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**CULTURAL RESOURCES**

The Cultural Resources chapter of the EIR describes cultural resources known to be located within the Rancho Del Oro Estates project (proposed project) area. Prehistoric resources are those sites and artifacts associated with indigenous, non-Euroamerican populations, generally prior to contact with people of European descent. Historical resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region. The extent to which development of the proposed project could remove, damage, or destroy existing cultural resources is evaluated.

Information presented in this chapter is taken from the *Placer County General Plan (PCGP)*,<sup>1</sup> the *PCGP EIR*,<sup>2</sup> the *Granite Bay Community Plan (GBCP)*,<sup>3</sup> the *Archaeological Inventory Survey*,<sup>4</sup> prepared by the Genesis Society (See Appendix H), and the *Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871, and CA-PLA-1873, Rancho Del Oro Development* prepared by Ric Windmiller, R.P.A. (See Appendix I).<sup>5</sup>

Impacts that have already been identified in the Rancho Del Oro Estates Initial Study as having *no impact* or impacts that include required mitigation measures to reduce the impact to a *less-than-significant* level (i.e., restrict existing religious or sacred uses within the potential impact area; disturb any human remains, including those interred outside of formal cemeteries; substantially cause adverse change in the significance of a unique archaeological resource pursuant to the CEQA Guidelines Section 15064.5) are not further addressed within this chapter. The impacts identified as *potentially significant* in the Initial Study are addressed in this chapter. Required mitigation measures from the Initial Study have been included in Chapter 2, Executive Summary, of this Draft EIR.

## **6.1 ENVIRONMENTAL SETTING**

The following environmental setting discussion for the proposed project consists of the historic context of the project location, a description of the project area, and overviews of the existing cultural resources in the project area.

### **Historic Context**

The following discusses the historic context of the proposed project site, as identified in the *Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871, and CA-PLA-1873, Rancho Del Oro Development* prepared by Ric Windmiller, R.P.A.

Miners Ravine attracted a relatively dense Native American population for a seasonal drainage in the low foothills of the Sierra. In 1976, archaeologist Jerald Johnson produced a technical report of his field survey that encompassed 2.5 miles along both banks of Miners Ravine, as well as similar investigations in Strap Ravine and the Linda Creek drainage. Included in the report is a

brief synthesis of the area's archaeology and ethnography. Johnson indicated that the drainages (including Miners Ravine) "[...] have numerous Native American village and camp sites on their banks."

Previous archaeological excavations in the region produced evidence of Native American occupation dating between 500 B.C. and A.D. 1850. Johnson observed that the Nisenan, a Maiduan-speaking people who inhabited the area for at least the last 1,000 years occupied Miners Ravine and the surrounding region. The historic pattern of Nisenan settlement is similar to that of other Indian groups in northern and central California. The Nisenan "were organized into tribelets, which consisted of one principal village and several allied smaller camps," according to Johnson. Johnson also reported that each of the clusters of archaeological sites found in Strap and Miners Ravines probably represented a tribelet center, which would consist of a principal village and satellite camps. Johnson explained that tribelets seldom supported over 300 individuals and that major villages probably had a population of 30 to 60 individuals.

The ancestors of the Maiduan people who lived in the foothills around Miners Ravine probably came to northern California from northwestern Nevada during the period A.D. 1 to A.D. 200, occupying the Sierra foothills by A.D. 600 to A.D. 700. Another wave of immigrants, Wintuan-speaking peoples, came south from Oregon and settled the middle of the Sacramento Valley and western hills by A.D. 900 to A.D. 1000. The Wintuan expansion probably assimilated some existing groups by intermarriage or warfare and displaced others who moved southward.

Prior to Nisenan settlement in the region, archaeologists believe that the area may have been inhabited by a proto-Yokutsan-speaking people who left behind traits of the earlier "Windmill Pattern" in the local archaeological record before penetrating farther south into the San Joaquin Valley and Sierra foothills around 1000-500 B.C. People of this stock probably immigrated to northern California because of increased aridity in their homeland of the southern Columbia Plateau and northwestern Great Basin.

The Windmill Pattern dates back as early as 2400 B.C. in the Central Valley. The Windmill Pattern's origins are tentatively traced to the Altithermal cultures of the Northwest Great Basin and southern Columbia Plateau, as archaeologists have speculated that people of the same language group occupied the juncture between the Great Basin and Plateau provinces before 2500 B.C.

Another possibility is that other Great Basin peoples occupied the area in place of the proto-Yokutsan speaking people of the Windmill Pattern. The so-called "Martis Complex" with its characteristic dart points made of basalt originally identified by archaeologists at sites in the high Sierra is also represented in the Sierra foothills and may reflect local settlement by an entirely different language group. Such sites may date to the period, 2000 B.C. to A.D. Moratto speculated on a Hokan language association with the Sierra foothills expression of Martis.

Earlier still are occasional finds – both sites and isolated artifacts – representing the Western Pluvial Lakes tradition and its regional variant, the Farmington Complex. Stone tools of this prehistoric "tradition" have been unearthed periodically along the Sacramento Valley-Sierra foothills edge and probably date between 10,000 and 5000 B.C. The development of the Western

Pluvial Lakes Tradition and its regional variants such as the Farmington complex may, as Moratto suggested, correspond to the emergence and initial differentiation of Hokan languages.

California prehistory, although poorly understood, reflects a long period of immigration and internal population shifts driven in part by changes in climate affecting broad areas of the American West.

To better understand the local prehistory, a records search from the North Central Information Center, California Historical Resources Information System. The February 2009 records search identified 20 Native American archaeological sites along a five mile reach of Miners Ravine. This five mile reach of the ravine includes the location of the three sites evaluated in the Windmill study.

The settlement pattern revealed by the records search includes small camp or village sites and isolated bedrock mortars on outcrops of granite. Ten camp or small village sites and ten isolated sites of bedrock mortars have been identified along this five mile reach of the ravine. The camp or small village sites range from small surface scatters of chipped stone waste from the manufacture of stone tools (rare) to middens with two to three saucer-shaped housepits. Test excavations documented the depths of middens up to 1.5 meters.

Artifacts diagnostic of specific time periods reported in the record forms are rare. However, one small village or camp site yielded a Desert Side-Notched arrowhead and shell ornaments characteristic of the late prehistoric Maidu (Nisenan) occupation from about A.D. 1200-1800 or later. The presence of housepits at several sites along the ravine also suggests a predominantly late period of occupation for the locality, as surface indications of such structures from earlier times rarely survive. Documented reports of glass beads or other historic artifacts in direct and positive association with Indian occupation that would confirm a historic Native American presence in this reach of Miners Ravine do not exist. Therefore, the present evidence suggests that Miners Ravine was abandoned by the Nisenan before the Gold Rush but possibly as late as the 1833 epidemic brought south from Oregon by early trappers.

### **Project Area Description**

The proposed project site, which is located southeast of Rocklin, in Placer County, California, totals approximately 119 acres and is located adjacent to the north side of Olive Ranch Road, the south side of Miners Ravine, and a short distance east of Cavitt-Stallman Road. Lands affected are located within a portion of the southeast quarter of Section 32 of Township 11 North, Range 7 East, as shown on the U.S. Geological Service (USGS) Rocklin, California; 7.5-minute series quadrangle. A number of important streams are located in the vicinity of the site, including Miners Ravine, which forms the property's northern boundary. In addition, one south-north trending ephemeral stream is located within the central portion of the project property.

Until relatively recently, lands within the general area of the project site remained largely undeveloped for residential and related uses, being utilized since about 1865 for ranching and farming, but also having been subjected to mining from the middle of the 19th Century. During the past several decades, however, the pace of development along the Interstate 80 corridor,

located approximately one mile west of the project site, has been extending into the foothills east of Roseville and Rocklin.

Based on available topographic and other maps, but notwithstanding the effects of past and ongoing land uses (especially historic mining and ranching), the project area appears to contain lands ranging from moderate to high in sensitivity for both prehistoric and historic-period sites and features.

## **Existing Cultural Resources**

### Genesis Society Study

During the pedestrian survey performed for the April 2006 Genesis Society study, one historic-era isolate (a ditch segment) on the project site was identified and recorded (RDO #5). Located within the northern portion of the project site, the excavated ditch segment is three feet wide and one to two feet deep, extends approximately 700 feet in length, and likely represents contemporary ranching efforts to collect stock water. A careful inspection of lands surrounding the ditch was undertaken, but failed to identify additional historical material. Consequently, the ditch segment is considered an isolated feature and does not warrant further treatment or consideration.

One previously recorded prehistoric site (CA-PLA-197) was relocated during the survey effort, and an updated site record was prepared for this resource. In addition, four previously unidentified prehistoric sites were encountered and recorded during the pedestrian survey. Collectively, these five sites may be summarized for descriptive purposes, as follows:

#### *Group 1: Prehistoric Sites Containing Mortars Only*

- *Site CA-PLA-197* – Originally recorded by Johnson in 1976, Site CA-PLA-197 was described as a bedrock milling station consisting of five mortars situated on a single bedrock outcrop. Discrepancies between the site sketch map and the site record information warranted a field inspection and update to the site record. The present field inspection re-located the site, and determined that only four mortar cups are present. Additional cultural material in association with the mortars is not present (i.e., midden, surface lithics, or other prehistoric features such as house pit depressions).
- *Site RDO #3* – Site RDO #3 consists of a prehistoric bedrock milling station containing four mortars situated on a single bedrock outcrop. Additional cultural material in association with the mortars is not present (i.e., midden, surface lithics, or other prehistoric features such as house pit depressions).

#### *Group 2: Prehistoric Sites Containing Sub-surface Deposits/Midden*

- *Site RDO #1* – Site RDO #1 consists of a prehistoric habitation area that extends approximately 390 feet in length, north-south, with a maximum width of 148 feet. The

site is identifiable by bedrock mortars, a surface lithic scatter and a subsurface component contained in a dark brown-black soil (midden). The surface lithic component consists of waste flakes, cores, and tools of basalt, with surface density ranging from approximately one to five items per square meter of surface area. The subsurface component was observed at various locations throughout the site boundary via rodent holes, and further traced with trowel probes. Depth of this deposit was not formally determined during the Genesis Society recordation, but examination of the rodent holes and troweled areas indicate a probable depth in excess of 15 inches. Twenty-seven bedrock mortars situated on nine separate outcrops were observed. In addition, seven “anvils” are present in direct association with seven of the largest mortars. Anvil dimensions range between four to six inches in diameter, with an average depth of 1.1 inches. Dimensions for the mortars range from five to 12 inches in diameter, with depths ranging from 1.5 to 14 inches.

- *Site RDO #2* – Site RDO #2 consists of a prehistoric habitation area that extends approximately 150 feet in length, north-south, with a maximum width of 328 feet. The site is identifiable by bedrock mortars, two overhanging rock shelters, a surface lithic scatter, and a subsurface component contained in midden. The surface lithic component consists of waste flakes, cores, and tools of basalt, with surface density ranging from approximately one to 15 items per square meter of surface area. The subsurface component of the site was observed at various locations throughout the site boundary via rodent holes, and further traced with trowel probes. Depth of this deposit was not formally determined during the Genesis Society recordation, but examination of the rodent holes and troweled areas indicate a probable depth in excess of 12 to 16 inches. Thirty-one bedrock mortars, situated on four separate outcrops, are present. Dimensions for the mortars range from six to 13 inches in diameter, with depths from 1.5 to 14 inches. The two rock shelters consist of vertical outcrops ranging in height from three to 13 feet, with the overhanging lip forming a broad shelter in front of which is a relatively flat talus on which cultural material has accumulated. In addition to midden, the talus contains an abundance of fire-affected rock and both modified and unmodified lithic material.
- *Site RDO #4* – Site RDO #4 consists of a prehistoric habitation area that extends approximately 6.5 feet in length, north-south, with a maximum width of 10 feet. The site is identifiable by bedrock mortars, petroglyphs, a surface lithic scatter, and a subsurface component contained in midden. The surface lithic component consists of approximately 10 basalt waste flakes, while the midden appears to represent a relatively shallow accumulation that “rings” the bedrock outcrops and appears to have resulted from use of the petroglyphs and/or mortars. A total of three bedrock mortars are present, with dimensions ranging from four to seven inches in diameter, and depths ranging from one to five inches.

### Windmill Study

The Genesis Society study recommended archaeological test excavations at each of the three sites to assess more fully the information potential and therefore the eligibility of each site for the California Register of Historical Resources (CRHR) and the National Register of Historic Places

(NRHP). Therefore, as a result of the Genesis Society study, the following three Native American archaeological sites were observed to include surface lithic scatters and subsurface components recognized as “developed” middens: RDO#1 (CA-PLA-1870), RDO#2 (CA-PLA-1871), and RDO#4 (CA-PLA-1873). Site RDO#4 was not further evaluated because, according to the Windmill study, “[...] the site is not eligible for the California Register or the National Register, nor does the site qualify as a “unique archaeological resource” under CEQA.” In order to prepare the *Evaluation of Archaeological Sites* for the proposed project, Ric Windmill revisited the three archaeological sites on January 15 and February 12, 2009 and performed test excavations at each of the sites.

#### *Test Excavations at CA-PLA-1870 (RDO#1)*

Based on surface observations, the Genesis Society study described RDO#1 as a prehistoric habitation site consisting of a group of 27 bedrock mortars on nine separate granite boulders, a surface scatter of chipped stone debitage and an underlying midden deposit. The site’s size was estimated to be 120 meters long (north-south) and 45 meters wide (east-west), and the density of chipped stone debitage on the surface was described as varying between one and five items per square meter.

Upon revisiting the site during the Windmill study, the consultant observed considerable historic disturbance of the ground surface. Miners Ravine was placer mined during the Gold Rush and significant placer mining was conducted during the “second gold rush” of the 1930s, as dry land dredge tailings piles occur in the low lying terrain immediately east of the site. The site’s surface is deeply scarred from either farming or crossings made by drag-line dredging equipment or other heavy equipment.

On February 3, 2009, the consultant established a datum near the north edge of the midden next to the cluster of granite boulders and bedrock mortars. Several transects radiating from the datum were laid out along which shovel tests would be conducted at intervals to determine the extent of cultural deposits. Shovel tests are small holes, the diameter of which matches the width of a shovel blade. The holes are excavated in a series of 15 centimeter vertical levels. The sediments from each level are sifted through quarter inch hardware cloth and the midden’s macro-constituents are documented. Typically, when the cultural deposit wanes, the midden’s macro-constituents are low or non-existent. Hence, the site boundary is established as a reasonable estimate of a cultural deposit’s depth and horizontal extent.

In addition, two one meter by one meter excavation units were laid out. Dug by hand, also in arbitrary 15 centimeter levels (unless cultural or natural stratigraphy is present), these larger excavations offer a means of evaluating the nature of the cultural deposit. Every shovel full of sediment was sifted through 0.25-inch hardware cloth and the midden constituents were documented. Excavations at the site were conducted on February 12 and 19, 2009.

#### Extent of the Cultural Deposits

Nine transects were laid out across the archaeological site. Recent rains resulted in wet sediments, the color of which was expressed by comparison with the Munsell Soil Color

Chart. Generally, the cultural deposit corresponds to a very dark gray to black friable midden, which in itself suggests a late period of occupation. On the basis of surface evidence, the Genesis Society estimated the site's size to be 125 meters long (north-south) and 60 meters wide (east-west) at the site's widest point. Based on the shovel testing results and considering the evidence of previous disturbances, the archaeological site's cultural deposits are estimated to extend 80 meters north-south and 41 meters east-west at the site's widest point.

The difference in site size estimated by the Genesis Society on the basis of surface observations and the extent of the cultural deposit reckoned through test excavations can be explained by several factors. First, the boundaries of Native American habitation sites are best described not as a specific line, but as a zone where the depth of cultural deposits gradually diminishes until there is no depth, only a few scattered surface artifacts that also diminish in frequency as one moves farther away from the site.

Second, the nature and extent of disturbances of an archaeological site since the site's last use by native people can explain disposition of the cultural deposit's micro- and macro-constituents both vertically and horizontally through the deposits. Surface disturbances at RDO#1 probably scattered at least a portion of the surface and shallow buried artifacts across a wider area than was the case when the site was occupied. It is also likely that extensive burrowing by small animals carried artifacts and other midden constituents beyond the site's original area of focused use.

#### Depth and Nature of the Cultural Deposits

The friable, black midden surrounds an outcropping of granitic boulders of various sizes. Mortar holes are evident in some of the boulders. The largest and deepest mortar holes are in a flat boulder facing the ravine, which is a broad swale. Shovel tests revealed that the black, friable midden on this north side of the site between the bedrock mortars and the creek within this low-lying, broad portion of the ravine averages 30 centimeters deep with underlying rock, but may be deeper in untested areas. This north portion of the site appears within the creek flood plain and may be subject to periodic flooding, which would have adversely affected the provenience of heavier artifacts, which tend to sink in over-saturated soils according to a national reservoir inundation study. The majority of the midden lies on the south side of the outcropping of granitic boulders.

The surface of this portion of the archaeological site is severely disturbed with arc-shaped gouges and shallow depressions not inconsistent with the effects of agricultural cultivation where tractor and disk or other types of cultivator turn at the edge of a field. Shovel test pits across this portion of the archaeological site yield evidence of a black gravelly midden averaging 30 centimeters deep near the cluster of boulders with mortar holes, to a black midden of loam consistency averaging 90 centimeters deep, 20 to 30 meters southwest of the boulder outcrops.

Two one meter by one meter units were excavated in addition to the shovel test pits. As expected from the results of shovel testing in this area immediately south of the boulder

outcroppings, the black midden was gravelly and shallow, grading abruptly to a decomposed granite and rock base. Other indications of natural or cultural stratigraphy were not found.

The second excavation unit was dug at the inside edge of an arc-shaped surface disturbance at first thought to be the remnants of a housepit. Here the black midden was described as friable, grading to decomposed granite from 60 to 90 centimeters below the surface. Again, evidence of cultural or natural stratigraphy was not found within the midden. At the 90 centimeter level, krotovena (filled tunnels of burrowing animals) were evident in an otherwise decomposed granite matrix. During the excavations, large pieces of an old porcelain coated, cast iron sink or wash tray were encountered to a depth of 40 centimeters below the surface, which provided additional data on compromised site integrity besides the existing surface evidence.

Based on the results from the shovel test pits and the two one meter by one meter excavation units, as well as observations of the site's surface, concluding that a significant portion of the cultural deposits are disturbed is reasonable. In that portion of the archaeological site where the midden is deepest, the historic or modern disturbances involve nearly the upper half of the deposit. Extensive disturbance by small burrowing animals is evident in the lower portion of the cultural deposit, as seen in the churned, mottled sediments along the midden-decomposed granite interface. While this latter type of disturbance is typical for foothills archaeological sites, the type of disturbance nonetheless tends to destroy the original provenience of the midden's macro-constituents.

### Macro-constituents

Macro-constituents identified in the sediments during the test excavations include waste materials from stone tool manufacture, animal bone fragments, charcoal and other cultural debris that can be seen without magnification.

The macro-constituents from RDO#1 include chipped stone debris (hard hammer percussion flakes from the interior of cores, cortical flakes and shatter), splinters of bone from large and small animals (rare), pea-size lumps of charcoal (occasional), an antler tine fragment, a Gunther Barbed projectile point of a gray chert material, mid-section fragments of projectile points of a white petrified wood, fire broken rock (occasional), mano (a smooth hand-held stone used in conjunction with a mortar) fragments apparently used as cooking stones, and historic and modern artifacts (rare).

### Summary

The integrity of the surface and upper 40 centimeters of this site has been severely compromised by historic and modern ground-disturbing activities. At the base of the cultural deposit, which varies between 90 centimeters and 105 centimeters at the site's deepest points, a great deal of disturbance is apparent where krotovena can be observed in the zone of mottled sediment between the overlying black midden and the underlying decomposed granite. Technically, the site's base is a Cr horizon, which is defined as a



layer of soft weathered bedrock between the soil or top sediment and the underlying unweathered bedrock.

Other than the bedrock mortars, cultural features were not identified at the site, either on the surface or as a result of the test excavations. Nearly all of the chipped stone debris appears to be the result of reducing local stream-worn cobbles probably by hard-hammer percussion methods. The rare presence of waste flakes from white petrified wood suggests occasional use of that particular toolstone from the volcanic scabland on the unnamed ridge immediately north of the archaeological site.

Small fragments of bone from both large and small animals were recovered from the excavations. Although several projectile points and fragments were recovered from the excavations, only one datable type, Gunther Barbed, was identified. Bone awl points were recovered. Mano fragments appear to reflect the stone-boiling process, rather than use as manos with milling stones, as each appears to have been fire-broken. Conspicuous by its absence was obsidian in any form, beads, abalone shell ornaments, decorated bone tubes, scrapers, retouched flakes and other similar chipped stone tools.

#### *Test Excavations at CA-PLA-1871 (RDO#2a)*

Upon first revisiting the site for his study, Ric Windmiller observed that in the previous study, several small sites were encompassed within a relatively large boundary. In addition, the observation was made that the area both inside and outside the boundary had been considerably disturbed by mining activity, water erosion from the creek in Miners Ravine, and, at least along the western edge of the site, by agriculture. Miners Ravine was placer mined during the Gold Rush and significant placer mining was conducted during the “second gold rush” of the 1930s, as dry land dredge tailings piles occur in the low lying terrain immediately west of the site. In addition, the consultant discovered a “pot hunter’s” box screen hidden in a nearby granite outcrop. Pot hunting may explain the large housepit like depression in the center of the midden on the knoll (now designated RDO#2a).

The consultant’s conclusion after initial inspection of the site, which was borne out by subsequent test excavations, was the identification of the following four separate sites: RDO#2a, a small midden on a knoll with bedrock mortars overlooking a falls in the granite boulder-choked Miners Ravine; RDO#2b, a small sandy “flat” with surface and buried artifacts sheltered by a high outcrop of granite; RDO#2c, an isolated cluster of two bedrock milling stations; and RDO#2d, an isolated boulder with a single bedrock mortar hole adjacent to site CA-PLA-1871.

On February 3, 2009, the following two data were established: one datum near the geographic center of the midden on the knoll (RDO#2a) and one datum next to the rock outcrop on the sandy flat (RDO#2b). Several transects radiating from the two data were laid out, along which shovel tests would be conducted at intervals to determine the depth and extent of cultural deposit.

In addition, two one meter by one meter excavation units were laid out at RDO#2a and a one meter by one meter excavation unit was laid out at RDO#2b. Dug by hand, also in 15 centimeter levels (unless cultural or natural stratigraphy is present), these larger excavations offer a means

of evaluating the nature of the cultural deposits. Every shovel full of sediment was sifted through 0.25-inch hardware cloth and the midden constituents were documented. Excavations at RDO#2a were conducted on February 19 and 20, 2009. Excavations at RDO#2b were completed on February 27, 2009.

### Extent of the Cultural Deposits

Six transects were laid out across the archaeological site. Recent rains resulting in wet sediments hampered accurate observations of sediment color expressed by comparison with the Munsell Soil Color Chart. Generally, the cultural deposit corresponds to a very dark gray to black friable midden, which suggests a late period of occupation. On the basis of surface evidence, the site size was estimated by the Genesis Society to be 70 meters long (north-south) and 100 meters wide (east-west) – the width encompassing what are now defined as sites RDO#2a, RDO#2b, RDO#2c, and RDO#2d.

Based on the shovel testing results and considering the evidence of previous disturbances – some from mining activities and possibly agriculture and pot hunting – the cultural deposits of RDO#2a are estimated to extend 55 meters in length (south of the east-west fence) and 45 meters east-west at the site's widest point.

The difference in site size estimated by the Genesis Society on the basis of surface observations and the extent of the cultural deposits reckoned through test excavations can be explained by historic mining and/or agricultural disturbances, extensive bioturbation, erosion and the repeated observation at such sites that stone tool debitage and other artifacts can occur on the surface far beyond the boundary of cultural deposits where they were originally deposited by the site's inhabitants.

### Depth and Nature of the Cultural Deposits

Although uneven in appearance, the size and shape of the on-site shallow depression suggested that of a housepit. If the depression was a housepit, the excavation would yield post-molds and a hard floor surface, or remnants thereof in view of extensive disturbance from small burrowing animals over the centuries.

The shovel test pits along transects radiating from the site's datum revealed a range of depth of black midden from 30 to 60 centimeters. Typically, the black midden graded into a dark grayish brown or dark yellowish brown sandy or clayey matrix to a decomposed granite base or Cr horizon from 45 to 70 centimeters below the surface.

The two side-by-side one meter by one meter units placed at the east edge of the saucer-shaped depression revealed a black friable midden to a depth of 15 centimeters on the west side of Unit 1 and a depth of 55 centimeters on the east side of Unit 2. The difference in depths is explained by the relatively high east rim of the depression on the east side of Unit 2, while the west side of Unit 1 was situated at the bottom of the depression. The site base was recognized by severely disturbed patches of decomposed granite surrounded by midden-filled krotovena. A sloping relatively hard surface was

encountered in the southeastern quarter of Unit 2, which could be interpreted as a sloping floor surface at the rim of the depression. However, post molds or other evidence that would support a conclusion that the relatively hard remnant surface was a floor remnant were not found. Similar surfaces were not encountered in any other location within the two excavation units.

Based on the find of a pot hunter's screen, and results from the shovel test pits and the two one meter by one meter excavation units, as well as observations of the site's surface, it is reasonable to conclude that some vandalism has occurred and that the site has seen extensive disturbance by small burrowing animals apparent from the mottled sediments along the midden- decomposed granite interface. While this latter type of disturbance is typical for foothill archaeological sites, this type of disturbance nonetheless tends to destroy the original provenience of the midden's macro-constituents.

#### Macro-constituents

The macro-constituents from RDO#2a include chipped stone debris (hard hammer percussion flakes from the interior of cores, cortical flakes and shatter), splinters of bone from large and small animals (rare), pea-size lumps of charcoal (occasional), a small Desert Side-notched projectile point, fire broken rock (occasional), mano fragments apparently used as cooking stones (rare) and historic and modern artifacts.

#### Summary

The integrity of the surface and near surface of the site has probably been impacted to a certain extent by vandalism. Clear evidence of bioturbation is seen at the interface between the black, friable midden and the underlying decomposed granite Cr horizon. A relatively large, shallow depression occupies the geographic center of this site, which occupies the apex of a small knoll. At the north side of the archaeological site lays a flat granite outcrop overlooking a waterfall in a boulder-choked reach of Miners Ravine. Excavations within the 12-meter-wide depression were inconclusive. The depression may represent a housepit or post occupation disturbances. At the base of the cultural deposit, which varies between 15 centimeters in the middle of the depression and 60 centimeters elsewhere, a great deal of disturbance is apparent where krotovena can be observed in the zone of mottled sediment between the overlying black midden and the underlying decomposed granite. Any evidence of a subsurface house floor or post molds may have been destroyed as a result of this bioturbation. This is a common and unfortunate natural effect found in foothill archaeological sites.

The bedrock mortars and the depression were the only cultural features identified at the site. Nearly all the chipped stone debris appears to be the result of reducing local stream-worn cobbles probably by hard-hammer percussion methods. The rare presence of waste flakes from white opalized wood suggests occasional use of petrified wood from the volcanic scabland on the unnamed ridge immediately north of the archaeological site.

Small fragments of bone from both large and small animals, as well as shell from fresh water bivalves, were recovered from the excavations. However, salt water shell was absent. A bone awl tip fragment was recovered. Mano fragments appear to reflect the stone-boiling process, rather than use as manos with milling stones, as each appears to have been fire-broken. A complete cobble pestle was recovered from the one meter by one meter excavation of Unit 2. The sole complete projectile point recovered from the excavations is a small Desert Side-Notched type fashioned from yellowish chalcedony.

#### *Test Excavations at Site RDO#2b*

The Genesis Society originally described this site as a feature of RDO#2. However, the cultural deposit at this “feature” is separate and located some distance from the midden of what is now designated RDO#2a. As the feature is deemed to have separate site status, for purposes of the Windmill study, the site has been redesignated with the field number RDO#2b.

The Genesis Society described the site as two “rock shelters” consisting of “[...] vertical outcrops ranging in height between one and four meters, with the overhanging lip forming a broad shelter in front of which is a relatively flat talus on which cultural material has accumulated.” Both features were revisited by Ric Windmill on February 3, 2009. The smaller of the two features is a relatively small granitic outcrop within a large cluster of outcrops on a north-facing hillslope. The outcrop in question has a large backdirt pile on the outcrop’s downhill side and an animal’s large burrow excavated under the outcrop’s rock face. Re-inspection and surface scrapes in the locality failed to yield any artifacts or what could be considered cultural deposits. This particular locality is likely part of the naturally-occurring landscape. However, due to the site’s proximity to nearby archaeological sites, the likelihood is high that chipped stone debitage may have been spotted earlier in and around the locality. Two separate boulders, each with a mortar hole are found nearby (designated as RDO#2c). However, surface inspection and scrapes around the mortars failed to yield any artifacts or evidence of a cultural deposit associated with the mortars.

The larger of the two “shelters” consists of a tight cluster of granitic boulders rising about three meters above the ground surface and a “flat” of very sandy loam stretching from the vertical face of the outcrops in a northwest direction. Here, a sparse scatter of chipped stone debitage was noted on the surface of the small flat. Surface scrapes failed to identify any cultural deposit on the southeast and southwest sides of the cluster of outcrops. A datum was established on the north side of the cluster of outcrops and three transects were laid out from the datum.

#### Extent of the Cultural Deposits

Recent rains resulted in wet sediments, the color of which was expressed by comparison with the Munsell Soil Color Chart. Generally, the cultural deposit corresponded to a dark brown sandy to clayey loam.

Tree roots were a common encounter during the excavations. Krotovena were not apparent. However, it is likely that extensive bioturbation has occurred in these very loose sediments. The mottled appearance of sediments between the artifact-bearing upper

deposit and the decomposed granite base is certainly a suggestion that bioturbation is an issue.

According to the Windmiller study, based on the shovel testing results, the cultural deposit measures 20 meters long (northeast-southwest) and 12 meters wide (northwest-southeast). The cultural deposit measures approximately 20 meters north-south and 12 meters east-west.

#### Depth and Nature of the Cultural Deposits

The southwest corner of the one meter by one meter excavation unit (Unit 1) was placed three meters north of the datum along the north-south baseline. The unit was placed near the east rim of a shallow 7.5-meter-diameter, saucer-shaped depression for the purpose of not only gaining information on the cultural deposit but also possibly identifying the nature of the depression itself.

The shovel test pits along transects radiating from the site's datum across the small flat yielded a sparse collection of artifacts occurring at depths up to 45 to 90 centimeters below the surface. Typically, the brown to dark brown sandy loam graded into a brown to dark yellowish brown mottled matrix in a transition to decomposed granite, which appeared at 92 centimeters in at least one of the tests.

The single one meter by one meter excavation unit was dug to a depth of 60 centimeters through numerous roots, which were not unexpected, as a small oak grows nearby within the same depression. The dark brown sandy loam removed from the excavation unit was undifferentiated level to level.

#### Macro-constituents

The macro-constituents from shovel tests along the transects at site RDO#2b can best be described as very sparse percussion flakes from a variety of stone, mainly basalt or quartzite-like materials to cherts. The cortical flakes appear to be from water-worn cobbles. A small fragment of turtle carapace was recovered from the testing. Small pea-sized pieces of charcoal were also noted sparsely scattered through the deposit.

Excavation of Unit 1 yielded a mano fragment, apparently fire-broken. Flakes and shatter from a variety of water-worn, fist-size and smaller cobbles were also recovered from the excavation. Small lumps of charcoal (rare) and fire broken rocks in addition to the mano fragment were also noted. A single, small projectile point of basalt was recovered from the 30 to 45 centimeters level in the excavation. The projectile point is best described as a side-notched point with convex base similar in some respects to Heizer's point type "SCa1" for the Central Valley's Early Horizon (Windmiller Pattern). The RDO#2b example weighs 2.25 grams, which seems light for a dart point – the technology of the time. Therefore, the projectile point may date to a later period after the bow and arrow were introduced to northern California.

## Summary

The very small size of this site, yet consisting of a relatively deep cultural deposit, may reflect prehistoric use as a temporary camp. Excavation in the shallow saucer-shaped depression did not yield any evidence to conclude that the depression represents the ruins of a dwelling or ceremonial structure. Placer mining in the locality provides an alternate explanation as a prospect pit. The description of the site as a “rock shelter” is a misnomer. The site is actually a small open site sheltered on the southeast by a high outcropping of granitic boulders. The site is neither an exogene or endogene cave. Rockshelters are usually one or the other. The very sandy nature of much of the cultural deposit suggests that sand was either transported to the site to build a flat “bench” of an area alongside Miners Ravine, or that flooding repeatedly deposited coarse sandy material at the site, although stratigraphic evidence of such episodes of deposition does not exist. However, the flattened nature of this bench appears almost artificial, as if the bench were man-made.

### *Test Excavations at CA-PLA-1873 (RDO#4)*

The Genesis Society described RDO#4 as a “prehistoric habitation area” consisting of bedrock mortars, petroglyphs, a surface lithic scatter and a subsurface component characterized by a dark brown-black “midden.” The site’s size was estimated at two meters north-south and three meters east-west.

Upon revisiting the site, Ric Windmiller observed that the resource consists of two granitic boulders with shallow mortar holes. The “petroglyphs” are in fact shallow mortar holes and not the “cupules” often found on “rain rocks” at open archaeological sites in the foothills or in limestone caves in the middle elevations of the Sierra Nevada’s western slopes. Midden was not observed at the site. Artifacts consisted of a few pieces of chipped stone mixed with modern glass and other refuse around the base of the two boulders.

### Extent of Cultural Deposits

Shovel test excavations conducted on February 20, 2008 were placed along two intersecting transects between the boulders and at the periphery of the boulders, as well as beyond the “site boundary” proposed by the previous study. The soil was relatively consistent in color and texture, varying only between a dark brown sandy loam and a dark yellowish brown clayey loam. Finding a few artifacts surrounding bedrock mortars is not uncommon. According to Ric Windmiller, the artifacts recovered from the disturbed brown loam undifferentiated from the surrounding open field do not constitute a cultural deposit.

### Depth and Nature of the Sediments

Shovel test excavations around the two granitic boulders yielded the following sparse mix of modern and Native American artifacts: eleven modern artifacts, including spent .22 caliber rifle cartridges, bottle glass, and a rusted beverage can bottom; and six pieces of

chipped stone debitage and one large core. The modern items were found mixed with the Native American artifacts to a depth of 45 centimeters below the surface. The provenience of these finds is not inconsistent with what one would find in the plow zone of an agricultural field or in an area disturbed by mining.

### Macro-constituents

The bottle glass and metal can fragments appear modern. The excavations also yielded several pea-size pieces of charcoal, as well as several percussion flakes, shatter and a fist-size core.

### Summary

This minor archaeological resource is an isolated bedrock milling feature. The presence of a minor amount of waste from chipped stone tool manufacture mixed with modern bottle glass and other modern artifacts in a matrix undifferentiated from the surrounding soils does not constitute a cultural deposit in this consultant's opinion.

### Revised Site Descriptions

As a result of the test excavations, the descriptions of the three archaeological sites revisited with the Windmill study have changed significantly. The revised site descriptions are discussed below.

#### *CA-PLA-1870 (RDO#1)*

The previous study described RDO#1 as a prehistoric habitation site consisting of a group of 27 bedrock mortars on nine separate granite boulders, a surface scatter of chipped stone debitage and an underlying midden deposit. The site's size was estimated to be 120 meters long (north-south) and 45 meters wide (east-west), and the density of chipped stone debitage on the surface was estimated to vary between one and five items per square meter.

Archaeological test excavations corroborated the Genesis Society's conclusion of an underlying midden (very dark gray to black friable sediment). The excavations yielded split animal bone, shell and some charcoal in addition to formed artifacts such as mano and projectile point fragments, bone awl tips, chipped stone debitage and expended cores. The excavations also yielded historic and modern artifacts including square nails, fragments of a porcelain lined wash tray or sink and modern bottle glass fragments. The surface of the archaeological site showed considerable disturbance, quite possibly from cultivation. Historic and modern artifacts were recovered from depths up to 40cm. In the deepest portion of the midden (90 to 105 centimeters below the surface), bioturbation was most noticeable with the mottled appearance of midden mixed with decomposed granite from the site's base.

As a result of the excavations, the site's size was revised to an area of 80 meters north-south and 41 meters east-west at the site's widest point. While surface artifacts beyond this area were noted by the previous study, the likelihood is high that the artifacts were spread around by cultivation

or other disturbances that left behind the irregularities in the present-day surface of the archaeological site.

*CA-PLA-1871 (RDO#2a)*

The previous study described RDO#2a as a prehistoric habitation area encompassing an area 70 meters north-south and 100 meters east-west. Subsequent archaeological test excavations redefined the site as several distinct and separate archaeological resources. For management purposes, these distinct resources are described below, separately. The first of these resources described in the previous study retains the trinomial “CA-PLA-1871.” However, this site’s field number is changed from RDO#2 to RDO#2a to logically separate this site from three others, all of which were originally identified as one archaeological site.

The site now designated as RDO#2a was described in the previous study as bedrock mortars, a surface lithic scatter, and a subsurface midden. Archaeological test excavations at RDO#2a defined a boundary for the midden within an area of 55 meters north-south and 45 meters east-west. The excavations yielded some fresh water clam shell, split animal bone fragments, bone awl tips, a variety of chipped stone debitage, a Desert Side-Notched projectile point, fire-broken rock including mano fragments and charcoal. The site’s depth varied from 15 to 60 centimeters. Below these depths, mottled midden and decomposed granite was often encountered as a transition between the black midden and the decomposed granite site base.

At the apex of the knoll on which the site is located is a roughly circular depression approximately 12 meters in diameter. A pot hunter’s box screen was found wedged in rocks nearby. The initial impression of the depression was that of a disturbed housepit. The limited test excavations could not confirm this speculation.

*Site RDO#2b*

The previous study described RDO#2b as an overhanging rock shelter with a flat “talus” on which cultural material has accumulated. As a result of test excavations into the “talus,” Ric Windmiller discovered a sparse distribution of chipped stone debitage and small pea-size pieces of charcoal scattered through 90 centimeters of very sandy brown loam. The extent of this deposit can be described as an arc-shaped flat on the northwest side of a dense cluster of high granitic boulders.

A shallow depression approximately 7.5 meters in diameter lies on the northeast side of the small flat. However, excavation of a one meter by one meter unit within the depression failed to identify any floor or other feature that would assist in an interpretation. Ditch remnants and prospect pits from mining occur in the vicinity. RDO#2b measures approximately 20 meters northeast-southwest and 12 meters northwest-southeast.



*Site RDO#2c*

RDO#2c consists of two granitic boulders with one eroded mortar hole each within a larger cluster of boulders on the north-facing slope above (south) of RDO#2b. Surface inspection and scrapes of the ground surface failed to identify any cultural deposit around the bedrock mortars.

*Site RDO#2d*

RDO#2d consists of a large granitic boulder located near the southwest side of RDO#2a. This large boulder has a single deep and eroded mortar hole at its apex. Shovel test excavations extended southwest from site RDO#2a did not yield any midden deposit around the boulder. However, in a shovel test pit between the boulder and the nearby archaeological site, chipped stone debitage was recovered in non-midden soil. The likelihood is high that such buried artifacts are the result of slope wash from the knoll on which RDO#2a rests.

*Site RDO#4*

RDO#4 was described in the previous study as a “prehistoric habitation area” consisting of bedrock mortars, petroglyphs, a surface lithic scatter and a subsurface component characterized by a dark brown-black “midden.” Test excavations at the site revealed sparse chipped stone debitage and a core mixed with a greater number of modern artifacts including bottle glass, spent .22 caliber rifle cartridges, and rusted iron fragments. A revised description of the site as an isolated bedrock milling feature is more appropriate. The “cupules” identified in the previous study are not similar to cupules found on “rain rocks” associated with open village sites along the Sierra Foothills, nor are they similar to cupules found in rock shelters and caves used by native people in the higher elevations of the Sierra Nevada’s western slope. However, the “cupules” do fit the description of shallow mortar holes that are ubiquitous in the foothills of Placer County.

Evaluation of the Archaeological Sites

Based on surface observations, the Genesis Society described CA-PLA-1870 as a prehistoric habitation site consisting of a group of 27 bedrock mortars on nine separate granite boulders, a surface scatter of chipped stone debitage and an underlying midden deposit. Jensen estimated the site’s size as 120 meters long (north-south) and 45 meters wide (east-west). However, results of the test excavations indicated that the cultural deposit was encompassed by a smaller area – 80 meters north-south and 41 meters east-west at the site’s widest point. The north-south measurement was taken from an east-west fence line to the south boundary of the site. The cultural deposit was found to vary between 30cm and an average maximum depth of 90 centimeters. The excavations yielded artifacts indicative of a small prehistoric encampment eligible for the CRHR and the NRHP for the site’s potential to yield information important in reconstructing local prehistory. However, due to evidence of disturbances across the site, the information potential appears limited.

On the basis of surface evidence, Jensen estimated the size of RDO #2 as 70 meters long (north-south) and 100 meters wide (east-west) – the width encompassing what the present consultant subsequently identified as the following four separate sites: RDO #2a, RDO #2b, RDO #2c, and

RDO #2d. Therefore, RDO#2a was redefined as a relatively small cultural deposit and bedrock mortars located on a hilltop. Results of the test excavations indicated that the cultural deposits of RDO #2a extend 55 meters in length (south from the east-west fence) and 45 meters east-west at the site's widest point. The depth of RDO#2a ranges from 15 centimeters to an average maximum depth of 60 centimeters. At the apex of the hill near the geographic center of the site is an approximately 12-meter-diameter depression. Evidence of former vandalism exists at the site, which could explain the depression. The excavations yielded artifacts indicative of a small prehistoric or proto-historic encampment eligible for the CRHR and the NRHP for the site's potential to yield information important in reconstructing local pre- or proto-history. Due to disturbances across the site, the information potential appears limited.

Site RDO#2b is one of the four separate sites encompassed by the previous study's boundary for RDO#2. RDO#2b was described in the previous study as a vertical outcrop of granitic boulders with an overhanging lip forming a broad shelter, in front of which is a relatively flat talus where cultural material has accumulated. As a result of subsequent test excavations, Ric Windmiller identified the site as a cultural deposit with a maximum depth varying between 45 and 90 centimeters in sandy sediment. RDO#2b was found to extend 20 meters northeast-southwest and 12 meters northwest-southeast. A shallow depression on the flat in front of the rock "shelter" measures 7.5 meters in diameter. A test excavation within the depression failed to identify any features indicative of a house pit. Other pits along Miners Ravine are identified as mine prospects. This may be one of the prospects. Artifacts recovered from the excavations indicate that the site may represent a very small prehistoric encampment eligible for the CRHR and the NRHP for the site's potential to yield information important in reconstruction local prehistory.

Sites RDO#2c, RDO#2d, and RDO#4 are isolated bedrock milling stations. RDO#2c and RDO#2d were located within the previous study's original boundary for RDO #2. Soil scrapes around RDO#2c did not yield any evidence of a cultural deposit. Test excavations around RDO#2d and RDO #4 yielded a few stone artifacts mixed with modern debris including clay pigeon fragments, .22 caliber cartridge cases, and rusted can fragments. The soil color and texture around all three bedrock milling features is undifferentiated from the surrounding soil. According to the Windmiller study, none of the three bedrock milling features is eligible for the CRHR or the NRHP.

Because three of the Native American archaeological sites meet the criteria for eligibility for the CRHR and the NRHP (RDO#1, RDO #2a, and RDO#2b), the proposed project could have an adverse effect on those archaeological resources.

Federal and CEQA guidelines and advisories suggest a number of options for the treatment of archaeological sites eligible for one or both registers. The preferred treatment is preserving such sites intact. This can be accomplished by planning construction to avoid the sites, incorporating the sites within parks, greenspace or other open space, covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar hardscape on the sites, or deeding sites into permanent conservation easements. These are just a few suggestions. If the lots are large enough, it may be possible to place a deed restriction on the lot so that the affected archaeological site is capped with soil and planted in grass or other

hardscape. Data recovery, which involves intensive archaeological excavation of a site, may be required for that portion of a site that cannot be avoided by construction.

An evaluation of the significance of cultural resources located within the project boundaries and potential impacts to the cultural resources are summarized in Table 6-1.

<b>Table 6-1 Evaluation of Significance and Potential Impacts to Cultural Resources on the Rancho Del Oro Project Site</b>						
<b>Site Number</b>	<b>Site Description</b>	<b>Significance</b>		<b>Potential Impacts</b>		
		<b>Yes</b>	<b>No</b>	<b>None</b>	<b>Indirect</b>	<b>Direct</b>
CA-PLA-197	Isolated Bedrock Milling Station		X	X		
CA-PLA-1870 (RDO#1)	Prehistoric Camp Site	X			X	X
CA-PLA-1871 (RDO#2a)	Prehistoric Camp Site	X			X	X
RDO#2b	Prehistoric Camp Site	X			X	X
RDO#2c	Isolated Bedrock Milling Station		X	X		
RDO#2d	Isolated Bedrock Milling Station		X	X		
RDO#3	Isolated Bedrock Milling Station		X	X		
CA-PLA-1873 (RDO#4)	Isolated Bedrock Milling Station		X	X		
RDO#5	Ditch Segment		X	X		

*Source: Ric Windmiller, R.P.A., Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871, and CA-PLA-1873, Rancho Del Oro Development, March 2009.*

Entries in the table under “Significance” indicate whether or not a specific archaeological site is eligible for the CRHR or qualifies as a “Unique Archaeological Resource.” “Potential Impact” indicates that for any specific archaeological site, there are not any potential impacts (e.g., the cultural resource is not significant), or there is a potential impact and the impact is either indirect, direct, or both indirect and direct.

If the potential impact is indirect, the cultural resource is located in open space and would not be directly impacted by construction, but the resource could experience an increased probability of vandalism. If the potential impact is direct, the cultural resource is located in an area of planned construction. If the potential impact is both indirect and direct, the cultural resource is located partly in an area of planned construction and partly within open space.

### **Paleontological Setting**

According to the *PCGP EIR*, the sedimentary rocks and volcanic rock sedimentary materials that are present throughout the County could contain fossil remains of prehistoric animal and plant life. Fossilized animal remains could be present in caves associated with the limestone geology

that is found in the Sierra Nevada foothills. In addition, fossils of terrestrial vertebrates have been found in sediments associated with the Mehrten Formation in the Roseville area. Other information sources that characterize the significance or extent of paleontological resources do not currently exist.

## 6.2 REGULATORY SETTING

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Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA) are the basic federal and State laws governing preservation of historic and archaeological resources of national, regional, State, and local significance.

### Federal

One purpose of the Windmill study that was prepared for the project site is to provide the “evaluation” element of a National Historic Preservation Act (NHPA) Section 106 consultation. The information provided by the study is designed to assist the U.S. Army Corps of Engineers (USACE) in meeting the USACE’s responsibilities under Section 106 of the NHPA, as amended. A Section 106 consultation is a federal review, separate from any environmental or planning reviews required by State and local laws and ordinances. The purpose of Section 106 is to avoid unnecessary harm to historic properties, which include any NHRP-listed or eligible prehistoric or historic objects, sites, buildings, structures, or districts (National Park Service 1991: Appendix IV-2). Under federal regulations at 36 CFR Part 800, effective January 11, 2001, the basic steps in a Section 106 review include the following:

- **Initiating the Section 106 Process** – This step was added in 1999 to encourage early consideration of the potential effects of the federal permitting or other action, to coordinate with other reviews, to identify consulting parties such as the State Historic Preservation Officer and Federally recognized Indian tribes, and to make plans for other public involvement.
- **Identifying Historic Properties** – The federal agency is responsible for defining the Area or Areas of Potential Effects; also included in this step is the identification of cultural resources, evaluating the eligibility of those resources for the NRHP, including sites to which Indian tribes attach religious and cultural significance, determining the eligibility of those resources for the NRHP and determining whether or not historic properties will be affected.
- **Assessing Adverse Effects** – The federal agency must consider both direct and indirect effects, reasonably foreseeable effects that are cumulative, later in time or at a distance, and with respect to all qualifying characteristics of a historic property (e.g., if an archaeological site is important for its scientific information potential and for its cultural or religious importance to an Indian tribe, then the adverse effects on both must be considered).

- **Resolving Adverse Effects** – The process of negotiating a Memorandum of Agreement (MOA) between the consulting parties was streamlined in 1999 and now may involve only the federal agency and the State Historic Preservation Officer as signatories. However, the recommendation is made that the federal agency should invite federally-recognized Indian tribes that attach religious and cultural significance to properties off tribal lands to concur with the findings in the MOA.

Under federal regulations, where there is a federal undertaking on non-federal land (e.g., issue of a permit), a consultant may gather information necessary for the federal agency to meet its responsibilities under Section 106, but the agency official remains legally responsible for all required findings and determinations [36 CFR Part 800.2(a)(3)]. In accordance with 36 CFR Part 800.2(c)(ii)(A), (B) and (C), the agency official has the responsibility to make a reasonable and good faith effort to identify Indian tribes that shall be consulted in the Section 106 process. The federal government has a unique legal relationship with Indian tribes set forth in the Constitution of the United States, treaties, statutes and court decisions, and, therefore, consultations must recognize this government-to-government relationship.

## State

The California Environmental Quality Act (CEQA) statutes (Public Resources Code §21001[b] *et seq.*) require planning agencies to carefully consider the potential effects of a project on historical resources. Under the revised and adopted CEQA Guidelines in Section 15064.5, a “historical resource” includes: a resource listed in or eligible for the CRHR; or listed in a local register of historical resources; or identified in a historical resource survey and meeting requirements in Section 5024.1(g) of the Public Resources Code; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines historically significant, provided the determination is supported by substantial evidence in light of the whole record; or a resource so determined by a lead agency as defined in Public Resources Code Section 5020.1(j) or Section 5024.1.

Under the CEQA Guidelines, “A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (Public Resources Code Section 15064.5[b]). “Substantial adverse change” is “[...] physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (Public Resources Code Section 15064.5[b][2]).

While alteration of the setting of an archaeological site that is eligible only for its information potential may not affect the site's significant characteristics, alteration of a property's location (e.g., removing or damaging all or part of the site) may have a significant adverse effect. The CEQA Guidelines Section 15126.4(b)(3) state, “Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature.” The guidelines further state that preservation in place is the preferred manner of mitigating impacts, and that preservation “[...] may be accomplished by, but is not limited to, the following”:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within parks, greenspace, or other open space;
3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site; or
4. Deeding the site into a permanent conservation easement.

The CEQA Guidelines state, “[...] when data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken” (CEQA Guidelines Section 15126.4[b][3][C]). However, “[...] data recovery shall not be required for a historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource [...]” (CEQA Guidelines Section 15126.4[b][3][D]).

In addition, CEQA requires agencies to consider the effects of a project on “[...] unique archaeological resources.” If an archaeological site meets the definition of a unique archaeological resource (Public Resources Code Section 21083.2), then the site must be treated in accordance with the special provisions for such resources, which include time and cost limitations for implementing mitigation.

California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains (Health and Safety Code Section 7050.5, Public Resources Code Section 5097.94 *et seq*).

## **Local**

### Granite Bay Community Plan

The Granite Bay Community Plan identifies the following goals and policies to provide protection to cultural and historical resources:

#### *Cultural Resources Element*

- |          |  |
|----------|--|
| Goal 1   | Preserve and enhance all significant historic archaeological sites and features.                                   |
| Policy 1 | Identify and protect from destruction and abuse all representative and unique historical and archaeological sites. |
| Policy 2 | Encourage and promote legislation for the protection of notable historical sites and artifacts.                    |

## 6.3 IMPACTS AND MITIGATION MEASURES

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### Standards of Significance

Pursuant to the PCGP, cultural and historical resources impacts may be considered significant if the proposed project would result in one or more of the following:

- Substantially cause adverse change in the significance of a historical resource as defined in the CEQA Guidelines Section 15064.5;
- Substantially cause adverse change in the significance of a unique archaeological resource pursuant to the CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Have the potential to cause a physical change, which would affect unique ethnic cultural values;
- Restrict existing religious or sacred uses within the potential impact area; or
- Disturb any human remains, including those interred outside of formal cemeteries.

In addition, sites identified within the project area have been evaluated for significance in relation to CEQA significance criteria and eligibility per the NRHP. Historical resources per CEQA are defined as buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA requires that, if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed. Therefore, before developing mitigation measures, the significance of cultural resources must be determined in relation to criteria presented in the CEQA Guidelines Section 15064.5, which defines a historically significant resource (one eligible for listing in the CRHR, per PRC Section 5024.1) as an archaeological site that possesses one or more of the following attributes or qualities:

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

The CEQA Guidelines further distinguish between archaeological sites that meet the definition of a significant historical resource as described above (for the purpose of determining effects), and “unique archaeological resources.” An archaeological resource is considered “unique” (Section 21083.2[g]) when the resource not merely adds to the current body of knowledge, but also when a high probability exists that the resource:

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

With respect to the NRHP, important cultural resources are those prehistoric and historic sites, districts, buildings, structures, and objects, as well as properties with traditional religious or cultural importance to Native Americans, which are listed, or are eligible for listing, on the NRHP (“historic properties”), according to the criteria outlined in 36 CFR 60.4. An historic property must possess essential integrity of location, design, workmanship, feeling, and association, and meet at least one of the following criteria:

- Be associated with events which have made significant contributions to the broad patterns of the history of the United States;
- Be associated with the lives of people significant in United States history;
- Embody the distinctive characteristics of a type, period, or method of construction; or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- Has yielded, or is likely to yield, information important in prehistory or history.

With the amended CEQA Guidelines, CEQA and the NRHP criteria are quite similar in their consideration of qualities and attributes of archaeological and historical sites that might render them significant or eligible. For the purposes of this analysis, the criteria for both CEQA and the NRHP are combined in assessing the significance eligibility of the five recorded sites within the project area.

### **Method of Analysis**

Determinations of impacts to cultural resources were based on information from the *Archaeological Inventory Survey* prepared by the Genesis Society, the *Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871, and CA-PLA-1873, Rancho Del Oro Development* prepared by Ric Windmiller, R.P.A., and the *PCGP EIR*.

As stated earlier, impacts identified as *potentially significant* within the Initial Study are addressed below. All other impacts related to the Standards of Significance listed above have previously been addressed in the Initial Study and have been identified as having *no impact*, a *less-than-significant* impact, or include mitigation measures to reduce the proposed project’s potential for an adverse impact to a *less-than-significant* level.

### Archaeological Inventory Survey

All of the project area was subjected to pedestrian survey, accomplished by walking back and forth across the property with transect spacing ranging from approximately three to six foot



intervals within the highest sensitivity areas (along stream courses, associated ridges, and saddles) and seven to nine foot intervals within the lower sensitivity areas (lands away from steam courses, ridges, saddles). In searching for cultural resources, the surveyors took into account the results of background research and were alert for any unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants, and other possible markers of cultural sites. Fieldwork was undertaken between March 25 and April 4, 2006 by the Genesis Society.

In addition, several information sources were considered relevant to evaluating the types of sites and site distribution that might be encountered within the project area. The information evaluated includes data maintained by the North Central Information Center of the California Historical Resources Information System (at California State University, Sacramento), consultation with Native American representatives and the Native American Heritage Commission (NAHC), and published and unpublished documents relevant to regional environment, prehistory, ethnography, and early historic developments.

#### *North Central Information Center Records*

The records of the North Central Information Center (CSU-Sacramento) were examined for existing recorded prehistoric and historic sites and previous archaeological surveys within or near the project area with the following results.

#### *Previous Surveys*

In 1976, a survey was conducted along both banks of Miners Ravine involving the entire length of the project site's northern boundary. One prehistoric bedrock mortar site (CA-PLA-I 97) was recorded within the northwestern portion of the subject property as a result of this survey. In addition, in 1980 a survey was conducted for the Placer County wastewater project involving a linear corridor parallel to the north side of the project site's southern boundary. Cultural or historical resources were not identified during this survey. Furthermore, in 1990, a survey of approximately 10 acres adjacent to the project site's southeast corner was conducted. According to the survey coverage map, this investigation did not overlap with the present project site, and cultural or historical resources were not identified within the study area or within the project site during this survey.

#### *Other Sources*

In addition to examining records at the North Central Information Center at CSU-Sacramento, the following sources were reviewed by the Information Center, or separately:

- The National Register of Historic Places (1986, Supplements to 12/05);
- The California Register of Historical Resources;
- The California Inventory of Historic Resources (State of California 1976);
- The California Historical Landmarks (State of California 1996);
- The California Points of Historical Interest (May 1992 and updates);

- The Historic Property Data File (OHP 10102);
- The Survey of Surveys (1989);
- GLO Plat, T11N, R7E, April 18, 1856;
- USGS, Sacramento, 1887-1888; and
- Published and unpublished documents relevant to environment, ethnography, prehistory and early historic developments in the vicinity, providing context for assessing site types and distribution patterns for the project area.

### Evaluation of Archaeological Sites

Based on the Genesis Society's conclusion that three of the sites RDO#1 (CA-PLA-1870), RDO#2 (CA-PLA-1871) and RDO#4 (CA-PLA-1873) were potentially significant under both State and federal criteria of importance, the recommendation was made that archaeological test excavations be performed at each of the three sites to assess more fully the eligibility of each for the CRHR and the NRHP.

Pursuant to this recommendation, Ric Windmiller revisited the three archaeological sites on January 15 and February 12, 2009. During the visits, Ric Windmiller observed that cultural deposits at each of the three sites may occupy less ground than originally estimated by the previous study. In addition, irregularities on the ground surface were noted at and around the three sites, which could indicate the presence of subsurface features or post-occupational disturbances associated with mining, farming or other ground-disturbing activities. To address these observations, a field team excavated test units to help determine the nature and significance of the archaeological deposits and series of shovel tests along transects across the archaeological sites to determine the depth and areal extent of cultural deposits.

The purpose of the *Evaluation of Archaeological Sites* is to complete the process of identifying the three archaeological sites by determining the extent and nature of their cultural deposits and re-evaluate their eligibility for the CRHR and the NRHP.

### Research Domains

The following are the three basic aims of archaeological research: identifying the time period(s) during which an archaeological site was used or occupied; understanding the ways in which people once lived; and explaining the social events or trends, as well as the cultural and natural processes that account for archaeological remains.

The following three research domains believed to be relevant to evaluating the significance of the three archaeological sites on the proposed project site were outlined in the Genesis Society study: Site Function (determine the potential of each of the three sites to yield information important in reconstructing the activities that took place on the sites, as well as relationships with other sites nearby); Temporal Patterns (determine the potential to yield information on the time periods and duration of occupation at each of the three sites); and Settlement, Land Use, and Subsistence Patterns (determine the potential of each of the three sites to yield information on

the nature and intensity of occupation to contribute significantly to our understanding of the settlement pattern in the local region).

“Research domains” were described years ago by Schiffer and Gumerman as an “incipient research design” commonly used by archaeologists during the early stages of research. In 1994, Far Western Anthropological Research Group, Inc., Helen McCarthy, Ph.D., Cultural Resource Research & Consulting and JRP Historical Consulting Services produced a research design for prehistoric and other sites at nearby Folsom Reservoir. This study has served successfully as a regional research design for the greater Folsom-Granite Bay area. In that study, the archaeologists included the following five meaningful research domains: chronology; settlement patterning; subsistence and technology; trade; and ethnicity/group boundaries. To maintain continuity, the research domains used in the Folsom Reservoir study were applied in the Windmill study.

#### *Chronology*

To address the chronology research domain, each archaeological site is evaluated with respect to the site’s potential to date the period of occupation or use of the site. The evaluation is based on the presence and nature of the contexts of datable objects including obsidian tools and debris from manufacturing obsidian tools, charcoal, ash or carbonized plant and animal remains, or time-sensitive artifacts such as certain projectile point styles, beads, ornaments or historic items.

#### *Subsistence/Technology*

To evaluate each archaeological site with respect to this research domain, emphasis is placed on the presence or absence of various types of artifacts that help identify particular adaptations to the local environment and ratios between raw materials.

#### *Trade*

The presence of obsidian, marine shell and possibly basalt that can be analyzed as to its source would suggest trade or other connections with peoples outside the local region.

#### *Settlement Patterning*

The identification of a particular type of site, the site’s period of occupation or use, and the site’s location can be significant in reconstructing the pattern of settlement in a particular locality or region during a specific period of time.

#### *Ethnicity/Boundaries*

The presence in a site of specific artifact types, obsidian source ratios, and even DNA from human remains can be significant in determining an association or disparity with other archaeological sites and therefore a key to reconstructing boundaries between prehistoric Indian groups.

## NAHC Consultation

In conjunction with the records search for the present project, the following Native American representatives and organizations were contacted and asked to supply any specific information they might have concerning archaeological sites or features, or areas in which traditional activities might be ongoing or in which sacred land listings are present:

- Rose Enos, Auburn, California;
- Shingle Springs Band of Miwok, Shingle Springs, California;
- United Auburn Indian Community, Rocklin California; and
- Todd Valley Miwok-Maidu, Foresthill, California.

The NAHC indicated that Sacred Land listings for the project area or adjacent lands do not exist. In addition, to date, responses have not been received from any of the other Native American representatives or organizations that were contacted.

## **Project-Specific Impacts and Mitigation Measures**

**6-1 Implementation of the proposed project may directly impact a portion of archaeological site CA-PLA-1870 (RDO#1) by road construction, grading and trenching, and may directly impact a portion of archaeological site CA-PLA-1871 (RDO#2a) by grading and trenching.**

### Site RDO#1

The relatively small size of this archaeological site, the friable midden, the presence of bedrock mortars, apparent reuse of manos or handstones in the stone boiling process, Gunther-barbed projectile points, and fragments of other relatively small projectile points indicate occupation of this archaeological site during a relatively late period in local prehistory. The presence of charcoal and a recognizable projectile point style indicate that the site has the potential to yield information important to addressing the chronology research domain.

The presence of animal bone, shell and chipped stone debitage from various rocks, as well as bedrock mortars, projectile points and bone awl fragments indicate that the site has the potential to yield information on subsistence and technology.

However, all of the macro-constituents recovered from the test excavations reflect what was locally available. Obsidian, Pacific Ocean shells, or other materials from apparent non-local sources were not identified as a result of the excavations. Therefore, it cannot be asserted with assurance that the site could yield information important in reconstructing trade with groups outside the local region.

The identification of a particular type of site, its period of occupation or use and its location is important to understanding the Native American settlement pattern during any

particular period in prehistory or history. Results of the test excavations indicate that the site has the potential to yield information as to what activities were carried out there and during which particular time period(s). Therefore, the site has the potential to yield information important to understanding settlement patterns.

The presence in a site of specific artifact types, obsidian source ratios and even DNA from human remains can be significant in determining an association or disparity with other archaeological sites and therefore a key to reconstructing boundaries between prehistoric Indian groups. While this particular site has yielded specific artifact types, the site has not yielded obsidian or evidence of human remains. Therefore, the site would likely not play a key role in future research with respect to reconstructing ethnic boundaries.

From a perspective of integrity, it is apparent from the excavations that disturbances obvious on the ground surface extend to at least 40cm below the surface, which is nearly half of the archaeological site's depth at its deepest point. Severe bioturbation is only evident at the site's base, because the black midden stands in obvious contrast to the yellowish brown decomposed granite Cr horizon (weathered felsic igneous and metamorphic rock, primarily granite and granite gneiss). It is not unreasonable to assume that extensive bioturbation (the restructuring of sedimentary deposits by moving organisms) is present throughout the black midden, although not readily visible due to the uniformity in color and texture of the midden. The iron sink fragments, square nails and modern bottle glass all appear intrusive at this Native American site of an earlier age.

The results of the test excavations show that the site can yield information relevant to the chronology, subsistence/technology, settlement patterning and perhaps ethnicity/boundaries research domains. However, integrity of the archaeological site has been severely compromised by historic and modern ground disturbance, as well as by small burrowing animals. According to the Windmiller study, with these considerations in mind, the site would still be eligible for the CRHR under Criterion 4 and the NRHP under Criterion D for its information potential—even though that potential is limited.

Under NRHP Criterion A (CRHR Criterion 1), the site would have to be associated with one or more events important in the defined historic context. However, this particular site would not be eligible under Criterion A/Criterion 1, as any associations are still speculative.

Under NRHP Criterion B (CRHR Criterion 2), the archaeological site would have to be associated with individual(s) whose specific contributions to history can be identified and documented; such is not the case with CA-PLA-1870.

Under NRHP Criterion C (CRHR Criterion 3), the site would need to be significant for its physical design or planning. Prehistoric sites would have to illustrate important concepts in community design and planning. Because of the disturbed nature of this particular site, as well as the low likelihood that the site has intact house floors or other structural

elements in the site's cultural deposits, the site's eligibility under Criterion C/Criterion 3 is precluded.

#### Site RDO#2a

The relatively small size of this archaeological site, the friable midden, the presence of bedrock mortars, apparent reuse of manos or handstones in the stone boiling process, Desert Side-Notched projectile point and a possible housepit suggest a relatively late period of occupation (post- A.D. 1200) for this archaeological site. The presence of charcoal and a recognizable projectile point style indicate that the site has the potential to yield information important to addressing the chronology research domain.

The presence of animal bone, chipped stone debitage from various rocks, as well as bedrock mortars, projectile points and bone awl fragment indicate that the site has the potential to yield information on subsistence and technology.

However, all of the macro-constituents recovered from the test excavations reflect what was locally available. Obsidian, Pacific Ocean shells, or other materials from apparent non-local sources were not identified as a result of the excavations. Therefore, it cannot be asserted with assurance that the site could yield information important in reconstructing trade with groups outside the local region.

Results of the test excavations indicate that the site has the potential to yield information as to what activities were carried out there and during which particular time period(s). Therefore, the site has the potential to yield information important to understanding settlement patterns. While this particular site has yielded specific artifact types, the site has not yielded obsidian or evidence of human remains. Therefore, the site would likely not play a key role in future research with respect to reconstructing ethnic boundaries.

From a perspective of integrity, severe bioturbation is only evident at the site's base, because the black midden stands in obvious contrast to the yellowish brown decomposed granite Cr horizon. It is not unreasonable to assume that extensive bioturbation is present throughout the black midden, although not readily visible due to the uniformity in color and texture of the midden. Baling wire and .22 caliber cartridge casings are probably intrusive items left at the site after its abandonment.

The results of the test excavations show that the site can yield information relevant to the chronology, subsistence/technology, settlement patterning and perhaps ethnicity/boundaries research domains. Integrity of the archaeological site has been compromised by small burrowing animals. Nonetheless, according to the cultural resources consultant, the site is eligible for the CRHR under Criterion 4 and the NRHP under Criterion D for its information potential, although the potential is limited.

Under NRHP Criterion A (CRHR Criterion 1), the site would have to be associated with one or more events important in the defined historic context. However, this particular site

would not be eligible under Criterion A/Criterion 1, as any associations are still speculative.

Under NRHP Criterion B (CRHR Criterion 2), the archaeological site would have to be associated with individual(s) whose specific contributions to history can be identified and documented; such is not the case with CA-PLA-1871.

Under NRHP Criterion C (CRHR Criterion 3), the site would need to be significant for the site's physical design or planning. Prehistoric sites would have to illustrate important concepts in community design and planning. The only potential design elements in addition to the bedrock mortars would be the presence of a housepit. However, the test excavations uncovered evidence of extensive disturbances from burrowing small animals, which appears to have destroyed subsurface evidence of a house floor. The likelihood is low that the site would be eligible under Criterion C/Criterion 3; however, if the site were eligible under Criterion C/Criterion 3, the project's impacts would be significant.

### Conclusion

Implementation of the proposed project would directly impact a portion of sites RDO#1 and RDO#2a due to road construction, grading, and trenching. Therefore the project's impact would be ***potentially significant***.

### Mitigation Measure(s)

Implementation of Mitigation Measure 6-1 (in conjunction with Mitigation Measure 6-2) would reduce direct impacts to a *less-than-significant* level.

- 6-1 *If any portion of archaeological site CA-PLA-1870 (RDO#1) and/or CA-PLA-1871 (RDO#2a) will be directly impacted by grading and trenching, and avoidance is not feasible, then a data recovery plan shall be prepared for each affected site by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric archaeology. Each data recovery plan must consider the results and recommendations in the Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871 & CA-PLA-1873, Rancho Del Oro Development, Placer County, California, which was prepared for the project in March 2009. Each data recovery plan shall be adopted by the County and all proposed field work outlined in the plan, including changes in field work strategy deemed necessary by the archaeologist due to the changing nature of discoveries, must be completed prior to any ground-disturbing activity within 25 feet of each respective archaeological site. Analysis of the finds and preparation of a final data recovery technical report for each site must meet current professional standards.*

**6-2 Implementation of the proposed project may directly impact archaeological site RDO#2b by ground-disturbing activity.**

This small archaeological deposit on the northwest side of a large outcrop of granite boulders was described in the Genesis Society study as a “talus” at a rockshelter. The outcrop, although approximately three meters high, would provide a sheltered area only from southeast windy weather. Shovel testing along three transects and a one meter by one meter excavation yielded chipped stone debris, a few small pieces of charcoal, a mano fragment, and a small basalt projectile point. The artifacts appear scattered through a non-midden, coarse sandy matrix to a depth of 90 centimeters below the surface.

A roughly circular depression, approximately 7.5 meters in diameter, was noted prior to the test excavations. The one meter by one meter excavation unit was placed within this depression. However, evidence of post molds or floor surface was not detected during the excavation. The possibility exists that the depression may be related to Gold Rush and later placer mining along the ravine, as other depressions of differing sizes and depths occur within the area of mining.

The small basalt projectile point with its side notches and convex base is reminiscent of styles that pre-date A.D. 1200. The presence of charcoal and a recognizable projectile point style indicate that the site has the potential to yield information important to addressing the chronology research domain.

The presence of a turtle carapace, chipped stone debitage from various rocks, and a projectile point indicate that the site has the potential to yield information on subsistence and technology.

However, all of the macro-constituents recovered from the test excavations reflect what was locally available. Obsidian, Pacific Ocean shells, or other materials from apparent non-local sources were not identified as a result of the excavations. Therefore, it cannot be asserted with assurance that the site could yield information important in reconstructing trade with groups outside the local region.

Results of the test excavations indicate that the site has the potential to yield information as to what activities were carried out there and during which particular time period(s). Therefore, the site has the potential to yield information important to understanding settlement patterns. While this particular site has yielded specific artifact types, such as a mano fragment and a side-notched projectile point, the site has not yielded obsidian or evidence of human remains. Therefore, whether or not the “information potential” of the site could illuminate ethnic boundaries remains an open question.

From a perspective of integrity, bioturbation is only evident at the site’s base, because the brown sandy matrix in which artifacts were found stands in obvious contrast to the yellowish brown decomposed granite Cr horizon. Assuming that extensive bioturbation is present throughout the artifact-bearing matrix, although not readily visible due to the uniformity in color and texture of the midden, would not be unreasonable.



The results of the test excavations show that the site can yield information relevant to the chronology, subsistence/technology, settlement patterning and perhaps ethnicity/boundaries research domains. Integrity of the archaeological site has been compromised by small burrowing animals. Nonetheless, according to the Windmill study, the site is eligible for the CRHR under Criterion 4 and the NRHP under Criterion D for the site's information potential, although the potential is limited due to size, the sparseness of artifacts, and potential disturbance from Gold Rush and later placer mining.

Under NRHP Criterion A (CRHR Criterion 1), the site would have to be associated with one or more events important in the defined historic context. However, this particular site would not be eligible under Criterion A/Criterion 1, as any associations are still speculative. Under NRHP Criterion B (CRHR Criterion 2), the archaeological site would have to be associated with individual(s) whose specific contributions to history can be identified and documented; such is not the case with this archaeological site. Under NRHP Criterion C (CRHR Criterion 3), the site would need to be significant for the site's physical design or planning. Prehistoric sites would have to illustrate important concepts in community design and planning. The only potential design element would be the adjacent rock outcrop, which may have prompted native people to select the site, but was not an artifact itself. Therefore, the likelihood is low that the site would be eligible under Criterion C/Criterion 3.

Because site RDO#2b is eligible for the CRHR under Criterion 4 due to the site's potential to yield information important in history or prehistory, the project's impact would be *potentially significant*.

Mitigation Measure(s)

Implementation of Mitigation Measure 6-2 (in conjunction with Mitigation Measure 6-1) would reduce direct impacts to a *less-than-significant* level.

- 6-2            *If any portion of archaeological site RDO#2b will be directly impacted by ground disturbing activity including filling, and avoidance by direct burial of the site is not feasible, then the surface of the site's cultural deposit shall be first covered with chain link fencing placed flat on the ground surface and then covered with soil that is chemically compatible with the cultural deposit. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric archaeology shall monitor on-site placement of the chain link fencing and burial of the archaeological site. If direct burial of the site or other means of avoidance is not feasible, then the archaeologist must prepare a data recovery plan. The data recovery plan must be adopted by the County and all proposed field work outlined in the plan, including necessary changes in the field work strategy as work progresses, must be completed prior to any ground-disturbing activity within 25 feet of the archaeological site. Analysis of the finds and preparation of a final data recovery technical report for the site must meet current professional standards.*

**6-3 Implementation of the proposed project may indirectly impact portions of those archaeological sites eligible for the California Register of Historical Resources and located within the open space.**

The proximity of planned residential development in close proximity to sites RDO#1, RDO#2a, and RDO#2b may increase the potential for vandalism. It should be noted that residential development in the general area has already subjected the archaeological sites to an increased potential for vandalism and the site is being preserved in an open space area that is not an active recreational area. Therefore, portions of the archaeological sites located within the open space area that are eligible for the CRHR would be subject to *potentially significant* indirect impacts.

Mitigation Measure(s)

Implementation of Mitigation Measure 6-3 would reduce indirect impacts to those portions of significant archaeological sites that may be located within the open space to a *less-than-significant* level.

6-3 *The covenants, conditions, and restrictions (CC&Rs) for the project shall include a prohibition against any excavation or collecting of artifacts within the open space.*

**6-4 Disturbance or destruction of previously unknown archaeological resources within the vicinity of the project site.**

Given the existence of archaeological resources on the project site, as well as the proximity of the site to Miners Ravine, the possibility exists that previously unknown resources could be discovered near the project site. The proposed project would include construction of an off-site sewer improvement, Sewer Line "C," located between Lots 25 and 26, which are adjacent to a portion of Miners Ravine. Therefore, construction activities associated with buildout of the proposed project's infrastructure could uncover undocumented cultural resources. Should areas containing evidence of prehistoric or historic period activity, such as buried hearths, areas of discolored sediment containing shell, broken fragments of silicate rock, bone, or concentrations of historic period (greater than 45 years old) refuse or features be uncovered, a *potentially significant* impact could result from project implementation.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

6-4 *Prior to the issuance of any grading permits, the applicant shall retain a qualified archaeologist to monitor excavation activities associated with the proposed project. The monitor shall be approved by the Placer County Planning Department. Monitoring shall consist of directly watching the major excavation process. Monitoring shall occur during the entire work day, and shall continue on a daily basis until a depth of excavation has*

*been reached at which resources could not occur. This depth is estimated as usually about five feet below grade at the beginning of the project, but may require modification in specific cases, and shall be determined by the monitoring archaeologist based on observed soil conditions. Spot checks shall consist of partial monitoring of the progress of excavation over the course of the project. During spot checks, all spoils material, open excavations, recently grubbed areas, and other soil disturbances shall be inspected to determine if cultural materials are present. The frequency and duration of spot checks shall be based on the relative sensitivity of the exposed soils and active work areas. The monitoring archaeologist shall determine the relative sensitivity of the parcel. If any archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone are uncovered during any on-site construction activities, all work must stop immediately in the area.*

*Equipment stoppages shall only involve those pieces of equipment that have actually encountered significant or potentially significant deposits, and should not be construed to mean a stoppage of all equipment on the site unless the cultural deposit covers the entire building site. The Placer County Planning Department and Department of Museums must also be contacted for review of the archaeological find(s). If the discovery consists of human remains, the Placer County Coroner and Native American Heritage Commission must also be contacted. Work in the area may only proceed after authorization is granted by the Placer County Planning Department. A note to this effect shall be provided on the Improvement Plans for the project. Following a review of the new find and consultation with appropriate experts, if necessary, the authority to proceed may be accompanied by the addition of development requirements which provide protection of the site and/or additional mitigation measures necessary to address the unique or sensitive nature of the site.*

## **Endnotes**

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<sup>1</sup> Placer County, *Placer County General Plan*, August 1994.

<sup>2</sup> Placer County, *Placer County General Plan EIR*, October 1993.

<sup>3</sup> Placer County, *Granite Bay Community Plan*, May 1989, amended through March 2008.

<sup>4</sup> Genesis Society, *Archaeological Resources Inventory, Rancho Del Oro Development Project*, April 12, 2006.

<sup>5</sup> Ric Windmiller, R.P.A., *Evaluation of Archaeological Sites CA-PLA-1870, CA-PLA-1871, and CA-PLA-1873, Rancho Del Oro Development*, March 2009.