



## Cultural Resources Technical Background Report

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### I. Historical Background

The State of California has officially recorded 630 archaeological sites in Marin County. These deposits have received the traditional “trinomial” designation<sup>1</sup>. There are also potentially an unknown number of unrecorded sites. These sites are associated with all time periods of human occupation of the area. Generally, human occupation tends to reoccur at the same locations over time.

Recently, the Regional Office of the California Historic Resources Information System (CHRIS) has begun issuing “primary” or “P” numbers to all phenomena reported to them. Primary numbers can be assigned to archaeological sites, historic buildings, or any other artifact, feature, or site reported to the CHRIS. The primary number system effectively removes any distinction that existed between the built or architectural environment and the archaeological environment. Approximately 730 “P” numbers have been issued in Marin County since 1994.<sup>2</sup> Every archaeological site has or is receiving a “P” number, along with every building over fifty years old (potentially), and any other physical occurrence reported to the CHRIS. Primary numbers have been issued to abandoned equipment, individual artifacts, and other movable objects. This presents a problem to our inventory when portable items, not just assemblages of items, are officially recognized.

### II. Archaeological Sites In Marin County

Several kinds of archaeological deposits are found in Marin County including settlements and villages, hunting camps, quarries, rock art sites, and trails associated with Native American settlement of the area. Spanish, Mexican and American era deposits are also present. The more recent historic era deposits frequently overlie the earlier Native American ones.

The distribution of known archaeological sites in Marin County is tilted toward the urban areas and the Point Reyes Peninsula. Throughout the historic period the more urbanized eastern part of the county was the center of activities, and this has been a concentrating force on the locations chosen for examination by archaeologists. The earliest attempts to systematically map the archaeological sites of the county occurred after the turn of the 20<sup>th</sup> century. These early mapping efforts were concentrated along the shoreline of San Francisco Bay, particularly in areas accessible by train. Later work appears to have been occasioned by discoveries at construction sites that were covered by local newspapers, or by telephone calls and letters to the anthropology department at UC Berkeley and San Francisco State University. Since the 1950's the Point Reyes area has attracted researchers due to its relatively untouched state and convenience to major universities. In the 1960's there was a major effort to gather information in conjunction with the movement to create the Point Reyes National Seashore.

Only a few researchers have examined the central part of the county and the extent of that coverage is limited. The many large, privately held parcels in central Marin have generally not changed use in many decades. These areas are not open for examination by archaeologists, and the distribution and frequency of recorded archaeological sites does not accurately reflect the distribution all sites.

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<sup>1</sup> CA-Mtn-xxx, a three-part number indicating the state, county, and sequential numbering of archaeological sites.

<sup>2</sup> “P” numbers are issued to documents received by the Regional Office. “P” numbers are not necessarily properties not previously cited and they may overlap with the previously recorded 630 archaeological sites.



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Examination of the mapped archaeological site locations would not accurately reflect the distribution of prehistoric populations, only the distribution of archaeologists.

### A. Distribution

The location of archaeological sites is not random: these locations correspond to a favorable combination of environmental conditions. Each culture views the available locations differently, but all are subject to the same human physical needs of water, environmental protection, and food sources. Once the important variables have been identified, the general locations of archaeological deposits can be predicted through modeling. Settlements and village locations tend to be well watered, level or fairly level, protected from the wind and other elements, and centrally located to the resources that support the settlement. Quarry sites can only be located where the geological resource to be exploited is found. Hunting camps tend to be more isolated from the settlements in use at the time the camp was established.

### B. Frequency and Type

As noted above, 630 archaeological sites are recorded in Marin County. All types of sites and cultural eras are represented in the recorded sites. The 630 sites break down into the following types:

- ◆ **Permanent Settlements, including villages.** Village sites can be best represented by the large, often prominent, shellmounds found on the coast and along the shore of San Francisco Bay and its minor offshoots. These sites were often massive, covering two or more acres and many feet deep. Mrn-39 (on Belvedere Island) appears to have been over 9 meters (30 ft.) deep in some places, and Mrn-17 on DeSilva Island was about the same. These deposits commonly formed prominent mounds along the shore. The large shellmounds of Marin County tend to have been located along the shore, near reliable freshwater sources, and near exploitable ecological niches. They were commonly associated with salt and brackish marshes and estuaries. These sites were large, permanently occupied villages with populations of 300 or more individuals. The earliest record we have of major damage to these sites lies in an early requirement of Marin County to use shell from these mounds for road construction.

Less prominent, but often as complex, are the earth mounds found in the interior parts of the county. Where the shellmounds were obviously associated with marshes and other locations where shellfish and other marine resources are available, earth mounds tended to be located where upland resources are concentrated. These sites were often associated with oak groves, near, but not too near, game trails, and other concentrations of food resources. As with the shellmounds, upland earth mounds were usually near permanent water sources, and were chosen for access to the resources important to the inhabitants of the site. Although they were not typically as deep as shellmounds, researchers have recorded earth mounds over two acres in size and over of three meters deep (10 ft) with depths of over one meter (40 inches) common.

- ◆ **Seasonal camps.** A varying population, with seasonal highs and lows, occupied large villages. Some large villages hosted seasonal gatherings that could temporarily triple the normal village population. The temporary camps associated with these seasonal gatherings tended to be scattered around the main villages: located up or down stream from the village, or on other suitable sites where seasonal



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water was available. Additionally during the spring and summer the population tended to disperse to smaller camps distributed where seasonal resources were available. These deposits tended to look like smaller, less complex versions of the large village sites.

- ◆ **Hunting camps and special use sites.** In addition to seasonal camps, some sites were associated not with habitation, but with the acquisition and preparation of food. These sites differed with the type of resource exploited. They were typically located near the exploited resource, be it acorns, buckeye, other plant material, or an animal population. These deposits were often small in size, usually less than half an acre and often less than a quarter acre in surface area, and usually less than one meter (40 inches) deep. The purpose of these camps is apparent in the artifacts they contain and the locations that were chosen. Sites associated with acorn collection, for example, were near oak groves, and usually associated with water and outcrops of stone. The stone was used to make mortars for grinding the acorns into flour could be made and the water to leach the tannic acid out of the ground acorns.
- ◆ **Quarries and extractive sites.** These sites were limited to the location where the exploited resource is found. Quarries were usually associated with outcrops of chert, a siliceous stone used for knives and sharp edged tools, or chlorite schist, a soft rock commonly called “soapstone” and used for bowls, ornaments, and a variety of other uses. Quarries were also associated with basalt and other economic stone resources.
- ◆ **Trails and petroglyphs.** Petroglyphs are found on chlorite schist and other soft rocks throughout Marin County. Several different kinds of petroglyphs are found, and the type is often associated with specific rock formations. The small “pecked” oval glyphs called “PCN” petroglyphs are most commonly found on chlorite schist. The largest single occurrence of these is on Ring Mountain, although they are found throughout the county where suitable stone is found. Cupule petroglyphs are commonly found on chlorite schist, sandstone, and a variety of other stones, and the vertical scratches associated with the more recent past are often found overlapping the other two forms. There is only one prehistoric trail feature in the records. This site, recorded as Mrn-488, lies in the Novato Vicinity, near Indian Valley College.

### C. General Condition

Many of the archaeological resources in Marin County are in a degraded condition. Over two hundred years of non-native culture has obliterated many traces of the prehistoric past. Those sites that remain are often in less than pristine condition. It is generally assumed that sites in the urban areas are in poorer condition than those in rural settings. This is based on the generally more disruptive activities that occur in urban areas. Agriculture, however, has a potential to significantly degrade the condition of archaeological deposits. Plowing and discing, two common practices in a variety of agricultural settings, disturb archaeological deposits to a depth of about 12 to 18 inches. This can amount to the upper half of some large deposits, and can completely penetrate some smaller ones. Deep ripping and other earth disturbing agricultural operations can damage sites to depths of four feet. These operations are not as disruptive as regular plowing, however, due to the infrequency of repetition. It is common to rip areas prior to planting grapes, for example, but to only use shallow discing over the life of a vineyard. Some of the best-protected archaeological sites are in watershed lands or in less used, remote parts of the county. Long standing cattle operations tend to help in the preservation of some deposits due to the



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lack of discing and plowing associated with the industry. Rock art sites tend to be targets of vandalism. This is particularly true of the petroglyphs in the Ring Mountain area of the Tiburon Peninsula, but occurs elsewhere as well. Protection of rock art sites can be difficult since they are often prominent outcrops of rock, which seem to attract vandals with spray paint or sharp tools.

### **III. Reliability of the Information**

The current information available is variable in quality: some archaeological sites have not been revisited in many decades and the information on them is questionable, others have been evaluated in the recent past and are well known. Generally, archaeological site locations are relatively accurate. The exact size and distribution of each site is, however, less well known. Each archaeological site has been plotted as a point on USGS Quadrangle maps. These maps have been maintained by a variety of agencies since about 1900. They were formally organized by the UC Berkeley Anthropology Department in 1948, and they have been updated continually since then. Through this process only the locational information survives for some sites, while others have extensive data sets available.

### **IV. Cultural Resource Evaluations**

Archaeological sites have been evaluated under the California Environmental Quality Act since 1972. Whenever an activity requiring a County permit is undertaken, a determination is made as to which environmental conditions must be evaluated prior to issuing the permit, if any. For archaeological sites, a sensitivity map generated in the mid-1970's has been used to guide the decision making process. In recent years deficiencies have been noted in the existing map, and a new general evaluation of archaeological sensitivity is desirable. Archaeological evaluations can occupy several stages of the CEQA process, or all issues may be resolved at the initial study. The first step in an archaeological evaluation is usually a literature check and surface reconnaissance. If these steps generate no information, no further inquiry occurs. If either of these steps generates indication of a recorded, or previously unknown, archaeological deposit, further investigation is often necessary.

Once the level of sensitivity and the presence or absence of recorded archaeological sites has been determined procedures can be identified that will determine the presence or absence of negative impacts to cultural resources. In general, any parcel that is determined to be archaeologically sensitive should be subject to some level of archaeological evaluation. Before a permit for any grading, excavation, or construction is issued, an archaeologist should examine any parcel of 20 acres or less that contains one or more archaeological sites. For larger parcels a literature check should be initiated through the CHRIS to determine the state of knowledge about archaeological deposits on the parcel. A review by a contract archaeologist could be initiated to make this determination and to recommend an appropriate scope of work.

### **V. Existing Policies and Ordinances**

In 1967, Marin County Ordinance 1589 was signed into law. The ordinance added Section 5.32 to the county code. This was the first county level law promoting the preservation of archaeological sites through the planning process. At that time there were no state or national laws or procedures encouraging the preservation of archaeological sites on private land. By today's standards, Ordinance





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1589 is woefully inadequate in offering only the “protection” of allowing a set time period for scientific recovery of archaeological sites that are threatened by development. It has been more than 10 years since this ordinance was invoked, and it is now considered obsolete. The requirements of the California Environmental Quality Act and current County policies go far beyond Ordinance 1589 in offering protection to archaeological deposits.

### **A. County Ordinance 1589**

#### Section 5.32.010 Purpose of chapter.

In Marin County there exist certain deposits of shells and other materials in mounds hereinafter referred to as Indian middens, believed to have been deposited by Indians in the distant past. The middens may be of inestimable value in formulating the early history of the county and the habits of Indians when the middens are studied under the supervision of qualified archaeologists. Uncontrolled excavations into the aforesaid middens for commercial purposes without regard to their possible historical and archaeological values are destructive of the archaeological integrity of the sites. (Ord. 1589 § 1, 1967)

#### Section 5.32.020 Permit required to excavate.

It is unlawful for any person, firm, corporation or copartnership to knowingly disturb in any fashion whatsoever, or excavate, or cause to be disturbed or excavated any Indian midden without a permit being issued therefor by the department of public works. (Ord. 1589 § 2, 1967)

#### Section 5.32.030 Liaison agency.

Upon receiving written application therefor, the board of supervisors shall designate an institution of higher learning, or an association having as one of its major purposes the study of Indian relics or sites having archaeological significance, as a liaison agency between the department of public works and institutions of higher learning or associations, having as one of their purposes the study the objects of archaeological significance. (Ord. 1589 § 3, 1967)

#### Section 5.32.040 Application for permit.

Application for a permit to excavate Indian middens shall be in a form acceptable to the director of public works, and may be made by the owner of the middens or a person authorized in writing by the owner, to make the application. The permit shall state whether the excavation is for either archaeological or nonarchaeological purposes. (Ord. 1825 § 1, 1971; Ord. 1589 § 4, 1967)

#### Section 5.32.050 Issuance.

Upon receipt of an application for the excavation of an Indian midden, the director of public works or his designee shall forward the application to the liaison agency designated by the board of supervisors pursuant to Section 5.32.030. Within five days of the receipt of the application, the liaison agency so designated shall notify the director of public works whether the midden for which application is made for excavation is of archaeological significance. If the



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designee certifies that the midden is not of archaeological significance, a permit shall be issued to the applicant upon the receipt of the certificate. (Ord. 1589 § 5, 1967)

### Section 5.32.060 Conditions for issuance

In the event the liaison agency certifies that the midden for which application for excavation is made is of archaeological significance, the director of public works may issue a permit, but shall subject the permit to conditions including but not limited to the following:

- A. Prior to nonarchaeological excavation or removal of materials from the middens, the permittee shall not excavate for a period of sixty days in order to allow archaeological excavation of the site;
- B. The permittee or owner of the property shall be required to grant a license for the excavation, identification, and classification of artifacts and proper scientific analysis of materials having historical or archaeological significance to recognized institutions of higher learning or associations having as their major purpose the study of Indian relics and other sites having archaeological value. The terms of the license shall be such as are agreed to by the prospective licensee and property owner. (Ord. 1825 § 2, 1971; Ord. 1589 § 6, 1967)

### Section 5.32.070 Conformance to stated conditions required.

Any act done under the authority of a written permit issued hereunder shall be in accordance with the terms and conditions of the permit. (Ord. 1589 § 7, 1967)

### Section 5.32.090 Violation a misdemeanor.

Any person violating the provisions of this chapter is guilty of a misdemeanor and upon conviction thereof shall be punished as provided in Section 1.04.270. In the event of a continuing violation, each day that the violation continues constitutes a separate and distinct offense. (Ord. 1589 § 9, 1967)

## B. Existing Policies

A review of the present policies of the County of Marin reveals no need for major changes. Archaeological and cultural resource protection is achieved through review of development applications. The present policies are as follows:

### I. Preservation of Cultural and Archaeological Resources

**Policy EQ-3.29 Review Sensitivity Maps.** The Community Development Agency shall review the archeological sensitivity map for all development applications in order to determine potential impacts.

**Program EQ-3.29a** *Prepare New Sensitivity Map.* The County Community Development Agency should identify potential archeological locations or areas where there may be a high likelihood of archeological resources in a sensitivity map which is not site specific.



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**Policy EQ-3.30 Evaluate Presence of Site.** Development sites identified as having a potential for the presence of archeological resources (through review of the sensitivity map or other available sources) shall be further evaluated to ascertain if an archeological site is actually present. This evaluation shall be the responsibility of the applicant and may be undertaken by conducting a record search at the Northwest Information Center of the California Archaeological Inventory to determine if the project area has been previously surveyed and if resources have been identified. If the record search reveals that no survey has been undertaken, the applicant may be required to undertake a survey of the site, depending upon the sensitivity of the site.

**Policy EQ-3.31 Avoid Impact.** When a site has been identified as an archeological resource, development shall be situated or designed to avoid impact on the archeological resources. This may be accomplished through one or more of the following methods:

- ◆ Siting buildings to completely avoid the archeological site;
- ◆ Providing parks, or some type of open space to incorporated archeological sites;
- ◆ “Capping” (covering the site with a layer of soil);
- ◆ Deeding the site as a permanent conservation easement.

**Policy EQ-3.32 Discovery of Resources.** In the event archaeological resources are uncovered during construction, all work must halt and an evaluation must be undertaken by a qualified archaeologist.

**Policy EQ-3.33 Buildings with Historical Significance.** The County Community Development Agency should require that buildings of historical significance are preserved when new development is proposed.

**Policy EQ-3.34 Consultation with Local Organizations.** Development applications received for projects in areas identified as having potential to impact cultural and/or archeological impacts shall be forwarded to interested organizations and/or individuals for their review and comment.

## VI. Effectiveness of current policies

The current policies appear to be effective in identifying significant cultural resources during the planning process. Some improvement in the process can be achieved. The current procedures should remain in place with minor changes.

## VII. Recommended Policies and Procedures

### A. Repeal of Ordinance 1589

Ordinance 1589 was enlightened legislation in 1967. Since then, state and federal environmental regulations and county procedures have gone far beyond this ordinance to protect archaeological deposits. Under current policies, the archaeological excavation allowed by the ordinance would conflict



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with Policy EQ-3.31, which specifically instructs the avoidance of impacts to archaeological resources in the planning process. Archaeological excavation is inherently destructive. Although artifacts and information can be preserved through excavation, archaeological sites are never preserved through this process. It is widely recognized that the policy of archaeological site preservation is more enlightened than a policy of excavating sites when they are “inconveniently” placed.

### **B. Continuation of Existing Policies**

The existing policies have insured the protection of archaeological resources in Marin County. It is recommended that Policy EQ-3.30 be modified to require contact with the Northwest Regional Office of the California Historic Resources Information System whenever a site is identified as having a potential for the presence of archaeological resources.

### **C. Prepare a New Archaeological Sensitivity Map**

The County Community Development Agency should identify potential archeological locations or areas where there may be a high likelihood of archeological resources in a sensitivity map which is not site specific.