the project to result in impacts to or alteration of historic structures, based on the extent of site and building modifications anticipated for the proposed project.
CULT-2C	Before altering or otherwise affecting a building or structure 50 years old or older that has not been evaluated previously, the Campus shall retain a qualified architectural historian to record it at professional standards, and assess its significance under CEQA Guidelines Section 15064.4. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the history of the University system, the campus, and the region. For historic buildings, structures or features that do not meet the CEQA criteria for historical resource, no further mitigation is required and the impact is less than significant.
CULT-2D	For a building or structure that qualifies for listing on the CRHR, the Campus shall consult with the architectural historian to consider measures that would enable the project to avoid direct or indirect impacts to the building or structure. These could include preserving a building on the margin of the project site, using it "as is," or other measures that would not alter the building.
CULT-2E	<p>If the project cannot avoid modifications to a significant building or structure, the Campus shall ensure that documentation and treatment shall be carried out by a qualified architectural historian, as described below:</p> <p>If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings" (Weeks and Grimmer 1995).</p> <p>If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the campus shall ensure that a qualified architectural historian thoroughly documents the building and associated landscaping and setting.</p> <p>Documentation shall include still and video photography and a written documentary record of the</p>

Mitigation Measure	Description
	<p>building to the standards of the Historic American Building Survey (HABS) or Historic American Engineering Record (HAER), including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. A copy of the record shall be deposited in the McHenry Library Special Collections, and with the California Historical Resources Information System. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.</p> <p>If preservation and reuse at the site are not feasible, the historical building shall be documented as described in item (ii) and, when it is physically and financially feasible, it shall be moved and preserved or reused.</p>
CULT-2F	<p>If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the Campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could include project redesign, relocation or abandonment. If no such measures are feasible, the Campus shall implement LRDP Mitigation CULT-3B.</p>
CULT-3A	<p>If a significant archaeological resource cannot be preserved intact, before the property is damaged or destroyed, the Campus shall ensure that the resource is appropriately documented by implementing a program of research-directed data recovery, consistent with LRDP Mitigation CULT-1F.</p>
CULT-3B	<p>If a significant historic resource or unique archaeological resource cannot be preserved intact, before the property is damaged or destroyed the Campus shall ensure that the important information represented by the resource is preserved, by implementing a program of documentation as described in LRDP Mitigation CULT-2D.</p>
CULT-4A	<p>The Campus shall implement LRDP Mitigations CULT-1A through CULT-1H to minimize the potential for disturbance or destruction of human remains in an archaeological context and to preserve them in place, if feasible.</p>
CULT-4B	<p>The Campus shall provide a representative of the local Native American community an opportunity to monitor any excavation (including archaeological excavation) within the boundaries of a known Native American archaeological site.</p>
CULT-4C	<p>In the event of a discovery on campus of human bone, suspected human bone, or a burial, the Campus shall ensure that all excavation in the vicinity halts immediately and the area of the find is protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bone is human, or if a qualified archaeologist is not present, the Campus will notify the Santa Cruz County Coroner of the find and protect the find without further disturbance until the Coroner has made a finding relative to PRC 5097 procedures. If it is determined that the find is of Native American origin, the Campus will comply with the provisions of PRC § 5097.98 regarding identification and involvement of the Native American Most Likely Descendant (MLD).</p>
CULT-4D	<p>If human remains cannot be left in place, the Campus shall ensure that the qualified archaeologist and the MLD are provided an opportunity to confer on archaeological treatment of human remains, and that appropriate studies, as identified through this consultation, are carried out. The Campus shall provide results of all such for local Native American involvement in any interpretative reporting.</p> <p>As required by the provisions of the California Native American Graves Protection and Repatriation Act (NAGPRA), the Campus shall ensure that human remains and associated artifacts recovered from campus projects on state lands are repatriated to the appropriate local tribal group if requested, if the appropriate group can be identified through California NAGPRA procedures.</p>
CULT-5A	<p>During project planning, the Project Manager shall consult the most recent Campus Soils and Geology map to determine whether the proposed project is underlain by a formation that is known to be sensitive for paleontological resources.</p>
CULT-5B	<p>If the project site is underlain by paleontologically sensitive formations, the Campus shall retain a qualified paleontologist to determine, through assessment of results of geotechnical investigations or site inspection, whether proposed excavation or grading has the potential to encounter the members of sensitive formations that are fossiliferous, and if so, to develop a paleontological monitoring and data recovery plan and implement it during the construction period as appropriate. In addition, the paleontologist shall conduct a construction crew education session regarding paleontological potential and significance, and of stop-work provisions in the event of a discovery.</p>
CULT-5C	<p>In the event of a discovery of a paleontological resource on campus, work within 50 feet of the find shall halt until a qualified paleontologist has examined and assessed the find and, if the resource is determined</p>

Mitigation Measure	Description
	to be a unique paleontological resource, the resource is recovered. The Campus shall ensure that all finds are adequately documented, analyzed, and curated at an appropriate institution.
CULT-5D	In the event that a proposed project would result in impacts to a unique paleontological resource, the project planning team shall work together to reduce impacts to the find through design and construction modifications, to the extent feasible.
CULT-6	The Campus shall implement LRDP Mitigation BIO-8.
CULT-7	The Campus shall implement LRDP Mitigations CULT-1 through CULT-4.
<i>Source: UC Santa Cruz 2006</i>	

4.4.7.5 Project Impacts and Mitigation Measures

SHW Impact CULT-1: The proposed project would not result in a substantial adverse change in the significance of a known historical resource. (*Less than Significant*)

There are no historic period structures, buildings, or features on the Heller site. The FSH complex, including the childcare center, currently occupies the Heller site. The complex was completed in 1971. Due to its age, lack of unique architectural qualities, and the poor physical condition of the structures, the complex does not meet the criteria for listing on the CRHR. Therefore, its demolition would not constitute a substantial adverse impact on a historical resource.

Two historic-period resources were observed within the proposed project limits at the Hagar site. The first resource is an isolated feature P-UCSC-012H, which was found not to meet the criteria for listing as a historic resource, and therefore its removal would not constitute a significant impact. However, a mitigation measure is set forth for the treatment of this feature.

The second historic period resource is CA-SCR-198, the Cowell Lime Works Historic District that is located to the west and southwest of the Hagar site. The boundary of the historic district was established in 2007 when the district was listed on the NRHP, and while it includes some natural landscape elements, it does not include any portion of the East Meadow north of Hagar Drive or the Hagar site. The project site lies well outside the historic district. Development of the Hagar site with the proposed housing development and childcare facility would have no direct impacts on the historic district. The proposed project would temporarily affect the landscape of the district via the placement of a short section of an underground utility line within the northeastern boundary of the Cowell Lime Works Historic District. There would be limited trenching (less than 200 feet long) in the area, which would not require removal of any structures, buildings, trees or features, and once the pipeline is installed in the utility corridor, the ground surface would be restored to grassland as it is under current conditions. As a result, other than a

temporary disturbance within the historic district, there would be no permanent impact to any of the buildings, structures, landscape, trees, and features that contribute to and constitute this district.

The management plan for the historic district has not been adopted and is therefore not in effect at this time. However, projects within and near the historic district are subject to mitigation measures set forth in the 2005 LRDP EIR as well as the guidance in the Physical Design Framework. Note that the Physical Design Framework guideline related to the historic district concerns preserving significant vistas in order to retain the historic landscape character of the historic district. The guideline has been added to **Section 4.1, Aesthetics**, and the project's consistency with the guideline is addressed in that section. With regard to the impact of the revised project on the visual character of the Heller site and adjoining areas including Rachel Carson College, that is also addressed in **Section 4.1**.

With respect to concerns about indirect impacts to the historic district, LRDP Mitigation Measure CUL-2A requires that projects within Cowell Ranch Historic District overlay shall implement LRDP Mitigations AES-4A and AES-4B. Although the project is not located within the Cowell Ranch Historic District overlay and is more than 500 feet from the district boundary, the project has, nonetheless, been designed to comply with Mitigations AES-4 4A and 4B. Therefore, the Hagar site development would not indirectly affect the historic district. The impact on historic resources would be less than significant.

Mitigation Measures:

SHW Mitigation CULT-1: Prior to ground disturbing activities in the study area, a qualified archaeologist shall re-record and photo document the isolated feature P-UCSC-012H before removing it from its current location.

Significance after Mitigation: Not applicable

SHW Impact CULT-2: **The proposed project could cause a substantial adverse change in the significance of a previously unknown historical or archaeological resource, or to human remains. (Potentially Significant; Less than Significant with Mitigation)**

The proposed project would involve ground-disturbing activities, and as such, it has the potential to result in impacts to unknown archaeological resources of the prehistoric or historic period. While development in the proposed study area and utility corridors could cause a substantial adverse change in the significance of an unknown archaeological deposit or feature, the impact would be significant only for those resources that meet CRHR eligibility criteria or for those that are defined as "unique" under CEQA.

As noted above, consistent with LRDP Mitigation CULT-1A, previous survey coverage of the Heller site and utility corridor was assessed and it was determined that only an intensive archaeological survey of the utility corridor was required. Furthermore, it was noted that one prehistoric site, CA-SCR-142, a prehistoric lithic scatter (scatter of stone tools and tool manufacturing debris) was recorded previously to the south of the housing complex. The exact boundaries of the site in the proposed project vicinity are unclear because the eastern portion of the prehistoric site apparently was altered by a road cut, and a portion of the deposit may have been graded away or buried (Reese 2005a). Consistent with LRDP Mitigation CULT-1B, the utility corridor and the vicinity of the prehistoric site were extensively surveyed. The surface surveys did not identify any cultural materials within the area surveyed. Based on this information, it is determined that excavation and grading at the Heller site (including the grading and trenching in the utility corridor and at the locations of other off-site storm water improvements) is unlikely to affect any known prehistoric or historic-period archaeological resources.

Similarly, consistent with LRDP Mitigation CULT-1B, the Hagar site and the areas of the off-site improvements were surveyed, and aside from the presence of the Cowell Lime Works Historic District within a portion of the utility corridor, no cultural materials other than two isolates (chert flake and cattle trough) were observed. Therefore, the proposed development at the Hagar site (including the grading and trenching for the off-site improvements) is unlikely to affect any known prehistoric or historic-period archaeological resources.

However, the earthmoving activities associated with the proposed project could expose previously undiscovered buried archaeological resources, including human remains. The 2005 LRDP EIR sets forth LRDP Mitigations CULT-1G, CULT-4B, and CULT-4C to address potential impacts to resources encountered during construction. The proposed project would implement these measures, which would reduce the impact to a less than significant level.

However, should any grading occur within 200 feet of the recorded margin of CA-SCR-142, undiscovered resources associated with that site could be affected. To address this potential impact, the Campus will implement **SHW Mitigation CULT-2A**. Pursuant to this measure, in the event that any grading is proposed within 200 feet of the recorded margin of the site, an archaeologist will monitor initial grading. Furthermore, as discussed in **Section 4.12, Tribal Cultural Resources**, the Campus has conducted consultation with Native American tribes for this project pursuant to AB 52, and based on input from the tribe consulted, the Campus has developed **SHW Mitigations CULT-2B** and **-2C** which provide for a Native American monitor to be present when grading occurs within 200 feet of a known or previously unknown site, and for an additional pedestrian survey of the Hagar site, once the site vegetation is cleared and prior to commencement of construction. If human remains are uncovered and are determined to be of Native American origin, the Campus will implement the procedures set forth in LRDP Mitigation

CULT-4C for protection of the remains, documentation, and respectful treatment in consultation with a Native American Most Likely Descendant. The implementation of these mitigation measures will reduce the potential impact to a less-than-significant level.

Mitigation Measures:

SHW Mitigation CULT-2A: If any grading is proposed within 200 feet of the known margin of CA-SCR-142, the Campus will retain a qualified archaeologist to monitor the grading and to determine whether intact deposits are present.

If archaeological materials are exposed by grading, the Campus shall implement LRDP Mitigation CULT-1G and LRDP Mitigation CULT-4B. If human remains are exposed and the County Sheriff-Coroner determines them to be of Native American origin, the Campus shall implement LRDP Mitigation CULT-4C.

SHW Mitigation CULT-2B: A Native American monitor of the Amah Mutsun Tribal Band will be provided an opportunity to monitor during ground disturbance within 200 feet of a known prehistoric deposit. In addition, if a previously unknown prehistoric deposit is uncovered during construction, a Native American monitor of the Amah Mutsun Tribal Band will be provided the opportunity to monitor grading within 200 feet of the find.

SHW Mitigation CULT-2C: Once the vegetation on the Hagar site is removed and before any grading for project construction is undertaken, another intensive pedestrian survey of the site will be conducted by a qualified archaeologist.

Significance after Mitigation: Less than significant

SHW Impact CULT-3: The proposed project would not adversely affect paleontological resources or unique geologic resources. (*Less than Significant*)

As noted earlier in this section, there are only three formations on the campus that have the potential to contain paleontological resources. These formations have limited distribution on the campus and have not yet yielded any fossils. The Heller site is located on schist, which is not considered sensitive for paleontological resources. With respect to the Hagar site, which is underlain by marble, there are no

Quaternary doline fill deposits where construction will occur, so the likelihood of encountering unknown fossils is low (UCSC 2006). No construction would occur near the sinkhole in the Hagar site. Therefore, the potential to affect paleontological resources at the Hagar site is also considered low. Furthermore, the proposed project is required to implement LRDP Mitigations CULT-5A through CULT-5D. Implementation of these mitigation measures would reduce the impact to a less than significant level.

Neither the Heller nor the Hagar sites contain any geologic features that would be considered unique. Limestone caves in the Cave Gulch/Wilder Creek area are the only known unique geological resources identified on campus. These features are rare, and as such, of high scientific interest geologically and potentially paleontologically. These caves lie approximately 500 feet west of the Heller site and they would not be affected by the proposed project. The proposed project would not alter the immediate setting or internal environment of the caves. Development under the proposed project has the potential to affect these resources as a result of incidental damage related to increased visitation. However, pursuant to LRDP Mitigation BIO-8 and **SHW Mitigation BIO-4**, the Campus will continue to limit activity near the caves in the Campus Natural Resource (CNR), post appropriate signs informing visitors of the values represented by the caves and informing visitors of prohibitions against, fire, littering or removal of materials, and provide mandatory stewardship training to the residents of the proposed Heller site housing (either online or in person) designed to bring awareness to sensitive environments and ways to reduce impacts to the cave resources (UCSC 2006). With the implementation of these measures, the impact would be less than significant.

Mitigation Measures: No mitigation is required.

4.4.8 PORTER AND RACHEL CARSON DINING FACILITIES EXPANSION PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Setting

The Porter and Rachel Carson dining facilities expansion project would be located adjacent to the existing dining facilities at both colleges. While most of the improvements would be made within the existing developed areas, should the existing dining areas be expanded, some undeveloped land adjacent to the existing buildings would be disturbed during construction and as a result of development.

Impacts and Mitigation Measures

DT Impact CULT-1: The implementation of the proposed dining facilities expansion project would not cause a substantial adverse change in the significance of prehistoric or historic period archaeological resources, human remains, or paleontological resources. (*Less than Significant*)

Historical Resources

The dining hall at Rachel Carson College is of recent construction and based on its age, would not qualify as a historical resource. Therefore, changes to the Rachel Carson College dining facilities would not result in a significant impact on a historical resource. Porter College was constructed in 1969-70, and it would be approximately 49-50 years in age at the time that alterations and additions to the dining hall would be constructed. It is anticipated that in compliance with LRDP Mitigations CULT-2B through 2D, the Campus will evaluate the affected structure and if the building is determined to be a historic resource, the Campus will appropriately design the addition to avoid a significant impact. Therefore, with LRDP mitigation, the impact on historical resources would be less than significant.

Archaeological Resources

The areas that would be disturbed to construct the proposed dining facilities are generally considered unlikely to contain archeological resources due to their locations and the previous disturbance that occurred in the area in conjunction with the construction of the existing college facilities. Nonetheless, consistent with LRDP Mitigation CULT-1A, previous survey coverage of the areas would be assessed. In the event that the areas have not been previously surveyed, consistent with LRDP Mitigation CULT-1B, a survey of the sites would be conducted. Furthermore, the project would be required to comply with LRDP mitigation measures for protection of resources from inadvertent damage during construction. This would ensure that impacts to archaeological resources would be less than significant.

Paleontological Resources

Undiscovered paleontological resources could also be present and could potentially be damaged during project construction. The project sites are located on schist, which is not considered sensitive for paleontological resources. Nevertheless, implementation of LRDP Mitigations CULT-5A through 5D would ensure that impacts to paleontological resources would be less than significant.

Human Remains

Although unlikely, unknown human remains could occur on the project sites and they could be inadvertently affected by grading and excavation activities. Implementation of LRDP Mitigation CULT-4C would reduce the impact to a less than significant level.

Mitigation Measures: No mitigation is required.

4.4.9 CUMULATIVE IMPACTS AND MITIGATION MEASURES

SHW Impact C-CULT-1: **Implementation of the proposed project would not result in significant cumulative cultural resource impacts. (*Less than Significant*)**

The cumulative impact of campus development under the 2005 LRDP along with other development in the City of Santa Cruz on historical resources and human remains is analyzed in the 2005 LRDP EIR under LRDP Impact CULT-7 and is determined to be less than significant because campus projects would be required to implement appropriate LRDP mitigation measures to avoid or minimize impacts to significant resources (UCSC 2006). The cumulative impact of campus development under the 2005 LRDP along with other development in the City of Santa Cruz on paleontological resources is evaluated under LRDP Impact CULT-8 and is also determined to be less than significant due to the mitigation measures set forth in the 2005 LRDP EIR (UCSC 2006).

Although proposed Heller site development is within the scope of the previous cumulative analysis, development of the Hagar site was not envisioned in the 2005 LRDP and therefore was not evaluated programmatically in the LRDP EIR. However, as set forth in the analysis above, the Hagar site does not contain any cultural resources and its development would have no effects on any known historical, archaeological or paleontological resources. Furthermore, the proposed SHW project would implement the LRDP mitigation measures as well as project-specific measures to avoid and minimize impacts on cultural resources. Therefore, the project would not change the conclusions of the prior cumulative analysis in the 2005 LRDP EIR. No further evaluation of cumulative impacts is required.

Mitigation Measures: No mitigation is required.

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