APPENDIX D – CULTURAL RESOURCES

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PROJECT REVIEW AND EVALUATION FOR THE PROPOSED FERRINI RANCH DEVELOPMENT, SOUTH OF SALINAS, MONTEREY COUNTY, CALIFORNIA

by

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PUBLIC REVIEW VERSION

Prepared for

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INTRODUCTION

This report constitutes a project review and evaluation for cultural resources on the proposed Ferrini Ranch Development project. This project is located on the south side of State Highway 68 between River Road and San Benancio Road, near Salinas, Monterey County, California (see Figures 1 and 2).

This report includes a review of all archaeological work performed within the known archaeological resources in and adjacent to the the project area. The purpose of this review and evaluation is to determine the potential for project impacts to identified cultural resources in and around the project area, to determine the significance of those resources and to develop an Archaeological Mitigation/Management Plan for those resources which are located within the project area.

This review is based on the vesting tentative maps for the project, supplied to us in pdf format. The map was prepared by Whitson Engineers, and is dated March 15, 2005.

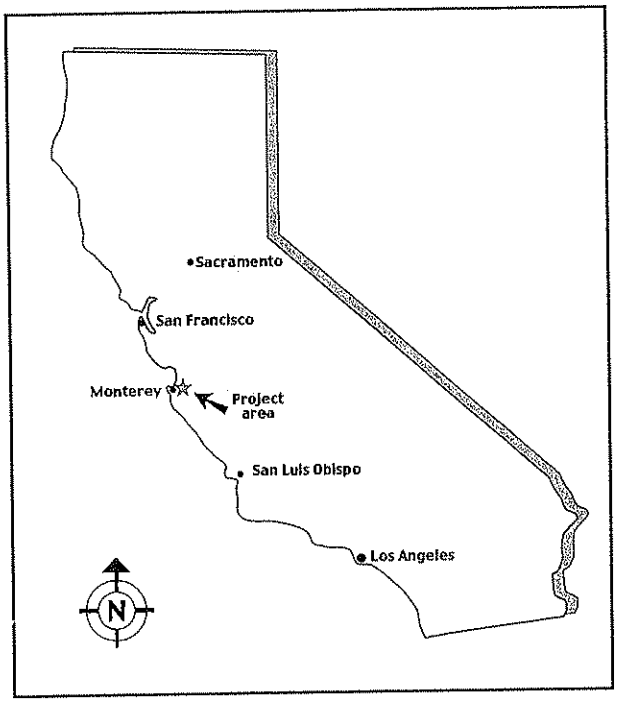

Figure 1. Project area.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The project area contains four identified archaeological sites. Two sites, CA-MNT-3 and CA-MNT-4, were recorded by Arnold Pilling in 1948. (A third site, CA-MNT-267, was recorded in 1950, but has since been determined to be a part of CA-MNT-4.)

We recorded a third site, a single hole bedrock mortar (CA-MNT-661), in 1975 following our survey and preliminary investigations of the proposed Toro Vista development area (Breschini 1975). Another site, CA-MNT-954, was recorded in 1979. This consisted of a small bedrock mortar on a steep slope well away from potential development. The locations of these sites are shown in Figure 3.

A subsequent study of the cultural resources of Toro Vista (Breschini and Haversat 1980) was undertaken to provide more accurate data on the boundaries of the prehistoric archaeological sites through auger testing, and to evaluate the significance of the historic resources in the project area.

Since then, portions of both CA-MNT-3 and CA-MNT-4/267 have been examined or

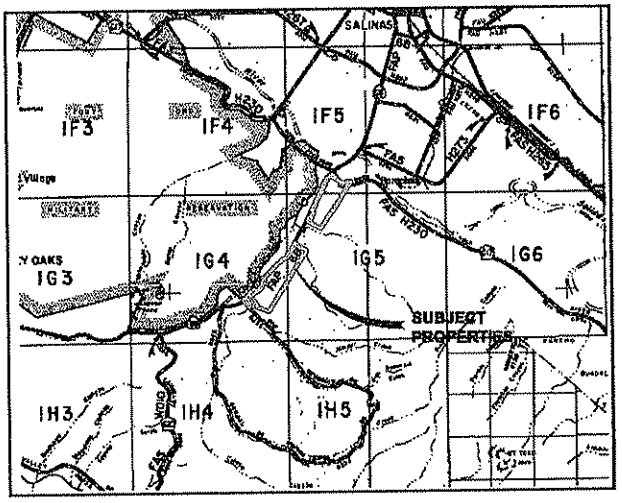

Figure 2. Vicinity map.

evaluated for road improvement projects. We have reviewed the results of those projects and incorporated them into this report.

We have estimated the potential effects of the currently proposed development relative to the archaeological resources. These estimates are used, along with the locations and estimated significance of the archaeological resources, to formulate mitigation recommendations.

Previous Investigations at CA-MNT-3

We conducted two previous projects at CA-MNT-3 (Breschini 1975; Breschini and Haversat 1980). The 1975 project used augering and computer mapping to identify, based on four criteria, the interior patterning and the boundaries of the site. Additional data was required, and the 1980 project was designed provide more data on the boundaries. It too used augering and computer mapping, but avoided the main areas of the site in favor of extensive boundary research.

The four criteria used were shell, lithics (flaked stone used for tools), bone, and pH (acidity or alkalinity of soil chemistry). These four indicators were readily identified in auger units by screening a sample of the material brought to the surface. The data was used to create computer maps showing the distribution densities of each of these indicators. The computer program also predicted the boundaries of the site. Maps showing all of this information was included in the 1980 report.

Figure 4 shows the auger units we excavated at CA-MNT-3, while Figure 5 shows a composite overlay of the results.

Subsequently, the California Department of Transportation (Caltrans) investigated CA-MNT-3 in relation to a bridge replacement project. The excavations were conducted in 1994, and a report was completed in 1998 (Jones 1998). The unit locations are shown in Figure 6.

The investigations uncovered what Jones believed, and what we agree, was significant archaeological information at CA-MNT-3. This is summarized briefly below:

The temporal period during which the site was occupied was determined to include the period A.D. 1000 to 1525 (dates recalibrated using a Delta-R of 225 ± 35). This is based on 11 radiocarbon dates on bone and on three different species of shell. As will be developed below, these dates most likely understate the temporal span of the site.

Major portions of the site appear to be relatively unaffected by historic disturbance, although Jones (1998:36) noted disturbance in three of the units adjacent to Highway 68 (Units 1, 3, and 4; see Figure 6 for unit locations). (We have found that disturbance in ranching environments such as this is generally limited to the top 12 inches or 30 cm of a deposit.)

Artifact categories included flaked stone (209 pieces), two projectile points, three ground stone implements, and a bone tool (a nearly complete whale bone pry, probably used for procuring abalone). A number of additional artifacts found by residents were reported in the previous studies (Breschini 1975; Breschini and Haversat 1980).

The faunal collection included a wide range of terrestrial and marine mammals, as well as invertebrates and fish. Important species included cottontail and jack rabbits, deer, dog/coyote, tule elk, quail, harbor seal, and grizzly bear. Eleven marine and four freshwater fish were identified.

Shellfish were also a part of the midden; the most shell was recovered from Units 6 and 7 (Unit 6 was located between the barn and Highway 68, while Unit 7 was located near the southern edge of the site.

Jones (1998:71-91) applied the data recovered from CA-MNT-3 to regional research questions. These included: culture history of the Monterey Peninsula; the Medieval Warm Period (A.D. 800-1400);

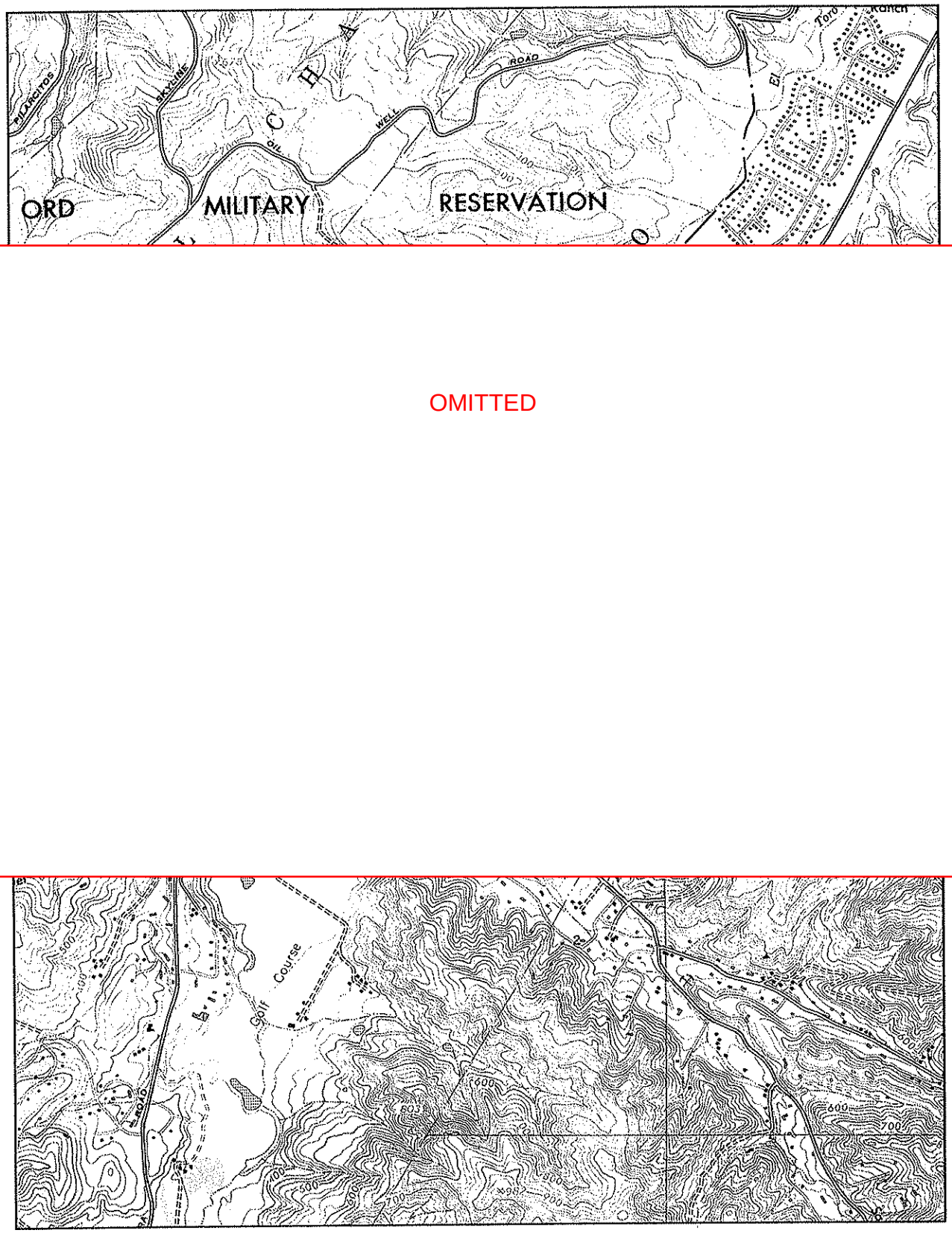

Figure 3. Approximate locations of archaeological resources within the project area (CA-MNT-661 and CA-MNT-954 shown much larger than actual size; other sites are close to actual scale).

MAP 8. ARCHAEOLOGICAL DATA POINTS AT CA-MNT-3

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Figure 4. Auger units excavated at CA-MNT-3 during the 1975 and 1980 projects.

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Figure 5. Composite map showing distribution of bone, marine shell, lithics and pH recovered from the auger units at CA-MNT-3 during the 1975 and 1980 projects (landmarks are shown in Figure 4).

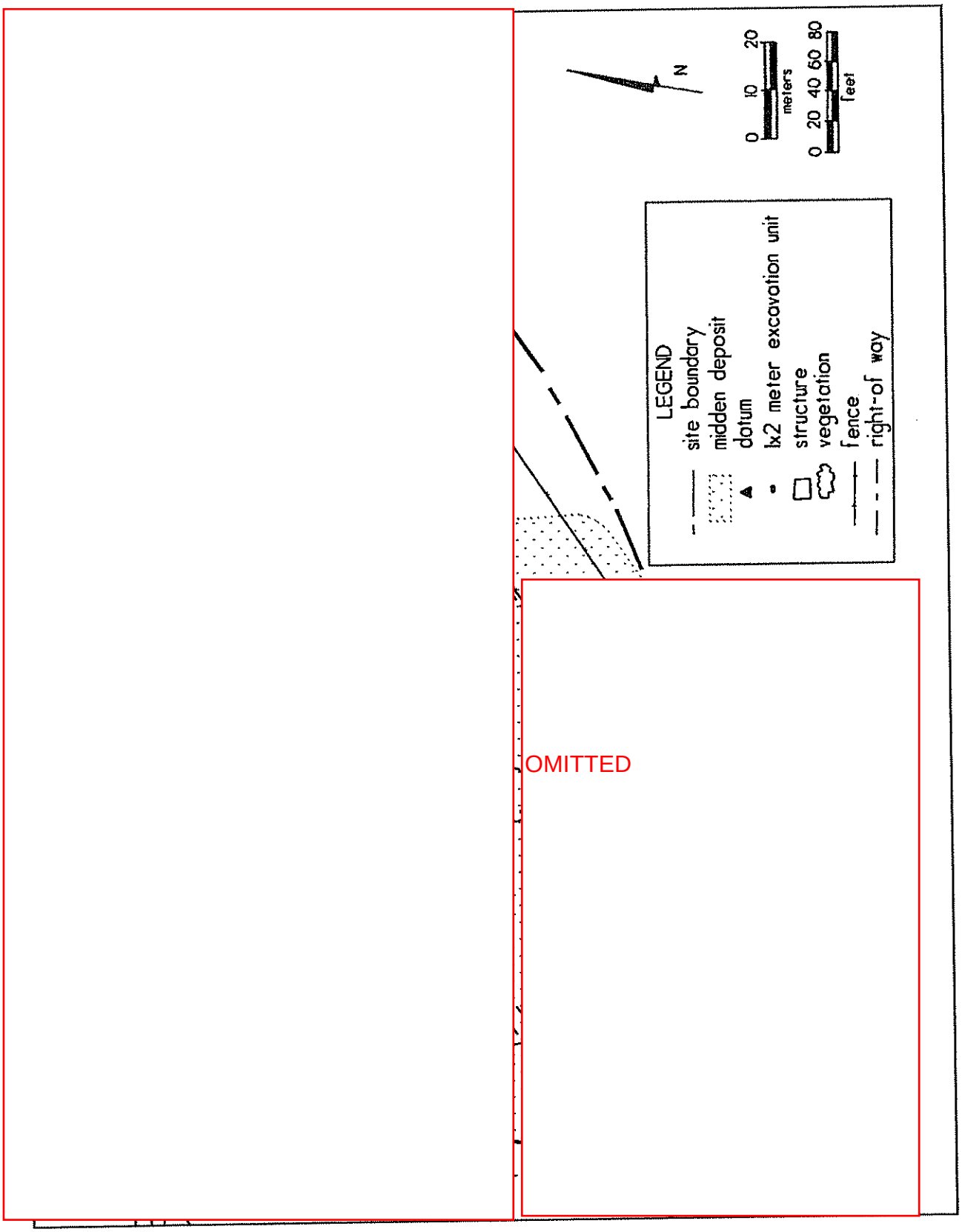

Figure 6. Site map showing CA-MNT-3 and the archaeological units excavated in 1994 by Jones (1998:35).

ocean temperatures (and from those, the question of climatic variability, including El Niño and La Niña); and subsistence and settlement during the Middle/Late Transition.

Although no burials were found during the 1994 investigations, one burial was found in the bank of Toro Creek in 1932 (*Salinas Index Journal*, March 2, 1932). Several others had been found when Highway 68 was built some years before 1932 (Breschini and Haversat 1980:3). These were most likely the three burials mentioned by Jean Stafford as being found in 1929. Ms. Stafford also reported another burial in the area south to southwest of the house and garage; it was reinterred in the same area, and is most likely still in that location. Finally, a single human tooth was found during the 1975 augering project in the area of the water tank and pumphouse (auger unit 107). That auger unit had the highest pH of the study (8.90), suggesting that some information on the location of burials may be obtained from pH studies (Breschini and Haversat 1980:3-4, 63). We thus have evidence of at least six burials within the archaeological site area.

The presence of human remains adds to the significance of a cultural site, particularly under federal guidelines. Under those standards, a determination of eligibility for inclusion on the National Register of Historic Places is made using the criteria set forth in Title 36, Part 60—National Register of Historic Places (36CFR60, revised as of July 1, 2004). These are as follows:

> Sec. 60.4 Criteria for evaluation
>
> National Register criteria for evaluation. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
>
> (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
> (b) that are associated with the lives of persons significant in our past; or
> (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> (d) that have yielded, or may be likely to yield, information important in prehistory or history.

Archaeological sites generally are considered under criterion (d), but when human remains are present, other criteria also are appropriate.

In summary, based on the Jones (1998) data and findings, we concur that CA-MNT-3 is a significant site under appropriate California state law.

Previous Investigations at CA-MNT-4/267

We conducted two previous projects at CA-MNT-4/267 (Breschini 1975; Breschini and Haversat 1980). The 1975 project used augering and computer mapping to identify, based on four criteria, the interior patterning and the boundaries of the site. The results of this project suggested sites CA-MNT-4 and CA-MNT-267 were actually one continuous deposit. A supplementary project was conducted in 1980 to acquire additional information on the boundaries. The auger units and a composite map of the results appear as Figures 7 and 8.

One burial has reportedly been removed from this site by the Ferrinis, and a second was reported in the creek bank, but not locat-

ed. Finally, an elderly Indian who used to live in the upper San Benancio area was reportedly buried in this area many years ago, but there is no way of knowing if this occurred within the project area (Breschini and Haversat 1980:4-5).

Our 1980 maps for CA-MNT-4 make it appear that this is a midden on the same scale as CA-MNT-3. However, most of the constituents were found in significantly smaller quantities. Compare, for example, the quantities of shell and lithics in the core areas of CA-MNT-3 with those of CA-MNT-4. (The actual numbers appear in our 1980 report.) The patterns suggests the site is oriented toward the creek to the north.

A recent project (Pulcheon 2006) conducted a subsurface excavation along the edge of San Benancio Road to evaluate the site for a turn lane. The draft report has just become available.

The investigations uncovered significant new archaeological information concerning the prehistory of both the CA-MNT-4/267 area and the Monterey Bay area. This is summarized briefly below:

First, the radiocarbon dates identified a buried component earlier than any yet identified at CA-MNT-3. This component, beginning at a depth of about 100-110 cm, extended to about 140-150 cm. The age, based on five radiocarbon dates from Unit 4 (see Figure 9) ranged from 3130-3050 years BP.

This time period is particularly important because it currently is not represented anywhere else on the Monterey Peninsula-Moss Landing area. There a gap in the occupation of the coast ca. 3150-2150 BP (Breschini and Haversat 2005). It is not currently known where the populations were at that time, but in that thousand-year span there are only two reliable radiocarbon dates, and one of those has not been confirmed with several additional samples (CA-MNT-1244).

CA-MNT-4/267 fills in the first 100 years of that gap, but then this site too appears to have been abandoned. Are these dates representative of the coastal populations moving inland, staying at this location for a while, then moving farther inland? Or is this the first wave of the Utian expansion coming from the interior (Breschini 1983; Moratto 1984) and at some later time arriving at the coast.

A second point that may be pertinent here—it is very possible that this time period is represented also in the eastern portions of CA-MNT-4/267 or in CA-MNT-3. It is known that many sites exhibit areal patterning, so this must be considered a distinct possibility.

The upper component at CA-MNT-4/267 dated to about 280 BP, slightly more recent than the youngest date at CA-MNT-3 (ca. 425 BP).

The artifact assemblage included flaked and ground stone, and two possible *Olivella* shell beads. Within this were a projectile point and four bifaces, a hammerstone, and a mortar fragment. Also present were lithic debitage and a range of faunal and floral remains. The quantities of *Mytilus* (mussel) shell in the lower, older, component were significantly higher than in the upper, younger, component suggesting considerably more contact with the coast at that time.

Specific research issues identified included cultural chronology, ethnolinguistic group migration, interregional exchange, and the radiocarbon database gap. An additional research domain which could be included is subsistence and settlement.

Based on the information recovered, and its applicability to the standards set forth for inclusion in the National Register of Historic Places (see above), Pulcheon (2006:58) concluded that "the Primary Deposit [see Figure 10] at MNT-4/267 appears to be eligible for listing in the National Register, and also appears to be a historic resource for the purposes of CEQA (PRC § 21084.1)."

MAP 9. ARCHAEOLOGICAL DATA POINTS AT CA-MNT-4/267

Units 1-57 and A-K excavated in 1975
Units 400-471 excavated in 1980

Main Datum (0,0) indicated by +

(Some unit numbers omitted from consecutively numbered data lines.)

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Figure 7. Auger units excavated at CA-MNT-4/267 during the 1975 and 1980 projects.

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Figure 8. Composite map showing distribution of bone, marine shell, lithics and pH recovered from the auger units at CA-MNT-4/267 during the 1975 and 1980 projects (landmarks are shown in Figure 7).

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Figure 9. Site map showing CA-MNT-4/267 and the archaeological units excavated in 2005 by Pulcheon (2006:15).

OMITTED

Figure 10. Site map showing CA-MNT-4/267 and the area of primary midden identified during the archaeological test conducted in 2005 (Pulcheon (2006:21).

CA-MNT-661

This site is a bedrock mortar in a boulder in [redacted] Lot 82 or 83, or in the road area. No midden was observed in the area.

CA-MNT-954

This site is an isolated bedrock mortar on a steep slope. It is outside of the potential development area.

ANALYSIS OF POTENTIAL PROJECT IMPACTS

By superimposing the 1980 and subsequent maps of archaeological materials (lithics, bone, shell, and pH) over the vesting tentative maps, we can estimate potential project impacts. These maps are shown as Figures 11 and 12.

Potential Impacts to CA-MNT-3

For site CA-MNT-3, the vesting tentative map shows, at minimum, the following potential impacts within the site boundaries:

Lots #13 through #18 and associated infrastructure improvements.

- Impacts associated with demolishing the existing Ferrini ranch complex.
- Impacts associated with building on the various lots within the site deposit must also be considered. These include grading, foundations, utilities, and perhaps swimming pools.

Analysis of Impacts

The location of the primary midden is based on the auger testing conducted in 1975 and 1980. Although it was done a number of years ago, the method used is superior to many current projects, as at that time a firm understanding of the site boundary was made a part of the scope of work.

As for the material within the primary midden, this is best described by the 1994 excavation project conducted by Jones (1998) for Caltrans.

Jones (1998:41-42) obtained five radiocarbon dates from his Unit 7, which was most likely placed in about the center of Lot 15. These span the range from about 830 to 425 BP, or A.D. 1120-1525 (calibrated using a Delta-R of 225 ± 35 for shell samples). This is within the primary midden, as identified by the auger testing and as confirmed by the Jones (1998) investigations.

This evidence suggests that Lots 13, 14, 15, and 16 are within an area of significant midden, and have the potential to create substantial impacts. Lot 17 includes a small area of secondary midden and has a lower potential to create substantial impacts.

The only cultural resource indications for Lot 18 are some small pieces of bone which were noted in one of the auger lines which extended away from the main area of the site. This probably represents an outlying butchering area, and should be of much less significance than the main midden area. (However, it may also represent an older deposit and should be examined for this during monitoring.)

OMITTED

Figure 11. Vesting tentative map showing an approximate overlay of archaeological data from investigations at CA-MNT-3.

Recommendations

- Lots 13, 14, 15, and 16 [redacted] should be relocated to some other area.
- Lots 17 and 18 [redacted] development there should be possible.
- The sewer line between Lot 16 and Highway 68 should be moved to the east, [redacted] mary [redacted]
- The access road crosses Lots 17 and 18; these lots [redacted] and placement of the road in that area should be possible. The road should be terminated adjacent to Lot 17, [redacted]
- A water line follows the access road [redacted] before turning turns west through Lot 16 [redacted] relocated to turn west at the end of Lot 17 [redacted]
- Electrical, cable, gas, and other utilities will most likely follow the access road. If the road is shorted to a point adjacent to Lot 17, these will not affect the primary midden.
- A landscaping berm [redacted] should be shortened so [redacted]
- The impacts associated with demolishing the existing Ferrini ranch complex can be avoided if Lots 13, 14, 15, and 16 are relocated and the ranch complex is left in place. The 1980 report determined that one of the buildings, the small building suspected of being associated with the stage line, is significant. Its current condition should be evaluated and, if feasible, preservation efforts should be undertaken.
- Impacts associated with building on the various lots within the primary site deposit (grading, foundations, utilities, and perhaps swimming pools, etc.) can be avoided by relocating these particular lots.
- Finally, we recommend that a detailed cultural resources mitigation plan be prepared when the exact impacts are identified.

If these recommendations are implemented, we believe the overall project impacts will be reduced to a less than significant level.

At this point, it is impossible to provide the exact details of a mitigation plan because impacts are not known. However, the approach and goals can be stated.

The detailed cultural resources mitigation plan should include a mix of archaeological monitoring and data recovery, along with appropriate analyses and report preparation, with the overall goal of extracting sufficient information from the archaeological site to mitigate project impacts. This should be done by an archaeologist familiar with local research problems so that the data recovered during the project can contribute to currently ongoing research.

Because of the significance of the site, we believe approximately 5% of the primary midden which is disturbed or destroyed should be subjected to archaeological data recovery and analysis.

Potential Impacts to CA-MNT-4/267

For site CA-MNT-4/267, the vesting tentative map (Figure 12) shows, at minimum, the following potential impacts within the site boundaries:

- Portions or all of [redacted] (Lots 1-6 and 12).

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Figure 12. Vesting tentative map showing an approximate overlay of archaeological data from investigations at CA-MNT-4/267.

- The access road and associated utilities (water line, sewer, and most likely joint utilities) cross a portion of the site adjacent to Lots 1 and 2.
- Impacts associated with building on the various lots within the site deposit must also be considered. These include grading, foundations, utilities, and perhaps swimming pools.

Analysis of Impacts

There is a significant difference between the midden deposits at CA-MNT-3 and CA-MNT-4/267.

At CA-MNT-3, the midden is described as being on the order of [redacted] deep (Jones 1998:36). At CA-MNT-4/267, the stratum which produced the early radiocarbon dates begins at a depth of about [redacted] (Pulcheon 2006:28). We believe, through a mix of mitigation and preservation, that the impacts of the project in this area can be reduced to a less than significant level.

Recommendations

The currently proposed access road crosses [redacted] for a distance of about 120 feet. [redacted] ly. This will result in significant impacts for the approximately 120 feet of primary midden. For this area we recommend the following:

- A monitoring and data recovery program, as described for CA-MNT-3, above, should be undertaken for the access road/utility corridor.
- Approximately 5% of the *upper component* of the primary site deposit which is disturbed or destroyed should be subjected to archaeological data recovery and analysis.
- Because of the significance of the site, we believe approximately 10% of the *lower component* of the primary site deposit which is disturbed or destroyed should be subjected to archaeological data recovery and analysis.
- Culturally sterile soils from the southern portion of the project area (outside of the midden area) should be layered on top of the lots within the primary site deposit to a depth of about 18 inches. This will help to insulate the site deposit, particularly the lower component, from impacts related to construction.
- When houses are build on Lots 1-6 and 12, all impacts which potentially could penetrate below the 18 inch layer of sterile fill (deep foundations, utility trenches, etc.) should be observed by a qualified archaeological monitor. Data recovery and analysis should be performed as needed. This recommendation should be accomplished through a deed restriction on Lots 1-6 and 12.
- Finally, we recommend that a detailed cultural resources mitigation plan be prepared when the exact project impacts are identified.

If these recommendations are implemented, we believe the overall project impacts will be reduced to a less than significant level.

CA-MNT-661

This site is a bedrock mortar in a boulder [redacted] Lot 82 or 83. No midden was observed in the bedrock mortar environs. If it is likely to be impacted by construction in its current location, it could simply be picked up and moved to an agreed-upon location as mitigation. The archaeological site record should then be updated with a map showing the new location.

CA-MNT-954

This site is an isolated bedrock mortar on a steep slope. It is outside of the potential development area.

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