CEQA

CEQA applies to discretionary projects and equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1). Further, the Act explicitly prohibits the use of a categorical exemption within the *CEQA Guidelines* for projects which may cause such a change (Section 21084). "Substantial adverse change" is defined as demolition, destruction, relocation, or alteration activities which would impair historical significance (Section 5020.1).

This effectively requires preparation of a mitigated Negative Declaration or an EIR whenever a project may adversely impact historic resources. Current CEQA law provides that an EIR must be prepared whenever it can be fairly argued, on the basis of substantial evidence in the administrative record, that a project may have a significant effect on a historical resource (*Guidelines* Section 15064).

Key Questions

This presents the Lead Agency with two key questions which it must address in sequence. First, does a significant historical resource exist? Absent a historical resource, the agency may proceed as usual and, depending upon the circumstances, may be able to apply a CEQA exemption to the project. Second, where a significant historical resource does exist, will the proposed project result in a substantial adverse change such that the qualities that make the resource significant are impaired or lost? This question should be answered through preparation of an initial study for the project.

Is a Historical Resource Present?

Section 21084.1 is by turns both specific and vague in distinguishing the range of resources which may be considered historic. First, any resource listed in, or eligible for listing in, the California Register of Historical Resources is presumed to be historically or culturally significant. This includes listed archaeological resources (for example, California Landmark Number 838, The Indian Village of Tsurai). The Lead Agency's first step should be to consult the applicable Historical Resources File System Information Center to ascertain whether the resource is listed in the California Register.

Second, resources which are listed in a local historic register or deemed significant in a historical resource survey as provided under Section 5024.1(g) are to be presumed historically or culturally significant unless "the preponderance of evidence" demonstrates they are not. The next step is to consult the pertinent existing local register and survey. Because a local register or survey may not employ the same criteria as the California Register, listing or identification in a local survey does not necessarily establish if the property is eligible for listing on the Register. The Lead Agency will need to evaluate the resource in light of the Register's listing criteria (these will be included in guidelines expected to be released by SHPO in June 1994). The Lead Agency may

determine that the preponderance of evidence demonstrates that the property in question is not historically or culturally significant despite being listed on a local register or identified in a local historic survey. When making this determination, OPR strongly recommends that the agency cite for the record the specific, concrete evidence which supports that determination.

Third, a resource that is not listed in, or determined to be eligible for listing in, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant, pursuant to Section 21084.1. This provision is intended to give the Lead Agency discretion to determine that a resource of historic significance exists where none had been identified before and to apply the requirements of Section 21084.1 to properties that have not previously been formally recognized as historic. As the last step, the local agency should employ recognized criteria to determine whether a previously unrecognized significant historical resource exists.

As always under CEQA, the lead agency must determine whether there is "substantial evidence" in the administrative record to support a finding of significant effect. Substantial evidence is defined in Public Resources Code Section 21080(e) as including "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." Unsubstantiated claims of historical significance do not require preparation of an EIR (*Citizen's Committee to Save Our Village v. City of Claremont* (1995) 37 Cal.App.4th 1157 p; no substantial evidence existed that a landscape garden planned in 1905 was ever installed or maintained).

California Register

The current California Register, listing guidelines provided by State Historical Resources Commission.

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archeological resources.

The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act.

Criteria for Designation

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
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Web Site www.nahc.ca.gov

NAHC Consultation Guidelines
April 7, 2009

In order to further the goals of protecting Native American cultural features and the recognition of California Native Americans' interest in preserving and protecting those features through consultation, the Native American Heritage Commission recommends the establishment of a cooperative relationship between appropriate tribal governments and Agency or Department officials that considers and respects the views of all participants and acknowledges the goal of developing mutually acceptable cultural feature protection strategies.

Consultation should be viewed as "the right to have a seat at the table, a chance to persuade the responsible … official to do the right thing."[1]

For many Agency or Department officials, consulting with Native American tribes will be a new experience that draws upon little from prior experience. There are cultural differences that need to be respected throughout the process. Indian people may be more accustomed to an oral tradition rather than a written tradition, potentially making what and how things are said during consultation mean far more than the written documents or agreements that will result from the consultation. All tribes, whether federally recognized or non-federally recognized, should be regarded as unique and independent governmental entities with traditions and hierarchical structures that must be recognized and respected. Appropriate tribal protocols should be followed when approaching tribal governments. More than one tribe may have a cultural affiliation with the proposed project area; agency officials should be prepared to hold concurrent consultation sessions if a combined consultation format is not acceptable to the tribes.

Agency officials must be aware that the consultation process is in no way intended to affect, diminish or reduce the sovereign status of any California Native American tribe.

The following are recommendations for Agency or Department use in initiating the consultation process with tribes.

1. Before the need for consultation arises, the following strategies are recommended:

- Agencies or Departments should designate an official with principal responsibility for carrying out consultation activities. Agencies or Departments should seek to appoint a designee with knowledge of California Native American culture who has direct access to Agency or Department decision-makers.
- Agencies or Departments should obtain from the NAHC the lists of appropriate tribes with potential for interest in property within the Agency or Department's jurisdiction.

[1] Professor Dean Suagee, "Historical Storytelling and the Growth of Tribal Historic Preservation Programs," 17 Natural Resources and Environment 86, 88 (2002).

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- Agencies or Departments should complete a records search on the area of potential effect with the California Historic Resource Inventory System (CHRIS) and the Native American Heritage Commission's Sacred Lands File. The results of such searches should be shared with the tribe during the request for consultation, including the likelihood that cultural features might be present, thus demonstrating the Agencies or Departments' awareness that sensitive cultural features may be present that could be threatened by the proposed project or activity. The lack of recorded archeological or cultural/sacred resources should not be presumed to preclude the existence of cultural features within the area of potential effect.
- The Agency or Department designee should serve as the primary contact for consultation with tribes in order to facilitate the development of an on-going working relationship between the appropriate tribal governments and the Agency or Department.
- Agencies or Departments should never assign their consultation responsibilities to a contractor or developer.
- Agency officials should initiate contact directly with the tribe's officially chosen leader (e.g. chairperson, spokesperson, captain, etc.) to ask if tribal consultation protocols are already in place. Such protocols may specify cultural resource contacts within the tribe, procedures, time limits, restrictions, etc.
- If protocols are not available, the Agency or Department should seek assistance from tribal officials to identify the appropriate procedures to follow in meeting the tribe's consultation needs.
- Development of mutually agreed-upon protocols may result in more effective consultation efforts with individual tribes.
- Either the Agency or Department or the tribe may request revisions to the protocols with prior notice.

2. Consultation is intended to address the preservation and mitigation of impacts to California Native American historic, cultural, or sacred sites, as are defined in Public Resources Code 5097.9 and Public Resources Code 5097.993, including sites that are listed or may be eligible for listing in the California Register of Historic Resources, historic or prehistoric ruins, burial grounds, any archaeological, prehistoric or historic Native American rock art, any archaeological, prehistoric or historic features, inscriptions made by Native Americans at such a site, places of worship, sacred or ceremonial sites, and sacred shrines on public and private properties. The process is focused on identifying issues of concern to Native American tribes, including cultural values, religious beliefs, traditional practices and legal rights of Indian people, and on defining the full range of acceptable alternatives.

Consultation is intended to accommodate religious considerations, rather than endorse them. The courts have ruled that consultation regarding issues of Native American religious importance is not a violation of the Establishment Clause of the U.S. Constitution.[2]

Effective consultation comes from the development of relationships that are ongoing and sustained. Improved relations with tribes can improve the effectiveness of consultation. A critical factor in the process is the understanding that consultation, in all forms, is an ongoing process rather than a single event.

General requirements:

[2] 113 Yale Law Journal, 1623, Page 2.

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- Consultation is defined in Government Code Section 65352.4 as the "meaningful and timely process of seeking, discussing, and considering carefully the views of others…" Consultation involves conduct that is mutually respectful of all parties, recognizes all parties' cultural values, incorporates the parties' needs for confidentiality, and seeks agreement on the resolution of the concerns raised.
- Consultation should be done prior to the public review process and as early as possible.
- Consultation should be done face-to-face whenever possible and should not take place in a public forum.
- When an Agency or Department first seeks to consult on a project, its initial inquiry should be made to the tribe's officially chosen leader. A department head or higher should make the initial request.
- Once the tribe has agreed to consult, consultation should take place between the Agency or Department's designee(s) and a tribal representative(s) who has been identified through a letter from the tribe's presiding officer or a Tribal Council resolution.
- Agency or Department officials should be cognizant of the fact that most tribes were relocated to isolated locations, far from city centers, busy highways, and from their territories of cultural affiliation. Travel required for consultation may be time-consuming and, in the case of tribes along the Colorado River, may involve changes in time zones. Agency or Department officials should seek to accommodate the tribe's schedules and to share the burden of travel.
- Agency or Department officials should be aware that the confidentiality of many Native American cultural features is critical to tribal culture and that many tribes will seek confidentiality assurances prior to divulging information about those sites.

Conducting consultation:

- Consultation should be viewed as a process, rather than a single event and an Agency or Department should be prepared to continue consultation throughout the duration of a project
- Simply notifying a tribe is not the same as consultation. A 1995 federal court ruling held that written correspondence requesting consultation with a tribe was not sufficient for the purpose of conducting consultation as required by law, but that telephone calls or more direct forms of contact may be required. In *Pueblo of Sandia v. United States*, 50 F.3d 856 (10th Cir. 1995), the court held that the U.S. Forest Service had not fulfilled its consultation responsibilities under the National Historic Preservation Act by merely sending letters to request information from tribes.
- Agency or Department officials should begin consultation with tribes at the earliest point possible in the project planning process
- All attempts to contact a tribe regarding consultation should be well documented, including letters, telephone calls, and direct meetings. Any returned or unanswered correspondence should be retained in order to verify the Agency or Department's efforts to communicate. Documentation of notification and consultation requests should be included in the Agency or Department's public record.
- Agency or Department officials should be aware that tribes may require a significant period of time to respond to a consultation request.
    - Often tribal councils meet only once a month; all formal positions taken by the tribe will usually require approval of the tribal council.

  - Agency or Department officials should be aware of the potential for vast differences in tribal governments' capabilities (especially between federally-recognized and non-federally-recognized tribes), different tribes' staffing capabilities, and resources. Some may be able to respond more promptly and efficiently than others.
  - Agency or Department officials should be sensitive to the fact that many tribes are subject to numerous demands on their small staffs, including requirements of the federal, state, and Agency or Department.
- Consultation requests should include a clear statement of purpose, explaining the reason for the request and declaring the importance of the tribe's participation in the project planning process. The request should specify the location of the project area of potential effect.
- Consultation requests should provide as much detail about the proposed plan as possible, presented in layman's terms, including maps of the affected area and a description of the nature of anticipated impacts. Failure to disclose pertinent information may provide grounds for a legal challenge to the Agency or Department's plan.
- Consultation should involve listening to tribal concerns with the goal of accommodating Native American religious practices.[3]
- Consultation should produce enforceable results that reflect the efforts made to achieve a mutually agreeable outcome.
- All aspects of the consultation process should be documented, including how the agency reaches a final decision.
- Upon conclusion of consultation, the Agency or Department should notify all consulting tribes of the proposed decision, specifically discussing the basis for the decision, the relationship to tribal concerns, and outlining the process for tribes to challenge the draft plan prior to its final approval.

3. Procedures to identify tribes through the NAHC.

Consultation requires communicating directly with tribes. The NAHC's role is to facilitate consultation and to provide assistance to tribes and an Agency or Department. The NAHC will provide contact information for all culturally affiliated tribes, including those with overlapping territories.

- When Agency or Department projects are first proposed, the Agency or Department should send written requests to the NAHC asking for a list of appropriate tribes in their area for consultation. The Native American Heritage Commission will provide the Agency or Department with a list of appropriate California Native American tribes comprised of federally-recognized and non-federally recognized tribes found on the NAHC's consultation list. The appropriate groups will be those that have a cultural affiliation to a specific geographic area.
- Requests should include the specific location of the area proposed for development.

[3] 113 Yale Law Journal 1623, page 12

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4. Consultation to address appropriate methods of treatment and management of cultural features.

- An Agency or Department should not ask tribes to prioritize sites for the purpose of protection.
- An Agency or Department should be prepared to consider a broad range of mitigation options, including avoidance, development of habitat and open space properties, or alternative means of preserving Native American cultural features intact whenever possible.
- An Agency or Department should be prepared to discuss tribal involvement in the treatment and management of cultural features through monitoring, co-management, and other forms of participation.
- The planning of treatment and management activities should address the possibility that Native American human remains may be involved when protecting cultural features. An Agency or Department should work with the tribe to identify and plan for appropriate treatment of such discoveries, in accordance with Public Resources Code Section 5097.98.

5. Procedures to protect confidentiality.

- Any information submitted by tribes must remain confidential and exempt from public disclosure laws, to the extent authorized by law.
- Procedures must be established to allow for tribes to share information with Agency or Department officials in a confidential setting, rather than requiring discussion in a public meeting.
- Agencies or Departments should develop their own "in-house" confidentiality procedures.
- Any documents or portions of reports specifically detailing the cultural feature or area proposed for protection by the tribe through an open space designation must be kept confidential.
- Only those tribal designees, Agency or Department officials, qualified archaeologists, and land managers involved in the particular planning activity may obtain information about a given site.
    - The consulting parties may wish to develop their own criteria for the limited release of confidential information related to the site.
- Anyone requesting confidential site information from the Agency or Department should first provide identification and sign a nondisclosure agreement in conformance with existing law, and, if necessary, establish their "need to know." Disclosure to any second parties must also be prohibited under terms of the nondisclosure agreement.

Terms for confidentiality may differ depending upon the nature of the site, the tribe, the Agency or Department's mission, or who proposes to protect the site. The Agency or Department should collaborate with tribes to develop informational materials for field managers regarding the cultural sensitivity of divulging site information, explaining the tribe's interest in maintaining the confidentiality and preservation of a site. Land managers should be informed that Public Resources Code Section 5097.993 establishes criminal penalties for the unlawful and intentional destruction, degradation, or removal of Native American cultural or spiritual places located on public or private lands.

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Miscellaneous

- Agencies or Departments are encouraged to adopt policies or procedures, in consultation with the appropriate tribe(s), to protect Native American cultural features, to protect the confidentiality of information exchanged between the tribe and the Agency or Department regarding cultural features, to provide penalties for the unauthorized disclosure of confidential information, and for appropriate treatment and management of Native American cultural features.
- Agencies or Departments should consider development of preservation plans for cultural features within their jurisdictions in accordance with established cultural resource protection standards.
- The Agency or Department's representative should be encouraged to attend Tribal Council or tribal planning meetings, where appropriate and when invited, in order to become familiar with tribal government operations and to facilitate relationship building.
- Consultation may include discussion of mitigation measures, including the preferred alternative of avoidance, as recommended in Section 15370 of the CEQA Guidelines.
- When the consulting tribe finds mitigation banking to be an acceptable form of mitigation for the loss of gathering/collecting areas, an Agency or Department may wish to consider land banking that fosters the development of permanently protected gathering and collection areas through transplantation, irrigation, or other means.
- Appropriate tribal governments and the Agency or Department should consider the benefits of recording protected sites with NAHC or CHRIS system, with designation to indicate that the site is Native American. Burial sites or sites of a sacred or spiritual value should be listed with the NAHC; sites of historic or prehistoric nature should be listed with the CHRIS.

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390

June 27, 2007

Re: Policy regarding Most Likely Descendant

Dear

This is to clarify the authority and policy of the Native American Heritage Commission (NAHC) with regard to the designation of a Most Likely Descendant (MLD) when Native American human remains are discovered. Under the authority of Public Resources Code sec. 5097.98 the NAHC designates an MLD for the purpose of arranging for the respectful disposition of the remains. The NAHC is the entity authorized under law to make the designation and once appointed, the MLD has no authority to transfer the designation to another.

It is also the policy of the NAHC to recommend the use of Native American Monitors when cultural resources may be at risk. The NAHC refrains from involvement in the decision making process for hiring of monitors. NAHC policy is to try to keep the role of monitor and MLD separate because of different duties and responsibilities.

If you should have any questions about the above please feel free to contact the undersigned.

Sincerely,

Anthony Madrigal Sr.
General Counsel

Cc: Larry Myers

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 FAX

Date

Dear:

Enclosed is the form requesting placement on the Native American Heritage Commission's (NAHC) Most Likely Descendent list. The NAHC uses this list when coroners notify us that Native American remains have been discovered. We contact one of the people believed most likely to be a descendent who in turn makes recommendations as to the appropriate way to treat the remains and grave goods with respect and dignity. Often they also assist with reburial.

If you would like to be placed on this list, please fill out the enclosed form and return it along with documentation proving your ancestry. Be sure to provide us with a telephone number as we cannot contact most likely descendants in the amount of time required by law without a telephone number. The counties you wish to serve should be the counties your tribe or group traditionally inhabited. If you are representing a tribal group, please enclose a letter of authorization from the group you represent.

Please complete the form and return it to:

Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

If you have any questions, please call us at (916) 653-4082 or write to the above address.

Sincerely,

Larry Myers
Executive Secretary

Enclosure

NATIVE AMERICAN HERITAGE COMMISSION
MOST LIKELY DESCENDENT FORM

NAME: _____

ADDRESS: _____

_____

TELEPHONE NUMBER: (Home)_____**(Work)**_____

ATTACH ADDITIONAL PAGES IF NECESSARY

TRIBAL AFFILIATION:_____
(Be sure to list all Tribal Affiliations)

1. **Cultural territory of tribe** _____

_____

2. **Name of Tribal Group or Organization:**_____

_____ _____
Address **Telephone No.**

Were you nominated by your tribe /group to serve as Most Likely Descendant (MLD)?
YES____ NO____

If you have been nominated by your tribe/group to serve as MLD attach written documentation showing nomination.

3. **Identify specific village site(s) to which you can trace your descendancy:**_____

_____

_____

_____
(Provide documentation of descendancy to specific site and copy of map)

SIGNATURE_____**DATE**_____

ATTACH ALL SUPPORTING DOCUMENTATION THAT YOU ARE A CALIFORNIA NATIVE AMERICAN

AND MAIL WITH THIS FORM TO:

Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814
(916) 653-4082

It is your responsibility to notify the Native America Heritage Commission of any change of address or phone number. Otherwise your name will be removed from list.

INFORMATION FURNISHED ON THIS FORM WILL BE MADE AVAILABLE PURSUANT TO PUBLIC RECORDS ACT (PRA) GOVERNMENT CODE SECTION 6250 ET SEQ. WHEN REQUESTED.

Attachment 1

Public Resources Code 5097.98 provides in pertinent part:

(a)Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents may, with the permission of the owner of the land, or his authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

Originally before being revised in 2006 the last sentence read: "The descendants shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission."

(e) Whenever the Commission is unable to identify a descendent, or the descendents identified fail to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the descendents and the mediation provided for in subdivision (k) of section 5097.94 fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity in a location not subject to further and future subsurface disturbance. "

Summary of NAHC Procedure for Identifying MLDs.

In order that the NAHC may identify and promptly notify the Most Likely Descendents (MLD) as required by PRC 5097.98, the NAHC maintains a Most Likely Descendent List that is composed of California Native American Tribes and individuals that have registered their names as Most Likely Descendents. Tribes and individuals are eligible to register on the List. The List is composed of individuals designated by Tribes to act as contacts on behalf of the Tribe and individuals desiring to act on their own behalf as MLDs.

The Executive Secretary registers a tribal organization or individual upon submission and approval of an "Native American Heritage Commission Most Likely Descendant Form." The Form (Attachment 1a) requires the following information:
-The name, address and telephone number of the Tribe or individual.
-Tribal affiliation
-Indication of Geographical cultural territory
-In cases where an individual has been designated to represent the Tribe, a letter from the Tribe verifying the designation is requested.

The NAHC will register the Tribe and individuals for their appropriate geographical cultural area. More than one Tribe or individual may register for the same geographic cultural area. In the case of individuals, documentation is requested showing they have a degree of Indian blood from their geographical cultural area. Tribes are not required to provide documentation

The Executive Secretary permits a Tribe to specifically designate one or more MLDs for particular village sites within the Tribe's geographical cultural area. The Executive Secretary requests that the Tribe provide a description of the geographical area of the particular village site and to provide documentation tracing the individuals ancestry to the particular village site.

The Executive Secretary also permits an individual to register as MLD for a particular village site if the individual can provide documentation tracing the individual's ancestry to the particular village site.

In the case where there is documentation tracing a Tribe or individual's ancestry to a particular village site, the NAHC will select and notify the Tribe or individual as Most Likely Descendant where Native American human remains are found within a 12 mile radius of that particular village site.

If there is no MLD registered that can trace ancestry to a specific village area within a 12 mile radius of the location of the discovery, the NAHC will designate a Most Likely Descendent or Most Likely Descendents that trace ancestry to the geographical cultural area. When there are several Most Likely Descendents registered for a geographical area, the NAHC will rotate designation of MLDs for the discovery of remains on each new project. If the NAHC fails to make contact with an MLD, the NAHC will move on to the next person on the List. After notification by the NAHC, the MLD is required to contact the landowner within the timeframe prescribed by the Public Resources Code (48 hours).

The NAHC designates an MLD for the duration of the project on which Native American remains are discovered.

2

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

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e-mail: ds_nahc@pacbell.net

November 5, 2012

Ms. Bernice Paipa
Kumeyaay Cultural Repatriation Committee (KCRC)
c/o P.O. Box 1120
Boulevard, CA 91905

Dear Bernice:

The following is the California Attorney General's opinion regarding the authority of the Most Likely Descendent (MLD), designated by the Native American Heritage Commission (NAHC):

In response to the NAHC request for the Attorney General's opinion regarding the

"**Control as to Disposition of Native American Remains….most likely descendants have control as to the disposition of Native American remains, whether by reburial, by scientific examination, or by whatever disposition is selected. This case was litigated in People v. Van Horn (1990) 218 Cal. App. 3rd 1378….the language of (Public Resources Code) section 5097.98, clearly gives the choice of preservation or reburial to Native Americans, namely descendants of the Native American deceased or member of Native American groups, acting under the supervision of a commission which is controlled by Native Americans** (e.g. NAHC)." (218 Cal. App. 3rd at 1395.)

If you have any questions about this application of the California law, let me know. It does apply to the UCSD University House recent discovery.

Sincerely,

Dave Singleton
California Native American Heritage Commission

Modeling Guidelines for Health Risk Assessments

August 2012

Form -15i

TABLE OF CONTENTS

1. Introduction

1.1 Scope

This document explains the requirements for performing health risk assessments for the Santa Barbara County Air Pollution Control District (District). It is assumed that the reader has some modeling experience with ISC and HARP. This document is not intended as a user's guide for HARP or ISC. User's guides for HARP and ISC are noted in the reference section of this document and should be consulted for troubleshooting or when background information is needed on a topic. The purpose of this document is to clarify the requirements for the air dispersion model using ISC and the health risk assessment using HARP.

1.2 Applicability

A Health Risk Assessment (HRA) must be completed for any facility that meets any of the following criteria:

1. A new or existing facility whose permitted criteria pollutant emissions are 10 tons per year or greater.

2. A new or existing facility emitting less than 10 tons per year of criteria pollutant emissions and the facility class is listed in Appendix E of ARB's 2007 "Emission Inventory Criteria and Guidelines" (and any updates thereof). Note that an HRA is required even if a permit is not required (e.g., the applicant is requesting an exemption). Appendix E may be found at http://www.arb.ca.gov/ab2588/final/e.pdf .

3. A new or existing facility identified by the District as posing a concern to public health. These include, but are not limited to, the following: the project requires a school notice pursuant to H&SC §42301.6; a health risk assessment (HRA) is required via the CEQA process; another public agency has requested that a HRA be performed; or a screening table or model shows the emissions from this facility may result in a significant risk.

2. Air Dispersion Model

At this time the District requires that EPA's ISC (Industrial Short Term) Model be used to perform air dispersion modeling for health risk assessments. Furthermore, the District requires that the health risk assessment be performed in the California Air Resources Board's HARP (available for download at http://www.arb.ca.gov/toxics/harp/harp.htm). When HARP has been updated to allow for EPA's AERMOD model and there are District-approved meteorology data sets available, these guidelines will be revised to allow for the use of AERMOD. The current version of HARP is Version 1.4f (Build 23.11.01), which incorporates ISC version 99155 and BPIP dated 04112.

2.1 Control Options - Regulatory and Non-Regulatory Options

The ISC model contains several regulatory options, which are set by default, as well as non-regulatory options. The District requires the following control options (non-regulatory):

Table 2.1 – Control Options for Dispersion Model

Control Option	Assumption
Use Regulatory Default?	No
Gradual Plume Rise?	Yes
Stack Tip Downwash?	Yes
Buoyancy Induced Dispersion?	No
Calms Processing?	No
Missing Data Processing?	No
Include Building Downwash?	Yes
Lowbound Option?	No

The use of any other control option must be justified through a discussion in the HRA report and approved by the District.

2.2 Source Parameters

The following sections outline the primary source types and their input requirements. Detailed descriptions of the input fields are found in EPA's ISC User Guide (see References 1 and 2). All units specified below are based on input into HARP. The units specified below may not apply if ISC is run outside of HARP.

2.2.1 Point Sources

A point source is the most common type of release and is characterized by a traditional stack or isolated vent. Example point sources include combustion equipment with stacks and closed fixed roof tanks. See below for special notes on input requirements for point sources:

- X Coordinate: Easting UTM at the center of the point source.
- Y Coordinate: Northing UTM at the center of the point source.
- Release Height (or stack height) above Ground [feet]: The source release height above the ground.
- Stack Diameter [ft]: The inner diameter of the stack.

2.2.2 Area Sources

Area sources are used to model releases that occur over an area. Example area sources include landfills, open tanks, storage piles, slag dumps, and lagoons. The ISC model accepts rectangular areas that may also have a rotational angle specified relative to a north-south orientation. See below for special notes on input requirements for area sources. Refer to EPA's ISC User Guide (Reference 1) for more details on inputting area source data.

- X Coordinate: Easting UTM for the vertex (corner) of the area source that occurs in the southwest quadrant of the source
- Y Coordinate: Northing UTM for the vertex (corner) of the area source that occurs in the southwest quadrant of the source
- Release Height above Ground [ft]: The release height above ground.
- Options for Defining Area: The only option for defining the area is a rectangle or square. The maximum length/width aspect ratio for area sources is 10 to 1.

- Irregularly Shaped Areas: An irregularly shaped area can be represented by dividing the area source into multiple smaller areas (i.e., multiple rectangles).
- Orientation Angle: If the angle is not zero, the model will rotate the area source clockwise around the vertex. The vertex is defined by the UTM coordinates given for the area source. See Figure 2.2.2 for visual representation of the relationship between the angle, length of x side and length of y side.

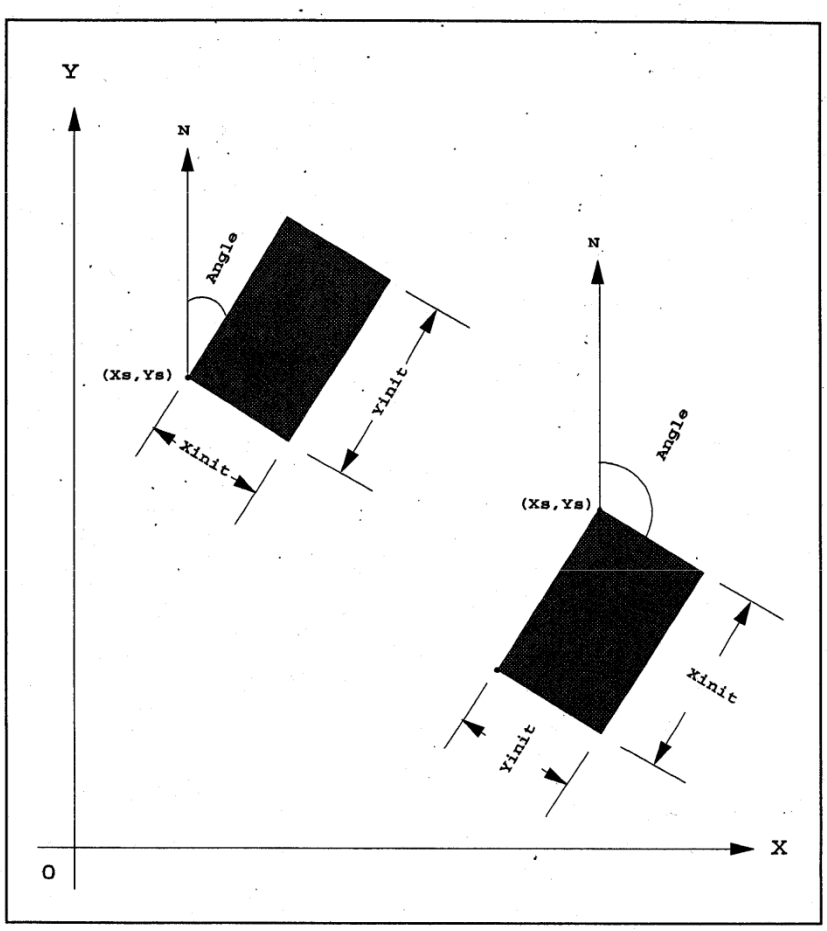


Figure 2.2.2 – Relationship of Area Source Parameters for Rotated Rectangle

2.2.3 Open Pit Sources

The open pit algorithm uses an effective area for modeling pit emissions, based on meteorological conditions. The model then treats the effective area as an area source to determine the impact of emissions. The ISC model accepts rectangular areas that may also have a rotational angle specified relative to a north-south orientation. See below for special notes on input requirements for area sources. Refer to EPA's ISC User Guide (Reference 1) for more details on inputting open pit source data.

- X Coordinate: Easting UTM for the vertex (corner) of the open pit that occurs in the southwest quadrant of the source
- Y Coordinate: Northing UTM for the vertex (corner) of the open pit that occurs in the southwest quadrant of the source
- Release Height above Ground [ft]: The average release height above the base of the pit. The release height cannot exceed the effective depth of the pit, which is calculated by the model based on the length, width and volume of the pit. A release height of zero indicates emissions are released from the base of the pit.
- Options for Defining the Open Pit: The open pit may be represented as a rectangle with a length to width ratio, aspect ratio, of up to 10 to 1. However, since the open pit algorithm generates an effective area for modeling emissions from the pit, and the size, shape and location of the effective area is a function of wind direction, an open pit cannot be subdivided into a series of smaller sources. If the aspect ratio is large than 10, the user should characterize the irregularly shaped pit areas by a rectangular shape of equal area.
- Orientation Angle: If the angle is not zero, the model will rotate the open pit clockwise around the vertex. The vertex is defined by the UTM coordinates given for the area source. See Figure 2.2.2 for visual representation of the relationship between the angle, length of x side and length of y side.

2.2.4 Volume Sources

Volume sources are used to model releases from a variety of industrial sources, such as building roof monitors, fugitive leaks from an industrial facility, multiple vents, conveyor belts, wipe cleaning, and general solvent usage. A volume source is a square area with a vertical dimension. See below for special notes on input requirements for volume sources:

- X Coordinate: Easting UTM at the center of the volume source.
- Y Coordinate: Northing UTM at the center of the volume source.
- Release Height above Ground [ft]: The release height above surface at the center of volume.
- Length of Side [ft]: The length of the side of the volume source. The volume source cannot be rotated and has the X side equal to the Y side (square).
- An irregularly shaped volume can be represented by dividing the volume source into multiple smaller volumes (i.e., multiple boxes).
- Initial Lateral Dimension (σ_{yo}) [ft]: This parameter is calculated by choosing the appropriate condition in Table 2.2.4 below.
- Initial Vertical Dimension (σ_{zo}) [ft]: This parameter is calculated by choosing the appropriate condition in Table 2.2.4 below.

Table 2.2.4 Summary of Suggested Procedures for Estimating Initial Lateral Dimension (σ_{yo}) and Initial Vertical Dimension (σ_{zo}) for Volume and Line Sources.	
Type of Source	**Procedure for Obtaining Initial Dimension**
Initial Lateral Dimension	
Single Volume Source	σ_{yo} = (side length in feet)/4.3
Line Source Represented by Adjacent Volume Sources	σ_{yo} = (side length in feet)/2.15
Line Source Represented by Separated Volume Sources	σ_{yo} = (center to center distance in feet)/2.15
Initial Vertical Dimension	
Surface-Based Source ($h_e \sim 0$)	σ_{zo} = (vertical dimension of source in feet)/2.15
Elevated Source ($h_e > 0$) on or Adjacent to a Building	σ_{zo} = (building height in feet)/2.15
Elevated Source ($h_e > 0$) not on or Adjacent to a Building	σ_{zo} = (vertical dimension of source in feet)/4.3

2.2.5 Line Sources

Examples of line sources are conveyor belts and rail lines. ISC does not have a default line source type. However, ISC can simulate line sources through a series of volume sources. If line sources are necessary, follow the methodology outlined in the "Line Source Represented by Separated Volume Sources" as described in Volume II of the EPA ISC User's Guide (Reference 3).

2.3 Building Impacts and Area of Influence

Buildings and other structures near a relatively short stack can have a substantial effect on plume transport and dispersion, and on the resulting ground-level concentrations that are observed. Building downwash for point sources that are within the Area of Influence of a building must be considered. A building is considered sufficiently close to a stack to cause wake effects when the distance between the stack and the nearest part of the building (Area of Influence) is less than or equal to five (5) times the lesser of the building height or the projected width of the building.

$Distance_{stack\text{-}bldg} \leq 5L$

where, L = Lesser of the Building Height (PB) or Projected Building Width (PBW)

2.3.1 Defining Buildings

The following information is required to perform building downwash analysis:

- UTM coordinates for all building corners (including easting and northing).
- Height for all buildings (meters). For buildings with more than one height or roofline, identify each height (tier).
- Base elevations for all stacks and buildings. **The base elevation for buildings must be included in the *Facility and Emissions* module of HARP. The DEM files will not populate this information in the *Dispersion Analysis* module.**

2.4 UTM Coordinate System

The coordinate system used for ISC is Universal Transverse Mercator (UTM). Ensure all model objects (sources, buildings, receptors) are defined in the same horizontal datum. Defining some objects based on

a NAD27 (North American datum of 1927) while defining others within a NAD83 (North American datum of 1983) can lead to significant errors in relative locations.

2.5 Terrain

Terrain elevation is the elevation relative to the facility base elevation. Terrain elevations can have a large impact on the air dispersion modeling results. The following elevation options shall be used in the dispersion model:

- For facilities with all neighboring parcels graded to the same level, the dispersion model may be run with "FLAT" terrain heights.
- If there are elevation changes surrounding the facility, choose "ELEV" for terrain heights and "BOTH" for the terrain model, with the appropriate Digital Elevation Model (DEM) files.

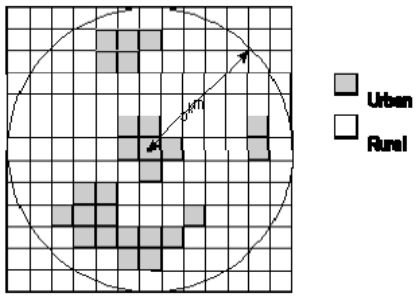
Keep in mind that the USGS DEMs can be in one of two horizontal datums. Older DEMs were commonly in NAD27 (North American Datum of 1927) while many of the latest versions are in NAD83 (North American Datum of 1983).

Elevation data should be obtained from Digital Elevation Model (DEM) files. USGS DEMs are available for California from ARB at (http://www.arb.ca.gov/toxics/harp/maps.htm) in 7.5-minute format for use in the ARB HARP program.

2.6 Defining Urban and Rural Conditions

The classification of a site as urban or rural can be based on the Auer method specified in the EPA document *Guideline on Air Quality Models (40 CFR Part 51, Appendix W) (see reference 4)*. Follow the Auer method, explained below, for the selection of either urban or rural dispersion coefficients:

1. Draw a circle with a radius of 3 km from the center of the emission source or centroid of the polygon formed by the facility emission sources.
2. If land use types are industrial, commercial, dense single/multi-family, and multi-family, two-story account for 50 % or more of the area within the circle, then the area is classified as urban, otherwise the area is classified as rural.
3. To verify if the area within the 3 km radius is predominantly rural or urban, overlay a grid on top of the circle and identify each square as primarily urban or rural. If more than 50 % of the total number of squares is urban then the area is classified as urban; otherwise the area is rural.



From the Auer method, areas typically defined as Rural include:

- Residences with grass lawns and trees
- Large estates
- Metropolitan parks and golf courses
- Agricultural areas
- Undeveloped land
- Water surfaces

Auer defines an area as Urban if it has less than 35% vegetation coverage or the area falls into one of the following use types:

Table 2.6 - Urban Land Use	
Use and Structures	**Vegetation**
Heavy industrial	Less than 5%
Light/moderate industrial	Less than 5%
Commercial	Less than 15%
Dense single / multi-family	Less than 30%
Multi-family, two-story	Less than 35%

2.7 Meteorology Data

The District has compiled meteorological data for use in ISC. If multiple years exist for more than one station, use all years in analysis. You may request the data by emailing the District at: engr@sbcapcd.org. Please contact the District if you wish to use alternative meteorological data or are performing a risk assessment for an area not listed below.

Table 2.7 Available meteorological data sets for Santa Barbara County

File Name	Station Name	Site No.	Station No.	Year	Location	Area for Use
Bat88.asc	Battles	1	93214	1988	Battles Gas Plant	Eastern Santa Maria
Bat89.asc	Battles	1	93214	1989	Battles Gas Plant	
Car88.asc	Carpinteria	18	93111	1988	Carpinteria	Inland Carpinteria
Car89.asc	Carpinteria	18	93111	1989	Carpinteria	
Gav88.asc	Gaviota West	19	93111	1988	Gaviota	Gaviota
Gav89.asc	Gaviota West	19	93111	1989	Gaviota	
LFC489.asc	LFC Site 4	4	93214	1989	Los Flores Canyon	Los Flores Canyon
LFC88.asc	Exxon Site 10	30	93111	1988	UCSB West Campus	Coastal Areas (e.g., Ellwood, coastal Carpinteria)
LFC89.asc	Exxon Site 10	30	93111	1989	UCSB West Campus	
Lom88.asc	Lompoc H St	3	93214	1988	Lompoc	Lompoc
Lom89.asc	Lompoc H St	3	93214	1989	Lompoc	
Sbc63.asc	Santa Barbara	23190	23190	1963	Santa Barbara Airport	Santa Barbara
Smx63.asc	Santa Maria	23273	23273	1963	Santa Maria Airport	Santa Maria

2.8 Receptors

Receptor selection is critical to capturing the point of maximum impact. The proper placement of receptors can be achieved through several approaches as discussed below.

The receptor network must provide adequate coverage to capture the maximum pollutant concentration. The receptor network should include a Cartesian grid, property boundary receptors, and any sensitive receptors in the area. Polar coordinates may also be used to ensure that maximum concentrations are obtained. (Polar coordinates may be added via sensitive receptors in HARP, but at this time require a separate utility to generate the polar grid.) Tall stacks could require grids extending 1 to 3 km while the point of maximum impact from shorter stacks (10 - 20 m) may be obtained using grids extending 1 km or less from the property line. The flagpole height should be set to 1.5 meters for all receptors.

2.8.1 Sensitive Receptors

All sensitive receptors within 1 km of the proposed site, unless otherwise determined by the District, should be included in any modeling runs. A sensitive offsite receptor is defined as the following:

- Schools
- Daycare facilities
- Hospitals
- Care facilities (adult/elderly)
- Residential or commercial (if not covered by another grid receptor)
- Air intakes on nearby buildings
- Parks

2.8.2 Onsite Receptors

In special situations, there will be sensitive receptors within the facility boundary. For example, if a boarding school would like to install a diesel generator and a risk assessment is required, the onsite dorms must be considered in the risk assessment. Other cases like this include schools, daycare facilities, hospitals and care facilities (adult/elderly). In these situations, the building in which people sleep (e.g., dorms) or spend the majority of their day (e.g., day care building) must be included as a receptor.

2.8.3 Cartesian Receptor Grids

HARP will create a grid of Cartesian receptors that are defined by an origin with receptor points in x and y directions. For small property boundaries like gas stations, the grid points must be no greater than 20 meters apart. For facilities with very large property boundaries (e.g., oil and gas leases), the grid points must be no greater than 100 meters apart. If it appears that the grid receptors are not close enough to capture the point of maximum impact, the District will require the HRA to be rerun with a finer grid. For facilities with a large number of emitting sources and a large property boundary, fine grid spacing will significantly impede the ISC run time. It may be necessary to run the HRA with a course grid to determine the areas of highest risk and then rerun the HRA with a finer grid in those areas. If this method is used, finer grids should be used for all areas with high concentrations, not just the single highest area. Until HARP allows for multiple grids, this may require numerous runs.

The grid shall extend at least 1 km from the property boundary. If there are significant impacts near the edge of the grid, the grid must be extended farther.

2.8.4 Property Boundary Receptors

Receptors shall be placed along the property boundary and may be used to determine the point of maximum impact. The spacing of these receptors depends on the distance from the emission sources to the facility boundaries. For cases with emissions from short stacks or vents and a close property line, a

receptor spacing of 10-25 meters may be required. For larger facilities, like oil and gas leases, a spacing of 50-100 meters is more practical. A second run may be required with a finer spacing if the point of maximum impact is at or near the property boundary.

3. Risk Assessment

3.1 Analysis Method

The 70 year (adult resident) exposure duration with the Derived (Adjusted) Method shall be used to determine the cancer risk for any parcels that are zoned residential, recreational or public. For parcels zoned industrial, the 40 year worker exposure point estimate may be used. For parcels zoned commercial or any other land use type, the zoning ordinance must be consulted to determine if residences are permitted in that zoning type. If residences are allowed, the 70 year (adult resident) exposure duration shall be used. If residences are prohibited, the 40 year worker exposure duration may be used. The Derived (OEHHA) Method shall be used to determine the chronic hazard index.

3.1.1 Worker Exposure – Industrial Zoning

If the parcels surrounding your facility are zoned industrial, the cancer analysis may be run with a worker exposure duration of 40 years instead of the residential exposure of 70 years. Alternatively, the applicant may choose to run the 70 year residential exposure for all areas. If the residential exposure shows there is no significant risk, it is not necessary to run the worker exposure scenario.

3.1.2 Worker Exposure – Ground Level Adjustment Factor

When the worker exposure scenario is used, it may be necessary to use a ground level concentration (GLC) adjustment factor. If the annual average concentration of pollutants from the emitting facility (determined by the air dispersion model) is different than the air concentration that the worker breathes when present at the site, then the annual average concentration for the worker inhalation pathway will need to be adjusted. For example, if the offsite worker and emitting facility are on concurrent schedules (i.e., the worker has a standard working schedule of eight hours per day, 5 days a week, and the facility emits the same 5 days a week, 8 hours per day), then the annual average air concentrations for the worker inhalation pathway would need to be approximated by adjusting it upward using a factor of 4.2 (7/5 x 24/8). The annual average determined by the air modeling program is a 24 hour per day, 7 days per week, 365 days per year regardless of the actual operating schedule of the facility. The adjustment simply reflects the air concentration that the worker breathes. If the worker is only present some or none of the time that the facility is operating, then the average concentration that the worker breathes over his or her working day may be used. For example, if the facility emits during the day, five days a week, and the offsite worker is working only at night, then no inhalation exposure would occur.

3.2 Site Parameters for Multipathway Analysis

If your facility emits any multipathway pollutants, a multipathway analysis is required. Use all the pathways that are recommended below. HARP will determine the appropriate pathway for each pollutant based on the pathways you specify for the HRA. The specific pathways than can be evaluated for multipathway pollutants may be found in Table 5.1 of OEHHA's *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf).

- **Dermal.** Always include this pathway. No default information is required.
- **Soil Ingestion.** Always include this pathway. No default information is required.
- **Mothers Milk.** Always include this pathway. No default information is required.

- **Home Grown Produce.** Include this pathway for initial HRA. Use the default fraction consumed values listed in HARP unless site specific information is available. If the risk is significant, determine if there are residences within the isopleth[1]. If there are no residences in the isopleth[1], or the residences clearly do not have a garden (e.g., dorm), rerun HRA without this pathway.
- **Chicken/Eggs.** Include this pathway for initial HRA. Use the default fraction consumed values listed in HARP unless site specific information is available. If the risk is significant, determine if there are residences within the isopleth[1]. If there are no residences in the isopleth[1], or the residences clearly do not have chickens (e.g., apartments, dorms), rerun the HRA without chickens/eggs. If it seems possible that the residences have chickens, the source may have the opportunity to prove that there are no chickens in the isopleth (e.g., citing regulations/city ordinance that farm animals are not allowed in that area).
- **Drinking Water.** Do not include this pathway for initial HRA. Rerun the HRA with this pathway only if there is a pond or other water source that is used directly for drinking water (i.e., municipal water sources should not be included) within the isopleth[1]. The fraction consumed and the location, area, volume and number of volume changes per year of the pond/water source are required information to use this pathway.
- **Fish.** Do not include this pathway for initial HRA. Rerun the HRA with this pathway only if there is a fish pond or lake within the isopleth[1]. The fraction consumed and the location, area, volume and number of volume changes per year of the pond/lake are required information to use this pathway.
- **Beef/Dairy, Pigs.** Do not include these pathways (separate pathways) for initial HRA. Rerun the HRA with this pathway only if there is a pasture or pig farm in the isopleth[1]. The fraction consumed and the location, area, volume and number of volume changes per year of the pasture's water source are required information to use the beef/dairy pathway. For pigs, use the default fraction consumed and feed fraction values listed in HARP unless site specific information is available.

3.3 Point of Maximum Impact

The offsite Point of Maximum Impact (PMI) must be reported. This value will be compared to the District's significant risk threshold to determine if the project creates a significant risk to the surrounding community. To further clarify, the offsite PMI may be a boundary receptor, grid receptor or a sensitive receptor. No residence or business is required to occupy the offsite PMI.

3.4 Health Effects

Health effects are divided into cancer and non-cancer risks. "Cancer risk" refers to the increased chance of contracting cancer as a result of an exposure, and is expressed as a probability: chances-in-a-million. The values expressed for cancer risk do not predict actual cases of cancer that will result from exposure to toxic air contaminants. Rather, they state a possible risk of contracting cancer over and above the background level.

For non-cancer health effects, risk is characterized by a "Hazard Index" (HI), which is obtained by dividing the predicted concentration of a toxic air contaminant by a Reference Exposure Level (REL) for that pollutant that has been determined by health professionals. RELs are used as indicators of the potential adverse effects of chemicals. A REL is the concentration at or below which no adverse health effects are anticipated for specific exposure duration. Thus, the HI is a measure of the exposure relative to a level of safety and is appropriately protective of public health.

[1] Any reference to isopleth refers to the isopleths of 1 in a million for cancer risk and a hazard index of 0.1 for both chronic and acute.

3.5 Significant Risk Thresholds

In June 1993, Santa Barbara County Air Pollution Control Board of Directors (District's Board) adopted health risk notification levels. The risk notification levels were set at 10 per million for cancer risk and a Hazard Index of 1.0 for non-cancer risk. Risk reduction thresholds were adopted by the District's Board on September 17, 1998. These risk reduction thresholds were set at the same level as the public notification thresholds.

If any of the above significant risk thresholds are met or exceeded, the District will require public notification and risk reduction. If the HRA was submitted for a new project, the project will be denied or be required to be revised to include measures that reduce the risk below the significance thresholds.

4. Report for Health Risk Assessment

The applicant is required to perform the health risk assessment and submit a HRA report and electronic files for the District's review. A $1500 non-refundable fee is required for the District to review the HRA. The following is required as part of the Health Risk Assessment:

1. A health risk assessment report that complies with the Office of Environmental Health Hazard Assessment's (OEHHA) guidelines as discussed in Chapter 9, *Summary of the Requirements for a Modeling Protocol and a Health Risk Assessment Report*, of OEHHA's HRA guidance document, *Air Toxics Hot Spots Program Risk Assessment Guidelines*. This document is available at: http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

2. Submit the following HARP files in electronic format:

   - Transaction file with facility and emission inventory data (filename.TRA)
   - ISC workbook file with all ISC parameters (filename.ISC).
   - ISC input file generated by HARP when ISC is run (filename.INP)
   - ISC output file generated by HARP when ISC in run (filename.OUT)
   - ISC binary output file; holds X/Q for data for each hour (filename.BIN)
   - List of error messages generated by ISC (filename.ERR)
   - Sources receptor file; contains list of sources and receptors for the ISC run; generated by HARP when you set up ISC (filename.SRC)
   - Point estimate risk values generated by HARP; this file is updated automatically each time you perform one of the point estimate risk analysis functions (filename.RSK)
   - Average and maximum X/Q values for each source-receptor combination; generated by ISC (filename.XOQ)
   - Plot file generated by ISC (filename.PLT)
   - Representative meteorological data used for the facility air dispersion modeling (filename.MET)
   - Site-specific parameters used for all receptor risk modeling (filename.SIT)
   - Map file used to overlay facility and receptors (filename.DEB)
   - Digital Elevation Map (DEM) file(s) used (filename.DEM)
   - Meteorology data file(s) used (filename.MET or filename.ASC)
   - Emission calculation file(s) used (filename.xls or filename.xlsx)

If the health risk assessment or HRA report fail to comply with these guidelines, the health risk assessment and report will be returned to the applicant for revision.

5. References

1. U.S. Environmental Protection Agency, 1995. User's Guide for the Industrial Source Complex (ISC3) Dispersion Models (Revised), Volume 1. EPA-454/B-95-003a. Office of Air Quality Planning and Standards, Research Triangle Park, NC.

2. U.S. Environmental Protection Agency, 1997. Addendum to ISC3 User's Guide – The Prime Plume Rise and Building Downwash Model. Submitted by Electric Power Research Institute. Prepared by Earth Tech, Inc., Concord, MA.

3. U.S. Environmental Protection Agency, 1995. User's Guide for the Industrial Source Complex (ISC3) Dispersion Models, Volume II – Description of Algorithms. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. Available from website http://www.epa.gov/scram001.

4. U.S. Environmental Protection Agency, 2001. Appendix W to Part 51 Guideline on Air Quality Models, 40 CFR Part 51. U. S. Environmental Protection Agency, Research Triangle Park, NC.

6. Contacts

For questions on the District's requirements for modeling, contact the District at:

phone: 805-961-8800
email: engr@sbcapcd.org

The District does not provide technical support for the ISC or HARP models. For questions on the HARP model, contact ARB at:

phone: (916) 323-4327
email: harp@arb.ca.gov
web: http://www.arb.ca.gov/toxics/harp/harp.htm

Appendix A

1. Special Considerations in Air Dispersion Modeling

During some air quality studies, modelers may encounter certain emitting scenarios that require special attention. Some examples include horizontal sources or special operating schedules. The following sections outline modeling techniques to account for the special characteristics of such scenarios.

1.1 Horizontal Sources and Rain Caps

Both horizontal flues and vertical flues with rain caps have little or no initial vertical velocity. Plume rise calculations in ISC take into account both rise due to vertical momentum of the plume as it leaves the stack and the buoyancy of the plume. This may result in an over prediction of the plume rise, and resulting under prediction of ground-level concentrations, in these models.

This problem can be alleviated by modifying the source input parameters to minimize the effects of momentum while leaving the buoyant plume rise calculations unchanged. An approach to modeling this is to modify the source input parameters to minimize the effects of momentum while leaving the buoyant plume rise calculations unchanged. The U.S. EPA outlines such an approach in its Model Clearinghouse Memo 93-II-09[2], and the approach is expressed, in part, in Tikvart[3]. This approach is to reduce the stack gas exit velocity to 0.001 m/s, and calculate an equivalent diameter so that the buoyant plume rise is properly calculated. To do this, the stack diameter is specified to the model such that the volume flow rate of the gas remains correct. In the case of horizontal flues, there will be no stack tip downwash, so that option should be turned off for that case. In the case of vertical flues with rain caps, there will be frequent occurrences of stack tip downwash, however the effect of the stack tip downwash (reduction of the plume height by an amount up to three times the stack diameter) may be underestimated in the model. This can be corrected, somewhat conservatively, by turning off the stack tip downwash option and lowering the specification of the stack height by three times the actual stack diameter (the maximum effect of stack tip downwash).

With the above references in mind, it should be noted that lower exit velocities could cause issues with ISC PRIME. This exit velocity still effectively eliminates momentum flux and can produce parameters that will not impede model execution. Furthermore, for cases where exit temperature significantly exceeds ambient temperature the District may consider use of effective diameter or effective temperature values to account for buoyancy flux.

A sample step-by-step approach is as follows. In this discussion,

V = actual stack gas exit velocity
V' = stack gas exit velocity as entered into the model (ISCST3)
D = actual stack inside diameter
D' = stack inside diameter as input to the model
H = actual stack height
H' = stack height input to the model
For the source of consideration, modify its parameters as follows:

[2] U.S. EPA, 1993. Model Clearinghouse Memo 93-II-09. A part of the Model Clearinghouse Information Storage and Retrieval System (MCHISRS). Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711

[3] Tikvart, J.A., 1993. "Proposal for Calculating Plume Rise for Stacks with Horizontal Releases or Rain Caps for Cookson Pigment, Newark, New Jersey," a memorandum from J.A. Tikvart to Ken Eng, U.S. EPA Region 2, dated July 9, 1993. Available from website http://www.epa.gov/scram001/guidance/mch/cfym89.txt, as of April 2003.

1. Set V'=0.01 m/s
2. Set D'=D*SQRT(V/V')
3. If the source is a vertical stack with a rain cap, account for the frequent stack tip downwash by reducing the stack height input to the model by three times the actual stack diameter: H'=H-3D

1.2 Variable Emissions

The ISC model contains support for variable emission rates. This allows for modeling of source emissions that may fluctuate over time. Emission variations can be characterized across many different periods including hourly, daily, monthly and seasonally.

1.2.1 Non-Continuous Emissions

Sources of emissions at some locations may emit only during certain periods of time. Emissions can be varied within the ISC model by applying factors to different time periods.

For example, for a source that is non-continuous, a factor of 0 is entered for the periods when the source is not operating or is inactive. Model inputs for variable emissions rates can include the following time periods:

- Seasonally
- Monthly
- Hourly
- By Season and hour-of-day
- By Season, hour-of-day, and day-of-week
- By Season, hour, week

1.2.2 Plant Shutdowns and Start-Ups

Plant start-ups and shutdowns can occur periodically due to maintenance or designated vacation periods. The shutdown and subsequent startup processes impact emissions over the related time periods. As an example, process upsets in the combustion units or air pollution control system can also impact emissions; these upsets can often result in the release of uncontrolled emissions through the emissions sources. As a result, over short periods of time, upset emissions are often expected to be greater than normal source emissions[4].

These emission differences can be accounted for by the application of variable emission factors.

For Example:

Assume that a turbine operates 14 hours per day (1 startup, 1 shutdown, and 12 hours of normal operation

Given:
Modeled Emission Rate = 1 g/s (normalized emissions rate)
Operation Schedule = 6 AM – 7PM
Startup/Shutdown Emissions are twice that of normal operating emissions

[4] U.S. EPA - Office of Solid Waste and Emergency Response, July 1998. Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities. EPA530-D-98-001A. U. S. Environmental Protection Agency, Research Triangle Park, NC.

The model will calculate a new emissions rate using the data found in the table below:

Calculation : Modeled Emissions Rate * Emission Rate Adjustment Factor

Emissions Rate for when not operating = 1 g/s * 0 = 0 g/s
Emissions Rate for during shutdown or startup = 1 g/s * 2 = 2 g/s
Emissions Rate during normal operations = 1 g/s * 1 = 1 g/s

Non-Continuous Emissions (Hours of Day):

Morning Hours		Afternoon Hours	
Hour of the Day	**Emissions Rate Adjustment Factor**	**Hour of the Day**	**Emissions Rate Adjustment Factor**
1	0	1	1
2	0	2	1
3	0	3	1
4	0	4	1
5	0	5	1
6	2	6	1
7	1	7	2
8	1	8	0
9	1	9	0
10	1	10	0
11	1	11	0
12	1	12	0

Appendix B

1. Modeling Specific Source Types

This appendix will be updated with additional source types in the future.

1.1 Gasoline Dispensing Facilities

See District Form-25T (http://www.sbcapcd.org/eng/dl/appforms/apcd-25T.pdf) for specific modeling instructions for gas stations.

1.2 Liquid Storage Tanks

Storage tanks are generally of two types—fixed roof tanks and floating roof tanks. In the case of fixed roof tanks, most of the pollutant emissions occur from a vent, with some additional contribution from hatches and other fittings. In the case of floating roof tanks, most of the pollutant emissions occur through the seals between the roof and the wall and between the deck and the wall, with some additional emissions from fittings such as ports and hatches.

Approaches for modeling emission impacts from various types of storage tanks are outlined below.

Fixed roof tanks:

- Model as a point (stack) source.
- The point source inputs should represent the tank vent (usually in the center of the tank).
- The tank should also be represented as a building for downwash calculations.

There is virtually no plume rise from tanks. Therefore, the stack parameters for the stack gas exit velocity and stack diameter should be set to near zero for the stacks representing the emissions. In addition, stack temperature should be set equal to the ambient temperature. This is done in ISC by inputting a value of 0.0 for the stack gas temperature.

Note that it is very important for the diameter to be at or near zero. With low exit velocities and larger diameters, stack tip downwash will be calculated. Since all downwash effects are being calculated as building downwash, the additional stack tip downwash calculations would be inappropriate. Since the maximum stack tip downwash effect is to lower plume height by three stack diameters, a very small stack diameter effectively eliminates the stack tip downwash.

Table B.2 - Stack parameter values for modeling tanks.

Velocity	Diameter	Temperature
Near zero i.e. 0.01 ft/min	Near zero i.e. 0.01ft	Ambient – 0.0 sets models to use ambient temperature

Floating roof tanks:

- Model as an area source.
- The area source inputs should represent the diameter of the tank and the height of the tank.
- The tank should also be represented as a building for downwash calculations.

Appendix C

1. District Approved Emission Factors

This section is reserved for future use. Contact the District for approval of your proposed emission factors prior to performing the HRA.

Response to Comment No. 4-1

This comment provides an introduction to subsequent comments, stating information about the commenter, his review, and his objection to any lot split of the project site. It also states that the impact comparison (Table 6-1) does not seem to match the text discussion, without providing specific information. The comment provides a similar table, with an additional column marked "Comparison Review Results," but it is unclear which alternative(s) this column is reflecting.

The specific references to air quality, biological resources, greenhouse gas emissions, noise, transportation and traffic, and agricultural resources that appear in Comment 4-1 appear to relate to the comparison between the proposed project and Alternative 2 (Page Property/Key Site 6). In responding to the comment, the lead agency has re-reviewed both the alternatives comparison table and the discussion of the Page Property/Key Site 6 as it appears in Chapter 6 of the EIR, and made revisions for the reasons discussed in response to Comments 4-4, 4.5, and 4-7. Those changes, however, do not change the EIR's recommended conclusions regarding the selection or dismissal of alternatives.

See responses to subsequent comments by this commenter for specific responses.

Response to Comment No. 4-2

This comment makes reference to an analysis method using "sensitive receptors," based on the SBCAPCD's "Modeling Guidelines for Health Risk Assessment" (Modeling Guidelines). The comment requests that this method be used for other analyses, not just health risk assessment for air pollution emissions. However, under Modeling Guidelines Section 1.2, Applicability, the modeling guidelines are only applicable for performing health risk assessments related to air pollution emissions under certain conditions (e.g., when emissions exceed 10 tons per year or otherwise pose a public health concern) (Santa Barbara County Air Pollution Control District 2012). The project does not meet the Modeling Guidelines' identified conditions necessary for a health risk assessment.

The EIR uses the term "sensitive receptor" in two types of analysis: air quality and noise. However, in each case, the definition of sensitive receptor is different than that used in the health risk assessment methodology. As identified in the City's *Environmental Thresholds and Guidelines Manual* (Thresholds Manual), page 27, with regard to air quality analysis, sensitive receptors are generally defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions would affect the use of the land. For noise, sensitive receptors in the Thresholds Manual (page 131) are tied to land uses generally regarded as being more sensitive to noise, including residential, guest lodging, hospitals, nursing homes/long-term medical care facilities, educational facilities, libraries, churches, and places of assembly. Therefore, because the definition of "sensitive receptor" is not the same as that used in the methodology for performing a health risk assessment, that method would not be appropriate for these resources. The assumptions used for sensitive receptors with regard to air quality and noise impacts in the EIR are consistent with the Thresholds Manual's specific criteria for evaluating noise and air quality impacts and these threshold criteria have been added to the air quality and noise sections of the EIR for clarification. With regard to educational facilities, the childbirth business located on David Love Place is not considered an educational facility. It is an office use, which sells childbirth education materials.

Response to Comment No. 4-3

This comment lists types of sensitive receptors for health risk assessments and requests that these receptors be listed in the EIR.

As stated in the response to Comment 4-2, the project does not require a health risk assessment because it does not meet the conditions required for that analysis. Further, the evaluation of "sensitive receptors" in noise and air quality contexts is consistent with the criteria for evaluating sensitive receptors/sensitive uses in the Thresholds Manual.

Response to Comment No. 4-4

This comment states that the sensitive receptor analysis was faulty and that the air quality, GHG, and noise impacts for Alternative 2 (Page Property) should be "similar," not greater.

According to the State CEQA Guidelines, Section 15126.6(d), an EIR "shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison."

In Chapter 4, the EIR analyses for air quality, GHG emissions, and noise were performed in accordance with CEQA and the City's Thresholds Manual to determine the relative severity of the project's impacts.

For the air quality analysis, the analysis considered "sensitive receptors" consistent with the air quality section of the City's Thresholds Manual (page 27) (see response to Comment 4-2). The Alternative 2 site is much closer to residential areas, where children and the elderly may reside. The Alternative 2 site is adjacent to one residential land use to the east, within 400 feet of a mobile home park to the west, and within 400 feet of the Willow Creek Condominium development to the north. The Alternative 2 site is also adjacent to the Goleta Valley Community Center, which includes regular programs for both children and the elderly. In contrast, the closest residential use to the project site, Willow Springs, is approximately 1,400 feet to the west. In addition to the greater distance, Willow Springs residences are "buffered" from project noise and construction emissions by substantial existing development along Robin Hill Road and Aero Camino. Therefore, it is more likely that Alternative 2 would affect dust and pollutant-sensitive members of the population during construction, as discussed in Section 6.2.2.2 of the EIR, resulting in greater air quality impacts than the proposed project.

For GHG emissions, the comparative analysis in Section 6.2.2.6 of the Draft EIR found that the impacts of Alternative 2 would be similar to those for the proposed project. However, there was an error in Table 6-1 stating that the impacts would be greater. This error is corrected in the Final EIR.

For noise, the comparative analysis in Section 6.2.2.10 of the EIR found that noise-sensitive receptors (see the response to Comment 4-2) would be exposed to potentially significant noise levels during construction. This would not occur on the proposed project site because there are no noise-sensitive land uses within the area that would be affected by construction noise. Therefore, Alternative 2 would result in greater short-term noise impacts, as discussed in the text and shown on Table 6-1.

In response to this and other comments, Table 6-1 of the EIR is revised as follows:

TABLE 6-1
COMPARISON OF ENVIRONMENTAL IMPACTS FOR PROJECT ALTERNATIVES

Environmental Effect	Impact of Alternatives Compared to the Proposed Project[1]			
	Proposed Project	**Alt 1: No Project**	**Alt 2: Page Property/ Key Site 6**	**Alt 3: Project Redesign/ Environmentally Superior Alternative**
Aesthetics and Visual Resources	II	NA / Less	II / Less	II / Less
Air Quality	III	NA / Less	III / Greater	III / Similar
Biological Resources	II	NA / Less	II / Similar or Greater	II / Similar
Cultural Resources (project impacts)	II	NA / Less	III / Less	II / Less
Cultural Resources (cumulative impacts)	I	NA / Less	III / Less	I / Less
Geology and Soils	II	NA / Less	II / Similar	II / Similar
Greenhouse Gas Emissions	III	NA / Less	III / ~~Greater~~ Similar	III / Similar
Hazards and Hazardous Materials	II	NA / Less	II / Less	II / Similar
Hydrology and Water Quality	II	NA / Less	II / Less	II / Similar
Land Use and Planning	II	NA / Less	II / Less	II / Less
Noise	III	NA / Less	III / Greater	III / Similar
Public Services	II	NA / Less	II / Similar	II / Similar
Transportation and Traffic	II	NA / Less	II / Greater	II / Similar
Utilities and Service Systems	II	NA / Less	II / Similar	II / Similar
Agricultural Resources	NA	NA	I / Greater	NA

[1] **Impact Comparison:**
The first symbol identifies the impact classification (e.g., NA = Not Applicable, Class I = significant and unavoidable, Class II = potentially significant, but mitigable to less than significant, Class III = adverse, but less than significant).
Next, there is a comparison to the project even if the classification is the same (e.g., both the proposed project and the alternative result in a Class II impact, but the alternative has "Less,", "Similar," or "More" of an impact compared to the proposed project).

Response to Comment No. 4-5

This comment states that there is no justification for the alternatives analysis to show greater impacts to biological resources for Alternative 2 than the proposed project.

Section 6.2.2.3 has been revised to clarify that Alternative 2 would have potentially significant indirect impacts—related to runoff into Goleta Slough via San Jose Creek and introduction of invasive species—similar to the proposed project impacts from runoff conveyance under Hollister Avenue and into Goleta Slough. Alternative 2 would also result in direct impacts to the Old San Jose Creek riparian corridor related to erosion, sedimentation, and wildlife movement. Similar to the project, mitigation for Alternative 2 would reduce these impacts to a less-than-significant level, but the additional impact to the Old San Jose Creek riparian habitat is why Alternative 2 was found to have impacts that were "similar or greater" than those of the

proposed project. Table 6-1 is revised in the Final EIR to state "similar or greater" to be consistent with the text in Section 6.2.2.3.

Section 6.2.2.3 is revised as follows:

> The Alternative 2 project site is bounded on the north by Old San Jose Creek. This riparian area has been subject to degradation due to historic realignment as well as a high level of adjacent urban development. Alternative 2 is expected to result in similar biological impacts as those identified in Section 4.3, "Biology," for the proposed project. ~~Impacts would, however, be focused on Old San Jose Creek instead of the Goleta Slough.~~ Potentially significant impacts are associated with erosion and sedimentation during site preparation activities[1] and long-term impacts on wildlife movement along this wildlife corridor, and from an increase in impervious surfaces, which would reduce natural bio-filtration of stormwater runoff from the site and that ~~which~~ may be laden with oil, grease, and other pollutants. Potentially significant indirect impacts related to runoff into Goleta Slough via San Jose Creek and introduction of invasive species would occur. Similar to the proposed project, impacts are expected to be mitigable to less-than-significant levels with implementation of the mitigation measures identified in Section 4.3 as well as additional mitigation requiring protective fencing along the creek corridor during grading and construction activities (unless the Ekwill extension is already under construction or completed). Therefore, biological impacts of Alternative 2 would be similar to or greater than those identified under the proposed project.

See response to Comment 4-4 for revisions to Table 6-1.

Response to Comment No. 4-6

This comment discusses the transportation and traffic impacts of Alternative 2 and appears to agree with the "greater" impact for Alternative 2 that was found in the EIR, but only in the short term until roadway improvements are completed.

Alternative 2 is expected to result in potentially significant impacts at the Hollister Avenue/Fairview Avenue, Hollister Avenue/Kellogg Avenue, and Hollister Avenue/State Route 217 intersections, both with and without the Ekwill/Fowler project improvements. These impacts would not occur with the proposed project at 6300 Hollister Avenue. Therefore, Alternative 2 would result in greater impacts to traffic than the proposed project.

Response to Comment No. 4-7

This comment acknowledges that impacts to agricultural land would be greater for Alternative 2 than for the proposed project (because the Alternative 2 site contains agricultural resources and the proposed project site does not), but claims that mitigation from the City of Goleta General Plan/Coastal Land Use Plan (GP/CLUP) Final EIR could reduce these impacts to a less-than-significant level.

Mitigation measures in the GP/CLUP Final EIR referred to in this comment include Policies CE 11.3, 11.4, and 11.8, which discuss compatibility with adjacent agricultural lands, buffers adjacent to agricultural parcels, and mitigation of impacts of new development on adjacent

[1] Depending on specific agricultural practices, continued cultivation may also result in erosion and sedimentation.

agriculture, respectively. However, Alternative 2 would involve the conversion of an existing, currently cultivated agricultural field with prime farmland soils. Other mitigation suggested in the comment includes dedication of other agricultural lands or open space. This mitigation is not considered feasible because of the difficulty in acquiring and preserving a similarly sized contiguous acreage of land with prime farmland soils, within the City's jurisdiction, that is not already designated for agricultural use. Further, dedication of land outside the City would not be enforceable by the City. Section 6.2.2.14 is revised to identify that the City's GP/CLUP Final EIR acknowledged Class I impacts on agriculture from conversion of agricultural land to other uses under GP buildout, including conversion of the Page property's approximately 12 acres of prime farmland.

Section 6.2.2.14 is revised as follows:

> Alternative 2 would convert the existing agricultural field to urban development. Conversion of this agricultural land to development was identified as an unavoidable adverse impact in the GOTRP EIR. The Goleta General Plan/Coastal Land Use Plan (GP/CLUP) Final EIR acknowledged a Class I impact (significant and unavoidable) on agriculture from conversion of agricultural land to other uses under buildout conditions, including conversion of the Page property's approximately 12 acres of prime farmland (GP/CLUP Final EIR Agricultural impact discussion included in Appendix V). The proposed project would not convert agricultural land to urban development. Therefore, Alternative 2 would result in greater impacts on agricultural resources than the proposed project.

Response to Comment No. 4-8

This comment lists several land uses as "sensitive receptors," including a residential subdivision 1,500 feet west of the site, Highway 101 located 1,750 feet north of the site, a school offering childbirth and professional training 1,450 feet from the site, and a "company park" 300 feet north of the site. (The comment does not provide more specific locations for these land uses.) The comment states that these "sensitive receptors" were not included in the impact assessment, while Highway 101 was included, but not listed.

The comment does not address what analyses should have considered these land uses in the CEQA evaluation. Only the air quality and noise analyses use sensitive receptors as a basis for analysis. Per the City's *Environmental Thresholds and Guidelines Manual* (Thresholds Manual), examples of sensitive receptors for air quality emissions are children, the elderly, or those who are acutely ill. For noise, the Thresholds Manual defines sensitive receptors as including schools, residential development, commercial lodging facilities, hospitals, and care facilities.

For air quality and noise analyses, the residential land use identified in the comment is too far away from the site and buffered by existing structural development, so it would not be significantly affected by short-term construction emissions or by noise impacts related to construction or operation of the project. There is a childbirth education business on David Love Place; however, this location is not a school, but an office. U.S. Highway 101 is not a sensitive receptor for either air quality or noise analysis. Private open spaces, such as the "company park" mentioned in the comment, are not usually considered "parks" for the purposes of air quality or noise analysis. This company open space is not used as a park by children and families, but by employees of an industrial/research facility. This outside use area for employees of the business park is adjacent to parking lots, roadways, and other industrial park businesses.

Because the land use and the population are not considered sensitive receptors, impacts related to air quality and noise would not be considered significant

Response to Comment No. 4-9

The comment states that the study area for the project's analysis was not in accordance with the SBCAPCD's "Modeling Guidelines for Health Risk Assessment."

All distances have been measured as a direct line from the edge of the property line closest to a property considered a sensitive receptor pursuant to the Thresholds Manual. According to the Thresholds Manual, construction noise is normally expected to result in potentially significant short-term noise impacts (exposure to noise levels of 65 A-weighted decibels [dBA] or greater) where noise-sensitive uses are located within 1,600 feet of a proposed development. However, the presence of structural development between the project site and sensitive receptors to the west is assumed to reduce the area exposed to significant noise levels.

See responses to Comments 4-2 and 4-8. The analysis in the Draft EIR used methodologies for evaluating impacts in accordance with CEQA, not a health risk assessment.

Response to Comment No. 4-10

This comment calls for use of a 1,500-foot distance for analysis of impacts of the project and alternatives, based on the SBCAPCD's "Modeling Guidelines for Health Risk Assessment."

See responses to Comments 4-2, 4-4, and 4-8. The analysis in the Draft EIR used methodologies for evaluating impacts in accordance with CEQA, not a health risk assessment.

Response to Comment No. 4-11

This comment provides quoted text from the SBCAPCD's "Modeling Guidelines for Health Risk Assessment." It states that including the school as a sensitive receptor is necessary to evaluate the proposed project and the alternatives.

See response to Comment 4-2, which explains why it is not appropriate to use the health risk assessment methodology in the CEQA document for other types of analysis.

This and other comments did not provide a location or description for the "school" (e.g., duration of classes, hours of operation) except to say it is 1,450 feet from the proposed project site. At this distance, and with the intervening buildings, the project's construction period noise and emissions would not be expected to significantly affect this use. Also see response to Comment 4-8.

Response to Comment No. 4-12

This comment provides some distances from the Alternative 2 site to Highway 101 and to the nearest residential property. It claims that the distance to sensitive receptors is approximately the same for Alternative 2 and the proposed project, so the impacts of Alternative 2 should be similar for air quality, not greater.

The distance to the nearest residential property for the Alternative 2 site is not 1,479 feet, as claimed by the comment, but immediately adjacent. There is a residential land use on the south

side of Kellogg Way, adjacent to the Alternative 2 location, the Willow Creek condominiums are about 400 feet to the north, and there is a mobile home park approximately 400 feet to the west. Therefore, the air quality impacts for Alternative 2 would be greater than those of the proposed project, as stated in Section 6.2.2.2 of the EIR.

Also see response to Comment 4-8.

Response to Comment No. 4-13

The comment provides a series of quotations and some summarized language from the Draft EIR and states that Table 4-1 should show that GHG emissions for Alternative 2 would be similar to those of the proposed project.

For GHG emissions, the comparative analysis in Section 6.2.2.6 of the EIR found that the impacts of Alternative 2 would be similar to those of the proposed project. However, there was an error in Table 6-1 stating that the impacts would be greater. This error is corrected in the Final EIR.

Response to Comment No. 4-14

This comment provides a series of quotations relating to the noise analysis from the Draft EIR and states that the project did not use the guidelines for sensitive receptors correctly. It claims that the alternatives analysis created fictitious sensitive receptors to make Alternative 2 appear to have more significant impacts. The comment claims that Alternative 2's impacts should be similar to those of the proposed project, not greater.

See response to Comment 4-2, 4-4 and 4-8.

Response to Comment No. 4-15

This comment states that the proposed project would result in less-than-significant impacts with mitigation for biological resources but questions why Table 6-1 states that this is a Class II impact. The comment also questions why the biology impacts for Alternative 2 were considered "greater" than those of the proposed project.

A Class II impact is an impact that is significant but reduced to a less-than-significant level with mitigation.

Regarding the comparison of impacts related to biological resources, both the proposed project and Alternative 2 would result in similar indirect impacts offsite, due to the potential for conveyance of degraded runoff and transport of invasive plant species in runoff water to the Goleta Slough. However, the proposed project site at 6300 Hollister Avenue does not contain sensitive biological resources onsite that would be directly impacted by the project, whereas development of Alternative 2 would result in direct impacts to the Old San Jose Creek riparian corridor related to erosion, sedimentation, and wildlife movement. Therefore, Alternative 2 would result in similar indirect biological impacts and greater direct impacts due to the potential to impact onsite biological resources. See response to Comment 4-5.

Response to Comment No. 4-16

The comment provides quotations from the transportation and alternatives analysis in the EIR and states that the impact would be "greater" for Alternative 2, but only in the short term.

The comment correctly states that the impact for Alternative 2 would be greater in the short term (during construction).

See response to Comment 4-6.

Response to Comment No. 4-17

This comment provides several quotations from the Draft EIR and the City of Goleta GP/CLUP Final EIR related to agricultural resources. It states that agricultural resources are not considered "non-renewable resources" and that their loss could be mitigated through dedications of new agricultural land.

See response to Comment 4-7. In addition, regardless of whether agricultural resources are considered "non-renewable" resources, the CEQA Findings for the City's General Plan identify conversion of this cultivated agricultural land with prime soils to urban development as an unavoidable significant adverse impact for which overriding considerations were adopted. Excerpts from the General Plan EIR and the associated City Council Resolution are included in Appendix V).

Response to Comment No. 4-18

The comment alleges that consultation did not take place with the Chumash community.

The project is not subject to SB 18 "consultation" requirements. However, the City has provided notice to and invited input from the Native American community, including the opportunity to comment on the CRMS report in both August 2010 and May 2013, as identified in Section 4.4 of the EIR.

City efforts to inform and request input from individuals identified on the NAHC-provided Native American contact list are identified under the heading of "Native American Consultation" in Section 4.4 of the EIR, Cultural Resources. The discussion of Native American Consultation has been supplemented to include past City efforts associated with the prior, similar Marriott Residence Inn project in 2008, including requests made by the Native American Chumash community (e.g., applicant agreement to hand-dig in piling areas). City efforts associated with the current project request that were not described in the Draft EIR have also been added (i.e., the Notice of Preparation of an EIR in 2009, additional field work in May 2010, an August 2010 meeting to discuss the Draft CRMS report, and a May 2013 meeting to discuss the Revised Draft EIR Cultural Resources section and final CRMS report [see Final EIR Appendix R1]).

Section 4.4.1.3, Project Site, Native American Consultation, is revised as follows:

> The Chumash Native American community considers CA-SBA-58 to be a large and permanent prehistoric village site, occupied during the Middle and Late Periods of Chumash prehistory, which is significant to their heritage. Further, the Chumash Native American community is concerned for sites and places that provide or may provide ties to the lifeways of the ancestral Chumash and their predecessors, including village sites

such as the project site, at the edges of the former boundaries of the current Goleta Slough.

During processing of the original Marriott Residence Inn and Hollister Center Project in 2007–2008, a "meet and confer" process was conducted between staff, the applicant, and interested members of the Chumash Native American community. Four meet and confer discussions were held (May 5, 2008; May 19, 2008; June 18, 2008; and August 6, 2008). According to the letter from former City of Goleta Planning Director Steve Chase to Katy Sanchez of the Native American Heritage Commission (NAHC) dated October 7, 2008 (included in Appendix R1), more than 12 hours of discussion occurred during these meetings and at least another 40 hours of various discussions took place between the parties in other meetings and phone conversations in support of these discussions. The earlier Marriott Residence Inn project would have been located on the same property, although it would have included a larger building with different site preparation/grading details and greater disturbance to the archaeological site. The revisions that have been incorporated into the current project design are, in part, a result of input from the 2008 meetings with the Chumash Native American community. The applicant also incorporated the required hand-digging of all piling locations not included in the Phase 3 data recovery excavations in response to comments received at these meetings. (This requirement is further included as required mitigation to ensure implementation of this aspect of the project description.)

The current project includes dividing a single 10.71-acre parcel into two smaller parcels—one that includes an existing building and one that is vacant, but is envisioned for development of a hotel. The current request does not involve an amendment to the City's General Plan or a change in the property's zoning. In July 2009, the project applicant requested that the City rescind its 2008 project approval and proceed with preparation of an EIR for a similar project. A Notice of Preparation of an EIR and an EIR Scoping document were prepared, and these documents were provided to the NAHC. (The current project described in this Final EIR has been revised since July 2009.)

On January 20, 2010, CRMS sent a letter to individuals included on the Native American contact list, which CRMS received from the NAHC. This letter requested that comments be submitted to CRMS in writing. (See letter and related emails between F. Arredondo and N. Campbell in Appendix R1.)

The City informed the local Native American community when additional borings were performed on the project site on April 26 and May 28, 2010 (correspondence dated April 23 and May 22, 2010 included in Appendix R1).

In addition, notification was provided regarding a consultation with CRMS to discuss draft findings following their review of previous cultural resources reports as well as field work related to the project site (correspondence included in Appendix R1). Members of the Chumash Native American community were provided the Draft CRMS report prior to a noticed August 12, 2010 meeting, which was scheduled for the purpose of explaining the preliminary conclusions of the Draft CRMS report and to obtain comments from the Native American community about the draft report. Staff scheduled this meeting to accommodate the schedules of several Native Americans who had been involved in previous project discussions. The purpose of providing the draft report before the meeting was to allow individuals to review the preliminary analyses themselves, prior to receiving CRMS's summary of the report at the meeting. The intent was further to allow

for the most effective opportunity for discussion and comment on the draft report at the August meeting before the report was finalized and incorporated into Section 4.4 of the EIR, Cultural Resources. Other than the applicant, only individuals from the NAHC contact list were invited to the meeting or provided with a copy of the draft report. This meeting was discussed and scheduled in coordination with members of the Native American community. (See emails included in Appendix R1.)

The consultation was held at the City of Goleta office on August 12, 2010. The Native American Contact List provided with the ~~Native American Heritage Commission's (~~NAHC's~~)~~ NOP comment letter was used to notify interested members of the Chumash Native American community of the above field work and consultation. Frank Arredondo was the only Native American in attendance at the August 12, 2010, meeting. At the meeting, CRMS archaeologists presented their draft report, followed by comment and discussion. Staff also explained that there would be continued opportunities for participation by interested members of the Native American community ~~will occur~~ through completion of the environmental process and decision maker hearings.

Response to Comment No. 4-19

The comment states that CRMS site history and Archaeological Assessment of CA-SBA-58 was conducted with no consultation or collaboration with the Native American community.

CRMS is the expert cultural resources consulting firm hired by the City of Goleta to consolidate known information about CA-SBA-58 in relation to the proposed project as well as to observe several additional soil borings (May 2010).

With regard to Native American involvement, four meetings/consultations with the Native American community occurred as part of processing the similar Marriott Residence Inn project for the same project site in 2008.

As part of the current Marriott Residence Inn project, the Native American community was provided the Draft CRMS report prior to a noticed August 12, 2010 meeting, which was scheduled for the purpose of explaining the preliminary conclusions of the Draft CRMS report and to obtain comments from the Native American community about the draft report. Staff scheduled this meeting to accommodate the schedules of several Native Americans who had been involved in previous project discussions. The purpose of providing the draft report before the meeting was to allow individuals to review the preliminary analyses themselves, prior to receiving CRMS's summary of the report at the meeting. The intent was to allow for the most effective opportunity for comment on the draft report at the August meeting so that such input could be incorporated into the final report. Besides the applicant, only individuals from the NAHC contact list were invited to the meeting or provided a copy of the draft report. This meeting was discussed and scheduled in coordination with Venisse Miller-Forte (then Chairperson of the Coastal Band of the Chumash Nation), John Ruiz (Chumash Elder), and Frank Arredondo (Native American and author of subject comment letter). See email dated August 10, 2010 included in Appendix R-1.

Also refer to response to Comment 4-18.

Response to Comment No. 4-20

The comment notes that the August 2010 meeting notice does not refer to Native American consultation.

Because the project does not involve a Rezone or General Plan Amendment, the meeting was not held pursuant to Senate Bill (SB) 18 requirements for consultation. In addition, there is no specific requirement that notice of the August 2010 meeting specifically include the terms "Native Americans" or "consultation."

The August 10, 2010 meeting was scheduled in coordination (phone calls, email) with Venisse Miller-Forte, John Ruiz, and Frank Arredondo. City staff is not aware of any confusion or concern regarding the language used in the meeting notice. Neither City Planning counter staff nor the staff contact listed on the notice received questions in the form of phone calls, letters, or email messages regarding confusion or concern that the meeting would be open to the general public or other individuals who would have access to confidential information regarding cultural resources associated with the site. The notice identified invitee access to the draft archaeological report, which is only available to select individuals (property owner, archaeologists involved in study of the site, and Native Americans), which provided further clarification that only Native Americans would be in attendance at the meeting.

Also see responses to Comments 4-18 and 4-19.

Response to Comment No. 4-21

The comment asserts that the site description for archaeological site CA-SBA-58 as 1,200 feet by 300 feet is not accurate because no excavation explorations occurred to determine the exact locations of the boundary edges.

The EIR text referenced in this comment was a discussion of previous archaeological investigations, including David Banks Rogers' description of the site as being approximately 1,200 feet by 300 feet in 1929. Although the general boundaries of the archaeological site identified by Rogers have been estimated, the specific extent of Locus 1 deposits that are still present on other adjacent parcels has not been evaluated as part of the current project.

As part of discussions on the similar but larger hotel project approved in 2008, the Native American community requested that subsurface disturbance, including excavations, be minimized. Therefore, additional fieldwork as part of the development review process for the current project request has been limited to borings performed on site in 2010, and the EIR analysis is based primarily on a review of available information (including past fieldwork and reports), rather than on extensive new fieldwork. Further archaeological fieldwork, including excavation, has not been recommended as part of the development review process, unless and until development proceeds.

Since the time of Rogers' mapping of the larger archaeological site, there has been considerable earthwork/grading within the archaeological site, both on the project site and off site. As discussed in Section 4.4 of the EIR, this is evidenced by a comparison of historic and more recent topographic maps, roadway plans for Hollister Avenue improvements, and archaeological and geomorphology reports. Therefore, the original archaeological site boundaries now include areas of both intact, undisturbed soils (Locus 1) and areas that have been graded/soil redistributed (Locus 2).

As a result, the estimate for the portion of the remaining archaeological site within the project site is based on the approximate archaeological site size identified by Rogers, numerous post-Rogers archaeological investigations described in Section 4.4 of the EIR, and the current project plan. While precise boundaries of both intact soils and disturbed/redistributed soils cannot be known, there is agreement among the archaeological experts working on the project (Nancy Farrell and Todd Hannahs of CRMS, under contract to the City of Goleta; Heather Macfarlane, under contract to the City of Goleta; and David Stone, under contract to the project applicant) that approximately 17% of the remaining archaeological site is located on the proposed Marriott Residence Inn parcel. However, these boundaries may change as a result of new information gleaned from any future Phase 3 data recovery work, as required by MM CUL-3a. The approximate boundaries are provided as useful approximations, not exact locations. Exact boundaries and measurements could only be identified through extensive exploratory fieldwork.

Table 4.4-1 has been added to Section 4.4 of the EIR. This table provides a summary of the assumptions regarding the size of CA-SBA-58, the portion of the archaeological site estimated to be within the project site, and the estimated areas that would be affected by project development.

Section 4.4.3.2, Impact CUL-3, Archaeological Resources, is revised to include the following:

> The development of a hotel on Parcel 2 would occur in an area that has been known since 1979 to contain intact portions of CA-SBA-58. Based on the artifact assemblage thus far recovered, the archaeological site appears to be a large habitation site with possibly multiple occupations over time. This resource was identified as "highly significant from a scientific point of view" (Bixler et al. 1979). More recent excavations have increased the extent of the known intact deposit (Dudek 2008). The results of the most recent Extended Phase 1 investigations at the site (Dudek 2008) determined that the area of intact archaeological site deposits that have not been disturbed by previous development in the project area vicinity is approximately 60,880 square feet (5,658 square meters), although precise boundaries and area estimates can only be identified by extensive exploratory field work. For purposes of this EIR, it is reasonable to estimate that only 17% of the original CA-SBA-58 site area is undisturbed. Also see Table 4.4-1 regarding data that can be used to quantify the extent of CA-SBA-58 and project-impacted areas. Table 4.4-1 provides data that can be used to calculate and quantify the project's effects on archaeological site areas in a variety of ways (e.g., based on the entire recorded site, the remaining undisturbed acreage, etc.).
>
> CA-SBA-58 is a significant cultural resource that is potentially eligible for listing on the NRHP. It is also eligible for listing on both the CRHR and local registers of historic resources. The intact deposit also satisfies the significance requirements of CEQA. In addition to intact soils, the redeposited midden soils, while less significant as an archaeological resource, may contain temporally diagnostic artifacts that would better refine the chronology of CA-SBA-58. The fact that artifacts from these levels are no longer in situ reduces much of their ability to provide information, but the presence of some artifacts (i.e., trade beads or other protohistoric items) could help answer basic questions about this archaeological site. The disturbance of any human remains whether in Locus 1 or Locus 2 soils would also be considered a potentially significant impact.

Table 4.4-1 quantifies approximate acreages associated with CA-SBA-58 and expected project-related disturbance to CA-SBA-58, including:

- Size of the original recorded archaeological site (on and off site).
- Undisturbed (Locus 1) deposits within proposed Marriott parcel.
- Locus 1 deposits covered by building and pool.
- Locus 1 deposits covered by paving, hardscape, and pool.
- Disturbed (Locus 2) deposits within proposed Marriott parcel.
- Locus 2 deposits covered by building and pool.
- Locus 2 deposits covered by paving, hardscapes, and pool.
- Number of pilings (caissons) expected to intrude into Locus 1 deposits.
- Locus 1 deposits disturbed by piling installations.

TABLE 4.4-1
CA-SBA-58 IN RELATION TO PROJECT

Acreage of Recorded Site Based on Rogers (1929)[1]	Recorded > 360,000 ft^2 Likely > 425,000 ft^2	Recorded > 371,750 m^2 Likely > 39,500 m^2
Approximate Acreage of Locus 1 (Undisturbed) Deposits[2] *within Proposed Marriott Residence Inn Parcel*	60,880 ft^2	5,658 m^2
Approximate Acreage of Locus 1 (Undisturbed) Deposits *covered by Building Footprint (includes proposed pool)*	21,200 ft^2	1,970 m^2
Approximate Acreage of Locus 1 (Undisturbed) Deposits *covered by Pavement/Hardscape Surfaces (includes proposed pool)*	32,400 ft^2	3,011 m^2
Approximate Acreage of Locus 2 (Disturbed) Deposits[3] *within Proposed Marriott Residence Inn Parcel*	105,084 ft^2	9,763 m^2
Approximate Acreage of Locus 2 (Disturbed) Deposits *covered by Building Footprint (includes proposed pool)*	16,000 ft^2	1,487 m^2
Approximate Acreage of Locus 2 (Disturbed) Deposits *covered by Pavement/Hardscape Surfaces (includes proposed pool)*	45,200 ft^2	4,200 m^2
# of Pilings Expected to Intrude Into Locus 1 (Undisturbed) Intact Soil	143	
CA-SBA-58 Locus 1 (Undisturbed) Intact Soil Piling Installation 4	12 to 14 square-inch borings (18 m^2)	

[1] Rogers' map is an estimate, with a textual description of the site exceeding 1,200 feet long and having an average width of 300 feet. It is reasonable to assume the site was over 425,000 ft^2 (39,500 m^2). The original site size is important, as it indicates the village was likely inhabited over an extended period. Rogers assumed occupation during the Middle (Hunting) and Late (Canaliño) Periods of Chumash prehistory. Exact site size is not critical to the assessment of cultural resource significance. Remaining Locus 1 CA-SBA-58 areas are significant cultural resources. Disturbance of those resources is a significant impact.

[2] There is agreement among the archaeological experts working on the project (N. Farrell, T. Hannahs, and H. Macfarlane: City of Goleta; D. Stone: Project Applicant) that Locus 1 deposits have not been previously disturbed and retain their integrity. These are the only cultural resources considered significant "historic resources" as defined by State CEQA Guidelines Section 15064.5 (3)(d), as they "have yielded, or may be likely to yield, information important in prehistory or history." Therefore, the EIR discussion of significant resources focuses on the significant Locus 1 archaeological deposits that represent "historical resources" as defined under State CEQA Guidelines criteria.

[3] There is agreement among the archaeological experts working on the project (N. Farrell, T. Hannahs, H. Macfarlane, and D. Stone) that Locus 2 deposits are previously disturbed and have lost their "integrity," their horizontal and vertical spatial relationships, such that archaeologists cannot reconstruct activities that may have been represented at these parts of the site. Locus 2 disturbed (redistributed) deposits may contain isolated, disarticulated human remains and are significant because of this potential, are considered sensitive, and have substantial heritage value to the Native American community. The impact associated with the potential to disturb such remains is addressed by hand-excavation of all pilings not excavated as part of the Phase 3 Program.

[4] Installation assumes 14-square-inch borings to a depth of over 30 feet. Locus 1 deposits are assumed to comprise less than 10% of this depth.

Data for this table was reviewed by David Stone (Dudek) and Todd Hannahs (CRMS) and was calculated by Penfield and Smith Engineers, based on the results of the Dudek Extended Phase 1 investigations.

There is agreement among the City's and applicant's archaeological experts that the portions of the property with intact soils (Locus 1) are considered significant archaeological resources that are capable of yielding information important in prehistory. The areas with disturbed soils (Locus 2) are not considered significant archaeological resources as defined under State CEQA Guidelines Section 15064.5, as they cannot "yield information important in prehistory," since the spatial relationship of artifacts (horizontal and vertical) has been lost and archaeologists cannot reconstruct activities that may have been represented from these parts of the site. The Locus 2 areas do, however, have the potential to contain isolated, disturbed human remains, and are significant because of this potential.

Response to Comment No. 4-22

The comment states that the shape of archaeological site CA-SBA-58 is recorded in an "L" shape by Rogers and extends beyond the 1,200-foot by 300-foot rectangular calculations included in the EIR. The comment further asserts that nearly all of the proposed project site is within the body/vertex of the L-shaped archaeological site.

Assumptions for the shape and size of the archaeological site are estimated by the City's archaeological experts, based on available and relevant scientific data including, but not limited to, review of previous archaeological studies, site fieldwork, and current project plans as identified in Section 4.4 of the EIR. Rogers prepared a site map that illustrates the boundaries based on the presence of surface artifacts only. He used trenches to explore the richest portions of the project area, including the cemeteries. Therefore, his map is an estimate. His written description of CA-SBA-58 is "exceeding 1,200 feet long with an average width of 300 feet." It is reasonable to assume that the site may have been greater than 425,000 square feet. The size of the original site is important because it indicates a village that was likely inhabited over an extended period of time. For this village, the time period would have been during the Middle (Hunting) and Late (Canaliño) Periods of Chumash prehistory. With regard to determining the significance of the archaeological resource, the exact size of this site is not the most important factor. The remaining intact portions (Locus 1) of CA-SBA-58 are significant cultural resources, and disturbance of those resources is a potentially significant impact.

Also see response to Comment 4-21.

Response to Comment No. 4-23

The comment states that the EIR's reduction of impacts on cultural resources from 38% in March 2008 to 1% presently is misleading to the reader. The change to 1% is based on the calculation of impacts on the project parcel against the possible overall site size, including areas outside the project boundaries. (See response to Comment 4-21 regarding estimation of the archaeological site boundaries.)

The commenter points out that the impacts to CA-SBA-58 that would result from the project appear to be less when the impacted areas of the project are compared to the entirety of the archaeological site (on site and off site) than if the project-impacted areas were compared to the remaining undeveloped portion of CA-SBA-58 within the project boundaries. Table 4.4-1 has been added to Section 4.4 of the EIR to provide information regarding the total archaeological site size and the area of intact soils within the project boundaries and within the building envelope (see response to Comment 4-21). In addition, the project evaluated in the EIR was designed to limit the overall building footprint and to include a foundation utilizing pilings and limited vertical soil disturbance, rather than standard foundation designs involving 18 inches of

surface soil disturbance. This design substantially limits the project's direct intrusion/impacts to intact soils.

Also see response to Comment 4-22.

Response to Comment No. 4-24

The comment states that 37% of the parcel contains intact midden, and that 97% of that intact midden would be impacted by the project.

There are different ways to calculate areas of the site affected by project development. For example, the table data can be used to quantify the area of site Locus 1 and Locus 2 soils that would be covered by buildings and hardscapes. The information in Table 4.4-1 provides the reader with the City- and applicant-retained archaeological experts' best estimate of undisturbed and disturbed soil areas within the project site boundaries, as well as the EIR's basis for quantifying impacts to intact archaeological site soils (see response to Comment 4-21). All relevant data regarding the site boundaries including, but not limited to, the 2008 Dudek report were used to assess the extent of intact and disturbed soils on the project site.

Also see response to Comment 4-23.

Response to Comment No. 4-25

The comment claims that inadequate Native American consultation was conducted due to lack of local policies related to consultation.

On January 20, 2010, CRMS sent out a letter to individuals included on the Native American contact list received from the NAHC, including Mr. Arredondo (commenter). CRMS's letter requested that comments be submitted to CRMS in writing. Mr. Arredondo sent an email to CRMS on March 15, 2010 requesting an update on the progress of the EIR's cultural resources analysis for the project. This email did not identify specific comments for CRMS to consider in preparing their draft report. At that time, CRMS was in the process of doing the extensive background research of available archaeological reports associated with CA-SBA-58 and the surrounding area.

In a March 16, 2010 email reply from staff to a March 16, 2010 email from Mr. Arredondo, staff advised Mr. Arredondo that CRMS would not be responding directly to the request for an update. However, the email clearly stated that "there will be a thorough opportunity for public comment on the assumptions, impact assessment, proposed mitigation measures, etc. and I will make sure that you are provided notice of all such opportunities." CRMS was still in the process of reviewing the project details, which were changing. The project was still involved in the City's Design Review Board process and was undergoing revision to a smaller, relocated building footprint with foundation design changes that affected the location and type of sub-surface soil disturbance.

In August 2010, the City provided notice to individuals on the NAHC contact list regarding an August 12, 2010 meeting to discuss the draft CRMS report, which covered the project site's archaeological resources, potential project impacts to these resources, and recommended mitigation. The notice also stated that the report would be made available upon request to those who did not already have the report. The meeting was held with the purpose of providing opportunity for the Native American community to provide input on the archaeological report

before the report was finalized and incorporated into the EIR for the project. The meeting was scheduled with input from several Native American individuals who had previously expressed interest in the project.

The CRMS report consolidates and summarizes the conclusions of archaeological investigations at CA-SBA-58 to date. Section 4.4 of the EIR is based largely on the Final CRMS report (January 14, 2011).

Also refer to response to Comments 4-18 and 4-20.

Response to Comment No. 4-26

This comment challenges the statement that there are no historic resources on the project site, stating that the site meets the California Register of Historical Resources (CRHR) Criteria 1 and 2 for designation.

Impact CUL-1 in Section 4.4.3.2 of the EIR states that "CA-SBA-58 is eligible for listing on the National Register of Historic Places (NRHP), the CRHR, and local registers of historic resources…" and also clarifies that the site is an "historical" resource pursuant to CEQA Section 15064.5 as discussed under Impact CUL-3. The project site is described in the EIR as part of "a large prehistoric Native American village site."

The quote from Friar Crespi's diary during the 1769 Portola-Serra Expedition includes the description of the expedition as the Spaniards encountered the Chumash villages surrounding the Goleta Slough, including *Saxpilil*, site CA-SBA-60 at the Fairview Avenue/Hollister Avenue intersection, and Mescalitan, or the village of *Helo*, at Mescalitan Island, where the Goleta Sanitary District Wastewater Treatment plant exists.

There is no archaeological evidence that CA-SBA-58 was occupied as a Chumash village during the ethnohistoric period when Friar Crespi would have arrived in Goleta; only radiocarbon dates associated with the late Middle to early Late Period have been collected from the site. Rogers describes the site as occupied by the "Canalino" people, but this is associated with any time during the Late Period of Chumash prehistory, from approximately 250 to 1,500 years ago. This does not preclude the potential for CA-SBA-58 to be associated with occupation surrounding the Goleta Slough during the ethnohistoric period, but it does indicate that CA-SBA-58 was not one of the villages that Friar Crespi described in 1769. In a map of the villages of the Goleta Slough (Mescalitan) prepared by Pantoja y Arriaga in 1782, the major village of *Saxpilil* is identified as the largest in terms of population. CA-SBA-58, nearly a mile to the west and west of La Patera Lane, was not identified at this time. Ethnohistoric research by Dr. John Johnson also fails to identify any place name at CA-SBA-58. There have been no confirmed contact period artifacts identified on site for the 1796 to 1805 period, and there is nothing else of note in the historical record to make this particular parcel of historical significance in this context. The City retained archaeological experts (T. Hannahs, N. Farrell, H. Macfarlane), who have reviewed the Snethcamp report (referenced in Section 4.4 of the EIR) and determined that there is no substantial evidence to support a finding of an association with the Portola-Serra Expedition resulting in the site being considered a significant historic period resource or historic landscape. In addition, the Snethcamp report does not tie this association to a conclusion that the site is an historic resource.

Regardless of Friar Crespi's precise location when speaking the Good Land quote identified in the comment, the Good Land description "occurred as members of the expedition first set sight

upon the rich soils, verdant vegetation, and harmonious climate of the narrow coastal plain between the Santa Ynez Mountains and the Pacific Ocean." The quote goes on to refer to the Good Land as much larger than the project site, encompassing the City of Goleta and nearby communities. The idea that the Good Land is represented in a meaningful way, by the 3.81 acres of the project parcel, is not established, it is merely stated in the comment. With regard to identifying the site as an historic resource due to an association with Friar Crespi's Good Land proclamation, the Snethcamp report, while mentioning this historic event, does not make the case that the statement was made on the project site, nor that this quote results in a determination that this particular association makes this property an historic resource, landscape, or site.

Section 4.4.3.2 of the EIR is revised as follows to include a discussion of Friar Crespi's description identified in this comment, as well as other information indicating a different village site.

Section 4.4.3.2, Project Impacts, Impact CUL-1, Historic Resources is revised as follows:

> There are no post-European contact historic resources such as buildings or other structures on the project site. Therefore, there would be no potential for the project to result in any impacts on historic resources.
>
> CA-SBA-58 is eligible for listing on the National Register of Historic Places (NRHP), the CRHR, and local registers of historic resources, and the site has yielded information which is important to the understanding of the prehistory of the area. Therefore, to the extent that the site is considered a significant "historical" resource pursuant to CEQA Guidelines Section 15064.5 (as an archaeological resource), this is discussed under Impact CUL-3, Archaeological Resources, below.
>
> Comments submitted on the Revised Draft EIR suggest that the project site is also a significant historic site based on the site's connection with Friar Crespi's arrival in Goleta during the 1769 Portola-Serra Expedition, when he encountered the Chumash villages surrounding the Goleta Slough and identified the area as the "Good Land" in his diary (see Commenters 4 and 5, including, but not limited to, Comment 4-26, in Chapter 8 of this Final EIR).
>
> The quote from Friar Crespi's diary includes the description of the expedition as the Spaniards encountered the Chumash villages surrounding the Goleta Slough, including *Saxpilil*, site CA-SBA-60 at the Fairview Road/Hollister Avenue intersection, and Mescalitan, or the village of *Helo*, at Mescalitan Island, where the Goleta Sanitary District Wastewater Treatment plant is located today. There is evidence that both of these other villages were occupied during the ethnohistoric period.
>
> There is no archaeological evidence that CA-SBA-58 was occupied as a Chumash village during the ethnohistoric period when Friar Crespi would have arrived in Goleta; only radiocarbon dates associated with the late Middle to early Late Period have been collected from the site. Rogers describes the site as occupied by the "Canalino" people, but this is associated with any time during the Late Period of Chumash prehistory, from approximately 250 to 1,500 years ago. This does not preclude the potential for CA-SBA-58 to be associated with occupation surrounding the Goleta Slough during the ethnohistoric period, but it does indicate that CA-SBA-58 was not likely one of villages that Friar Crespi described in 1769. In a map of the villages of the Goleta Slough

(Mescalitan) prepared by Pantoja y Arriaga in 1782, the major village of *Saxpilil* is identified as the largest in terms of population. CA-SBA-58, nearly a mile to the west and west of La Patera Lane, was not identified at this time. Ethnohistoric research by Dr. John Johnson also fails to identify any place name at CA-SBA-58. There have been no confirmed contact period artifacts identified on site for the 1796 to 1805 period, and there is nothing else of note in the historical record to make this particular parcel of historical significance in this context.

The City-retained archaeological experts (T. Hannahs, N. Farrell, H. Macfarlane) have reviewed the Snethcamp report referenced by Commenter 4. Their determination is that there is no substantial evidence to support a finding of an association with the Portola-Serra Expedition resulting in the site being considered a significant historic period resource or historic landscape. In addition, the Snethcamp report does not tie this association to a conclusion that the site is a historic resource.

Regardless of Friar Crespi's precise location when speaking the Good Land quote identified by Commenter 4, the Good Land description "occurred as members of the expedition first set sight upon the rich soils, verdant vegetation, and harmonious climate of the narrow coastal plain between the Santa Ynez Mountains and the Pacific Ocean." The quote goes on to refer to the Good Land as much larger than the project site, encompassing the City of Goleta and nearby communities. The idea that the Good Land is represented in a meaningful way, by the 3.81 acres of the project parcel, is not established. With regard to identifying the site as a historic resource due to an association with Friar Crespi's Good Land proclamation, the Snethcamp report, while mentioning this historic event, does not make the case that the statement was made on the project site, nor that this quote results in a determination that this particular association makes this property a historic resource, landscape, or site.

The archaeological site, CA-SBA-58, is a significant cultural resource that meets the eligibility criteria for listing on both the NRHP and the CRHR. This is further discussed under Impact CUL-3.

Response to Comment No. 4-27

The comment questions the maximum depth of excavation related to the electrical conduit and fire hydrant improvements and states that the excavation activities associated with the project would impact intact midden and would not be entirely located within existing and new fill soils.

In addition to a description of new fill soils proposed to be placed along the road frontage, Section 4.4 of the EIR describes Parcel 1/Parcel 2 Hollister Avenue Frontage Improvements and Median Improvements. Section 4.4 describes historic placement of 4 to 6 feet of fill in the frontage improvement area as part of Hollister Avenue construction. All frontage improvements are proposed and designed to be installed within existing and new fill soils, avoiding intact soils. Mitigation Measure CUL-3f specifically identifies construction limitations for these frontage improvements.

Response to Comment No. 4-28

The comment questions the lack of a difference in depth of soil disturbance beneath the building envelope (4 inches versus 8 inches).

Only some areas outside of the building envelope and outside of the intact soil areas are proposed for removal of the upper 18 inches of soil. Earth disturbance in the area under the building and the plotted archaeological site boundaries (intact soil areas) would be more restrictive, resulting in the majority of excavation being limited to 8 inches or less. Different construction requires different levels of excavation, and the focus has been on attempting to reduce excavation where possible. The sidewalk requires less ground clearing than the parking lot; therefore, making all the excavations uniform would increase the impact. The EIR concludes that the project construction design would minimize disturbance to intact soils; however, the EIR also acknowledges the potential to encounter intact soils, isolated artifacts, and human remains, including outside of the plotted boundaries of the archaeological site. Mitigation measures to address these potential impacts include required monitoring of all earth disturbance activities by an archaeologist and Native American observer, protocols to follow in the event that human remains are encountered, and implementation of a Phase 3 Data Recovery Program before initiation of project development.

Response to Comment No. 4-29

The comment states that there is intact midden below the surface of the project site and that, due to an absence of vertical explorations, the extent of the intact midden has not been accurately disclosed.

The CRMS report does not state that disturbed soils lay below intact midden because it is not possible to find intact prehistoric soil above modern disturbed soil.

There have been several investigations that involved vertical explorations. Those investigations are extensively documented in the CRMS report, and summarized in Section 4.4 of the EIR.

There is a finite amount of intact prehistoric deposit that, over the years, has been dug up and re-deposited in the immediate vicinity. Thus, the amount of intact archaeological deposit has been shrinking and the amount of re-deposited disturbed soil has been growing. The amount of re-deposited archaeological deposit now covers a much larger area than the small remaining amount of intact deposit.

As described in the CRMS report and Section 4.4 of the EIR, there are a number of investigations that have involved more than acknowledgement of the presence or absence of resources.

The intact soils on site are remaining undisturbed soils, which are finite. Based on a review of past archaeological reports and a comparison of historic and current topography (as discussed in Section 4.4 of the EIR), much, if not all, of the project site has been subject to grading activities. The grading has involved relocation/dispersal of soil from the project site and from other properties, including portions of CA-SBA-58 north of the project site.

Response to Comment No. 4-30

The comment states that the parking lot size should be represented as 3,633, not 3,630, square meters.

Comment noted. The parking lot figure is identified as “approximately 40,000 square feet.” The EIR identified approximate dimensions, and the difference in how the figures are rounded is not material to the conclusions reached regarding impacts, mitigation, or residual impacts.

Response to Comment No. 4-31

The comment suggests that the two examples of capping of archaeological sites in Santa Barbara County are not entirely accurate and should not be used as examples.

The City of Goleta Mitigated Negative Declaration 08-MND-002 RV01 for the referenced 151 South Fairview Avenue project includes the following:

> The proposed development will utilize a foundation system that rests on concrete caissons that extend below recently imported fill soils to ensure seismic stability. The caissons will penetrate below the fill soils placed in the remediation areas that have been entirely disturbed, and the northern area of the project site in which buried intact archaeological resources associated with CA-SBA-60 were recovered (Dudek & Associates; May, 2010). A total of 12 caissons, each 18" in diameter, would be excavated within the intact portion of CA-SBA-60 that lies within the project site thereby impacting 41 square feet or less than 0.5% of the total approximately 8,600 square feet of intact CA-SBA-60 onsite (Dudek & Associates; May 2010). This use of caissons to support the structure's foundation instead of excavated spread footings thereby limiting potential disturbance of in-place, significant archaeological/cultural resources to approximately 40 square feet would reduce associated impacts on such resources to the maximum extent feasible given seismic safety requirements for the proposed structure... However, as the intact portion of CA-SBA-60 within the northern third of the project site is considered a significant archaeological/cultural resource, as well as eligible for listing on the NRHP, disturbance of the northern portion of the project site for construction of the proposed structure would constitute a potentially significant, archaeological/cultural resource impact.

The foundation design approved by the City for the 151 South Fairview Road project was proposed to preserve significant cultural resources associated with one of the largest village sites surrounding the Goleta Slough, *Saxpilil*, by preserving the resources underneath the structure. Impacts to the significant archaeological resource were substantially avoided by the use of pilings to support the raised foundation. The 151 South Fairview project was also required to implement a Phase 3 Data Recovery mitigation program to collect information from the small portion of the significant archaeological site that would be subject to unavoidable impacts. Differences between 151 South Fairview and the Marriott project include the amount of intact archaeological site soils that would be affected by the project (more intact soils would be affected on the Marriott site) and the relative importance of the different village sites (*Saxpilil* was a larger village site in terms of population). However, both sites are considered significant historical/archaeological resources and both projects propose the same strategy and approach with regard to foundation design to minimize impacts to intact archaeological site soils under the proposed developments.

The Duca Residence Remodel project Final Mitigated Negative Declaration (10NGD-00000-00030) includes:

> The proposed project would demolish the majority of the existing dwelling, leaving several walls and most of the existing caisson and grade-beam foundation in place for reuse. The new house would be constructed in the same footprint using the existing foundation system, with an approximately 1,500 sq. ft. expansion of the footprint and new caisson and grade-beam foundation to the northeast of the existing foundation. The caisson and grade-beam foundation associated with the east wing of the existing house will be demolished and a new deck will replace a portion of the existing deck and east wing. A total of 12 new caissons would be excavated installed for the new deck and

> house addition. The caissons would measure 0.6 meters (2.0 ft.) in diameter (0.3 meter or 1.0-ft. radius). The estimated volume of archaeological site material disturbed by these 12 caissons is 1.31 cubic meters, all of which was removed by controlled excavation conducted by archaeologists and monitored by Native American observers.

The previous Duca residence that was allowed to be demolished as well as the renovated, expanded structure built in its place were both constructed directly above a significant archaeological site (CA-SBA-13) on pilings that substantially reduced the amount of disturbance to the cultural resource. The impacts were feasibly mitigated by the implementation of a Phase 3 Data Recovery Program. This approach and strategy are also the same as is proposed for the Marriott project.

There is agreement among the archaeological experts working on the project (N. Farrell, T. Hannahs, H. Macfarlane, D. Stone) that Locus 2 deposits are previously disturbed and have lost their "integrity" (their horizontal and vertical spatial relationships), such that archaeologists cannot reconstruct activities that may have been represented at these parts of the site. Locus 2 disturbed (redistributed) deposits may contain isolated, disarticulated human remains and are significant because of this potential. Any such remains are considered sensitive and have substantial heritage value to the Native American community. The impact associated with the potential to disturb such remains is addressed by hand-excavation of all pilings not excavated as part of the Phase 3 Program.

Response to Comment No. 4-32

The comment states that trenching activities described on page 4.4-17 as resulting in a significant impact to cultural resources was not addressed.

Mitigation Measure CUL-3b specifically addresses this impact, which could result if there are changes to proposed earth disturbance, including grading and trenching.

Response to Comment No. 4-33

This comment is a reiteration of Comment 4-24, which states that the EIR's reduction of impacts on cultural resources from 38% in March 2008 to 1% presently are misleading to the reader.

There are different ways to characterize and quantify the remaining undeveloped portions of CA-SBA-58.

See responses to Comments 4-21, 4-23, and 4-24.

Response to Comment No. 4-34

This comment states that the Phase 3 Archaeological Data Recovery Program entitles the archaeologist to carry out its program without limitations, and that it should instead be designed to be carried out in only the pile locations that are already planned for disturbance.

There are several limitations associated with the Phase 3 Archaeological Data Recovery Program (Phase 3). These limitations set the minimum requirements for a competent investigation and to ensure that the Phase 3 parameters are not so restrictive that they prevent the investigation from doing the best job possible.

The City's archaeologists (T. Hannahs, H. Macfarlane) concur that deciding where and how the excavation will be conducted, without allowing any flexibility to the archaeologist to adapt the excavation to any new information identified during the Phase 3 investigations, is inappropriate. Like any researcher, the archaeologist has a strong incentive to conduct the best investigation within his/her means. Excessive or random archaeological excavations would have no constructive scientific purpose. While there is no law that states that the excavation locations must be in any place an archaeologist says they should be, it is logical to allow the archaeologist to direct the investigation if the goal is to obtain valuable archaeological information from the site before it is covered by development.

Response to Comment No. 4-35

The comment asserts that Phase 3 excavations should be carried out in the locations of the pilings to preserve the untouched areas of intact loci.

The referenced excavation would take place in an area already subject to excavation to a depth of 18 inches by the developer. Therefore, it is unclear why having the archaeologist pre-excavate this area would be objectionable if the goal is to identify any potentially significant areas. The archaeologist will control the location of excavations, which will not necessarily be limited to the location of the pilings. Also see response to Comment 4-34.

Response to Comment No. 4-36

The comment states that, if the excavation is limited to 18 inches, there should be no need to excavate further.

In order to mitigate the loss of an archaeological resource, a certain level of archaeological investigation is required. The minimum amount of excavation has been set forth but, if new information or important discoveries are made, the research design must have sufficient flexibility to address such discoveries

Also see response to Comment 4-35.

Response to Comment No. 4-37

The comment states that, per the CRMS report, excavations to 18 inches would result in a significant impact if they take place in certain portions of the site where significant amounts of intact midden soils occur within 8 inches of the surface.

The areas where grading is proposed to 18 inches are not in areas of identified intact archaeological site soils.

Response to Comment No. 4-38

This comment requests that excavations be limited to the areas of the pile locations.

Excavation of the piling locations may not be the appropriate action to obtain the best archaeological information about the prehistoric village site and its inhabitants. Mitigation measures MM CUL-3a and MM CUL-3i provide the flexibility for the archaeologist to determine the appropriate excavation locations.

See responses to Comments 4-34, 4-35, and 4-36.

Response to Comment No. 4-39

The comment asserts that the Native American community objects to the 10 excavation units left to the discretion of the archaeologist.

See responses to Comments 4-34 through 4-38.

Response to Comment No. 4-40

The comment suggests that Dudek's data results from the Supplemental Extended Phase 1 Archaeological Investigation could be extrapolated to determine vertical and horizontal variation and density of cultural materials within CA-SBA-58 for the whole site by incorporating measurements into geographic information systems (GIS).

This comment seems to contradict a statement in Comment 4-29, which states, "Because no vertical explorations have been conducted to determine the depth or volume of intact and re-deposited midden..." Comment 4-29 continues, stating that only presence or absence investigations have taken place during the last two studies and there is no data that can positively suggest there is more intact midden as opposed to re-deposited material.

Because the site is not uniform, it would not be an accurate representation to take only very small samples and then use the results of the small sample size to extrapolate assumptions onto the larger site.

With regard to use of GIS programs, GIS is a mapping tool, which is only as good as the original data. In the case of CA-SBA-58, the CRMS report and EIR detail why the existing data available for CA-SBA-58 is not sufficient to equal a Phase 3 Data Recovery Program.

Response to Comment No. 4-41

The comment states that the EIR's use of 8-inch levels rather than the industry standard of 4-inch levels will lead to loss of data.

According to Todd Hannahs of CRMS, the 8-inch level is a minimum level of investigation, not a maximum. That said, there is no "industry standard." While a 4-inch level may be appropriate, the comment does not cite any evidence to show why a tighter level spacing will result in a more meaningful study.

Whatever firm eventually conducts the investigation can recommend use of a smaller level size, but they cannot use a larger one.

Response to Comment No. 4-42

The commenter asserts that the Native American community objects to the 10 excavation units left to the discretion of the archaeologist.

See responses to Comments 4-34 through 4-38.

Response to Comment No. 4-43

The commenter states that excavating 7 units out of 143 pile locations would equal less than 5% of direct impacts data collected. The commenter further states that this reduced data collection is contradictory to Dudek's 2008 recommendations for data collection.

The City's archaeological experts are in agreement on the proposed mitigation. CRMS reviewed the Dudek report along with numerous other previous reports. Based on CRMS review of the available data, their mitigation approach utilizes larger units placed with greater discretion of the archaeologist. The numbers, volumes, and rationale for the Phase 3 Data Recovery Program are identified in Section 4.4 of the EIR. City-retained archaeologist Heather Macfarlane has also reviewed the proposed CRMS Phase 3 Data Recovery program and concurs with the proposed mitigation approach.

Response to Comment No. 4-44

The comment suggests that each pile location (243 locations) be hand-excavated and screened prior to any grading activities, and that no other subsurface disturbance should take place in any other location.

CRMS does not consider there to be a lack of data recovery. The CRMS approach uses larger units placed with greater discretion of the archaeologist.

The comment concludes that excavation of the pilings will "effectively mitigate the impacts to less than significant." However, no actual evidence or professional (archaeologist) concurrence is presented to support this.

The archaeologist's primary concern is data of a scientific archaeological nature, and that concern has been satisfied through the methods and procedures described in the EIR and its technical appendices.

Also refer to responses to Comments 4-35 and 4-43.

Response to Comment No. 4-45

This comment asserts that the statement on page 4.4-20 regarding the most likely descendant of any human remains identified with CA-SBA-58 is incorrect and should be revised.

Following discovery of human remains, the NAHC is responsible for identifying the Most Likely Descendant (MLD) for a project after the NAHC is contacted by the County coroner. Therefore, the portion of the mitigation measure stating that the observer will satisfy the requirement as MLD is deleted because the NAHC (not the City) determines who the MLD will be. In addition, while the NAHC does not recommend that the Native American observer also be the MLD for a project, there are no regulations that prohibit one individual from having the roles of both observer and MLD (Dave Singleton, NAHC, personal communication April 17, 2013). Section 4.4 of the EIR includes additional discussion regarding having the same individuals act as observer and MLD.

Section 4.4.5, MM CUL-3e is revised as follows:

MM CUL-3e. Discovery of Human Remains

Procedures will be prepared and followed in the event human remains are discovered.

Plan Requirements and Timing: ~~Prior to any site preparation, ground disturbing, grading, and/or construction activities, the permittee and construction crew will meet on site~~ The following actions must be taken immediately upon the discovery of human remains, consistent with ~~the local Chumash representative(s), identified as the Most Likely Descendant (MLD) by the State Native American Heritage CommissionThe MLD, permittee, the Lead Agency, and City-approved archaeologist will discuss procedures~~ Public Resources Code 5097.98:

- Stop work in the affected area.
- Notify the coroner.
- Fence off the area.
- Leave all items in the area as is.

In some situations (as determined appropriate by the City, the site archaeologist, and Native American observer), work may be allowed to continue in another part of the parcel. City staff shall also be notified of the discovery of human remains. Public Resources Code 5097.98 also addresses specific timing and other criteria with regard to MLD recommendations for the disposition of human remains. ~~These procedures will include those identified by California Public Resources Code 5097.98, State CEQA Guidelines Section 15064.5, and the City's Cultural Resource Guidelines. The coroner will be contacted if human remains are discovered. Satisfactory disposition of the remains will be agreed upon by all parties so as to limit future disturbance. Procedures will be reviewed and approved by the City prior to Land Use Permit issuance.~~

Monitoring: City staff will periodically site inspect monitoring activities and will respond according to procedures in the event human remains are discovered.

Response to Comment No. 4-46

The comment noted a likely typo in MM CUL-3b and suggests specific edits to the mitigation measure.

To correct this error, Section 4.4.5, MM CUL-3b is revised as follows:

MM CUL-3b. Construction Monitoring

All site preparation, ground disturbing, grading, and/or construction activities (onsite and Hollister Avenue and South La Patera Lane improvements) will be monitored by a City-approved archaeologist and Chumash Native American observer. These monitor(s) will have the following authorities:

a. The monitors will be on site on a full-time basis during any site preparation, ground disturbing, and/or grading activities (whether within or outside of the assumed intact soil areas). The monitors will remain on site until it is determined through consultation with the applicant, City staff, and archaeological ~~consultant,~~ and Native

American consultants ~~representative~~ that full-time monitoring is no longer warranted. At such time, an alternate monitoring schedule will be identified and agreed upon.

b. Project grading, drainage, landscape plans and other plans have been designed to minimize the potential for impacts to cultural resources. No changes to project plans involving earth disturbance (e.g., depth of utility trenches, pilings, earthwork for parking lot, etc.) which could otherwise impact cultural resources shall be approved prior to review and input by the City ~~approved~~ retained archaeologist and City approval.

c. The monitors will have the authority to halt any activities impacting known or previously unidentified cultural resources and to conduct an initial assessment of the resources.

d. In the event potential human remains (including a single bone fragment of unknown origin) are uncovered ~~at any time~~, ~~mitigation requirements established under Mitigation Measure CUL-3e 4.4-5 below,~~ procedures identified in Public Resources Code 5097.98 must ~~will~~ be carried out.

e. If an artifact is identified as an isolated find, the artifact(s) will be recovered with the appropriate location data and the item will be included in the overall inventory for the site.

f. If a feature or concentration of artifacts is identified, the monitors will halt activities in the vicinity of the find, notify the applicant and the City, and prepare a proposal for the treatment of the find(s). This treatment may range from additional study to avoidance, depending on the nature of the find(s).

g. The monitors will prepare a comprehensive archaeological technical report documenting the results of the monitoring program and including an inventory of recovered artifacts, features, etc.

h. The monitors will prepare the artifact assemblage for curation with an appropriate curation with the UCSB Repository for Archaeological Collections.

i. The monitors will file an updated archaeological site survey record with the UCSB Central Coast Information Center.

Plan Requirements and Timing: The permittee will prepare a Construction Monitoring Plan for review and approval by the City's archaeologist and the City. Plan specifications for the monitoring will be printed on all plans submitted for any site preparation, ground disturbing, grading, and/or construction activities. The permittee will enter into a contract with a City-approved archaeologist and Chumash Native American observer and will fund the required monitoring. The permittee will provide the Construction Monitoring Plan and signed contract for review and approval by the City prior to Land Use Permit issuance. The permittee will provide evidence of contract prior to issuance of a Land Use Permit for any site preparation, ground disturbing, grading, and/or construction activities the permittee must provide evidence of an effectuated contract for the archaeologist(s) and Native American observer(s) to cover all required archaeological monitoring responsibilities, which must be acceptable to the City.

Monitoring: The City must review contract before Land Use Permit issuance and will conduct periodic site inspections to verify compliance during any site preparation, ground disturbing, grading, and/or construction activities.

Response to Comment No. 4-47

The comment states that MM CUL-3b's description regarding identification of isolates is misleading, as there can be no definitive determination that any item found is an isolate.

Because there are portions of the project site that are outside of the boundary for intact materials, the presence of isolated or disturbed (or both) artifacts cannot be ruled out. The notion that no "definitive determination" can be made is not borne out by archaeological experience.

Response to Comment No. 4-48

The comment asserts that procedures listed in MM CUL-3e related to the discovery of human remains are incorrect and should be revised as noted in the comment. The comment further states that the City does not have the authority to rewrite the MLD assignment process to suit the needs of the developer or any other party.

See response to Comment 4-46.

Response to Comment No. 4-49

This comment requests that the economic impact of Alternative 2 (Page Property) be compared to that of Alternative 3 (Project Redesign).

CEQA requires that the alternatives analysis compare the environmental effects of the proposed project with those of the alternatives. The economic viability of Alternative 2 compared to that of Alternative 3 is outside of the purview of CEQA.

Response to Comment No. 4-50

This comment states that there are no impacts to scenic views, obstruction of mountain views, or impacts to cultural resources under Alternative 2, and that the Alternative 2 site's compatibility with the surrounding area would increase the overall economic viability of Old Town Goleta.

The comment is accurate that potentially significant impacts would occur on cultural resources and aesthetics with the proposed project and that Alternative 2 would avoid impacts. Under CEQA, economic viability is not evaluated.

Response to Comment No. 4-51

The comment asserts that the statement that Alternative 3 redesign would place the pilings farthest from the most culturally sensitive portion of the site is factually incorrect.

The redesign layout would not avoid all intact soil areas, but would minimize the impacts to underlying intact (Locus 1) soils by locating fewer pilings in areas with intact soils.

Response to Comment No. 4-52

The comment challenges the statement regarding Alternative 3 about the most culturally sensitive portion of the site, because there are no criteria in the CRMS report to determine which portions are more or less culturally sensitive.

Section 6.2.3 of the EIR is revised to clarify that the redesign would result in less direct impacts to intact archaeological soils compared to the proposed project. The archaeological significance is focused on those areas of the site with intact soils that retain spatial integrity, as location (both vertically and laterally) is used to allow for investigation that can answer research questions important to history or prehistory. Disarticulated remains or isolated materials in disturbed soils may be relocated from within or beyond the project site. Therefore, disturbed soil areas do not have the same ability to answer important research questions about prehistory or history. Further, given the nature of disturbed soils, it is not known which portions of the disturbed soils onsite might contain sensitive materials.

See also response to Comment 4-51.

Section 6.2.3.4 is revised as follows:

> Alternative 3 would result in the same types of potentially significant impacts that are identified in Section 4.4, "Cultural Resources." However, flipping the building configuration and redesigning the swimming pool to further reduce sub-surface disturbance (to primarily new fill soil imported to the site) could slightly reduce the potential for encountering buried resources during site development. Flipping of the building would be expected to result in less direct impacts to intact archaeological soils compared to the proposed project. The archaeological significance is focused on those areas of the site with intact soils that retain spatial integrity, as location (both vertically and laterally) is used in investigations to help answer research questions important to history or prehistory. Disarticulated remains or isolated materials in disturbed soils may be relocated from within or beyond the project site. Therefore, disturbed soil areas do not have the same ability to answer important research questions. Further, given the nature of disturbed soils, it is not known which portions of the disturbed soils on site might contain sensitive materials. Therefore, impacts on cultural resources would be slightly less with Alternative 3, but this alternative would still contribute to a significant cumulative impact on cultural resources.

Response to Comment No. 4-53

The comment states that the Alternative 3 analysis should include redistributed archaeological resources in its assessment.

This alternative would reduce impacts to intact (Locus 1) soils and also would reduce overall sub-surface disturbance, including in areas with redistributed (Locus 2) soil areas. However, the reference to "primarily new fill soil imported to the site" is to new fill soil that would be brought to the site for construction of the hotel, not historic fill that has been identified as disturbed and potentially containing cultural material.

Response to Comment No. 4-54

This comment states that the visual, bulk of scale, and cultural resources impacts should be weighted higher than other impacts and that the alternatives analysis should evaluate comparative impacts based on this weighted scale.

An EIR does not determine or evaluate impacts based on a scale, a degree of comparison, or in terms of "higher" impacts. Rather, impacts are evaluated based on significance thresholds and determined to either be significant, less than significant with incorporation of mitigation measures, less than significant, or having no impact. For alternatives analysis purposes, a significant impact is not "more" significant than another impact. Further, even if one were to engage in such an analysis, the definition of the Environmentally Superior Alternative would remain unchanged.

Response to Comment No. 4-55

The comment states that the State CEQA Guidelines do not require the alternatives to meet all of the project objectives. It also states that the objectives are speculative and can change with economic parameter.

The comment correctly states the requirements of alternatives analysis under CEQA.

The objectives are those identified and adopted by the City, as the lead agency, in the EIR.

It can be argued that a project submitted at a different time may have different goals. Project objectives for the purposes of an EIR are based on the present, which typically includes consideration of the current General Plan along with reasonable development expectations for the property.

Response to Comment No. 4-56

The comment questions the meaning of the statement that the Alternative 2 site is not as visible as the proposed project site.

The statement about the visibility of the proposed project site relative to that of the Alternative 2 site reflects the fact that a hotel on Hollister Avenue would be more visible to travelers than one on a frontage road to State Route 217, which is partially screened by freeway landscaping.

The economic impact of placing a hotel on Hollister Avenue as opposed to placing a hotel along State Route 217 (regardless of the size of such a hotel) is not an environmental issue.

Response to Comment No. 4-57

This comment states that the distance between the Santa Barbara Airport and either the proposed project site on Hollister Avenue or the Alternative 2 site is approximately the same.

We assume that the commenter means the distance from the project site to the Airport Terminal (located at 500 James Fowler Road), as compared to the distance from the Page site from the Airport Terminal. If so, the route from the Hollister Avenue site to the Airport Terminal is more direct and closer than the route from the Page site to the Airport Terminal. Regardless, driving

distance was not a factor considered in the comparative evaluation of the alternatives under CEQA.

Response to Comment No. 4-58

This comment states that because shuttle buses would be used to take people between the project site and the airport, the distance from the airport is irrelevant.

Whether or not shuttle buses would be used has not been determined and was not part of the project description provided by the applicant. It was not considered in the comparative evaluation of the alternatives under CEQA.

Response to Comment No. 4-59

The comment states that the locations of Marriott Residence Inns in California do not seem to be dependent on distance from an airport.

The reasons for the applicant to propose their project in a particular location is not a subject for the CEQA analysis. No changes to the EIR are necessary in response to this comment.

Response to Comment No. 4-60

The comment claims that a hotel on the Alternative 2 site could be larger, with more meeting room space, and would generate more occupancy tax revenues.

Under Alternative 2, the same size project would be built at the alternative location. However, tax revenue was not considered in the comparative evaluation of alternatives pursuant to CEQA.

Section 6.4, Environmentally Superior Alternative, is revised as follows:

> Impacts on cultural resources and aesthetics would be substantially lessened with Alternative 2 or 3. However, only the No Project Alternative has the ability to reduce the designated "level" of impacts beyond the levels anticipated for the proposed project. Therefore, the No Project Alternative is environmentally superior to the proposed project. Implementation of the No Project Alternative, however, is not consistent with the project objectives. Specifically, by not developing an extended stay hotel on Parcel 2, it would not provide an economically viable use for the remaining undeveloped property along Hollister Avenue that complements existing nearby development and amenities such as the Santa Barbara Airport. ~~It would also not create additional transient occupancy tax revenues associated with an extended stay hotel development.~~ It would also not facilitate or accelerate the undergrounding of utility infrastructure in an important view corridor.

Response to Comment No. 4-61

This comment states an opinion to reject the project in favor of Alternative 2, claiming this alternative would have fewer environmental impacts and would meet most of the project objectives. The comment states that the project site should be made into a park with an historic element instead. It states that using the Alternative 2 site would be economically feasible and would funnel people into Old Town Goleta.

The comment expresses opinions about the project, a preference for Alternative 2 for economic reasons, and other uses of the project site. These opinions do not address the environmental analysis in the EIR. The comment's claim that Alternative 2 has fewer environmental impacts than the proposed project is not supported by the CEQA analysis, which found that this alternative had a few impacts that would be less than those for the proposed project, a few that would be greater, and a few that would be similar. Alternative 3 was found to be the environmentally superior alternative, with most of the impacts similar to those for the proposed project, a few less than for the project, and none that would be greater than those for the proposed project.

Response to Comment No. 4-62

This comment questions why the project applicant would choose the project site for the hotel and what role distance from the airport played in this decision.

The reasons for the applicant to propose its project in a particular location is not a subject for the CEQA analysis.

Response to Comment No. 4-63

The comment claims that the loss of agricultural land (at the Alternative 2 site) would be less significant than the loss of cultural resources at the proposed project site.

CEQA does not evaluate impacts relative to one another and does not determine in the alternatives context if one significant impact is more important than another significant impact for a different resource. Further, even if such an analysis were performed, the environmentally superior alternative, and the conclusions regarding the relative merits of the alternatives, would not change.

Response to Comment No. 4-64

The comment provides contact information for the commenter.