COASTAL AREA PLAN

OF THE

VENTURA COUNTY GENERAL PLAN

APPENDICES

VENTURA COUNTY BOARD OF SUPERVISORS

Adopted - November 18, 1980
Amended - March 30, 1982
Amended - June 20, 1989
Amended - Dec. 5, 2000 & Nov. 20, 2001

CALIFORNIA COASTAL COMMISSION

Conditionally Certified - August 20, 1981
Certified - June 18, 1982
Certified - October 10 & 12, 1989
Certified - January 11, 2002
## CONTENTS

<table>
<thead>
<tr>
<th>Appendix 1</th>
<th>Statewide Interpretive Guidelines for Wetlands and other Wet, Environmentally Sensitive Habitats (1981)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 2</td>
<td>Archaeological Guidelines (1980)</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>Paleontological Guidelines (1980)</td>
</tr>
<tr>
<td>Appendix 5</td>
<td>California Department of Navigation and Ocean Development (DNOD) Survey of Ventura County Beaches (1977)</td>
</tr>
<tr>
<td>Appendix 6</td>
<td>Policy for Location of On Shore Oil Facilities (1968)</td>
</tr>
</tbody>
</table>

PAGE

1  65  91  103  123  131
APPENDIX 1

STATEWIDE INTERPRETIVE GUIDELINES FOR WETLANDS AND OTHER WET, ENVIRONMENTALLY SENSITIVE HABITATS (1981)
STATEWIDE INTERPRETIVE GUIDELINE

FOR

WETLANDS AND OTHER WET ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Adopted February 4, 1981
California Coastal Commission
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>A.</td>
<td>What are &quot;Wetlands&quot;</td>
<td>1</td>
</tr>
<tr>
<td>B.</td>
<td>How the Coastal Act Protects Wetlands</td>
<td>2</td>
</tr>
<tr>
<td>C.</td>
<td>Use of the Guideline and Its Relationship to LCPs</td>
<td>3</td>
</tr>
<tr>
<td>II.</td>
<td>WHAT ARE &quot;ENVIRONMENTALLY SENSITIVE HABITAT AREAS&quot;?</td>
<td>3</td>
</tr>
<tr>
<td>A.</td>
<td>&quot;Wetlands&quot;</td>
<td>4</td>
</tr>
<tr>
<td>B.</td>
<td>&quot;Estuaries&quot;</td>
<td>4</td>
</tr>
<tr>
<td>C.</td>
<td>&quot;Streams&quot; and &quot;Rivers&quot;</td>
<td>5</td>
</tr>
<tr>
<td>D.</td>
<td>&quot;Lakes&quot;</td>
<td>5</td>
</tr>
<tr>
<td>E.</td>
<td>&quot;Open Coastal Waters&quot; and &quot;Coastal Waters&quot;</td>
<td>5</td>
</tr>
<tr>
<td>F.</td>
<td>&quot;Riparian Habitats&quot;</td>
<td>5</td>
</tr>
<tr>
<td>III.</td>
<td>WHEN IS DEVELOPMENT PERMITTED IN AN ENVIRONMENTALLY SENSITIVE HABITAT AREA?</td>
<td>5</td>
</tr>
<tr>
<td>A.</td>
<td>Requirements for All Development Proposals in Environmentally Sensitive Habitat Areas</td>
<td>6</td>
</tr>
<tr>
<td>B.</td>
<td>Requirements for Additional Project Information</td>
<td>6</td>
</tr>
<tr>
<td>IV.</td>
<td>DEVELOPMENTS PERMITTED IN WETLANDS AND ESTUARIES</td>
<td>9</td>
</tr>
<tr>
<td>A.</td>
<td>Developments and Activities Permitted in Wetlands and Estuaries</td>
<td>9</td>
</tr>
<tr>
<td>B.</td>
<td>Special Limitations on Development in Those Coastal Wetlands Identified by the Department of Fish and Game</td>
<td>12</td>
</tr>
<tr>
<td>C.</td>
<td>Restoration Projects Permitted in Section 30233</td>
<td>13</td>
</tr>
<tr>
<td>D.</td>
<td>Requirements for All Permitted Development</td>
<td>14</td>
</tr>
<tr>
<td>E.</td>
<td>Provisions Applicable to Proposed Development in Wetlands and Estuaries Within Port Jurisdictions</td>
<td>18</td>
</tr>
<tr>
<td>V.</td>
<td>DEVELOPMENTS PERMITTED IN OPEN COASTAL WATERS AND LAKES</td>
<td>18</td>
</tr>
<tr>
<td>A.</td>
<td>Developments and Activities Permitted in Open Coastal Waters and Lakes</td>
<td>18</td>
</tr>
<tr>
<td>B.</td>
<td>Requirements for All Permitted Developments</td>
<td>19</td>
</tr>
<tr>
<td>VI.</td>
<td>DEVELOPMENTS PERMITTED IN STREAMS AND RIVERS</td>
<td>19</td>
</tr>
<tr>
<td>A.</td>
<td>Permitted Developments in Streams and Rivers</td>
<td>19</td>
</tr>
<tr>
<td>B.</td>
<td>Requirements for Development</td>
<td>19</td>
</tr>
</tbody>
</table>
(continued)

VII. STANDARDS FOR SITING DEVELOPMENT ADJACENT TO ENVIRONMENTALLY SENSITIVE HABITAT AREAS

A. Criteria for Reviewing Proposed Development Adjacent to Environmentally Sensitive Habitat Areas
   20
B. Criteria for Establishing Buffer Areas
   21

VIII. RESTORATION AND MAINTENANCE OF WETLAND HABITAT AREAS

A. Identification of Degraded Wetlands
   24
B. Requirements Applicable to All Restoration Projects
   25
C. Requirements Applicable to Restoration of Degraded Wetlands in Conjunction with Boating Facilities
   26
D. Requirements Applicable to Restoration of Degraded Wetlands Using Projects Other Than Boating Facilities
   26

APPENDICES

A. Applicable Coastal Act Policies
B. Resources Agency Wetland Policy
C. Summary of Federal and State Regulatory Involvement Regarding Development in Wetlands and Other Wet Environmentally Sensitive Habitat Areas
D. Technical Criteria for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas
E. Glossary of Terms
I. INTRODUCTION

The Commission adopted this guideline as a decision of the Commission after receiving extensive public testimony and comments and holding ten public hearings at numerous locations in the coastal zone. In addition, the Regional Commissions provided valuable comments and information as a result of an approximately equal number of hearings which they held. Guidelines should be viewed as a tool in reviewing coastal permit applications and LCPs for wetlands and adjacent areas. The Commission intends local governments to use the guideline when developing LCPs but believes that more flexibility may be appropriate in an LCP than in an individual permit decision. Guidelines of necessity must focus on issues primarily of statewide concern. The LCPs will focus in depth on regional wetlands issues. For example, the Humboldt County Northcoast Area Land Use Plan addressed farmed wetlands in detail, a subject only footnoted in this guideline. It adopted explicit criteria for identifying farmed wetlands and designated the areas exclusive agriculture. The Commission certified the LUP as consistent with the policies of Chapter 3, even though such specific criteria are not contained or endorsed in this guideline. This example illustrates that the guideline is a valuable tool, but only a tool, to be used in conjunction with permit and planning decisions.

A. What Are "Wetlands"?

The Coastal Act defines wetlands as land "which may be covered periodically or permanently with shallow water." Wetland areas, such as marshes, mudflats and lagoons, serve many functions: to absorb pollutants and storm energy; to serve as nutrient sources and genetic reservoirs; and to provide some of the world's richest wildlife habitats.

Wetlands are highly diverse and productive. The combination of shallow and deep water, and the variety of vegetation and substrates produce far greater possibilities for wildlife feeding, nesting and resting than is found in less diverse areas. Individual wetlands may be inhabited by hundreds of species of birds, mammals, fish and smaller organisms. Abundant microorganisms serve as food for crabs, clams, oysters, and mussels which live in the tidal flats.

Wetlands' natural abundance draws people for recreation such as clamming, bird watching and fishing. Fish such as the king and silver salmon and steelhead trout live much of their lives in the ocean but return to freshwater to spawn. Commercially important fish such as herring, anchovy and California halibut are also found in California's estuaries.

Food for ocean fauna is supplied from California's coastal estuaries. Estuarine productivity therefore contributes to a complex ocean food web. For example, a significant amount of the net areal primary productivity of the Tijuana Estuary is exported in the form of dissolved carbon which can be taken up and used by oysters, bacteria and phytoplankton, which may in turn be eaten by other creatures. Perhaps more importantly, estuaries provide habitat for organisms to use that food, therefore making these habitats important for man, for example, as aquaculture sites.
Migratory animals feed and rest in California's coastal wetlands in large enough numbers to make the wetlands invaluable habitat areas. Most waterfowl and shorebirds found in North America, such as ducks, geese, sandpipers, and dunlines, are migratory. They nest in Alaska or Canada in the summer, and winter in the U.S. or points south. During the fall and spring migrations, millions of these birds move along well-defined routes called flyways. The California coast, part of the Pacific Flyways, was assigned third highest priority (out of a total of 33 areas nationally) for wintering habitat preservation by the U.S. Fish and Wildlife Service.

Wetlands also serve as rich laboratories for ecological studies.

B. How the Coastal Act Protects Wetlands

Since wetlands are so valuable from both an economic and biologic standpoint, the California Coastal Act, and many other Federal and state statutes and regulations, mandates governmental regulation of these areas. Section 30001 of the Coastal Act states (in part) that the Legislature finds and declares as follows: that the California coastal zone is a distinct and valuable resource and exists as a delicately balanced ecosystem; that the permanent protection of the state's natural resources is of paramount concern to present and future residents of the state and the nation; and that it is necessary to protect the ecological balance of the coastal zone and prevent its deterioration and destruction. Therefore, the Act requires that the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes be maintained and, where feasible, restored. Sections of the Act provide general policies for development in and adjacent to wetlands, and specific policies for protecting these areas.

In order to apply Coastal Act policies on wetlands to specific areas and developments, the Commission has adopted this interpretive guideline. The guideline integrates ecological concepts and policies found in many sections of the Act into a consistent whole, explains policies for protecting natural resources, defines technical terms, and facilitates application of the policies by the State and regional commissions. Since many of the natural resource policies in the Coastal Act overlap, this guideline distinguishes the relative importance of the policies and their interrelationships. Statutory provisions which govern all environmentally sensitive habitat areas are laid out and specific development standards and criteria are explained for particular habitat areas (e.g., wetlands, estuaries, open coastal waters, lakes and streams).

Wetlands are not isolated, independently functioning systems, and they depend upon and are highly influenced by their surroundings. Therefore, the guideline includes standards for the review and evaluation of proposed projects adjacent to environmentally sensitive habitat areas.

The State Department of fish and Game is the authorized custodian of California's fish and wildlife resources and serves as the Commission's principal consultant on all matters related to these resources. This responsibility includes but is not limited to: determination of project impacts; adequacy of technical data; and identification of appropriate mitigation or restoration measures for affected habitat.
C. Use of the Guideline and Its Relationship to LCPs

This guideline is meant to assist the public and the Commissions in applying Coastal Act policies for wet environmentally sensitive habitat areas and is in no way meant to supersede those policies. The guideline should be viewed as a tool in reviewing coastal permit applications and LCPs for wetlands and adjacent areas as explained above.

The question of the relationship between interpretive guidelines and Local Coastal Programs (LCPs) has been hotly debated and underscores the importance of developing a comprehensive, consistent approach to these valuable coastal areas, but the LCPs (such as Humboldt County example discussed above) become the standard of review after certification. This guideline is a decision of the Commission, and therefore, it does serve as a tool or guide to local governments in preparing their LCPs as specified in Section 30625 (c) of the Act and in Section 90113 of the LCP Regulations.

II. WHAT ARE "ENVIRONMENTALLY SENSITIVE HABITAT AREAS"?

The Coastal Act defines "environmentally sensitive area" in Section 30107.5 as follows:

"'Environmentally sensitive area' means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

The term "environmentally sensitive habitat area" is also used in Section 30240 of the Coastal Act. The two terms are synonymous.

The Commission generally considers wetlands, estuaries, streams, riparian habitats, lakes and portions of open coastal waters to be environmentally sensitive habitat areas because of the especially valuable role of these habitat areas in maintaining the natural ecological functioning of many coastal habitat areas and because these areas are easily degraded by human developments. In acting on an application for development one of these areas, the Commission considers all relevant information. The following specific policies apply to these habitat areas: Sections 30230; 30231; 30233; and 30236. Section 30240, a more general policy, also applies, but the more specific language in the former sections is controlling where conflicts exist with general provisions of Section 30240 (e.g., port facilities may be permitted in wetlands under Section 30233 even though they may not be resource dependent). This guideline addresses wet environmentally sensitive habitat areas only. The discussion in this section and in section VII is not intended to describe or include all environmentally sensitive habitat areas which may fall under Section 30240 of the Coastal Act.
As stated in the "INTRODUCTION," wetlands are not isolated, independently functioning systems. Rather, they depend upon and are highly influenced by their associated watersheds and upland transition areas. Therefore, when the Commission determines that any adjacent area is necessary to maintain the functional capacity of the wetland, the Commission will require that this area be protected against any significant disruption of habitat values consistent with Section 30240(a). These areas may be protected either by inclusion in a buffer area subject to land use restrictions or through provision of a buffer area around the ecological related adjacent area itself, or through other means. Section VII of this guideline discusses the use of buffers.

A. "Wetlands"

The Coastal Act defines "wetland" in Section 30121 as follows:

"'Wetland' means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens."

This is the definition upon which the Commission relies to identify "wetlands." The definition refers to lands "...which may be periodically or permanently covered with shallow water ..." However, due to highly variable environmental conditions along the length of the California coast, wetlands may include a variety of different types of habitat areas. For this reason, some wetlands may not be readily identifiable by simple means. In such cases, the Commission also will rely on the presence of hydrophytes and/or the presence of hydric soils as evidence that an area may be periodically or permanently covered with shallow water. These are useful indicators of wetland conditions, but the presence or absence of hydric soils and/or hydrophytes alone are not necessarily determinative when the Commission identifies wetlands under the Coastal Act. In the past, the Commission has considered all relevant information in making such determinations and relied upon the advice and judgement of experts before reaching its own independent conclusion as to whether a particular area will be considered wetland under the Coastal Act. The Commission intends to continue to follow this policy. The discussion in "APPENDIX D" provides more detail and further guidance on wetland identification.

B. "Estuaries"

An "estuary" is a coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the land. The salinity may be periodically increased above the open ocean by evaporation. In general, the boundary between "wetland" and "estuary" is the line of extreme low water (see Appendix D for a more complete discussion of wetland/estuary boundaries).
C. "Streams" and "Rivers"

A "stream" or a "river" is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris.

D. "Lakes"

A "lake" is a confined, perennial water body mapped by the United States Geologic Survey on the most current 7.5 minute quadrangle series.

E. "Open Coastal Waters" and "Coastal Waters"

The terms "open coastal waters" or "coastal waters" refer to the open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries (see Appendix D).

Some portions of open coastal waters, generally areas without especially significant plant or animal life, may not be considered environmentally sensitive habitat areas. Environmentally sensitive habitat areas within open coastal waters may include "Areas of Special Biological Significance" as identified by the State Water Resources Control Board, habitats of rare or endangered plant and animal species, nearshore reefs, rocky intertidal areas (such as tidepools), and kelp beds.

F. "Riparian Habitats"

A "riparian habitat" is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of fresh water (see Appendix D).

III. WHEN IS DEVELOPMENT PERMITTED IN AN ENVIRONMENTALLY SENSITIVE HABITAT AREA?

"Development" is defined in Section 30106 of the Coastal Act, and includes the placement of fill; construction or alteration of any structure or facility; discharge of any waste material; dredging or extraction of any materials; change in the density or intensity of use of land; removal or harvest of major vegetation except for agricultural purposes; and other alterations to the land and water in the coastal zone (see Appendix A).
A. Requirements For All Development Proposals in Environmentally Sensitive Habitat Areas

Under the Coastal Act, there are two basic steps in determining if development is permitted in an environmentally sensitive habitat area. First, the type of development proposed must be a permitted use under the applicable section of the Coastal Act. For example, any development proposed in a wetland must be specifically described in Section 30233(a) of the Act. The permitted developments allowed in each type of environmentally sensitive habitat area are discussed in subsequent sections. Additional permitted developments in environmentally sensitive habitat areas are projects which depend on the natural resources in that habitat area and therefore require a site in that particular type of environmentally sensitive habitat area in order to function.

Second, any permitted use must also meet all general requirements. For example, before development could be approved in a wetland, the Commission must find that there is no feasible, less environmentally damaging alternative, that feasible mitigation measures have been provided to minimize adverse environmental effects, and that the functional capacity of the wetland is maintained or enhanced. These requirements are discussed in subsequent sections.

B. Requirements for Additional Project Information.

To meet the statutory requirements of Sections 30230, 30231, 30233, 30236, and 30240 of the Coastal Act, an applicant for a permit to develop within or near an environmentally sensitive habitat area may be required to submit supplemental information, including any or all of the maps described below. The size of the study area will depend upon natural topographic features, location of existing development, and potential biological significance of adjacent lands. In undeveloped areas, the required study area may extend 500 feet or more around the environmentally sensitive habitat area, but the 500 foot distance is not an absolute standard. It is recommended that this information be developed before the application comes before the Commission, but the Commission may require additional information as a part of its permit process.

When there is a dispute over the adequacy of the information, the Commission will request the State Department of Fish and Game to review the material and submit written comments to the Commission. A qualified private professional acceptable to the applicant may be employed by the Commission to assist in this review or to provide additional information. The Commission may require the applicant to reimburse it for any reasonable expenses incurred in providing additional information or in the review of the applicant's information.

1. Maps

a. Topographic base map. The base map should be at a scale sufficiently large to permit clear and accurate depiction of vegetative associations and soil types in relation to any and all proposed development (normally the scale required will be 1"=200'). Contour intervals should be five feet, and the map should contain a north arrow, graphic bar scale, and a citation for the source of the base map (including the date). The map should show the following information:
1) Boundary lines of the applicant's property and adjacent property, including assessor's parcel numbers, as well as the boundaries of any tidelands, submerged lands or public trust lands.

2) Names and locations of adjacent or nearby roads, streets or highways, and other important geographic, topographic and physical features.

3) Location and elevation of any levees, dikes or flood control channels.

4) Location, size and invert elevation of any culverts or tide gates.

b. Inundation map. For nontidal wetlands, a map should be prepared indicating permanent or seasonal patterns of inundation (including sources) in a year of normal rainfall.

c. Vegetation map. Location and names of plant species (e.g., Salicornia virginica) and vegetation associations (e.g., saltmarsh). This map should be prepared by a qualified ecologist or botanist based upon the technical criteria provided in Appendix D.

c. Soils map. If no soil survey is available, a soils map should be prepared by a qualified soils scientist, and should show the location of soil types and include a physical description of their characteristics based upon the technical criteria provided in Appendix D.

2. Supplemental information

A report should be prepared which demonstrates that all of the criteria for development in environmentally sensitive habitat areas have been met. The report should investigate physical and biological features existing in the habitat area and evaluate the impact of the development on the existing ecosystem. The information should be prepared by an ecologist or professional environmental scientist with expertise in the ecosystem in which the development is proposed. For example, in preparing such a report for a proposed development in a salt marsh, the expertise of a qualified wetland ecologist, botanist, ornithologist, hydrologist, soil scientist or other technical professional may be required. The report should be based on an on-site investigation, in addition to a review of the existing information on the area, and should be sufficiently detailed to enable the Commission to determine potential immediate and long range impacts of the proposed project.
The report should describe and analyze the following:

a. Present extent of the habitat, and if available, maps, photographs or drawings showing historical extent of the habitat area.

b. Previous and existing ecological conditions.

1) The life history, ecology and habitat requirements of the relevant resources, such as plants, fish and wildlife, in sufficient detail to permit a biologist familiar with similar systems to infer functional relationships (the maps described in above may supply part of this information).

2) Restoration potentials.

c. Present and potential adverse physical and biological impacts on the ecosystem.

d. Alternatives to the proposed development, including different projects and off-site alternatives.

e. Mitigation measures, including restoration measures and proposed buffer areas (see pp. 14-17 and pp. 20-23).

f. If the project includes dredging, explain the following:

1) The purpose of the dredging.

2) The existing and proposed depths.

3) The volume (cubic yards) and area (acres or square feet) to be dredged.

4) Location of dredging (e.g., estuaries, open coastal waters or streams).

5) The location of proposed spoil disposal.

6) The grain size distribution of spoils.

7) The occurrence of any pollutants in the dredge spoils.

g. If the project includes filling, identify the type of fill material to be used, including pilings or other structures, and specify the proposed location for the placement of the fill, the quantity to be used and the surface area to be covered.
h. If the project includes diking, identify on a map the location, size (length, top and base width, depth and elevation of the proposed dike(s)) as well as the location, size and invert elevation of any existing or proposed culverts or tide gates.

i. If the project is adjacent to a wetland and may cause mud waves, a report shall be prepared by a qualified geotechnical engineer which explains ways to prevent or mitigate the problem.

j. Benchmark and survey data used to locate the project, the lines of highest tidal action, mean high tide, or other reference points applicable to the particular project.

k. Other governmental approvals required and obtained. Indicate the public notice number of Army Corps of Engineers permit if applicable.

Any maps or technical data submitted by the applicant will be subject to review by the State Department of Fish and Game, the State Lands Commission, or other applicable agencies who may submit comments to the Commission.

IV. DEVELOPMENTS PERMITTED IN WETLANDS AND ESTUARIES

Of all the environmentally sensitive habitat areas mentioned specifically in the Coastal Act, wetlands and estuaries are afforded the most stringent protection. In order to approve a project involving the diking, filling1, or dredging of a wetland or estuary, the Commission must first find that the project is one of the specific, enumerated uses set forth in Section 30233 of the Act (these developments and activities are listed in section A. and B. below). The Commission must then find that the project meets all three requirements of Section 30233 of the Act (see pp. 14-17). In addition, permitted development in these areas must meet the requirements of other applicable provisions of the Coastal Act.

A. Developments and Activities Permitted in Wetlands and Estuaries

1. Port facilities.

2. Energy facilities.

1 The Coastal Act defines "fill" as "... earth or any other substances or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area" (Section 30108.2).
3. Coastal-dependent industrial facilities, such as commercial fishing facilities.

4. Maintenance of existing or restoration of previously dredged depths in navigation channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

5. Incidental public service purposes which temporarily impact the resources of the area, which include, but are not limited to, burying cables and pipes, inspection of piers, and maintenance of existing intake and outfall lines (roads do not qualify).

6. Restoration projects.

(continued on next page)

---

2 For the purposes of this guideline, a coastal-dependent industrial facility is one which requires a site on, or adjacent to, the sea to function. See also Sections 30260 through 30264.

3 When no other alternative exists, and when consistent with the other provisions of this section, limited expansion of roadbeds and bridges necessary to maintain existing traffic capacity may be permitted. Activities described in the Commission's Guideline on Exclusions from Permit Requirements applicable to roads also should be consulted.

4 Restoration projects allowable under Section 30233 are discussed in detail on pp. 13-14.
7. Nature study, aquaculture, or similar resource-dependent activities.

8. In wetland areas, only entrance channels for new or expanded boating facilities may be constructed, except that in a degraded wetland, other boating facilities may be permitted according to the requirements of Section 30411 discussed on pp. 23-27.

9. New or expanded boating facilities in estuaries.

---

5 Aquaculture is not defined in the Coastal Act. The definition contained in Public Resources Code, Division 1, Chapter 4, Section 828 will be used for the purposes of this guideline. "... 'aquaculture' means the culture and husbandry of aquatic organisms, including, but not limited to, fish, shellfish, mollusks, crustaceans, kelp and algae. Aquaculture shall not mean the culture and husbandry of commercially utilized inland crops, including, but not limited to, rice, watercress, and bean sprouts." Aquaculture activities could only be sited in a wetland or estuary if they depended upon the resources of the wetland or estuary to be able to function at all. Support facilities which could be located on upland sites (e.g., parking lots, buildings) would not be permitted in the wetland or estuary. This requirement is not intended to discourage aquaculture projects or to prohibit vertical access. The Coastal Act encourages aquaculture.

6 For the purposes of this guideline, similar resource-dependent activities include scientific research, hunting and fishing (where otherwise permitted). In addition, when wetlands are seasonally farmed, the continued use of agriculture is allowed. Expanding farming operations into non-farmed wetlands by diking or otherwise altering the functional capacity of the wetland is not permitted. Farm-related structures (including barns, sheds, and farm-owner occupied housing) necessary for the continuance of the existing operation of the farmed wetlands may be located on an existing farmed wetland parcel, only if no alternative upland location is available for such purpose and the structures are sited and designed to minimize the adverse environmental effects on the farmed wetland. Clustering and other construction techniques to minimize both the land area covered by such structures and the amount of fill necessary to protect such structures will be required.

7 Boating facilities include, but are not limited to, boat landings, boat launching ramps, and marinas.

8 The term "degraded wetland" (emphasis added) is discussed on pp. 24-25.

9 The list of developments permitted in wetlands and estuaries is the same except that new or expanded boating facilities are permitted in estuaries but are not permitted in wetlands.
B. Special Limitations on Development in Those Coastal Wetlands Identified by the Department of Fish and Game.

Pursuant to Section 30233(c) of the Act, the type and amount of development in the coastal wetlands identified by the Department of Fish and Game is even more limited than those developments set forth in section A. above.

Not all coastal wetlands are identified by the Department of Fish and Game; rather, only 19 are identified for acquisition purposes in their report, "Acquisition Priorities for the Coastal Wetlands of California." However, the Department of Fish and Game may identify additional coastal wetlands pursuant to Section 30233(c). If the Department elects to identify additional wetlands pursuant to Section 30233(c), the Commission recommends that the Department develop standards and procedures for doing so. Wetlands not identified by the Department of Fish and Game are still protected by the Coastal Act, because development in any wetland as defined in the Coastal Act (see section II. A., above) must meet the requirements of Section 30233 and other applicable sections of the Act. The coastal wetlands identified for acquisition purposes to date are as follows:

1. Lake Earl
2. Ten Mile River
3. Big River
4. Bodega Bay
5. Estero Americano
6. Estero de San Antonio
7. Pescadero Marsh
8. Elkhorn Slough
9. Morro Bay
10. Santa Maria River
11. Carpenteria Marsh
12. Upper Newport Bay
13. Aqua Hedionda Lagoon
14. Batiquitos Lagoon
15. San Elijo Lagoon
16. San Dieguito Lagoon
17. Los Penasquitos Lagoon
18. South San Diego Bay
19. Tijuana River

Development permitted in the wetland portions of those areas named above is limited to the following:

1. Very minor incidental public facilities which temporarily impact the resources of the area, such as the inspection of piers, and the maintenance of existing intake and outfall lines (see footnote #3).

2. Wetland restoration.


4. Commercial fishing facilities in Bodega Bay (the meaning of this phrase is further defined in Section 30233(c)).

5. Development in already developed parts of south San Diego Bay.
C. Restoration Projects Permitted in Section 30233

Restoration projects which are a permitted development in Section 30233 (a)(7) are publicly or privately financed projects in which restoration is the sole purpose of the project. The Commission found in its decision on the Chula Vista LCP that projects which provide mitigation for non-permitted development may not be broadly construed to be restoration projects in order to avoid the strict limitations of permitted uses in Section 30233.

Restoration projects may include some fill for non-permitted uses if the wetlands are small, extremely isolated and incapable of being restored. This limited exception to Section 30233 is based on the Commission's growing experience with wetlands restoration. Small extremely isolated wetland parcels that are incapable of being restored to biologically productive systems may be filled and developed for uses not ordinarily allowed only if such actions establish stable and logical boundaries between urban and wetland areas and if the applicant provides funds sufficient to accomplish an approved restoration program in the same general region. All the following criteria must be satisfied before this exception is granted:

1. The wetland to be filled is so small (e.g., less than 1 acre) and so isolated (i.e., not contiguous or adjacent to a larger wetland) that it is not capable of recovering and maintaining a high level of biological productivity without major restoration activities.

2. The wetland must not provide significant habitat value to wetland fish and wildlife species, and must not be used by any species which is rare or endangered. (For example, such a parcel would usually be completely surrounded by commercial, residential, or industrial development which are incompatible with the existence of the wetland as a significant habitat area).

3. Restoration of another wetland to mitigate for fill can most feasibly be achieved in conjunction with filling a small wetland.

4. Restoration of a parcel to mitigate for the fill (see pp. 14-17 for details about required mitigation) must occur at a site which is next to a larger, contiguous wetland area providing significant habitat value to fish and wildlife which would benefit from the addition of more area. In addition, such restoration must occur in the same general region (e.g., within the general area surrounding the same stream, lake or estuary where the fill occurred).

5. The Department of Fish and Game and the U.S. Fish and Wildlife Service have determined that the proposed restoration project can be successfully carried out.
Additional flexibility will be allowed for restoration projects located in wetlands which are degraded (as that term is used in Section 30411 of the Coastal Act). Section VIII discusses the requirements of such projects.

D. Requirements for All Permitted Development

Any proposed project which is a permitted development must also meet the three statutory requirements enumerated below, in the sequence shown:

1. Diking, filling or dredging of a wetland or estuary will only be permitted if there is no feasible less environmentally damaging alternative (Section 30233(a)). The Commission may require the applicant to submit any or all of the information described in section III. B. above.

2. If there is no feasible less environmentally damaging alternative, feasible mitigation measures must be provided to minimize adverse environmental effects.

   a. If the project involves dredging, mitigation measures must include at least the following (Section 30233(b)):

      1) Dredging and spoils disposal must be planned and carried out to avoid significant disruption to wetland habitats and to water circulation.

      2) Limitations may be imposed on the timing of the operation, the type of operation, the quantity of dredged material removed, and the location of the spoil site.

      3) Dredge spoils suitable for beach replenishment shall, where feasible, be transported to appropriate beaches or into suitable longshore current systems.

10 "Feasible" is defined in Section 30108 of the Act to mean "... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." A feasible less environmentally damaging alternative may involve a location for the proposed development which is off the project site on lands not owned by the applicant. Feasible under the Coastal Act is not confined to economic considerations. Environmental, social and technological factors also shall be considered in any determination of feasibility.

11 To avoid significant disruption to wetland habitats and to water circulation the functional capacity of a wetland or estuary must be maintained. Functional capacity is discussed on page 17.
4) Other mitigation measures may include opening up areas to tidal action, removing dikes, improving tidal flushing, or other restoration measures.

The Executive Director or the Commission may request the Department of Fish and Game to review dredging plans for developments in or adjacent to wetlands or estuaries. The Department may recommend measures to mitigate disruptions to habitats or to water circulation.

b. If the project involves diking or filling of a wetland, required minimum mitigation measures are the following:\textsuperscript{12}

1) If an appropriate restoration site is available, the applicant shall submit a detailed restoration plan which includes provisions for purchase and restoration of an equivalent area of equal or greater biological productivity\textsuperscript{13} and dedication of the land to a public agency or otherwise permanently restricts its use for open space purposes. The site shall be purchased before the dike or fill development may proceed.

2) The applicant may, in some cases, be permitted to open equivalent areas to tidal action\textsuperscript{14} or provide other sources of surface water. This method of mitigation would be appropriate if the applicant already owned filled, diked areas which themselves were not environmentally sensitive habitat areas but would become so, if such areas were opened to tidal action or provided with other sources of surface water.

\textsuperscript{12} Mitigation measures shall not be required for temporary or short-term fill or diking, if and only if a bond or other evidence of financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time. For the purposes of this guideline, short-term generally means that the fill or dikes would be removed immediately upon completion of the construction of the project necessitating the short-term fill or diking (Section 30607.1).

\textsuperscript{13} For an area to be of "equal or greater biological productivity," it must provide equivalent or greater habitat values to the same type and variety of plant and animal species which use the area affected by the proposal.

\textsuperscript{14} "Opening up equivalent areas to tidal action" means to permanently open to tidal action former intertidal wetlands capable of providing equal or greater biological productivity. Mitigation measures should restore areas which are no longer functioning in a manner beneficial to wetland species. For example, returning a diked-off, formerly saltwater, but presently freshwater marsh to tidal action would not constitute mitigation. However, improving tidal flushing by removing tide gates, digging tidal channels and clearing culverts might qualify, if the Commission determines that such actions would restore an area to equal or greater habitat value than the area lost.
3) However, if no appropriate restoration sites under options 1 and 2 are available, the applicant shall pay an in-lieu fee of sufficient value to an appropriate public agency for the purchase and restoration of an area of equivalent productive value, or equivalent surface area.

This third option would be allowed only if the applicant is unable to find a willing seller of a potential restoration site. The public agency may also face difficulties in acquiring appropriate sites even though it has the ability to condemn property. Thus, the in-lieu fee shall reflect the additional costs of acquisition, including litigation, as well as the cost of restoration. If the public agency's restoration project is not already approved by the Commission, the public agency may need to be a co-applicant for a coastal development permit to provide adequate assurance that conditions can be imposed to assure that the purchase of the mitigation site shall occur prior to issuance of the permit. In addition, such restoration must occur in the same general region (e.g., within the same stream, lake, or estuary where the fill occurred).

A preferred restoration program would remove fill from a formerly productive wetland or estuary which is now biologically unproductive dry land and would establish a tidal prism necessary to assure adequate flushing. Few if any restoration projects have been implemented for a sufficient length of time to provide much guidance as to the long-term restorability of such areas. Since such projects necessarily involve many uncertainties, restoration should precede the diking or filling project. At a minimum, the permit will be conditioned to assure that restoration will occur simultaneously with project construction. Restoration and management plans shall be submitted with the permit application.

The restoration plan should generally state when restoration work will commence and terminate, should include detailed diagrams drawn to scale showing any alterations to natural landforms, and should include a list of plant species to be used as well as the method of plant introduction (i.e., seeding, natural succession, vegetative transplanting, etc.).

The management plan would constitute an agreement between the applicant and the Commission to guarantee the wetland is restored to the extent established under stated management objectives and within a specified time frame.

The plan should describe the applicant's responsibilities in maintaining the restored area to assure the Commission that the project will be successful. The management plan should generally include provisions for a monitoring program and for making any necessary repairs or modifications to the mitigation site.
The applicant should periodically submit reports on the project which give information on the following:

- distribution and type of vegetation established
- benthic invertebrate abundance
- bird usage and establishment of endangered species
- fish and other vertebrate abundance

3. Diking, filling or dredging of a wetland or estuary must maintain or enhance the functional capacity of the wetland or estuary [Section 30233(c)]. Functional capacity means the ability of the wetland or estuary to be self-sustaining and to maintain natural species diversity. In order to establish that the functional capacity is being maintained, the applicant must demonstrate all of the following:

a. That the project does not alter presently occurring plant and animal populations in the ecosystem in a manner that would impair the long-term stability of the ecosystem; i.e., natural species diversity, abundance and composition are essentially unchanged as a result of the project.

b. That the project does not harm or destroy a species or habitat that is rare or endangered.

c. That the project does not harm a species or habitat that is essential to the natural biological functioning of the wetland or estuary.

d. That the project does not significantly reduce consumptive (e.g., fishing, aquaculture and hunting) or nonconsumptive (e.g., water quality and research opportunity) values of the wetland or estuarine ecosystem.

15 The intention here is to convey the importance of not only how many species there are but also the size of their populations (abundance) and the relative importance of the different species to the whole system (composition). It cannot be overemphasized that the presence of a species by itself is an inadequate indicator of the condition of a natural system. In a "healthy" wetland ecosystem, the absolute number of individuals of a species and the relative number compared to other species will depend on the size of the organism and its place in the food web (what it feeds on, what feeds on it, and what competes with it for the same food or other resources). Major changes in absolute or relative numbers of some species will have far-reaching consequences for the whole ecosystem because of their interactions with other species.
E. Provisions Applicable to Proposed Development in Wetlands and Estuaries Within Port Jurisdictions

Development within those portions of the Ports of Hueneme, Long Beach, Los Angeles, and San Diego Unified Port District lying within the coastal zone is generally governed by the provisions contained in Chapter 8 of the Coastal Act. However, wetlands and estuaries which have been identified on the Commission's Port Jurisdiction Maps (adopted by the Commission on April 6, 1977 pursuant to Section 30710) are not governed by the provisions of Chapter 8, but instead are subject to Chapter 3 policies of the Coastal Act as described above in this section (Section 30700).

Chapter 8 treats all other "water areas" (term used in this Chapter only) without regard to whether such areas may be considered "wetland," "estuary" or "open coastal waters" as described in this guideline.

The dikeing, filling or dredging of any water area within one of these ports is limited by the following sections of the Coastal Act: 30705, 30706 and 30708 (these sections are provided in full in Appendix A). The dikeing, filling or dredging of any wetlands or estuaries lying within any port or harbor district or authority not named in Chapter 8 (e.g., Humboldt Bay Harbor, Recreation and Conservation District and Moss Landing Harbor District) is subject to Chapter 3 policies of the Coastal Act as described above in this section.

V. DEVELOPMENTS PERMITTED IN OPEN COASTAL WATERS AND LAKES

Section 30233 lists the types of developments for which dikeing, filling or dredging may be permitted in open coastal waters and lakes. This Section also states requirements for determining when those developments are permitted. The types of development identified below are the only ones that are permitted in open coastal waters and lakes, and may only be permitted if consistent with the development requirements for these habitat areas.

A. Developments and Activities Permitted in Open Coastal Waters and Lakes

1. All developments allowed in wetlands and estuaries described as Items 1-7 (section IV. A).

2. New or expanded boating facilities.

3. In portions of open coastal waters that are not environmentally sensitive habitat areas, it sand or gravel may be extracted.

16 It shall be the responsibility of the permit applicant to provide evidence that the area is not an environmentally sensitive habitat area. The Executive Director or the Commission will usually require an applicant for a permit to extract minerals from open coastal waters to submit supplemental information.
B. Requirements for All Permitted Developments

Any proposed project which first is a permitted development as listed above must also meet the two statutory requirements enumerated below in the sequence shown.

1. Diking, filling or dredging of open coastal waters or lakes will only be permitted if there is no feasible less environmentally damaging alternative (Section 30233(a)).

2. If there is no feasible less environmentally damaging alternative, feasible mitigation measures must be provided to minimize adverse environmental effects (Section 30233(a)).

VI. DEVELOPMENTS PERMITTED IN STREAMS AND RIVERS

Sections 30236 and 30233 of the Coastal Act list all permitted developments in streams and rivers, including dams, channelizations, or other substantial alterations 17.

A. Permitted Developments in Streams and Rivers

1. Necessary water supply projects.

2. Flood control projects.

3. Developments where the primary function is the improvement of fish and wildlife habitat.

4. New or expanded boating facilities.

B. Requirements for All Development

Any proposed project which is a permitted development must also meet the following statutory requirements:

1. All channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible to minimize adverse environmental effects.

17 Substantial alterations shall include channelizations, dams, or comparable projects which significantly disrupt the habitat value of a particular river or stream. A development which does not significantly disrupt the habitat value of a particular river or stream is one which maintains or enhances the functional capacity of that river or stream. Roads and bridges necessary to cross streams and rivers may be permitted if there is no feasible less environmentally damaging alternative and if feasible mitigation measures have been provided to minimize adverse environmental effects.
2. Flood control projects shall be subject to both of the following conditions (Section 30236):

   a. The project must be necessary for public safety or to protect existing development.

   b. There must be no other feasible method for protecting existing structures in the floodplain.

3. Boating facilities constructed in streams are subject to the same requirements as boating facilities constructed elsewhere.

VII. STANDARDS FOR SITING DEVELOPMENT ADJACENT TO ENVIRONMENTALLY SENSITIVE HABITAT AREAS

The general policies for development adjacent to environmentally sensitive habitat areas appear in Section 30240(b) of the Coastal Act:

"Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas." (emphasis added)

A. Criteria for Reviewing Proposed Development Adjacent to Environmentally Sensitive Habitat Areas

As with development located in environmentally sensitive habitat areas, the key standard for evaluating development adjacent to such areas is the extent to which the proposed development maintains the functional capacity of such areas (the standards to evaluate whether the functional capacity is being maintained are located on page 17). A development which does not significantly degrade an environmentally sensitive habitat area will maintain the functional capacity of that area. The type of proposed development, the particulars of its design, location in relation to the habitat area, and other relevant factors all affect the determination of functional capacity.

18 Adjacent means situated near or next to, adjoining, abutting or juxtaposed to an environmentally sensitive habitat area. This will usually mean that any development proposed in an undeveloped area within a distance of up to 500 feet from an environmentally sensitive habitat area will be considered to be adjacent to that habitat area. In developed areas factors such as the nature, location and extent of existing development will be taken into consideration.
Accordingly, the Commission may set limits and conditions to development adjacent to environmentally sensitive habitat areas based upon any or all of the following sections of the Coastal Act: 30230, 30231, 30233, 30236; and 30240. The Commission has required the following types of mitigation measures: setbacks; buffer strips; noise barriers; landscape plans; pervious surfacing with drainage control measures to direct storm run-off away from environmentally sensitive habitat areas; buffer areas in permanent open space; land dedication for erosion control; and wetland restoration, including off-site drainage improvements. This section only discusses the requirements for establishing the width of buffer areas. It does not discuss any other measures as noted above which may also be necessary and more appropriate to ensure that the development is compatible with the continuance of the habitat area.

B. Criteria for Establishing Buffer Areas

A buffer area provides essential open space between the development and the environmentally sensitive habitat area. The existence of this open space ensures that the type and scale of development proposed will not significantly degrade the habitat area (as required by Section 30240). Therefore, development allowed in a buffer area is limited to access paths, fences necessary to protect the habitat area, and similar uses which have either beneficial effects or at least no significant adverse effects on the environmentally sensitive habitat area. A buffer area is not itself a part of the environmentally sensitive habitat area, but a "buffer" or "screen" that protects the habitat area from adverse environmental impacts caused by the development.

A buffer area should be established for each development adjacent to environmentally sensitive habitat areas based on the standards enumerated below. The width of a buffer area will vary depending upon the analysis. The buffer area should be a minimum of 100 feet for small projects on existing lots (such as one single family home or one commercial office building) unless the applicant can demonstrate that 100 feet is unnecessary to protect the resources of the habitat area. If the project involves substantial improvements or increased human impacts, such as a subdivision, a much wider buffer area should be required. For this reason the guideline does not recommend a uniform width. The appropriate width will vary with the analysis based upon the standards.

For a wetland, the buffer area should be measured from the landward edge of the wetland (Appendix D). For a stream or river, the buffer area should be measured landward from the landward edge of riparian vegetation or from the top edge of the bank (e.g., in channelized streams). Maps and supplemental information may be required to determine these boundaries. Standards for determining the appropriate width of the buffer area are as follows:

1. Biological significance of adjacent lands. Lands adjacent to a wetland, stream, or riparian habitat area vary in the degree to which they are functionally related to these habitat areas. That is, functional relationships may exist if species associated with such areas spend a significant portion of their life cycle on adjacent lands. The degree of significance would depend upon the habitat requirements of the species in the habitat area (e.g., nesting,
feeding, breeding or resting). This determination requires the expertise of an ecologist, wildlife biologist, ornithologist or botanist who is familiar with the particular type of habitat involved. Where a significant functional relationship exists, the land supporting this relationship should also be considered to be part of the environmentally sensitive habitat area, and the buffer area should be measured from the edge of these lands and be sufficiently wide to protect these functional relationships. Where no significant functional relationships exist, the buffer should be extended from the edge of the wetland, stream or riparian habitat (for example) which is adjacent to the proposed development (as opposed to the adjacent area which is significantly related ecologically).

2. Sensitivity of species to disturbance. The width of the buffer area should be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination should be based on the following:

   a. Nesting, feeding, breeding, resting or other habitat requirements of both resident and migratory fish and wildlife species.

   b. An assessment of the short-term and long-term adaptibility of various species to human disturbance.

3. Susceptibility of parcel to erosion. The width of the buffer area should be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.

4. Use of natural topographic features to locate development. Hills and bluffs adjacent to environmentally sensitive habitat areas should be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from environmentally sensitive habitat areas. Similarly, bluff faces should not be developed, but should be included in the buffer area.

5. Use of existing cultural features to locate buffer zones. Cultural features, (e.g., roads and dikes) should be used, where feasible, to buffer habitat areas. Where feasible, development should be located on the side of roads, dikes, irrigation canals, flood control channels, etc., away from the environmentally sensitive habitat area.
6. **Lot configuration and location of existing development.** Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance will be required as a buffer area for any new development permitted. However, if that distance is less than 100 feet, additional mitigation measures (e.g., planting of native vegetation which grows locally) should be provided to ensure additional protection. Where development is proposed in an area which is largely undeveloped, the widest and most protective buffer area feasible should be required.

7. **Type and scale of development proposed.** The type and scale of the proposed development will, to a large degree, determine the size of the buffer area necessary to protect the environmentally sensitive habitat area. For example, due to domestic pets, human use and vandalism, residential developments may not be as compatible as light industrial developments adjacent to wetlands, and may therefore require wider buffer areas. However, such evaluations should be made on a case-by-case basis depending upon the resources involved, and the type and density of development on adjacent lands.

VIII. **RESTORATION AND MAINTENANCE OF WETLAND HABITAT AREAS**

Originally there were approximately 300,000 acres of coastal wetlands in California; now there are about 79,000 acres (excluding San Francisco Bay). In addition to those acres lost, many wetlands have been severely altered through filling and/or sedimentation. The Coastal Commission encourages public agencies and landowners to work towards restoration and enhancement of these altered wetlands.

Restoration of habitat areas is strongly encouraged in the Coastal Act. The Legislature found that the protection, maintenance, and, where feasible, enhancement and restoration of natural resources is a basic goal of the Act (Section 30001.5). Section 30230 requires that marine resources be maintained, enhanced, and restored where feasible; that special protection be given to areas and species of special biological or economic significance; and that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters and will maintain "healthy populations" of all species of marine organisms. Section 30231 requires that the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain "optimum populations" of marine organisms

---

**Notes:**

19 In general, biological productivity means the amount of organic material produced per unit time. For the purposes of this guideline, the concept of biological productivity also includes the degree to which a particular habitat area is being used by fish and wildlife species. Thus, an area supporting more species of fish and wildlife would be considered more productive than an area supporting fewer species, all other factors (e.g., the amount of vegetative cover, the presence or absence of endangered species, etc.) being equal.

20&21 These phrases refer generally to the maintenance of natural species diversity, abundance, and composition.
be maintained and where feasible restored, through, among other means, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section IV C previously discussed "restoration purposes," a permitted use in Section 30233(a)(7). Projects which qualify for consideration as a "restoration purpose" will be solely restoration projects, including only those permitted uses listed in Section 30233(a). Such projects may be carried out on wetlands which have not been determined to be degraded by the Department of Fish and Game. It is anticipated that public or private agencies performing restoration of wetland habitat areas by restoring tidal action, removing fill, establishing appropriate contours, and performing other similar activities will be permitted under Section 30233.

This section discusses a second alternative approach to wetland restoration, applicable only to wetlands formally determined by the Department of Fish and Game to be degraded and in need of major restoration activities, according to the procedures and requirements of Section 30411. By including Section 30411 in the Coastal Act, the Legislature provided the Commission and the Department with a means to encourage landowners and public agencies to develop restoration projects which can be implemented with public or private funds. Restoration projects under this approach may include uses that are not permitted in Section 30233 if the project meets all of the other requirements of Section 30233 and 30411.

The Commission has closely examined the relationship of the two alternative approaches to restoration. The Coastal Act expressly distinguishes degraded from non-degraded wetlands. The importance of the distinction is related to the flexibility in consideration of permitted uses. Thus, Section 30233 allows the Commission to consider seven enumerated permitted uses in all wetlands without the mandatory involvement of the Department of Fish and Game. Section 30233 expressly allows only one additional use, a boating facility, in wetlands which the Department has determined to be degraded and in need of major restoration. In making this determination, the Department must consider all "feasible ways" other than a boating facility to accomplish restoration of degraded wetlands. The Commission interprets the boating facilities reference in Section 30233(a)(3) to include the "other feasible ways" of restoration which the Department must consider in Section 30411(b)(3). The remainder of this Section addresses the requirements of Section 30411.

A. Identification of Degraded Wetlands

The Department of Fish and Game must identify degraded wetlands. Generally, coastal wetlands are considered degraded if they were formerly tidal but their present resource value has been greatly impaired because they are presently diked or otherwise modified and, as a result, tidal influence has ceased or is greatly diminished. The Department has not yet transmitted to the Commission its criteria or procedures for identifying degraded wetlands, but the Commission considers the following factors relevant to determining whether or not a particular wetland is degraded.

1. Amount and elevation of filled areas.
2. Number and location of dikes and other artificial impediments to tidal action and freshwater flow and the ease of removing them to allow tidal action to resume.

3. Degree of topographic alterations to the wetland and associated areas.


5. Substrate quality.

6. Degree of encroachment from adjacent urban land uses.

7. Comparison of historical environmental conditions with current conditions, including changes in both the physical and biological environment.

8. Consideration of current altered wetland conditions and their current contribution to coastal wetland wildlife resources with relation to potential restoration measures.

9. Chemical cycling capabilities of the wetland including water quality enhancement, nutrient accumulation, nutrient recycling, etc.

As part of this identification process, the extent of wetlands on the site must be identified with precision.

B. Requirements Applicable to All Restoration Projects

Under the Act, the Department of Fish and Game, in consultation with the Commission and the Department of Boating and Waterways, is responsible for identifying those degraded wetlands which can most feasibly be restored in (a). If the Department undertakes a study, it shall include facts supporting the following determinations:

(1) The wetland is so severely degraded and its natural processes are so substantially impaired that it is not capable of recovering and maintaining a high level of biological productivity without major restoration activities.

(2) Restoration of the wetlands' natural values, including its biological productivity and wildlife habitat features, can most feasibly achieved and maintained in conjunction with a boating facility.

(3) There are no other feasible ways\(^{22}\) besides a boating facility to restore the wetland.

\(^{22}\) "Other feasible ways" includes only less environmentally damaging alternative restoration projects; but may include uses not permitted in Section 30233(a)(3) according to priorities discussed herein.
C. Requirements applicable to Restoration of Degraded Wetlands in Conjunction with boating Facilities

Section 30411 explicitly provides for the construction of boating facilities when this is the most feasible and least environmentally damaging means to restore a particular degraded wetland. Recognition of boating facilities as a use in Section 30411 is consistent with the Coastal Act's emphasis on promoting recreational use of the shoreline (see Section 30224). The specific requirements for boating facilities are discussed in overlapping portions of Sections 30233 and 30411 as follows:

1. At least 75% of the degraded wetland area should be restored and maintained as a highly productive wetland in conjunction with the boating facilities project (Section 30411(b)(2)).

2. The size of the wetland area used for the boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, cannot be greater than 25 percent of the total area to be restored (Section 30233(a)(3)).

D. Requirements Applicable to Restoration of Degraded Wetlands Using Projects Other Than Boating Facilities

Section 30411 does not explicitly identify the other types of restoration projects. However, such projects are encouraged if they promote the restoration of degraded areas and if boating facilities are not feasible. An example would include flood control projects undertaken by a public agency. Such projects may be permitted under Section 30411 if they restore channel depths, are designed to enhance the functional capacity of the wetland area, and are the least environmentally damaging alternative to achieve restoration.

Boating facilities may be compatible with a wetland ecologically if they provide increased tidal flushing and deep-water habitat, but nonetheless it may not be physically or economically feasible to locate such facilities in a particular wetland. On the other hand, boating facilities may be feasible, but may be more environmentally damaging than other feasible means. For example, they may displace scarce intertidal habitats, introduce toxic substances, or damage natural estuarine channels by causing excessive scouring due to increased current velocities.

According to Section 30411, at least 75 percent of a degraded wetland area must be restored in conjunction with a boating facility, and Section 30233 requires that a boating facility cannot exceed 25 percent of the wetland area to be restored. However, this may still result in the net loss of 20 percent of the wetland area. The Coastal Act allows this tradeoff because additional boating facilities in the coastal zone are a preferred coastal recreation use and the Coastal Act explicitly provides for this type of wetland restoration project. Projects permitted under Section 30411 other than boating facilities should result in no net loss of the acreage of wetland habitat located on the site as a minimum. However, projects which result in a net increase in wetland habitat areas are greatly preferred in light of Coastal Act policies on wetland restoration and Senate Concurrent Resolution 29 which calls for an increase in wetlands by 50% over the next 20 years. For example, it has been the
Commission's experience in reviewing vegetation and soils information available for degraded wetlands in Southern California that sometimes wetland and upland sites are intermixed on a parcel. Since Section 30411 discusses percentage of wetland area as the standard of review for required restoration, the Commission will consider restoration plans which consolidate the upland and wetland portions on a site in order to restore a wetland area the same size or larger as the total number of acres of degraded wetland existing on the site.

The first priority for restoration projects is restoration as permitted under Section 30233(a)(7). Other preferred options include restoration in conjunction with visitor serving commercial recreational facilities designed to increase public opportunities for coastal recreation. Thus, the priority for projects used to restore degraded wetlands under the Coastal Act in a list are as follows:

1. "Restoration purposes" under 30233(a)(7).
2. Boating facilities, if they meet all of the tests of section C. (above).
3. Visitor serving commercial recreational facilities and other priority uses designed to enhance public opportunities for coastal recreation.
4. Private residential, general industrial, or general commercial development.

The Coastal Act does not require the Department of Fish and Game to undertake studies which would set the process described in this section in motion. Likewise, the Commission has the independent authority and obligation under Section 30233 to approve, condition or deny projects which the Department may have recommended as appropriate under the requirements of Section 30411. This section is, however, included to describe, clarify, and encourage, public and private agencies to formulate innovative restoration projects to accomplish the legislative goals and objectives described earlier.
I. Coastal Act Definitions

Section

30101. "Coastal-dependent development or use"
30106. "Development"
30107. "Energy facility"
30107.5 "Environmentally sensitive area"
30108. "Feasible"
30108.2 "Fill"
30121. "Wetland"

SEC. 30101.
"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

SEC. 30106.
"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, timber harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511).

As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line.
I. (cont.)

SEC. 30107

"Energy facility" means any public or private processing, producing, generating, storing, transmitting, or recovering facility for electricity, natural gas, petroleum, coal, or other source of energy.

SEC. 30107.5

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

SEC. 30108

"Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

SEC. 30108.2

"Fill" means earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area.

SEC. 30121

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.
II. Coastal Act Policies for the Location of New Boating Facilities

Section

3024. Recreational boating use; encouragement; facilities.

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.
III. Coastal Act Policies for Water and Marine Resources and Environmentally Sensitive Habitat Areas

Section

30230. Marine resources; maintenance.
30231. Biological productivity; waste water.
30233. Diking, filling or dredging.
30236. Water supply and flood control.
30240. Environmentally sensitive habitat areas; adjacent development.

SEC. 30230.

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

SEC. 30231.

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

SEC. 30233.

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

iv
III. (cont.)

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities.

(5) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource-dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable longshore current systems.

(c) In addition to the other provisions of this section, digging, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that no less than 50 percent of all boating facilities proposed to be developed or improved, where such improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

SEC. 30236.

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.
III. (cont.)

SEC. 30240.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuation of such habitat areas.

SEC. 30255.

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland.

When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support. (Amended by Cal. Stats. 1979, Ch. 1090.)
Section

30411. Department of Fish and Game; Fish and Game Commission; management programs; wetlands.

SEC. 30411.

(a) The Department of Fish and Game and the Fish and Game Commission are the principal state agencies responsible for the establishment and control of wildlife and fishery management programs and neither the commission nor any regional commission shall establish or impose any controls with respect thereto that duplicate or exceed regulatory controls established by such agencies pursuant to specific statutory requirements or authorization.

(b) The Department of Fish and Game, in consultation with the commission and the Department of Navigation and Ocean Development, may study degraded wetlands and identify those which can most feasibly be restored in conjunction with development of a boating facility as provided in subdivision (a) of Section 30233. Any such study shall include consideration of all of the following:

1. Whether the wetland is so severely degraded and its natural processes so substantially impaired that it is not capable of recovering and maintaining a high level of biological productivity without major restoration activities.

2. Whether a substantial portion of the degraded wetland, but in no event less than 75 percent, can be restored and maintained as a highly productive wetland in conjunction with a boating facilities project.

3. Whether restoration of the wetland's natural values, including its biological productivity and wildlife habitat features, can most feasibly be achieved and maintained in conjunction with a boating facility or whether there are other feasible ways to achieve such values.
(c) The Legislature finds and declares that salt water or brackish water aquaculture is a coastal-dependent use which should be encouraged to augment food supplies and to further the policies set forth in Chapter 4 (commencing with Section 825) of Division 1. The Department of Fish and Game may identify coastal sites it deems appropriate for aquaculture facilities. Such sites shall be identified in conjunction with the appropriate local coastal program prepared pursuant to this division. The commission, and where appropriate, local governments shall, consistent with the coastal planning requirements of this division, provide for as many coastal sites identified by the Department of Fish and Game for such uses as are consistent with the policies of Chapter 3 (commencing with Section 30200) of this division.
V. Coastal Act Policies Governing Ports

Section

30700. Ports included.
30705. Diking, filling or dredging water areas.
30706. Fill.
30708. Location, design and construction of port related developments.
30710. Jurisdictional map of port.

SEC. 30700.
For purposes of this division, notwithstanding any other provisions of this division except as specifically stated in this chapter, this chapter shall govern those portions of the Ports of Puente, Long Beach, Los Angeles, and San Diego Unified Port District, located within the coastal zone excluding any wetland, estuary, or existing recreation area indicated in Part IV of the coastal plan, are contained within this chapter.

SEC. 30705.

(a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following:

(1) Such construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities as are required for the safety and the accommodation of commerce and vessels to be served by port facilities.

(2) New or expanded facilities or waterfront land for port-related facilities.

(3) New or expanded commercial fishing facilities or recreational boating facilities.

(4) Incidental public service purposes, including, but not limited to, burying cables or pipes or inspection of piers and maintenance of existing intake and outfall lines.

(5) Mineral extraction, including sand for restoring beaches, except in biologically sensitive areas.

(6) Restoration purposes or creation of new habitat areas.
(g) Nature study, mariculture, or similar resource-dependent activities.

(h) Minor fill for improving shoreline appearance or public access to the water.

(b) The design and location of new or expanded facilities shall, to the extent practicable, take advantage of existing water depths, water circulation, siltation patterns, and means available to reduce controllable sedimentation so as to diminish the need for future dredging.

(c) Dredging shall be planned, scheduled, and carried out to minimize disruption to fish and bird breeding and migrations, marine habitats, and water circulation. Bottom sediments or sediment elutriate shall be analyzed for toxicants prior to dredging or mining, and where water quality standards are met, dredge spoils may be deposited in open coastal water sites designated to minimize potential adverse impacts on marine organisms, or in confined coastal waters designated as fill sites by the master plan where such spoil can be isolated and contained, or in fill basins on upland sites. Dredge material shall not be transported from coastal waters into estuarine or fresh water areas for disposal.

SEC. 30708.

In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:

(a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.

(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water.

(c) The fill is constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters.

(d) The fill is consistent with navigational safety.

SEC. 30706.

All port-related developments shall be located, designed, and constructed so as to:

(a) Minimize substantial adverse environmental impacts.

(b) Minimize potential traffic conflicts between vessels.

(c) Give highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities.

(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible.

(e) Encourage rail service to port areas and multi-company use of facilities.
V. (cont.)

SEC. 20710.

Within 90 days after January 1, 1977, the commission shall, after public hearing, adopt, certify, and file with each port governing body a map delineating the present legal geographical boundaries of each port's jurisdiction within the coastal zone. The Commission shall, within such 90-day period, adopt and certify after public hearing, a map delineating boundaries of any wetland, estuary, or existing recreation area indicated in Part IV of the coastal plan within the geographical boundaries of each port.
VI. Post-LCP Certification Permit and Appeal Jurisdiction

Section

30519. Termination of development review authority; exceptions

30603. Appeals after certification of local program; grounds; standard of review; finality of acts

SEC. 30519

(a) Except for appeals to the commission, as provided in Section 30603, after a local coastal program, or any portion thereof, has been certified and all implementing actions within the area affected have become effective, the development review authority provided for in Chapter 7 (commencing with Section 30600) shall no longer be exercised by the regional commission or by the commission where there is no regional commission over any new development proposed within the area to which such certified local coastal program, or any portion thereof, applies and shall at that time be delegated to the local government that is implementing such local coastal program or any portion thereof.

(b) Subdivision (a) shall not apply to any development proposed or undertaken on any tidelands, submerged lands, or on public trust lands, whether filled or unfilled, lying within the coastal zone, nor shall it apply to any development proposed or undertaken within ports covered by Chapter 8 (commencing with Section 30700) or within any state university or college within the coastal zone; however, this section shall apply to any development proposed or undertaken by a port or harbor district or authority on lands or waters granted by the Legislature to a local government whose certified local coastal program includes the specific development plans for such district or authority.
VI. (cont.)

SEC. 30601.

(a) After certification of its local coastal program, an action taken by a local government on a coastal development permit application may be appealed to the commission for any of the following:

(1) Developments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greater distance.

(2) Developments approved by the local government not included within paragraph (1) of this subdivision located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, stream, or within 300 feet of the top of the seaward face of any coastal bluff.

(3) Developments approved by the local government not included within paragraph (1) or (2) of this subdivision located in a sensitive coastal resource area if the allegation on appeal is that the development is not in conformity with the implementing actions of the certified local coastal program.

(4) Any development approved by a coastal county that is not designated as the principal permitted use under the zoning ordinance or zoning district map approved pursuant to Chapter 6 (commencing with Section 30500).

(5) Any development which constitutes a major public works project or a major energy facility.

(b) The grounds for an appeal pursuant to paragraph (1) of subdivision (a) shall be limited to the following:

(1) The development fails to provide adequate physical access or public or private commercial use or interferes with such uses.

(2) The development fails to protect public views from any public road or from a recreational area to and along, the coast.

(3) The development is not compatible with the established physical scale of the area.

(4) The development may significantly alter existing natural landforms.

(5) The development does not comply with shoreline erosion and geologic setback requirements.

(c) The standard of review for any development reviewed pursuant to subdivision (a)(3) shall be in conformity with the implementing actions of the certified local coastal program.

Such action shall become final after the 10th working day, unless an appeal is filed within that time.
VII. Development Authorized Without a Coastal Development Permit

Section

30610. Development authorized without permit

Notwithstanding any provision in this division to the contrary, no coastal development permit shall be required pursuant to this chapter for the following types of development and in the following areas:

(a) Improvements to existing single-family residences; provided, however, that the commission shall specify, by regulation, those classes of development which involve a risk of adverse environmental effect and shall require that a coastal development permit be obtained under this chapter.

(b) Improvements to any structure other than a single-family residence or a public works facility; provided, however, that the commission shall specify, by regulation, those types of improvements which (1) involve a risk of adverse environmental effect, (2) adversely affect public access, or (3) involve a change in use contrary to any policy of this division. Any improvement so specified by the commission shall require a coastal development permit.

(c) Maintenance dredging of existing navigation channels or moving dredged material from such channels to a disposal area outside the coastal zone, pursuant to a permit from the United States Army Corps of Engineers.

(d) Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of such repair or maintenance activities; provided, however, that if the commission determines that certain extraordinary methods of repair and maintenance that involve a risk of substantial adverse environmental impact, it shall, by regulation, require that a permit be obtained under this chapter.
VII. (cont.)

(a)(e) Any category of development, or any category of development within a specifically defined geographic area, that the commission, after public hearing, and by two-thirds vote of its appointed members, has described or identified and with respect to which the commission has found that there is no potential for any significant adverse effect, either individually or cumulatively, on coastal resources or on public access to, or along, the coast and that such exclusion will not impair the ability of local government to prepare a local coastal program.

(f) The installation, testing, and placement in service or the replacement of any necessary utility connection between an existing service facility and any development approved pursuant to this division; provided, that the commission may, where necessary, require reasonable conditions to mitigate any adverse impacts on coastal resources, including scenic resources.

(g) The replacement of any structure, other than a public works facility, destroyed by natural disaster, Such replacement structure shall conform to applicable existing zoning requirements, shall be for the same use as the destroyed structure, shall not exceed either the floor area, height, or bulk of the destroyed structure by more than 10 percent, and shall be sited in the same location on the affected property as the destroyed structure.

As used in this subdivision, "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(Amended by Cal. Stats. 1979, Ch. 919.)
APPENDIX B. RESOURCE AGENCY WETLAND POLICY

[Issued on September 19, 1977 by Huey D. Johnson, Secretary for Resources]

Policy for the Preservation of Wetlands in Perpetuity

The need to raise thinking, and action to the ecosystem level is especially evident as it relates to proposed construction projects on wetlands of the state.

The value of marshlands and other wetlands to the economy and to the overall long term quality of life, has been described by many, including Gosselink, Odum, and Pope (1973) In "The Value of the Tidal Marsh"; the Bay Conservation and Development Commission (BCDC) in "The San Francisco Bay Plan"; and the Department of Fish and Game in "The Fish and Wildlife Plan." In spite of these and other efforts, filling and other destruction of the State's wetlands has continued at an alarming rate. Most of San Francisco Bay's wetlands are not protected by BCDC. But, before the Commission came into existence, over 225 square miles of Bay wetlands had been filled or destroyed. Still not all of the Bay's wetlands are protected. Over 40,000 acres are not in the Commission's jurisdiction.

Portions of other important wetlands still exist along the coast, its estuaries, the Sacramento-San Joaquin Delta, and along several natural bodies of water including Clear Lake, the Colorado River, and others. Many of these wetlands are not under permit authority and sometimes federal authority (Corps of Engineers) exists over specific projects and areas.

It is the purpose of this memorandum to establish a basic wetlands policy to be observed by all Departments, Boards, and Commissions of the Resources Agency when developing projects or when authorizing or influencing private or public projects and permit actions taken by other authorities including federal, state, and local agencies.

Resources Agency Basic Wetlands Protection Policy

It is the basic policy of the Resource Agency that this Agency and its Department, Boards and Commissions will not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands.

Exceptions to this policy may be granted provided that the following condition are met:

1. The proposed project must be water dependent or an essential transportation, water conveyance or utility project.

2. There must be no feasible, less environmentally damaging alternative location for the type of project being considered.
3. The public trust must not be adversely affected.

4. Adequate compensation for project-caused losses shall be a part of the project. Compensation, to be considered adequate, must meet the following criteria:

   a. The compensation measures must be in writing in the form of either conditions on a permit or an agreement signed by the applicant and the Department of Fish and Game or the Resources Agency.

   b. The combined long-term "wetlands habitat value" of the lands involved (including project and mitigation lands) must not be less after project completion that the combined "wetlands habitat value" that exists under pre-project conditions.
APPENDIX C. SUMMARY OF FEDERAL AND STATE REGULATORY INVOLVEMENT REGARDING DEVELOPMENT IN WETLANDS AND OTHER WET ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Dredging, filling, or otherwise altering wetlands or associated habitat areas, including estuaries, lakes, streams or open coastal waters, is subject to the regulatory requirements of a number of federal and state agencies. In addition to any permits required by local governments, the Army Corps of Engineers (COE), the California Coastal Commission (CCC), the California State Department of Fish and Game (DFG), the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Board (RWQCB), and, in some instances, the State Lands Commission (SLC), have regulatory authority in such areas. The following is a discussion of the regulatory involvement of these and other agencies that issue or provide official comments on permits for alterations of wetlands and associated habitat areas. This is not meant to be an all-encompassing analysis of agencies’ regulations, but an overview of those agencies that are involved in permit processes for these areas. This discussion is intended as an overview for general information. For further information regarding the specific responsibilities and duties of the agencies, please refer to the references that are cited in the discussion, or contact the agencies directly.

I. Federal Permits

Under Section 404 of the Clean Water Act of 1972, also called the Federal Water Pollution Control Act Amendments of 1972, and Section 10 of the Rivers and Harbors Act of 1899, the Army Corp of Engineers (COE) is the principal federal agency involved in regulating development in wetlands and associated habitat areas. A COE 404 permit is required for any operation that would discharge dredged or fill material into any waters of the United States. A Section 10 permit is required for any operation that would excavate in, or locate a structure in, navigable waters or any operation that would transport dredged material for the purposes of dumping it into ocean waters (see COE publication "U.S. Army Corp of Engineers Permit Program, A Guide for Applicants," EP 1145-2-1, November 1, 1977). The COE has issued regulations for processing permits and has developed policies to protect wetlands (COE, "Permits for Activities in Navigable Waters," Federal Register, Vol. 40, No. 144, Part IV, July 25, 1975) (33 C.F.R. Parts 320-324). In general, the COE will only issue a permit for altering a wetland for water dependent activities, and only if such activities have mitigable adverse environmental impacts (see also article by Lance Wood and John Hill "Wetlands Protection: The Regulatory Role of the U.S. Army Corps of Engineers," Coastal Zone Management Journal, Vol. 4, 1978, pp. 371-407). Furthermore, applicants for COE 404 and Section 10 permits must include in their application a certification of consistency with the California Coastal Management Program (see section II below).

Pursuant to Section 404 (b)(1) of the Clean Water Act of 1972, the U.S. Environmental Protection Agency (EPA) in conjunction with the COE has developed guidelines for regulating the discharge of dredged or fill material into waters of the U.S. (EPA, "Discharge of Dredged or Fill Material," Federal Register, Vol. 40, No. 173, Part II, September 5, 1975). These guidelines, which are currently being revised, provide the basis on which the COE acts in issuing Section 404 permits. ("Permits for Discharges of Dredged or Fill Material" 33 C.F.R. Part 323).
The COE may override the guidelines if navigation or anchorage requires. Nevertheless, EPA may prohibit or restrict any discharges of dredged or fill material after public notice, opportunity for public hearing, and consultation with the COE, if such discharges might have an unacceptable adverse impact on a municipal water supply, wildlife, recreation area, or shellfish beds and fishery areas, including breeding and spawning grounds. EPA has issued a pamphlet "A Guide to the Dredge or Fill Program" which explains these regulations (issued July, 1979 by the Office of Water Planning and Standards WH585, Washington, D.C. 20460). EPA has also issued a statement to establish EPA policy to preserve wetland ecosystems and to protect them from destruction through waste water or nonpoint source discharges (EPA, "Protection of Nation's Wetlands Policy Statement," Federal Register, Vol. 30, No. 84, May 2, 1973) EPA Regulations, 40 C.F.R. Part 230).

In addition to EPA, a number of federal agencies, most importantly the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), strongly influence the COE permit process. Pursuant to the Clean Water Act of 1972 and the Fish and Wildlife Coordination Act, the FWS and the NMFS review and comment on permit applications to federal agencies, including COE Section 404 permits, to protect fish and wildlife resources and to mitigate project impacts (FWS, "Review of Fish and Wildlife Aspects of Proposals in or Affecting Navigable Waters," Federal Register, Vol. 40, No. 231, Part IV, December 1, 1975) (16 U.S.C. 662). The 1977 Amendments to the Clean Water Act particularly emphasize that the FWS review, comment, and provide technical assistance, primarily through the National Wetland Inventory. In response to the President's Water Policy Message of June 6, 1978 and the President's Water Policy Memorandum dated July 12, 1978, the Department of Commerce and the Department of Interior (of which the FWS is a part) have recently promulgated guidelines to standardize agency procedures and interagency relationships in the analysis of the impacts of federally-approved, water-related projects upon wildlife resources (Department of Interior, Department of Commerce "Fish and Wildlife Coordination Act; Notice of Proposed Rule-making," Federal Register, Vol. 44, No. 98, Part V, May 18, 1979). The FWS and the NMFS, in preparing comments, and the COE, in reviewing comments, also rely on the policy direction of the following federal statutes: the Endangered Species Act of 1973, the Marine Protection, Research, and Sanctuaries Act of 1972, the National Environmental Protection Act of 1969, the Estuary Protection Act, the Watershed Protection Act, and others.

Executive Order 11990 (Protection of Wetlands) and Executive Order 11988 (Floodplain Management) provide further guidance to federal agencies. The Department of Interior has issued interim guidelines for complying with these Orders (Department of Interior, "Protection Procedures Interim Guidelines," Federal Register, Vol. 43, No. 112, Part IV, June 7, 1978). By affecting the decisions of agencies within the Department of Interior, including the FWS, these guidelines further influence the COE permit process.

II. Federal-State Interaction

Pursuant to regulations adopted by the Office of Coastal Zone Management (OCZM) under the Federal Coastal Zone Management Act (CZMA), applicants for COE 404 and Section 10 permits must include in their application a certification of
consistency with the California Coastal Management Program. This certification, and accompanying data and analysis, must also be submitted to the Coastal Commission for review and concurrence. The federal agency may not issue the permit until the Commission reviews and concurs in the applicant's consistency certification. This requirement is in addition to those described in Section III, below, for coastal permits, although the standard of review will be substantially the same.

In addition, pursuant to the Fish and Wildlife Coordination Act, the COE must give full consideration to comments submitted by the California State Department of Fish and Game. As the principal state agency responsible for protecting fish, wildlife and other natural living resources, the DFG influences COE permit decisions in order to protect these resources. The DFG has drawn on the policy direction of the California Coastal Act of 1976, the California Endangered Species Act, the California Environmental Quality Act, and other state laws in making comments to the COE. The DFG has also relied consistently on the policy direction of the Resources Agency Wetland Policy issued by the Secretary for Resources, Huey Johnson, on September 19, 1977, which calls for the preservation of wetlands in perpetuity (see Appendix B for complete text).

III. State Permits

At the state level, the California Coastal Commission is the principal agency involved in regulating development in the coastal zone, including development in wetlands and associated habitat areas located in this zone. The California Coastal Act of 1976 is the law that guides the CCC in their regulatory decisions, generally actions on coastal development permits. Statewide interpretive guidelines promulgated by the CCC provide further guidance to the public and to permit applicants. Such guidelines describe the Coastal Act policies dealing with wetlands and associated habitat areas and explain how the Commission has previously interpreted relevant Coastal Act sections. In addition, the Commission takes under advisement the Resources Agency Basic Wetlands Protection Policy. The Commission also receives and considers comments from state and federal agencies, including the DFG and the FWS, and from other public and private groups; however, the final decision by the Commission must be based on the Coastal Act.

In addition to the review and comment role of the DFG on COE Section 404 and Section 10 permits and on CCC coastal development permits, the DFG regulates suction dredging and stream flow alterations, including wetland alterations, under Sections 1601 and 1603 of the Fish and Game Code. Although the document required under these sections of the law is not termed a permit, it is illegal if such an arrangement is not obtained before commencement of a project. Under Senate Concurrent Resolution No. 28 (September 13, 1979), the DFG has been requested to propose plans to protect, preserve, restore, acquire and manage wetlands. The findings and declarations of this Resolution and of Chapter 7, Section 5811 of the Public Resources Code, further guide the DFG in their regulatory and advisory responsibilities.
The State Water Resources Control Board and the Regional Water Quality Control Boards issue several different permits that may be required in order to alter a wetland or associated habitat area. The SWRCB issues permits to appropriate water and water diversion permits; water quality must be protected in order for these to be issued. The RWQCB issues National Pollution Discharge Elimination System Elimination Discharge permits for any pollutant that might be discharged into navigable waters, and issues waste discharge permits for any development or operation affecting groundwater quality, including erosion from soil disturbances and drainage from agricultural operations. Both the SWRCB and the RWQCB may receive comments from federal and other state agencies.

The State Lands Commission becomes involved in the permitting process when a project is proposed on land that is owned by the State. The SLC reviews these projects for environmental assessment and considers the comments made by other agencies before issuing a permit, lease or other document.

IV. Summary

In summary, any development in the coastal zone in or affecting a wetland or associated habitat area will require permits or agreements from at least the following agencies:

1. U.S. Army Corps of Engineers Section 404 and Section 10 permits;
2. California Coastal Commission coastal development permit, and a Coastal Commission consistency certification concurrence or consistency determination;
3. California Department of Fish and Game 1601-1603 agreement;
4. State Water Resource Control Board (permit depends on the operation);
and
5. Regional Water Quality Control Board (permit depends on the operation).

A permit from the California State Lands Commission may also be required.

The permit requirements for each agency are the result of federal or state statutes. Federal and state agencies interact in the issuance of permits by receiving and issuing comments. The decision to issue a permit by a particular agency can be either the sole responsibility of that agency (e.g., a SLC permit), or it can be a shared responsibility (e.g., a Section 404, which though issued by the COE, must be consistent with guidelines issued by EPA and FWS, and with the California Coastal Management Program).
The purpose of this discussion is to provide guidance in the practical application of the definition of "wetland" contained in the Coastal Act. The Coastal Act definition of "wetland" is set forth in Section 30121 of the Act which states:

SEC. 30121

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

This is the definition upon which the Commission relies to identify "wetlands." The definition refers to lands "... which may be periodically or permanently covered with shallow water ..." However, due to highly variable environmental conditions along the length of the California coast, wetlands may include a variety of different types of habitat areas. For this reason, some wetlands may not be readily identifiable by simple means. In such cases, the Commission will also rely on the presence of hydrophytes and/or the presence of hydric soils. The rationale for this in general is that wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. For this reason, the single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria. In some cases, proper identification of wetlands will require the skills of a qualified professional.

The United States Fish and Wildlife Service has officially adopted a wetland classification system* which defines and classifies wetland habitats in these terms. Contained in the classification system are specific biological criteria for identifying wetlands and establishing their upland limits. Since the wetland definition used in the classification system is based upon a feature identical to that contained in the Coastal Act definitions, i.e., soil or substrate that is at least periodically saturated or covered by water, the Commission will use the

classification system as a guide in wetland identification. Applying the same set of biological criteria consistently should help avoid confusion and assure certainty in the regulatory process. This appendix discusses the adaption of this classification system to the Coastal Act definition of "wetland" and other terms used in the Act, and will form the basis of the Commission's review of proposals to dike, fill or dredge wetlands, estuaries or other wet habitat areas.

I. U.S. Fish and Wildlife Classification System: Upland/Wetland/Deep-water Habitat Distinction

The United States Fish and Wildlife Service classification is hierarchical, progressing from systems and subsystems, at the most general levels, to classes, subclasses, and dominance types. The term "system" refers here to a complex of wetland and deep-water habitats that share the influence of one or more dominant hydrologic, geomorphologic, chemical, or biological factors.

The Service provides general definitions of wetland and deep-water habitat and designates the boundary between wetland and deep-water habitat and the upland limit of a wetland. The following are the Services' definitions of wetland and deep-water habitats:

A. Wetlands

"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

Wetlands as defined here include lands that are identified under other categories in some land-use classifications. For example, wetlands and farmlands are not necessarily exclusive. Many areas that we define as wetlands are farmed during dry periods, but if they are not tilled or planted to crops, a practice that destroys the natural vegetation, they will support hydrophytes.*

* For the purposes of identifying wetlands using the technical criteria contained in this guideline, one limited exception will be made. That is, drainage ditches as defined herein will not be considered wetlands under the Coastal Act. A drainage ditch shall be defined as a narrow (usually less than 5-feet wide), manmade nontidal ditch excavated from dry land.
Drained hydric soils that are now incapable of supporting hydrophytes because of a change in water regime are not considered wetlands by our definition. These drained hydric soils furnish a valuable record of historic wetlands, as well as an indication of areas that may be suitable for restoration.

The upland limit of wetland is designated as (1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; (2) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or (3) in the case of wetlands without vegetation or soil, the boundary between land that is flooded or saturated at some time each year and land that is not."

Wetlands should be identified and mapped only after a site survey by a qualified botanist, ecologist, or a soil scientist (See section III. B. of the guideline for a list of required information).*.

B. Deepwater Habitats

"Deepwater habitats are permanently flooded lands lying below the deepwater boundary of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live, whether or not they are attached to the substrate. As in wetlands, the dominant plants are hydrophytes; however, the substrates are considered nonsoil because the water is too deep to support emergent vegetation (U. S. Soil Conservation Service, Soil Survey Staff 1975)."

* Further details regarding the standards and criteria for mapping wetlands using the Service's classification system may be found in the following, "Mapping Conventions of the National Wetland Inventory." (undated), published by the U.S.F.W.S. The document may be obtained from the U.S.F.W.S., Regional Wetland Coordinator, Region 1, Portland, Oregon.
"The boundary between wetland and deep-water habitat in the Marine and Estuarine Systems (i.e., areas subject to tidal influence) coincides with the elevation of the extreme low-water of spring tide (ELWS); permanently flooded areas are considered deep-water habitats in these systems. The boundary between wetland and deep-water habitat in the Riverine, Lacustrine and Palustrine Systems lies at a depth of 2m (6.6 ft.) below low-water; however, if emergents, shrubs or trees grow beyond this depth at any time, their deep-water edge is the boundary."

II. Wetland/Estuary/Open Coastal Water Distinction

For the purposes of mapping "wetlands" under the Coastal Act's definition of wetlands, and of mapping the other wet environmentally sensitive habitat areas referred to in the Act, including "estuaries," "streams," "riparian habitats," "lakes" and "open coastal water," certain adaptations of this classification system will be made. The following is a discussion of these adaptations.

"Wetland," as defined in Section 30121 of the Coastal Act, refers to land covered by "shallow water," and the examples given in this section include fresh, salt and brackish water marshes, mudflats and fens. A distinction between "wetland" and the other habitat areas in the Act, for example, "estuary," must be made because the Act's policies apply differently to these areas, and because the Act does not define some of these terms (such as "estuary"). A reasonable distinction can be made between "wetland" and "estuary" on the basis of an interpretation of the phrase "shallow water." Using the service's classification system, "shallow water" would be water that is above the boundary of deep-water habitat, which would be the line of extreme low-water of spring tide for areas subject to tidal influence and 2 meters for non-tidal areas. Therefore, wetland begins at extreme low-water of spring tide and "estuary" or "open coastal water" is anything deeper. The Coastal Act definition of "wetlands" would include the wetland areas of Estuarine, Palustrine, and Lacustrine ecological systems defined by the Fish and Wildlife classification system.

* While the Service's classification system uses "extreme low-water of spring tide" as the datum to distinguish between "shallow-water" and "deep-water habitat," such datum is not readily available for the California coast. Therefore, the lowest historic tide recorded on the nearest available tidal bench mark established by the U. S. National Ocean Survey should be used as the datum.

Data for such bench marks are published separately for each station in loose-leaf form by the National Ocean Survey, Tideland Water Levels, Datum and Information Branch, (C23), Riverdale, MD 20840. These compilations include the description of all bench marks at each tide station (for ready identification on the ground), and their elevations above the basic hydrographic or chart datum for the area, which is mean lower low-water on the Pacific coast. The date and length of the tidal series on which the bench-mark elevations are based are also given.
For the purposes of the Coastal Act, an "estuary" is a coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the open ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation.

"Open coastal water" or "coastal water" as used in the Act refers to the open ocean overlying the continental shelf and its associated coastline with extensive wave action. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries.

III. Wetland/Riparian Area Distinction

For the purpose of interpreting Coastal Act policies, another important distinction is between "wetland" and "riparian habitat." While the Service's classification system includes riparian areas as a kind of wetland, the intent of the Coastal Act was to distinguish these two areas. "Riparian habitat" in the Coastal Act refers to riparian vegetation and the animal species that require or utilize these plants. The geographic extent of a riparian habitat would be the extent of the riparian vegetation. As used in the Coastal Act, "riparian habitat" would include the "wetland" areas associated with Palustrine ecological systems as defined by the Fish and Wildlife Service classification system.

Unfortunately, a complete and universally acceptable definition of riparian vegetation has not yet been developed, so determining the geographic extent of such vegetation is rather difficult. The special case of determining consistent boundaries of riparian vegetation along watercourses throughout California is particularly difficult. In Southern California these boundaries are usually obvious; the riparian vegetation grows immediately adjacent to watercourses and only extends a short distance away from the watercourse. In Northern California, however, the boundaries are much less distinct; vegetation that occurs alongside a stream may also be found on hillsides and far away from a watercourse.

For the purposes of this guideline, riparian vegetation is defined as that association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other freshwater bodies. Riparian plant species and wetland plant species either require or tolerate a higher level of soil moisture than dryer upland vegetation, and are therefore generally considered hydrophytic. However, riparian vegetation may be distinguished from wetland vegetation by the different kinds of plant species. At the end of this appendix, lists are provided of some wetland hydrophytes and riparian hydrophytes. These lists are partial, but give a general indication of the representative plant species in these habitat areas and should be sufficient to generally distinguish between the two types of plant communities.

The upland limit of a riparian habitat, as with the upland limit of vegetated wetlands, is determined by the extent of vegetative cover. The upland limit of riparian habitat is where riparian hydrophytes are no longer predominant.
As with wetlands, riparian habitats should be identified and mapped only after a site survey by a qualified botanist, freshwater ecologist, or soil scientist.* (See pp. 6-9 of the guideline for a list of information which may be required of the applicant).

IV. Vernal Pools

Senate Bill No. 1699 (Wilson) was approved by the Governor on September 13, 1980 and the Bill added Section 30607.5 to the Public Resources Code to read:

30607.5. Within the City of San Diego, the commission shall not impose or adopt any requirements in conflict with the provisions of the plan for the protection of vernal pools approved and adopted by the City of San Diego on June 17, 1980, following consultation with state and federal agencies, and approved and adopted by the United States Army Corps of Engineers in coordination with the United States Fish and Wildlife Service.

The Commission shall adhere to Section 30607.5 of the Public Resources Code in all permit and planning matters involving vernal pools within the City of San Diego.

All vernal pools located within the city of San Diego in the coastal zone are depicted on a map attached as Exhibit 1 to a letter from Commission staff to Mr. James Gleason, City of San Diego (4/29/80). While "vernal pool" is a poorly defined regional term, all information available to the Commission suggests that all vernal pools in the coastal zone are located in the City of San Diego. It is important to point out, however, that vernal pools are distinct from vernal ponds and vernal lakes, which exist in other parts of the coastal zone (e.g. Oso Flaco Lakes in San Luis Obispo County). The Commission generally considers these habitat areas to be wetlands for the purposes of the Coastal Act, and therefore all applicable sections of the Coastal Act will be applied to these areas.

* Identification of riparian habitat areas in Northern California presents peculiar difficulties. While in Southern California riparian vegetation generally occurs in a narrow band along streams and rivers, along the major rivers in Northern California it may be found in broad floodplains, abandoned river channels and the bottoms adjacent to the channels. In forested areas, the overstory of riparian vegetation may remain similar to the adjacent forest but the understory may contain a variety of plant species adapted to moist or wet substrates. For example, salmonberry, bayberry, willow, twinberry and lady fern, may all be more common in the understory of riparian habitat areas than in other types of forest habitat areas.
V. Representative Plant Species in Wetlands and Riparian Habitat Areas

This is a list of "representative" species that can be expected to be found in the various habitat areas indicated. Not all of them will be found in all areas of the State, and there are numerous others that could be included. However, this list should suffice to generally distinguish between these types of plant communities.

A. Salt Marsh

- Pickleweed (*Salicornia virginica*)
- Glasswort (*S. subterminalis*)
- Saltgrass (*Distichlis spicata*)
- Cordgrass (*Spartina foliosa*)
- Jaumea (*Jaumea carnosa*)
- Saltwort (*Batis maritima*)
- Alkali heath (*Frankenia grandifolia*)
- Salt cedar (*Monanthochloa littoralis*)
- Arrow grass (*Triglochin maritimum*)
- Sea-blite (*Suaeda californica var pubescens*)
- Marsh rosemary (*Limonium californicum var mexicanum*)
- Gum plant (*Grindelia stricta*)
- Salt Marsh fleabane (*Pluchea purpureascens*)

B. Freshwater Marsh

- Cattails (*Typha spp.*)
- Bulrushes (*Scirpus spp.*)
- Sedges (*Carex spp.*)
- Rushes (*Juncus spp.*)
- Spikerush (*Heleochais palustris*)
- Pondweeds (*Potamogeton spp.*)
- Smartweeds (*Polygonum spp.*)
- Water lilies (*Nuphar spp.*)
- Buttercup (*Ranunculus aquatilis*)
- Water-cress (*Nasturtium officinale*)
- Bur-reed (*Spartanium eurycarpm*)
- Water parsley (*Venanthe sarmentosa*)
- Naiads (*Na...*)

C. Brackish Marsh

- Alkali bulrush (*Scirpus robustus*)
- Rush (*Juncus balticus*)
- Brass buttons (*Cotula coronopifolia*)
- Fat-hen (*Atriplex patula var hastata*)
- Olney's bulrush (*Scirpus olneyi*)
- Common tule (*Scirpus acutus*)
- Common reed (*Phragmites communis*)

---

vii
D. Riparian

Willows (Salix spp.)
Cottonwoods (Populus spp.)
Red alder (Alnus rubra)
Box elder (Acer negundo)
Sycamore (Platanus racemosa)
Blackberry (Rubus vitifolia)
So. Black walnut (Juglans californica) (So. Calif.)
California Bay (Umbellularia californica) (So. Calif.)
Bracken fern (Pteris aquilinum) (Cen. Calif.)
Current (Ribes spp.)
Twinberry (Lonicera involucrata) (No. Calif.)
Lady fern (Athyrium felix-femina)
Salmonberry (No. Calif.)
Bayberry (No. Calif.)

E. Vernal Pools

Downingia (Downingia sp.)
Meadow-foxtail (Alopecurus howellii)
Hair Grass (Deschampsia danthonioides)
Quillwort (Isoetes sp.)
Meadow-foam (Limnanthes sp.)
Pogogyne (Pogogyne sp.)
Flowering Quillwort (Lilaeae scilloides)
Cryptantha (Cryptantha sp.)
Loosestrife (Lythrum hyssopifolium)
Skunkweed (Navarretia sp.)
Button-celery (Eryngium sp.)
Orcutt-grass (Orcuttia sp.)
Water-starwort (Callitriche sp.)
Waterwort (Elatine sp.)
Woolly-heads (Psilocarpus sp.)
Brodiaea (Brodiaea sp.)
Tillaea (Crassula aquatica)
APPENDIX E. GLOSSARY OF TERMS

Aquaculture

"... 'aquaculture' means the culture and husbandry of aquatic organisms, including, but not limited to: fish, shellfish, mollusks, crustaceans, kelp and algae. Aquaculture shall not mean the culture and husbandry of commercially utilized inland crops, including, but not limited to: rice, watercress and bean sprouts." (Public Resources Code, Division 1, Chapter 4, Section 828) (See also footnote #5 on page 11).

Biological productivity

Biological productivity generally refers to the amount of organic material produced per unit time (see also footnote 19 on page 23)

"Coastal-dependent development or use"

(see APPENDIX A [Section 30101])

Coastal-dependent industrial facility

A coastal-dependent industrial facility is one which requires a site on, or adjacent to, open coastal waters to function.

"Development"

(see APPENDIX A [Section 30106])

"Energy facility"

(see APPENDIX A [Section 30107])

"Environmentally sensitive area"

(see APPENDIX A [Section 30107.5])

Estuary

As estuary is a coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the land (see also page 4 and APPENDIX D).

"Feasible"

(see APPENDIX A [Section 30108])
A fen is a poorly defined regional term for a type of marsh (see APPENDIX D) usually said to be formed on peat that is circumneutral or alkaline in pH; vegetation is marked by high species diversity. A fen is equivalent to the sedge-meadow of many areas. (Note: To date the only fen known to exist in the coastal zone is Inglenook Fen in Mendocino County).

**Fill**

(see APPENDIX A [Section 30108])

**Functional capacity**

Functional capacity refers to the ability of a particular ecosystem to be self-sustaining and to maintain natural species diversity (also refer to page 17).

**Healthy populations**

The phrases, "... healthy populations of all species of marine organisms ..." and "... optimum populations of marine organisms ..." (Sections 30230 and 30231, respectively) refer generally to the maintenance of natural species diversity, abundance, and composition.

**Hydric soil**

Hydric soils are soils that for a significant period of the growing season have reducing conditions* in the major part of the root zone and are saturated** within 25 cm of the surface. Most hydric soils have properties that reflect dominant wetness characteristics, namely, they have immediately below 25 cm dominant colors in the matrix as follows:

1. If there is mottling, the chroma is 2 or less.
2. If there is no mottling, the chroma is 1 or less.

("Wet Soils of the United States" (draft copy), January 9, 1980, United States Department of Agriculture, Soil Conservation Service.)

---

* Reducing conditions means soil solution is virtually free of dissolved oxygen.

** A soil is considered saturated at the depth at which water stands in an unlined borehole or when all pores are filled with water. Soils (temporarily) saturated as a result of controlled flooding or irrigation are excluded from hydric soils.
Hydrophytic plant

Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (i.e., plants typically found in wet habitats).

Lake

A lake is a confined, perennial water body mapped by the United States Geologic Survey on the 7.5 quadrangle series, or identified in a local coastal program.

Mesophytic plant

Any plant growing where moisture and aeration conditions lie between extremes (i.e., plants typically found in habitats with average moisture conditions, not usually dry or wet).

Optimum populations

(see definition of "healthy populations" above)

Riparian habitat

A riparian habitat is an area of riparian vegetation and associated animal species. This vegetation is an association of plant species which grow adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of fresh water (see also APPENDIX D).

River or Stream

A "river or stream" is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris.

Vernal pool

A vernal pool may be defined generally as ". . . a small depression, usually underlain by some subsurface layer which prohibits drainage into the lower soils profile, in which, during the rainy season, water may stand for periods of time sufficient to prohibit zonal vegetation from developing. The habitat is intermediate in duration or inundation between marshes (never or only rarely dry) and most zonal communities (never or only rarely submerged)." ("The Vegetation of Vernal Pools: A Survey." By Robert F. Holland, Department of Agronomy & Range Science, University of California, Davis. Published in, Vernal Pools: Their Ecology and Conservation. A Symposium Sponsored by the Institute of Ecology, University of California, Davis, May 1-2, 1976).

Wetland

(see APPENDICES A and D [Section 30121])

Xerophytic plant

Any plant growing in a habitat in which an appreciable portion of the rooting medium dries to the wilting coefficient at frequent intervals (i.e., plants typically found in very dry habitats.)
(This Page Intentionally Left Blank)
Dear Planners, Agencies, and Consultants,

This letter is intended to answer a number of inquiries we have had concerning the nature and function of the California Archaeological Site Survey, Regional Office &1. The Regional Office is the archival repository for archaeological data from the seven counties listed in the letterhead. We maintain data on both archaeological site survey reports and reports on archaeological work done in the area including both positive and negative data. We are a part of the State Historic Preservation Office and subject to directives from that agency. The archival data is utilized in the course of 1) scientific research 2) project planning, and 3) review. Access is to qualified researchers who meet the requirements as prescribed by the State Historic Preservation Office (Access Policy enclosed).

Scientific research includes graduate and undergraduate scholastic projects, data searches for academic projects, and various studies that will contribute to knowledge of historic and prehistoric archaeology not directly related to project planning.

Project planning is associated with cultural resource management (CRM) as concerns California Environmental Quality Act requirements. Planners who are involved in preparing E.I.R.s and E.I.S.s retain professional consultants in the course of meeting C.E.Q.A. data requirements. Cultural resources is one of the components of such reports that are handled by professional archaeologists. The archaeologist would normally research the archival records prior to field work as we have the most complete files available. The subsequent report would be sent to the Regional Office by the consultant to maintain the archives as well as being part of the E.I.R./E.I.S. Thus, valuable information is supplied to both planners now and to future researchers on particular areas. Planners can submit in writing, the project description and the Regional Office will make recommendations concerning the need for an archaeological consultant. We also provide a list of professional archaeological consultants (Consultants List enclosed).

The review process concerns only archaeological components and can be generally divided into two categories, impact statement review which is involved with identifying omissions and inadequacies as concerned with the archaeological component of impact statements, and assessment of adequacy of archaeological professional reports.

As a Regional Office the public we serve includes city, county, state, and federal government agencies, private developers, consulting firms, professional archaeologists, academic institutions and occasionally, local businesses, groups or individuals. Most often services are handled by phone for professional researchers with credentials on file or by letter for other categories of research.
A modest fee is charged for project planning research which enables the Regional Office to employ persons with the sufficient archaeological background necessary to the efficient ongoing maintenance of the archival repository. The fee structure is $25 for the first hour and $25 for each additional hour or portion thereof. There is a 10¢ per page charge for xerox copies.

The existence of the Regional Office archives provides an unprecedented opportunity for public involvement and contribution to a scientific approach of gathering archaeological data. Maintenance of such an archives insures that the data generated by local archaeologists is not lost in various governmental offices but accrues to the scientific and general good. We are happy to answer any inquiries on how the office may be of service to you or to your organization.

Sincerely,

Rob Edwards - Regional Officer

enclosures
Subject: Policy concerning Archeological site Designation
Date Effective: May 31, 1980

There is a need within California for a common understanding between agencies, and between agencies and archeologists, in dealing with archeological sites. The Office of Historic Preservation has developed a program to fill this need. In co-operation with the archeological community and the Regional Offices of the California Archeological Site Survey, we have maintained and up-graded a comprehensive statewide inventory of archeological sites. In co-operation with the archeological community and the Regional Offices, we have begun to develop Regional Overviews and planning documents to assist planners and archeologists in their decisions concerning these values.

The success of both these programs is dependent on the co-operation and effort of you and your agency or firm, whether you are an archeologist, planner, engineer, or agency official. There are two things which can be done to assist this effort: (1) cooperate with the Regional Office by supplying him with information. This Office is the primary coordinating body for archeological information in that respective region. Decisions made by the Regional Office and the Office of Historic Preservation are based on this archeological information. (2) In all reports subject to environmental review, be sure that all archeological sites are referred to by a trinomial designation. This ensures that the recorded history of a site is taken into account. In addition the Regional Office will be aware of the site; this Office will be aware of the site, and; this information will be incorporated into future decisions concerning the archeology of the region.

In accordance with these concerns, I will need a trinomial designation for all archeological sites included in the following documents; (1) Requests for Determinations of eligibility, (2) Nominations for inclusion on the National Register of Historic Places or as a State Historic Landmark, (3) Applications for Grants-in-Aid funds, when applicable.

Processing of these documents will be delayed if site trinomials are not included. Thank you for your co-operation.

Sincerely,

Dr. Knox Mellon
State Historic Preservation Officer

Attachments: Regional Officer List
Criteria for Evaluation of Archeological Site Survey Records
STATE OF CALIFORNIA
OFFICE OF HISTORIC PRESERVATION

POLICY ON ACCESS TO ARCHAEOLOGICAL SITE RECORDS

I. The following individuals are qualified to receive archaeological site record data:
   A. Professional archaeologists meeting standards specified by the National Park Service, and students conducting scientific research.
   B. Planners employed by government agencies for purposes of preliminary project investigations.
   C. Qualified cultural resource managers employed by government agencies or public utility companies.
   D. Owners of identified archaeological sites.

II. These individuals will receive the data necessary to their research only with the express approval of the appropriate Regional Officer. The Regional Officers will maintain current lists of individuals who are allowed access to the site records.

III. In order to protect California's archaeological resources, those receiving the site record data must sign a document of confidentiality prohibiting the distribution of specific site location information in public documents within their institution or agency without prior consent of the Regional Officer or State Historic Preservation Officer.

IV. The Regional Officers have the authority to deny access to archaeological site record data for cause. The following reasons may constitute grounds for such a denial:
   A. Lack of proof of proper qualifications.
   B. Inadequate justification to receive such data (e.g. scientific research or specific project planning is not involved).
   C. Previous abuse of confidentiality of records.
   D. Failure to provide Regional Officers with written reports and complete site records resulting from previous field reconnaissance and investigations.

V. The Regional Officers will forward to the State Historic Preservation Officer, no later than 10 days after an individual is refused site record data, the name and affiliation of the individual, and the reasons for the action.

VII. The Regional Officers can charge a reasonable fee, either standard for routine site record data search, or hourly, for more extensive research performed by a qualified institution or agency.
June 1, 1980

To whom it may concern:

One of the original functions of the Regional Centers was the coordination of archaeologists for the Society for California Archaeology. The Regional Office continues to receive requests for a list of firms and individuals who do this type of consulting for this area.

We have prepared the following list following State Historic Preservation Office policy of using names from two groups who have prepared broader lists, one statewide, one nationwide. These lists are a state listing of Consultants by Society for California Archaeology, and a national, somewhat more rigorous "certification" by the Society of Professional Archaeologist (SOPA). These are based on the 1980 Directories on file here.

The following list is provided with no evaluation. It is merely a list of minimally qualified consultants and/or firms from the above Directories who have agreed to meet minimum requirements regarding data access and have asked to be listed at this Regional Office. This list should not be construed as an endorsement for those listed.

ARCHAEOLOGICAL CONSULTANTS

<table>
<thead>
<tr>
<th>archaeological consulting</th>
<th>SCA listing only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaeological Consulting</td>
<td>Archaeological Consultants</td>
</tr>
<tr>
<td>627 Baumann</td>
<td>1464 LaPlaya</td>
</tr>
<tr>
<td>Castroville, Ca. 95012</td>
<td>San Francisco, Ca. 94122</td>
</tr>
<tr>
<td>(408) 633-2157</td>
<td>(415) 673-6023 X 198</td>
</tr>
</tbody>
</table>

|Basin Research Associates| Archaeological Planning Collaborative |
|4001 Fruitvale Ave.| 1050 Northgate Dr. #554 |
|Oakland, Ca. 94602| San Rafael, Ca. 94902 |
|(415) 531-6074| (415) 479-3370 |

|Greenwood and Associates| Archaeological Resource Management |
|725 Jacon Way| 496 N. Fifth St. |
|Pacific Palisades, Ca. 90272| San Jose, Ca. 95112 |
|(213) 454-3091| (408) 295-1373 |

<table>
<thead>
<tr>
<th>SOPA listing only</th>
<th>SOPA listing only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westec, Inc. (Bill Breec)</td>
<td></td>
</tr>
<tr>
<td>180 E. Main St., Suite 150</td>
<td></td>
</tr>
<tr>
<td>Tustin, Ca. 92680</td>
<td></td>
</tr>
<tr>
<td>Ann S. Peak &amp; Associates</td>
<td></td>
</tr>
<tr>
<td>8167A Belvedere Ave.</td>
<td></td>
</tr>
<tr>
<td>Sacramento, Ca. 95826</td>
<td></td>
</tr>
</tbody>
</table>
SCA listing only

Vance G. Benta
Mary Biderman Smith
Historical Consultants
8 West Street
San Rafael, Ca. 94901
(415) 456-4837

Heritage Research Associates
1504 Grove St.
Berkeley, Ca. 94709
Maryanne Fazio (408) 353-3529
or: (415) 526-7109
REGIONAL OFFICES
CALIFORNIA ARCHEOLOGY SITE SURVEY
OFFICE OF HISTORIC PRESERVATION
PO Box 2390
Sacramento California 95811
January 1980

Coordinator: William C. Seidel
(916) 445-8006

REGIONAL OFFICE
Mr. Rob Edwards
Cabrillo College
5500 Soquel Drive
Aptos CA 95003
(408) 425-5294

Dr. Mark Kongta
California State University, Chico.
Chico CA 95926
(916) 895-192

Dr. Dudley Varmer
California State University, Fresno
Fresno CA 92740
(209) 487-2018

Mr. Jay Von Werthof
Imperial Valley College Museum
442 Main Street
El Centro CA 92243
(714) 352-165

Archeological Survey
University of California, Los Angeles
Los Angeles CA 90024
(213) 825-7411 Call: Martin Rosen

Dr. Phil Wilkes
Archeological Research Unit
University of California Riverside
Riverside CA 92521
(714) 789-3885

Mr. Jerad Johnson
California State University Sacramento
Sacramento CA 95819
(916) 454-6070 Call: Maryanne Russo

COUNTIES

Monterey, San Benito, Santa Clara
Santa Cruz, San Mateo, and
San Francisco, San Luis Obispo

Siskiyou, Modoc, Trinity, Shasta
Lassen, Tehama, Glenn, Butte
Plumas

Fresno, Kings, Madera, Tulare

Imperial

Ventura, Los Angeles, Orange

Riverside, Inyo, Mono

Amador, El Dorado, Sacramento
Placer, Nevada, Sierra, Yuba,
Colusa, Sutter, Yolo, Solano
## REGIONAL OFFICE

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution and Address</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Gerald A. Smith</td>
<td>San Bernardino County Museum</td>
<td>San Bernardino</td>
</tr>
<tr>
<td></td>
<td>2024 Orange Tree Lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Redlands, CA 92373</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(714) 792-1334</td>
<td></td>
</tr>
<tr>
<td>Dr. L. Larry Leach</td>
<td>San Diego State University</td>
<td>San Diego</td>
</tr>
<tr>
<td></td>
<td>San Diego, CA 92115</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(714) 286-6300 Call: Mr. Underwood</td>
<td></td>
</tr>
<tr>
<td>Dr. David A. Fredrickson</td>
<td>California State College, Sonoma</td>
<td>Del Norte, Humboldt, Mendocino,</td>
</tr>
<tr>
<td></td>
<td>Rohnert Park, CA 94928</td>
<td>Sonoma, Lake, Alameda, Contra</td>
</tr>
<tr>
<td></td>
<td>(707) 364-2581</td>
<td>Costa, Marin and Napa</td>
</tr>
<tr>
<td>Dr. Lou K. Napton</td>
<td>California State College, Stanislaus</td>
<td>San Joaquin, Calaveras, Alpin</td>
</tr>
<tr>
<td></td>
<td>Turlock, CA 95380</td>
<td>Tuolumne, Mariposa, Merced, and</td>
</tr>
<tr>
<td></td>
<td>(209) 533-2127 or 633-2707</td>
<td>Stanislaus</td>
</tr>
<tr>
<td>Dr. Robert Schiffman</td>
<td>Bakersfield College</td>
<td>Kern</td>
</tr>
<tr>
<td></td>
<td>1801 Panorama Drive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bakersfield, CA 93305</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(320) 395-4231</td>
<td></td>
</tr>
<tr>
<td>Dr. Michael A. Glasgow</td>
<td>University of California, Santa Barbara</td>
<td>Santa Barbara</td>
</tr>
<tr>
<td></td>
<td>Santa Barbara, CA 93106</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(805) 961-2054 or 961-2257</td>
<td></td>
</tr>
</tbody>
</table>
Each archaeological site record shall be reviewed and evaluated using the following criteria to insure the accuracy and completeness of the survey's data. Site survey records which do not provide the required information should be returned to their preparer for correction or attachment of supplemental information. (In the case of previously recorded site survey records, Regional Offices will be responsible for updating any inadequate records they may have in their files.)

A complete archaeological site survey record has three parts: 1) a site survey record form; 2) a detail(ed) site sketch map and; 3) a site location map xerox copy of a portion of the appropriate USGS Quadrangle Map showing the location of the site (as recorded by the site recorder). Each site survey record must contain all its components before it will be accepted for inclusion as part of the survey data. An exception to the above statement will be made whenever an aggregate of sites are reported for a small geographic area during a systematic reconnaissance.

The information categories listed below do not address all categories of information which may be required to meet academic research needs. The Office of Historic Preservation wishes to stress that these criterions represent the minimal information necessary to proper management and protection of the state's archaeological properties. Office of Historic Preservation would recommend that in lieu of a regional site survey record form, if such a form does not exist, that the site survey record form currently in use by the Department of Parks and Recreation be utilized to record archaeological properties.

I. Site Survey Form - This form must provide response spaces for the following categories of information.

A. Official Site Trinomial - Should be placed in upper right hand corner of form.

B. Site Locational Information
   1. Rectangular System of Survey References - Township, Range, Quadrants of a section to the nearest 1/16 of the section, and section.
   2. Universal Transverse Mercator Grid References - One UTM reference point must be given for all sites covering an area of less than 10 acres. Sites covering an area of 10 acres or more must have a UTM reference print for each corner along its boundary. Full UTM reference point coordinates must be given.
3. Verbal Description - This section should provide a mental map to anyone trying to relocate the site. References to surrounding landmarks and "permanent" modern features should be provided in conjunction with information concerning their direction and distance from the site.

C. Contour Elevation

D. Ownership
1. Owner's name (In the case of public ownership, the agency having responsibility for the land should be given).
2. Owner's address

E. Reference to Systematic Survey (if applicable).
1. Name of project
2. Date survey was conducted

F. Description of Site
1. Site dimensions
2. Estimated surface area of site
3. Estimated or known depth of deposit, if applicable
4. Condition of site i.e., undisturbed, partially destroyed, etc.
5. Site attributes i.e., midden/habitation debris, lithic scatters, etc.
6. Temporal placement of site
7. Cultural placement of site

II. Archaeological Site Sketch Maps - Sketch maps should provide a clear picture of the site's surface manifestations and their relationship to each other and the surrounding environment. The following information should be provided on all sketch maps:

1. Site number
2. Legend
3. Scale
4. North arrow
5. Exact measurements between key features of the site and its environment; these measurements should include horizontal distances and compass bearings.

III. Site Location Map - This map should be a xerox portion of a USGS Quadrangle Map upon which the property location has been marked. Preferable scale for site location is 1:24,000; however, 1:62,500 scale maps will suffice when the former is not available.

The following reference information should be provided:
1. Site number
2. Map name and scale
3. North arrow
4. If any symbols are used, provide key or legend.
TYPES OF ARCHAEOLOGICAL REPORTS
PLANNERS CAN EXPECT AND WAYS
TO REVIEW AND EVALUATE THEM

BY

JACQUELYN M. COOPER

REGIONAL OFFICE
CENTRAL COAST COUNTIES
CABRILLO COLLEGE
APTOS, CA
Toward the end of the last Ice Age, the ancestors of the California Indians left Asia, crossed the Bering Straits into North America, and filtered south into California. The pervasive mountain ranges and lack of navigable rivers encouraged isolation and diversification among the aboriginal groups resulting in extremely different physical characteristics and great variation in cultural evolution. The variation range for California Indians included some of the tallest and some of the shortest Indians on the continent. They spoke 135 different dialects from 21 linguistic subdivisions of 7 basic language groups. The story of human occupation in the central coast counties goes back at least 10,000 years, and constitutes an important segment of the total history of mankind.

As a singular species, we are all products of history. Knowledge of our past is necessary to successfully planning and shaping our future. California's history is well preserved in texts and photographs, but, the 10,000 years before that requires expertise and patience in gleaning data from the deposits of human occupation.

In recent years, a growing concern for preservation of the past has produced laws and regulations pertaining to protection and preservation of cultural resources on the local, state, and federal levels. Communities are concerned with local history, counties are concerned with the varying components of prehistory and historical context, and state and national level governments are concerned with preserving the rich diversity of cultures that have existed on the North American Continent. The National Environmental Quality Act of 1970 designates the inclusion of an archeological evaluation to assist in identifying the impacts a project will have on the environment, particularly when Federal funds are involved. The California Environmental Quality Act (based on NEPA) has brought concerns for such resources to the attention of state, regional, and local planners, even when Federal funds are not involved. Difficulties arise when the planners, who as we all know, are expected to be all things to all people, have to deal with archeological or other cultural resources in a professional manner. What I hope to do is to lift the veil of archeological mystery just a little, and show what the archeological community (in conjunction with planners) have developed as basic needs for reports.
There are several types of reports that can be expected when an archaeologist is required to evaluate a project for cultural resources. The following is a basic list of archaeological report types that a planner might anticipate. Each is discussed followed by suggested means of review and evaluation by non-archaeologist staff.

ARCHAEOLOGICAL REPORT TYPES

1. Literature/archival search and research
2. Preliminary or intensive field reconnaissance
3. Subsurface/secondary testing and evaluation of significance
4. Mitigation plans and procedures

1. Literature/archival search and research

This type of report provides background information on a particular area without field reconnaissance. A planner or private property owner can contact the Regional Office for a check on a particular parcel. There is a fee for any project specific planning use. The minimum scope of information that one could expect from the Regional Office includes:

- known sites on specific parcel
- list of previous surveys on parcel, if any
- the probability of finding sites, i.e., the sensitivity on the parcel
- recommendations for further research, if needed

If there are historic resources concerned with a parcel, archival searches of historic reconstruction could be quite involved. This could include tracing ownership, structural changes and architectural uniqueness. Archival research can vary greatly depending on the nature of the project and the parcel. There are research projects where the archival research can be the end product such as in the preparation of a sensitivity map or if a negative survey report has already been completed for a project area. An example would be a Bay Area County Parks and Recreation Department which advertised a scope of work for 9 parks. A check of the Regional Office records showed that 3 had been surveyed and paid for by the same Parks Dept. within the previous 2 to 3 years.

Access to Regional Office data is according to statewide access policy of the State Historic Preservation Office (SHPO).
REVIEW/EVALUATION OF ARCHIVAL SEARCH

The evaluation of the archival research data should center on its inclusiveness and its utility for the specific project. There are a number of archives that have a variety of data in content and in completeness. Any archival search which does not include use of the appropriate Regional Office and any historic research that does not use local historical sources should not be considered adequate. Reports dealing with prehistoric resources should include:

- Regional Office archives search
- Local historic maps such as Sanborn
- Published histories or a local historic archives such as the San Jose Historical Museum
- Inventories of local, state, or federal, on recognized historic sites

Regional Office #1 has National Register sites mapped. Those of you who have checked the published list know that most are deliberately vague in giving locations.

The use of SHPO and/or Parks and Recreations Department files as an archival search are not sufficient for two reasons:

1) SHPO does not have the staff to do more than file data; there is no indexing.
2) Sacramento does not receive data from Regional Offices more than 2 to 4 times a year, so these files are not current.

2. Preliminary or intensive field reconnaissance

There are several different types of archaeological field reconnaissance procedures (King, and Leonard, 1973). They include:

Preliminary Field Reconnaissance: Relatively superficial inspection of impact area. Some of the following techniques are used and the report should include an explanation of why a particular technique was used.

a. Uncontrolled Intuitive Reconnaissance. A "spot-check" of probable areas for human habitation based on such criteria as slope, access to nearest water, etc.

b. Controlled Intuitive Reconnaissance. Check of areas known to be probable ones for cultural resources based on settlement pattern data.

c. Controlled Sample Reconnaissance. Survey of a stratified random sample of an area.
Intensive Field Reconnaissance: Comprehensive inspection of all surfaces.

a. General Surface Reconnaissance. Inspection of all visible surfaces that can be reasonably expected to contain resources.

b. Controlled Sample Reconnaissance. Inspection of all visible surfaces that can be reasonably expected to contain archaeological resources over a large area.

c. Complete Reconnaissance. An investigation of every visible surface of a project area.

d. Subsurface Reconnaissance. Exploration of subsurface by means of test units, auger boring or mechanized cutting.

Mixed Strategy Reconnaissance: Utilizing different approaches in different parts of the study. The various types of surveys should be specified and the reasons for utilizing them justified.

The preliminary or intensive field reconnaissance report is designed to provide practical information on archaeological resources in the early stages of planning at a minimum cost.

Review/Evaluation of Preliminary or Intensive Field Reconnaissance

The preliminary archaeological reconnaissance report must be prepared by a qualified professional archaeologist (See Qualifications Section). The report should include the following information:

- explanation of why the project was performed
- archival/records check at appropriate Regional Office
- description of project area including USGS quad map
- detailed description of methodology, findings, and recommendations
- list of persons involved in each stage of project
- statement of authors qualifications

When a report lacks the above information or is not very specific about information, it is possible to request an evaluation of the report or the qualifications of the consultant by the Regional Office or the State Historic Preservation Office.

3. Subsurface/secondary testing and evaluation of significance

When an archaeological site is located during a survey or is known to exist on a parcel, the permit process usually requires determination of the site boundaries, the nature, composition, the significance or the resource, and recommendations for mitigation.
Secondary testing can be avoided on a project when it can be documented that there will be no impact on the resource. Such documentation might include placing the resource as part of an open space, scenic, or archaeological easement or through a deed restriction. When impact on a resource cannot be avoided, secondary testing will be necessary to forming a mitigation plan. Secondary testing includes the following types of investigations:

1. **Boundary Location.** Techniques include:
   - Detailed surface examination and mapping.
   - Systematic surface collection and mapping.
   - Systematic auger sampling or other subsurface testing of site peripheries.
   - Chemical analysis and testing.

2. **Subsurface Testing.** Hand excavation of test units to provide information on the composition and integrity of the resource with minimum disturbance to the site. Secondary testing reports will include the following:
   - Preparation (and review) of a research design prior to fieldwork.
   - Gathering data related to the research design questions.
   - Detailed analysis of gathered data.
   - Provisions for curation of gathered data.
   - Preparation of report outlining all procedures, including:
     - Description and discussion of the data.
     - Statement of the significance of the resource (see below)
     - Discussion of project alternatives.
     - Conclusions and specific recommendations.

The determination of **Significance** requires detailed knowledge of:

- Time period(s) during which the site was occupied and the contents of the site.
- Previous archaeological research in the immediate area and in the general vicinity of the resource.
- The nature of the archaeological record as it survives in the project area, general vicinity, and the region.
- Research questions which are or may be applicable to the site.
- Current legislation, guidelines, and professional practices which pertain to the estimation of significance.

The significance of some sites is very obvious as in an elaborate Chumash rock art site. Others will be more difficult to determine. Some have been damaged to the extent that significance that was there is lost. The degree of significance will have to be determined and documented through research and archaeological testing.
Traits which may be used to determine significance are:

- **Research Potential** - The degree to which the site is important to history or prehistory as determined in context with other research questions.

- **Integrity** - The intact condition of the resource helps determine integrity as does the interrelationships of the components of the site. Even minor disturbance results in the great loss of information.

- **Temporal Affiliation** - Some time periods are more significant than others. A general rule is that a site increases in significance as it increases in age.

- **Relative Scarcity** - Some types of sites are extremely rare and significance increases in proportion to relative scarcity.

- **Community Significance** - A site which is a member of an interrelated group of sites will have greater significance, just as the pages of a book are considered more significant together rather than individually.

- **Legal Significance** - A site which is eligible for the National Register of Historic Places is afforded specific legal protections. Other Federal, state, and local laws, regulations, and ordinances apply specifically or in general to archaeological resources.

- **Ethnic Significance** - This applies to an archaeological site which has religious, mythological, social, historical, or other special importance to a discrete population.

**REVIEW/EVALUATION OF SECONDARY TESTING**

Secondary testing reports are at the level of "technical reports". An agency or firm should, whenever possible, have a professional review the report for them. This can be done in a variety of ways.

Santa Cruz County in the past (1972 - 1979) has had a professional archaeological advisor. It is possible to ask SHPO or the Regional Offices to review the report on a time available basis for agencies who do not have formal relations with a Regional Office. But, the review may not be completed in time to be relevant.

4. Mitigation Plans and Procedures

The mitigation plan is a formal document specifying how an archaeological resource will be handled, given the impacts of a project. The mitigation plan will specify in detail the steps which will be taken to preserve the site or to mitigate damage which cannot be avoided.
As the public has become increasingly aware of the value of archaeological information, the field of cultural resource management has evolved from exploratory excavation to a general attempt to protect this non-renewable resource whenever possible. The mitigation plan is now one of the primary tools for the protection of significant archaeological sites which are threatened by adverse project impacts. In almost all cases this can be done without stopping the project. This document would be prepared by a professional archaeologist and submitted for review to the appropriate regulatory agencies, the Regional Office, and to the State Historic Preservation Office.

Some examples of specific mitigation techniques include:

- Relocation of project impacts. A minor redesign of the project can often avoid impact on an archaeological resource. This could be done through inclusion of open space, landscaping, or covering the site with a layer of fill and asphalt to create a parking lot.

- Burial of the site. A site may be covered with a layer of fill sufficiently thick to insulate it from impact. Structures could be placed on top.

- Archaeological salvage. When a project impact cannot be avoided and the impacts will be extreme, it may be necessary to conduct a large scale archaeological salvage operation. This is seldom done and a poor alternative both from the archaeological point of view as well as from a fiscal point of view.

QUALIFICATION FOR ARCHAEOLOGICAL CONSULTANTS

In order to maintain high professional standards and continuity within the discipline of archaeology, it is essential that minimal qualifications for archaeological consultants be established and practiced. The current accepted standards are those existing for the Society of Professional Archaeologist, the Society for California Archaeology, and the Department of the Interior, as found in 36 DFR 66 and in 36 DFR 65. The minimal professional qualifications in archaeology are:

1. A postgraduate degree in Archaeology, Anthropology, or a closely related field with a specialization in Archaeology, except where an equivalency to such a degree can be documented.

2. Demonstrated ability to carry research to completion, usually evidenced by timely completion of theses, research reports, or similar documents.
3. At least 16 months of professional experience and/or specialized training in archaeological field, laboratory or library research, administration, or management, including at least 4 months experience and/or specialized training in the kind of activity the individual proposes to practice.

4. Demonstrate connection with an institution or organization with facilities for storage and care of archaeological data and materials.

REVIEW AND EVALUATION OF QUALIFICATIONS FOR CONSULTANTS

When considering an archaeological consultant, one important way to evaluate them is through their association with one of two organizations: 1) The Society of Professional Archaeologist and 2) The Society for California Archaeology. A listing with either organization indicates a minimum level of training and experience. If they are not listed by these organizations, you may want to make a direct inquiry to the organizations, or the Regional Office or SHPO, to see if the consultant does meet minimal standards. An excellent example is a local collector in the Monterey/Pacific Grove area who has tried to do archaeological consulting. This has caused considerable bureaucratic time delays in dealing with inadequate reports, delays and additional cost for the applicant.
REFERENCES

Breschini, G. & Haversat, T. 1979

Edwards, Rob 1979

1979

1976

Archaeological Overview of the Central Coast Counties - Draft

Recommendations for Procedures and Guidelines Archaeological Consultant Qualifications. Prepared for Santa Clara County


The Northridge Archaeological Research Center will soon begin a series of archaeological investigations in the upper reaches of Encinal Canyon, on the southern flank of the Santa Monica Mountains near the Ventura County line. These investigations will focus on a group of rockshelters and open-air sites located within the boundaries of the County Park. All sites within the Park will be located, mapped, and sampled, but excavation will be limited to only one, or possibly two, small areas. Primary interest centers around a small, undecorated rockshelter, LAN-472, which has a deep (70 cm), stratified shell midden, and has yielded a large quantity of beads and faunal remains. This shelter has also produced a limited occupational assemblage including milling equipment, flake tools, and projectile points with associated debitage. A few worked pieces of bone and marine shells have been found (pierced bird claw, shark centrum ring, worked cowries and abalone shell). Two hearths, and a number of other features, have also been located at LAN-472.

At this time, at least three additional archaeological sites are known to exist within the Park boundaries, only two of which are recorded localities. All localities yielding archaeological materials will be recorded and mapped, and surface sampled whenever possible.

Our principal research efforts will be directed at developing a basic understanding of the prehistoric subsistence and settlement patterns represented at these sites. The following specific research projects will be undertaken:

1. Definition and demonstration of internal (vertical and horizontal) stratigraphy within the LAN-472 midden deposit.
2. Identification of microfaunal and microfloral materials (floatation of hearth materials).
3. Characterization of the natural environment including floral, faunal and lithological units in the vicinity of the sites.
4. Identification of the sources of the lithic artifact materials recovered from the sites in Encinal Canyon drainage.
5. Development of a model which describes the Late Horizon exchange system operating in the Encinal drainage, and the products involved in the system.

Persons interested in participating in the NARC project, or who have research interests in this area, are encouraged to contact the project director, John Romani, at the Research Center at Cal State Northridge — phone (213) 885-3575, or write to the NARC c/o the Department of Anthropology, CSUN.

Work is scheduled to begin in early January and continue for approximately two months. Field work and laboratory work will run concurrently, and all recovered materials will be stored at the CSUN Research Center until other arrangements are made with the County Park for a permanent display and interpretive center.

Clay A. Singer
Director
Northridge Archaeological Research Center

December 18, 1979
STATEMENT CONCERNING THE CONDUCT OF ARCHAEOLOGY
WITHIN THE GREATER LOS ANGELES-VENTURA COUNTY AREA
(CHUMASH AND GABRIELINO CULTURE AREAS).

In order to foster cooperation and communication between archaeologists and Native Americans, representatives of several local Indian organizations and the Northridge Archaeological Research Center at C.S.U.N. are requesting that all archaeologists conducting field research or contract work in the Los Angeles and Ventura County areas (i.e., the Southern Chumash and Gabrielino culture areas) kindly notify the Research Center and the Candelaria American Indian Council. Whenever possible, notification of pending fieldwork should be made at the beginning of a project, not during or after the fieldwork has been completed.

Archaeologists and researchers are requested to follow a simple set of recommended procedures outlined below. These procedures apply to all projects involving prehistoric, protohistoric and/or early historic archaeological sites.

1. Before a project begins field operations, notify the nearest Native American organization with jurisdiction in the area in question. In the LA-VEN area contact either Candelaria or Charles Cooke of Newbury Park.

2. At the same time, or before, notify in writing the local research facilities and primary researchers in the area. A simple notice or form letter should be sent to the following: U.C.L.A. Archaeological Survey, C.S.U.N. Northridge Archaeological Research Center, Pacific Coast Archaeological Society, Ventura County Archaeological Society, S.C.A. District VII Coordinator, and other appropriate groups, units, and institutions.

3. If you plan to do any type of digging or excavation, plan to have a Native American Monitor on-site whenever such work is being done. Candelaria Council can arrange to have one or more Indian Monitors on-site to observe and aid the work during excavation of auger holes, test
pits, trenches, or exposures. Monitors may or may not take part in actual excavation (digging), depending on the individual involved, and the particular situation.

4. Human burials should not be removed from the ground without specific authorization from Native American religious authorities contacted through the Native American(s) working at the site. Burials removed from sites, and any other human bones recovered during excavations, should be analyzed as quickly and thoroughly as possible, and reburied by religious authorities as soon as feasible. The local office of the County Coroner should also be informed when burials are located.

5. Power equipment, such as backhoes, bulldozers, or trenchers, should not be used on identified, known, or recorded archaeological deposits, except as a means of removing or moving non-cultural deposits such as fill, paving, and overburden. All excavation should be done by hand, and all excavated material should be screened with 1/8 inch mesh or finer screen.

6. Copies of all notes, records, maps, and manuscripts should be made available to interested archaeologists and Native Americans involved in the area. Collections should be processed and stored in the area of origin whenever possible. Arrangements can be made to process and store some collections at the Museum of Anthropology, Northridge Archaeological Research Center, C.S.U.N. Research materials are also available at other institutions (documents and collections at U.C.L.A., C.S.U. Long Beach, C.S.U. Dominguez Hills, C.S.U. Los Angeles, Cal Poly Pomona, Ventura College, Pierce College, Moorpark College, etcetera).

7. All contacts and consultations should be adequately documented with copies provided to all involved parties.

8. Native American Monitors, tribal elders, and religious authorities should be permitted ready access to any and all aboriginal materials collected during a project.

Northridge Archaeological Research Center, C.S.U.N.
November 1979
APPENDIX 3

PALEONTOLOGICAL GUIDELINES (1980)
6 Feb. 1980

Dear Kaherga:

Enclosed are copies of various palaeontological
savage plans, questionnaire guides, etc. for Los Angeles
and Orange Counties.

I hope this will be of assistance
in formulating your coastal-use plan.

Sincerely,

[Signature]

Assistant Curator

Vert. Palee.
C. Paleontological

The attached Paleontological Site Map (Figure AHP-2) indicates areas known to contain fossils. However, other localities also have fossils. The following guidelines are intended to provide the necessary degree of specificity required for a draft EIR, depending upon location.

There are four (4) classifications of paleontological significance:

1. Known Sites (Numerical Identification) - This designation depicts selected known paleontological sites. For all projects that contain a numbered site, plans to preserve or excavate the site prior to construction should be made as a definite impact is indicated.

2. High Possibility - This designation represents the highest probability that paleontological material will be found. For all projects located in the immediate vicinity of a known fossil producing unit, one of the following will be required:
   a) A full paleontological evaluation will be required unless a statement to the contrary can be obtained from the Los Angeles County Natural History Museum.
   or
   b) A trained technician is retained for monitoring of excavations.

3. Low Possibility (Non-shaded areas of map and not in the vicinity of a known site) - This designation represents areas of sediment rock units which have not been known to produce fossils. If fossils are unearthed during construction or site investigations, the Los Angeles County Natural History Museum should be contacted. In most cases, the following statement will suffice:

"According to the Paleontological Sites Map, based on data from the Los Angeles County Natural History Museum, the proposed project lies in an area of low probability that paleontological sites will be found. However, if fossils are unearthed during any phase of construction the Los Angeles County Natural History Museum will be contacted and given ample time to evaluate and excavate if the Museum desires."
No Possibility (Shaded areas of map) - This designation represents areas of igneous or metamorphic rock and the chance of finding fossils is almost non-existing. In most cases, the following statement will suffice:

"According to the Paleontological Sites Map, based on data from the Los Angeles County Natural History Museum, the proposed project lies in an area of almost no probability that paleontological sites will be discovered and, therefore, no significant impact is indicated."

When a full paleontological evaluation is required, the "Recommended Guidelines for Preparation of Archaeological Impact Evaluations" (see page AHP3) are recommended to be followed where applicable.

If an EIR is required, a professional paleontologist or geologist with paleontological training and a Bachelors or Masters degree must be used. Acceptable salvage can be accomplished by a person properly trained in paleontology. Faculty, staff and advanced students in geology and paleontology at USC, UCLA, Cal State Los Angeles, Cal State Long Beach, or the County Museum can usually accomplish the latter, or direct you to someone who can.

D. Mitigation Measures

1. In the event that any archaeological materials are discovered during the course of the planned development of the property, the UCLA Archaeological Survey should be notified of the discoveries so that their value may be adequately assessed, and a reasonable period of time permitted for their excavation.

2. When a Cultural/Historical Monument is impacted, the developer can offer the necessary funds to allow the Cultural Heritage Board to move the monument, if it is desirable.

3. When known sites are involved or when the EIR states there is a good chance of discovering finds, the developer/landowner should budget funds to assist in on-site inspections during grading, salvage, etc. of specimens.

4. Submittal to designated museums, scientific personnel, etc. by developers/landowners copies of grading plans, site maps, pertinent sections of geologic reports made for site, pertinent sections of EIR relating to paleontological resources and salvage, and grading schedules.

5. On-site inspector is present at project at all times of original cutting of originally undisturbed fossil-bearing soil or rock units. Inspector may mark fossil materials.
and divert construction equipment from them, may collect materials which he physically can, may call in volunteer salvage crews, paid salvage crews, or museum collecting crews and equipment.

6. Designated museum and/or scientific personnel may inspect construction site at any time, and may salvage and collect fossil materials, may bring volunteer/paid collecting crews and collecting equipment onto site, and may assist paid on-site inspector in collecting fossil materials.

7. Scientific specimens, artifacts, and other items of antiquity are to become the property of a public, non-profit, educational institution, museum, or school which can demonstrate the ability to permanently conserve the materials in a manner acceptable to the American Association of Museums and the Association of Systematics Collections.

References

1. UCLA Archaeological Survey

2. Los Angeles City Municipal Arts Department

3. Lawrence G. Barnes, Associate Curator, Vertebrate Paleontology, Los Angeles County Natural History Museum, 900 Exposition Blvd., Los Angeles, Calif. 90007.

Mr. Robert Sutton
Department of City Planning
Room 655, City Hall
200 North Spring Street
Los Angeles, California 90012

Dear Mr. Sutton:

I am returning to you the city map with our localities marked. These localities have numbers which can be cited in correspondence and reports. Proper consideration cannot be given to paleontology when the only information at hand is a map lot, so please realize that a locality within a project area only indicates that more attention must be given to geology and possible types of fossils in the vicinity. Any project on terrain underlain by undisturbed sedimentary rock may have an impact on fossil resources, and must be covered in an EIR. Negative declarations can be accepted when the underlying material is artificial fill, igneous or metamorphic rocks (excluding tuffs), or if no cutting or trenching is intended and no known fossil deposits are buried. If a project involves cutting of sedimentary rock, particularly if this rock is potentially fossil-bearing, then monitoring of excavations should be arranged. Consulting geologists should be contacted regarding the nature of underlying rock units.

If I had to rank probability situations for fossil discoveries, it would be thus:

No possibility: project overlies igneous (excluding tuffs) or metamorphic rock, or artificial fill.

Low possibility: project overlies a sedimentary rock unit which has not been known to produce fossils. A museum should be contacted if fossils are unearthed.
High possibility: project overlies a known fossil-producing unit and/or known sites are in the vicinity. Technicians should be retained for monitoring of excavations.

Known sites: plans should be made to preserve or excavate the site prior to construction.

Acceptable EIR's are prepared by professional firms who retain a paleontologist or geologist with paleontological training, and a Bachelors or Masters degree. They should be reviewed by trained specialists in paleontology. Acceptable salvage can be accomplished by a person properly trained in paleontology: Faculty, staff, and advanced students in geology and paleontology at UCLA, USC, Cal. State Los Angeles, Cal. State Long Beach, or the County Museum can usually accomplish the latter, or direct you to some person who can.

Enclosed is an outline of procedures that should cover all points in a hypothetical project that might have maximum probability of destroying fossil resources. Not all projects require all the steps listed. The most important point is to get endangered fossil resources into a public museum as per the spirit of EPA.

I would like to ask that we be returned a copy of this map. We are being asked to provide the same data by the various engineering, flood control, and sanitation offices.

Sincerely,

Lawrence G. Barnes
Associate Curator
Vertebrate Paleontology

LGB:mb
Enclosures: Outline, map of city
Los Angeles County is one of the richest areas in the world for both fossil marine vertebrates (fishes, sharks, seals, sea lions, porpoises and whales), and land vertebrates from rocks deposited over the last 25 million years (Miocene, Pliocene and Pleistocene). Within the County is one of the richest and most famous fossil deposits in the world, Rancho La Brea. Although Rancho La Brea has been highly publicized, there are many other areas of Los Angeles County which contain equally important fossil occurrences, many of which have been destroyed or are now in danger of destruction.

The richness of fossils in Los Angeles County is due to several major series of events in the geologic history of the area. During Miocene and Pliocene time (25-5 million years ago) most of what is now the greater Los Angeles basin and the surrounding hills (Santa Monica Mountains, Repetto Hills, San Jose Hills, Puente Hills, Palos Verdes Hills, the San Fernando Valley, the Simi Hills, Santa Suzana Mountains, the Santa Clarita Valley and mountains surrounding) were all submerged below the Pacific Ocean. Thousands of feet of sands, muds and other materials were deposited on the ocean bottom over this entire area and millions of fish, sharks, marine mammals and shore birds were buried in these deposits as they died and sank to the bottom. Through time, many of these specimens became fossilized.

What is now the eastern end of the Santa Clarita Valley and the Soledad Canyon area was a large valley in which was deposited over 10,000 feet of terrestrial sediments. Many land animals became buried in these sediments and some became fossilized.

The area along Interstate 5 south of Gorman and most of the western Antelope Valley were both inland valleys in which thousands of feet of sediments were deposited.

During Pleistocene (Ice Age) times, forces within the earth elevated much of this area above the ocean and formed hills and mountains where the ocean bottom and valleys once existed. Erosion cut down through these older sediments as they were being uplifted to form the terrain we see today.

Consequently, there are over 1,100 known vertebrate fossil localities within the County, mostly in the hills. These localities are scattered within 697 square miles (17% of the County) of hilly terrain which contain fossil producing rock formations. In addition, the entire floor of the Los Angeles basin, San Fernando Valley and Antelope Valley are mantled with Quaternary sediments similar to those at Rancho La Brea. Approximately 90 square miles of the 687 square miles of fossiliferous terrain has already been completely graded and built on, mostly in the last 10 to 20 years. Of the remaining 600+ square miles, much is in immediate danger, particularly areas surrounding the Santa Clarita Valley, the western Santa Monica Mountains and the Puente Hills.
In contrast to archeologic sites, paleontologic sites are not necessarily destroyed by grading and construction if several simple precautions are taken. In fact, grading opens new rock exposures and thus increases the potential for discovery of new and often very well preserved fossil specimens. However, once destroyed, a fossil site is lost to everyone for all time. In this day when man has presumably risen to an advanced state, there is no excuse to willingly destroy what nature may have preserved for 25 million years.

The necessary steps to evaluate and preserve, if necessary, a fossil site are as follows.

1. Consultation with geologists, paleontologists, museums, etc. for evaluation of known paleontological resources, their relative value, and a plan for salvage, systematic collecting or preservation, all to be included in EIR.

2. If deemed necessary in step 1, site survey of project by trained person(s) who include(s) observable paleontological resources in environmental impact report (EIR).

3. Review action by governing agency (state, county, etc.) to assure that the above has been done.

4. Budgeting of funds by developer/land owner to assist in on-site inspection during grading, salvage, etc. of specimens.

5. Inclusion on grading plans of instructions to notify, assist, and cooperate with scientific personnel to effect salvage of fossils.

6. Notification of designated museums, scientific personnel, etc. by governing agency, in advance of pending construction sites.

7. Submittal to designated museums, scientific personnel, etc. by developers/land owners copies of grading plans, site maps, pertinent sections of geologic reports made for site, pertinent sections of EIR relating to paleontological resources and salvage, and grading schedules.

8. Notification of EIR writing company, designated scientific salvage personnel, and museum, of commencement of grading prior to actual start. If starting day is imminent, but not set, then notification should be made.

9. On-site inspection by person(s) approved of by designated museum(s) and/or scientific personnel. Said person(s) paid on hourly or daily basis by developer/land owner as per item 4. above, and wages, conditions, individual to be negotiated by developer/and owner and EIR writing company.

10. On-site inspector is present at project at all times of original cutting of originally undisturbed fossil-bearing soil or rock units. Inspector may mark fossil materials and divert construction equipment from them, may collect materials which he physically can, may call in volunteer salvage crews, paid salvage crews, or museum collecting crews and equipment.

11. Designated museum and/or scientific personnel may inspect construction site at any time, and may salvage and collect fossil materials, may bring volunteer paid collecting crews and collecting equipment onto site, and may assist paid on-site inspector in collecting fossil materials.
12. Designated museum and/or scientific personnel may challenge qualifications or credibility of paid on-site paleontological inspector.

13. All fossil materials removed from construction site are to be deposited in the systematic collection of an established research oriented museum, with no sale price to the museum placed on the specimens.
(This Page Intentionally Left Blank)
APPENDIX 4

ADOPTED ON NOVEMBER 23, 1999

GUIDELINES FOR IMPLEMENTATION OF THE CALIFORNIA LAND CONSERVATION ACT (LCA) OF 1965 (THE WILLIAMSON ACT); AND ADMINISTRATION OF THE LCA PROGRAM, AGRICULTURAL PRESERVES (AGPs), FARMLAND SECURITY ZONE AREAS (FSZAs), AND LCA AND FSZ/LCA CONTRACTS (10- AND 20-YEAR)

WHEREAS, the California State Legislature enacted the California Land Conservation Act (LCA) of 1965 (the Williamson Act);

WHEREAS, in 1969, the Board of Supervisors adopted a resolution, pursuant to the provisions of the Government Code, Chapter 7, Section 51231, to implement the Williamson Act through LCA Program and Guidelines for the unincorporated areas of the County;

WHEREAS, the State periodically amends, revises, and adds sections to the Government Code (Chapter 7, Sections 51200 et seq.), and the Revenue and Taxation Code, that directly affect the Ventura County LCA Program;

WHEREAS, in 1998 and 1999, the State Legislature enacted Article 7 (Government Code, new Section 51296 and revisions to Sections 51200 et seq.) with provisions for 20-year LCA contracts within Farmland Security Zones (FSZ/LCAs) in established Agricultural Preserves (AGPs), to encourage the creation of longer term voluntary contracts;

WHEREAS, the Land Conservation/Williamson Act authorizes Counties to establish, expand and disestablish Agricultural Preserves (AGPs), Farmland Security Zones areas (FSZAs); and enter into or nonrenew, and cancel (if findings can be made) LCA and FSZ/LCA contracts for land within AGPs and FSZAs; and to adopt by resolution rules governing the administration of the LCA Program, AGPs, FSZAs, and LCA and FSZ/LCA Contracts (e.g., procedures for initiating, filing, and processing applications for AGPs/FSZs and LCA Contracts and discretionary permits on LCA-contracted land); and

WHEREAS, pursuant to the Government Code, Chapter 7, Section 51239, the Board of Supervisors appointed an advisory board, Ventura County Agricultural Policy Advisory Committee (APAC), to advise the Board of Supervisors on the AGPs, FSZAs, and LCA and FSZ/LCA Contracts -- proposed and entered into pursuant to the Land Conservation/Williamson Act, General Plan and the Guidelines -- and on any related matters and entitlements on contracted land;

WHEREAS, Ventura County is one of the principal agricultural counties in the State and plays an important role in providing for the basic needs, food supply/demand, and the economy of the County, State, and Nation;

WHEREAS, the preservation of the limited supply of agricultural lands in Ventura County is in the best interest of the public; promotes the general welfare; helps maintain and protect the direct, indirect, and imputed agricultural economy of the County; and helps assure production of and adequate supply of food, fiber, and ornamental crops to meet the supply/demand at the local, national, and global levels.
NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of the County of Ventura that these provisions will govern the administration of the Ventura County LCA Program, AGPs, FSZAs, and LCA and FSZ/LCA Contracts, including entitlements, divisions of land, and annexations within existing and proposed AGP/FSZAs, and any LCA and FSZ/LCA contracts.

AND BE IT FURTHER RESOLVED, that the revised LCA Guidelines attached hereto shall supersede and replace all Board Resolutions adopted prior to the adoption of these Guidelines and shall apply to all new and proposed AGPs, FSZAs, and LCA and FSZ/LCA contracts and proposals for entitlements on the existing LCA- and FSZ/LCA-contracted land, in the unincorporated areas of Ventura County.

INTENT

The purpose and intent of the Ventura County LCA Program is to: help preserve the limited and diminishing supply of agricultural land in the County; encourage production of food, fiber, and ornamental crops and commodities for local, regional, State, national and international markets; to discourage premature conversion of agricultural land to nonagricultural land uses; and help to preserve and promote commercial agricultural industry and the direct, indirect and imputed effect on the Countywide and State economy.

The County establishes and expands Agricultural Preserves (AGPs) and Farmland Security Zone areas (FSZAs) and enters into Land Conservation Act (LCA) ten-year (LCA) and twenty-year (FSZ/LCA) contracts based on its desire to discourage the premature conversion of agricultural land to nonagricultural uses; to promote preservation of its agricultural resources and commercial production of food and fiber; and to encourage economic sustainability of County's agricultural industry and operations.

The County's specific intent to enter into LCA and FSZ/LCA contracts with landowners of eligible properties is to preserve and promote bona fide commercial agricultural operations which rely on an optimal combination of soils, climate, water, topography, lot size for viable production, and geographic configuration. The County intends to encourage protection of the areas of the County which contain such favorable combinations. In addition, the County's intent is to allow compatible uses in agricultural areas which do not hinder or compromise the existing or potential agricultural productivity of agricultural land.

The Williamson Act allows contracts for open space. However, the Ventura County LCA Program is intended for "agricultural" contracts only. Pursuant to the Guidelines the land must be utilized for bona fide commercial agricultural production of plant and animal food, fiber, and/or ornamental crops to qualify for LCA and FSZ/LCA Contracts.

HISTORY AND BACKGROUND SUMMARY

The California Land Conservation Act of 1965, also known as the Williamson Act, was adopted by the State Legislature in 1965 and was first implemented in Ventura County in 1969 through the Land Conservation Act (LCA) Program. The State continues to amend, revise, and add
sections to the Government Code\textsuperscript{1} and Revenue and Taxation Code, that directly affect the Land Conservation Act Program.

The Williamson Act authorizes counties to establish/expand AGPs and FSZAs by resolutions; and enter into LCA and FSZ/LCA Contracts after review and approval during public hearings.

In 1969, the Ventura County Board of Supervisors adopted “Guidelines for Implementation of the Land Conservation Act of 1965/ the Williamson Act” (Guidelines). These Guidelines and subsequent revisions established criteria for eligibility for AGPs and LCA Contracts in the unincorporated areas of the County.

In 1984, the Board adopted the previous revision of the Guidelines and a resolution establishing an Agricultural Preserve designation for all areas designated “Agriculture” in the Ventura County General Plan. However, some of these areas are not located within the established numbered preserves and were not assigned individual numbers. Therefore, the unnumbered areas located in the “Agricultural” designated areas are referred to as the “de facto” Agricultural Preserves for the purposes of identification and the LCA Program. The “de facto” AGPs are assigned numbers in conjunction with applications for new LCA contracts within these AGPs.

In September of 1998, a new section was added to the Government Code\textsuperscript{2} with provisions for 20-year (FSZ/LCA) contracts to encourage the creation of longer term voluntary contracts. Pursuant to the Code\textsuperscript{3} the Legislature finds and declares that it is desirable to expand options available to landowners for the preservation of agricultural land. The Farmland Security Zone (FSZ) legislation authorizes agricultural landowners to petition the County Board of Supervisors to rescind the existing ten-year (LCA) Contracts and simultaneously re-enter into twenty-year (FSZ/LCA) contracts -- if all criteria are met and the property is designated as Farmland Security Zone (FSZ) for the duration of the twenty-year FSZ/LCA Contracts.

An LCA Contract within an FSZ zone shall be for an initial term of no less than twenty (20) years. Pursuant to the Government Code provisions LCA and FSZ/LCA Contracts are self-renewing contracts. The added tax reduction incentives and protection provisions make FSZ/LCA Contracts a more powerful tool for long term protection of farmlands in the County.

Owners of eligible agricultural properties located in the unincorporated areas of the County enter into LCA and FSZ/LCA Contracts with the County to restrict the use of their land to a long-term, commercial agricultural production. Land uses accessory to agriculture are subject to the provisions of and consistency with the Ventura County General Plan/Area Plans, Zoning Ordinance, “A-E” (Agricultural Exclusive, 40-acre minimum) and “C-A” (Coastal Agricultural) zones. In exchange, participants in the LCA Program receive reduced property taxes for the duration of the LCA or FSZ/LCA Contracts.

\textsuperscript{1} Chapter 7, Articles 1-7, Sections 51200 et seq.
\textsuperscript{2} Chapter 7, Article 7, Section 51296
\textsuperscript{3} Ibid.
REVIEW AND APPROVAL

All requests for new LCA Contracts, Rescissions/Re-entries, portion Nonrenewals and Cancellations were reviewed by the Ventura County Agricultural Policy Advisory Committee (APAC). This Committee recommends approval or denial of requests for AGPs, FSZAs, LCA and FSZ/LCA Contracts, Rescissions/Re-entries, Cancellations, portion Nonrenewals, to the Planning Commission and the Board of Supervisors. The Committee also reviews proposals for entitlements on contracted land and makes recommendations to the appropriate levels of review and approval.

The final decision regarding approval or denial of proposed AGPs, FSZs, LCA and FSZ/LCA Contracts Rescissions/Re-entries, Cancellations, and portion Nonrenewals is made by the Ventura County Board of Supervisors. The Board-approved and recorded LCA and FSZ/LCA Contracts take effect on January 1 of the following year. All LCA and FSZ/LCA Contracts automatically renew each year on the anniversary date. Therefore, unless other action is taken, the LCA and FSZ/LCA Contracts are always in the first year of the self renewing ten- or twenty-year LCA or FSZ/LCA Contract.

CONFORMANCE WITH STATE LAW AND COUNTY ORDINANCE AND RESOLUTIONS

All applications for the establishment or termination of AGPs, FSZs, LCA and FSZ/LCA, associated Zone changes, and entitlements on contracted land shall be made and decided in accordance with the requirements of the Land Conservation Act of 1965 (Government Code Sections 51200 et seq.), applicable County ordinances and resolutions, and the current County LCA Guidelines as amended. The findings of the Ventura County Agricultural Policy Advisory Committee shall also be considered in processing such applications.

All new LCA Contracts, Rescissions/Re-entries, portion Nonrenewals, and discretionary permits for LCA-contracted land must meet criteria pursuant to the current Guidelines. All discretionary permits for properties subject to LCA and FSZ/LCA Contracts, must be reviewed to determine consistency with LCA Contracts, or mitigation actions (e.g., Rescission/Re-entry, portion or entire contract Nonrenewals).

These Guidelines shall be interpreted in a manner consistent with the overall intent expressed above. If any provision herein is found to be invalid, it shall not invalidate the remaining provisions.

GENERAL POLICIES

PROPERTY OWNER INITIATED AGPs, FSZAs, LCA AND FSZ/LCA CONTRACTS

AGPs and FSZAs may be established or expanded, LCA and FSZ/LCA contracts may be entered into and Zone Changes in conjunction with LCAs may be processed by the County upon the written request of any property owner whose land is eligible for entrance into the LCA Program. Applications for such actions may be obtained from the Planning Division.
DEADLINE FOR FILING

Applications for the establishment or expansion of AGPs and FSZAs, and the execution of a LCA and FSZ/LCA contracts, and/or associated entitlements, must be filed with the Planning Division by JUNE 1 preceding the JANUARY 1 lien date on which the LCA and FSZ/LCA contracts would become effective. Applications accepted after this deadline may not be processed in time for the recordation prior to January 1 lien date due to incompleteness, contingencies, review, and public hearings scheduling.

PROPERTY TAX REDUCTION

Under the Tax Code provisions for 10-year (LCA) contracts, the property tax reduction rate fluctuates from 25% to a maximum of 30% for eligible land utilized for agricultural production.

Under the provisions for 20-year (FSZ/LCA) contracts, the property tax reduction is guaranteed to be 35% for eligible land. (The structures are excluded from the property tax reduction calculation.)

Pursuant to the Government Code, notwithstanding any other provision of law, any special tax approved by the voters for urban-related services on or after January 1, 1999, on the land or any living improvement shall be levied at a reduced rate unless the tax directly benefits the land or the living improvements. Landowners of properties subject to FSZ/LCA contracts are guaranteed 35% property tax reduction on qualifying land utilized for agricultural production (structures are excluded).

SELF-RENEWING CONTRACTS

The initial term for Contracts shall be for no less than 10 years for LCA Contracts and 20 years for FSZ/LCA Contracts. Unless a Notice of Nonrenewal (for entire or portion of LCA or FSZ/LCA Contract) is filed, pursuant to Section 51245, a year is added automatically to the initial term on an anniversary date.

NONRENEWALS

If either the property owner or the County desires to nonrenew an LCA or FSZ/LCA Contract a Notice of Nonrenewal form, all required materials, and processing fees must be filed by applicable deadlines for processing and recording prior to the lien date.

Nonrenewals for entire and portions of LCA and FSZ/LCA contracts shall be pursuant to the Government Code provisions.

Portion Nonrenewals are subject to the agency and public review process. In addition, the remainder of the LCA Contract must be found to be consistent with the LCA Guidelines. All Portion Nonrenewals must be approved by the Board of Supervisors.

All Notices of Nonrenewal and associated documents must be complete pursuant to review, processed, and recorded prior to the next lien date to take effect.

---

4 Revenue and Taxation Code, Section 423.4
5 Section 51296 of the Government Code
6 Government Code, Chapter 7, Section 51296, (4)
CANCELLATIONS

Landowners may petition the Board of Supervisors for cancellation of the entire or a portion of a contract pursuant to the Government Code. The applications are usually filed in conjunction with entitlements. However, the Board cannot approve such proposals if all required findings for cancellations and alternative uses cannot be made pursuant to the Code.

If a portion cancellation request is filed, the Board must make findings regarding compliance of the remainder of the contract with the Code and LCA Guidelines.

RESCISSIONS/RE-ENTRIES

Rescissions of existing LCA Contracts are processed in conjunction with and contingent on simultaneous Re-entries into new LCA Contracts pursuant to the Government Code provisions. This is the intended method for adding non-contracted land to the existing LCA Contract. The resulting Contract boundaries must be in compliance with the current Code provisions and LCA Guidelines criteria and shall not be for less acreage than originally contracted for.

CONSISTENCY OF ENTITLEMENTS WITH GUIDELINES

Whenever a land use entitlement including, but not limited to, zone changes, subdivisions and conditional use permits is requested for land subject to LCA or FSZ/LCA contracts, or about to enter a contract, the entitlement should not be approved unless it is consistent with the provisions of the Guidelines and the "A-E" or "C-A" zone. Entitlement requests which are inconsistent with these Guidelines could be approved after expiration of contracts.

No entitlement, subdivision, Rescission/Re-entry, Notice of Nonrenewal, or Cancellation shall be approved which would result in the creation of LCA or FSZ/LCA contracts, or lots within LCA contracts which do not meet the standards for an LCA or FSZ/LCA contract pursuant to these provisions.

LCA CONTRACTS WHICH BECOME INCONSISTENT WITH GUIDELINES

When changes in agricultural uses on a contract result in uses, parcel sizes or zoning densities which are inconsistent with these Guidelines, making the land ineligible for LCA or FSZ/LCA contracts, the County shall record a Notice of Nonrenewal for that contract.

AGRICULTURAL USES NOT QUALIFYING LAND FOR LCA CONTRACTS

Uses which produce plant and/or animal products for commercial purposes, but which are not dependent on the soils, topography, water or climate at the site nor particularly dependent upon the parcel size or configuration shall not serve to qualify land for LCA or FSZ/LCA contracts.
Examples of such uses are greenhouses and hot houses where the ground has been covered with relatively fixed structures and improvements such as potting benches and hard surfaced flooring, poultry, worm, algae, fur and fish farms, and feed lots. Such uses may nevertheless be located on "marginal" land in a LCA contract pursuant to the "A-E" or "C-A" zone.

**ESTABLISHMENT OF COMPATIBLE USES IN LCA CONTRACTS**

In addition to the agricultural land uses and production which would qualify land for LCA and FSZ/LCA contracts, other "compatible" agricultural or agriculturally related uses may also be allowed on LCA- and FSZ/LCA-contracted land, provided they are located on "marginal" land and would not compromise, hinder or reduce the existing or potential agricultural productivity of the land. "Compatible" uses are those which are consistent with the Ventura County Zoning Ordinance and permitted, or conditionally, permitted in the "A-E" or "C-A" zones, and the provisions of the Code.

**AMENDMENTS TO EXISTING CONTRACTS AND SALE OF NONCONFORMING LOTS**

Land which produces agricultural crops and/or animal products for commercial purposes, but which would not by itself qualify for a LCA contract, may be added to an existing contiguous contract -- provided the lands under consideration are owned by the same owner and together comply with the provisions of these Guidelines.

Based on past practice, legal and nonconforming lots are sold independently of each other to different owners and create nonconforming and illegal remnants of the Contracts (and sometimes illegal lots). Therefore, the County reserves the right to review and approve reject these proposals based on the input from the APAC. These decisions could be appealed to the Planning Director, Planning Commission, and Board of Supervisors. (See CHART I for other alternatives.)

**"A-E"/"C-A" ZONING AND DENSITIES**

The "A-E" and the "C-A" zoning densities for contracted land will conform with the applicable densities. The zoning density for land currently under contract, or being considered for a contract, should not be less than the current status on the land nor should it be less than that which would be applied to the land in consideration of its ability to accommodate residential uses. Land being considered for contracts must be zoned Agricultural-Exclusive ("A-E"), or Coastal Agricultural ("C-A") in Coastal Zones, before it can be approved for a LCA or FSZ/LCA contract. All land within contracts must be zoned Agricultural Exclusive ("A-E"), or Coastal Agricultural ("C-A") if it is within the Coastal Zone.

All Zone Change request for eligible properties are filed in conjunction with applications for and are contingent on approval of the contracts.

---

8 Government Code, Chapter 7, Section 51238 et seq.
ZONE DENSITIES ON UNPROVEN LAND

In cases where the viability of a given agricultural product or an area is unproven or where the soils, topography, climate, water or other factors associated with land proposed for entrance into the LCA program are marginal, a zone density lower than that which is normally allowed shall be considered. See Chart II, Tables 1 and 2 - Animal Husbandry/Grazing Contracts and Animal Husbandry Unit Equivalency Guide.

REQUIREMENTS FOR MIXED AGRICULTURAL USES

If the land under consideration is comprised of a mixture of agricultural uses, the Agricultural Policy Advisory Committee shall use its discretion to review and recommend the appropriate minimum parcel size, AGP, and zoning density for LCA and FSZ/LCA contracts, zone change, and/or develop conditions for subdivision and other discretionary entitlement requests.

RIGHT TO REJECT APPLICATIONS

The County reserves the right to reject any application for an AGP, FSZ, LCA and FSZ/LCA contracts, and associated entitlements.

CITY PROTESTS

If any City protests the execution of a contract covering land within one (1) mile of its boundaries, the committee may recommend denial or approval of the contract based on facts and review of the protests.

EMINENT DOMAIN

It will be the policy of Ventura County, in administering Government Code, Chapter 7, Sections 51290 through 51295, to maintain the integrity of existing AGPs.

ENFORCING COMPLIANCE WITH THE LCA PROGRAM

The County will ensure that the land owners of existing and proposed LCA and FSZ/LCA contracts adhere to the specific requirements, purposes and intent of the LCA Program as expressed in the LCA and FSZ/LCA applications and contract, the "A-E" (Agricultural-Exclusive) or the "C-A" (Coastal Agricultural) zone, the Williamson Act, and the current LCA Guidelines, by diligently employing all legal means available to bring about compliance with the LCA Program.

"T-P" ZONE, LCA AND FSZ/LCA CONTRACTS

Proposals for rezoning - of land under a LCA contract from "A-E" (Agricultural Exclusive) to the "T-P" (Timberland Preserve) zone; or from "T-P" to "A-E" in conjunction with LCA or FSZ/LCA contract proposals; and/or nonrenewals of TPZ contracts and associated proposals for zone changes -- shall be consistent with the General Plan, Zoning Ordinance, Guidelines, and the provisions of the Government Code. Proposals for immediate zone change for land subject to TPZ contracts are filed in conjunction with a cancellation request (check regarding fees).

9 Prior to January 1, 1991, pursuant to the Government Code, Chapter 7, Section 51243.5, the cities had to be notified, and all protests by the cities had to be filed formally to preserve the rights of cities to decide status of LCAs upon annexation
ELIGIBILITY CRITERIA

INTRODUCTION

The eligibility of agricultural land proposed AGPs, FSZAs, and LCA and FSZ/LCA contracts shall be determined pursuant to the requirements of the current California Government Code/Williamson Act; the Ventura County General Plan and Zoning Ordinance' "A-E" or "C-A" zoning; the current LCA Guidelines; and the findings of the Ventura County LCA Program, Agricultural Policy Advisory Committee (APAC), Planning Commission, and the Board of Supervisors.

Unless otherwise provided, the more specifically defined or restrictive of the above referenced regulations shall apply.

To qualify for a Land Conservation Act Contract and Rescission/Re-entry, all eligibility requirements and criteria for the ten- or twenty-year LCA contracts, Agricultural Preserve, and the Farmland Security Zone must be met.

MINIMUM SIZE AGRICULTURAL PRESERVE (AGP)

Pursuant to the State law, an AGP shall consist of no less than 100 acres. The law11 provides that two or more parcels may be combined to meet the minimum AGP size requirement. Eligible properties proposed for a LCA and/or FSZ/LCA contract must be contiguous or subject to the same ownership. The land may be also be adjacent to or located in the existing AGP or a "de facto" AGP. The owners may request to establish a separate AGP for eligible land located outside of the existing AGPs and over 100 acres in size. The entire proposed contract boundary shall be contained within the same AGP.

The LCA Guidelines require that any Zone Changes to "A-E" or "C-A" are filed in conjunction with contract proposals; are consistent with the General Plan; and are contingent on approval of the contract. (See "A-E"/"C-A" Zoning and Densities policy above).

Subsequent to the State law, an AGP may contain land other than agricultural land, but the use of any land not subject to an existing contract and located within the said AGP, shall within two years of the effective date of any contract on land be restricted by zoning.12

SUBSTANDARD SIZE PRESERVES (AGPs)

The County may establish substandard size AGPs, less than 100 acres in size, if it finds that the smaller size AGP is necessary due to the unique characteristics of the agricultural enterprises in the area and that these AGPs are consistent with the General Plan.13 Any owner of agricultural land which cannot conform with these provisions due

---

10 California Government Code, Chapter 7, Agricultural Land
11 California Government Code, Section 51230
12 California Government Code, Section 51230
13 Ibid.
to site- or location- specific characteristics may request the establishment of substandard AGPs contingent review and findings of consistency with the Williamson Act, County's General Plan, and LCA Guidelines.

NONCONFORMING PRESERVES

Whenever an existing AGP is reduced in size to less than the minimum required, it shall be deemed a "nonconforming preserve," but shall continue with the same status as any other agricultural preserve.

FARMLAND SECURITY ZONEs AREAS (FSZAs)

Pursuant to the Government Code, applications for twenty-year LCA contracts must be filed in conjunction with a request for a "Farmland Security Zone" areas (FSZAs) within an existing agricultural preserve (AGP).

Prior to approving Rescission/Re-entry, the Board of Supervisors shall create an FSZA within an AGP pursuant to the requirements of the Government Code. In addition:

- Any land located within a city-specific sphere of influence shall not be included in an FSZ, unless the creation of the FSZ has been expressly approved by resolution by the city with jurisdiction within the sphere.
- If more than one landowner of contiguous properties requests the creation of an FSZ, the County shall place all contiguous properties in the same FSZ.
- No land shall be included in an FSZ unless expressly requested by the landowner.
- No state or local agency shall require any land to be placed in an FSZ LCA contract as a condition of the issuance of any entitlement to use, or the approval of a legislative or adjudicative act involving the planning, use, or development of real property, or a change of organization or reorganization.
- No FSZ/LCA contract shall be executed as a condition of an entitlement to use issued by an agency of the United States government.

Upon termination of a FSZ/LCA Contract, the FSZ shall simultaneously be terminated and revert to the underlying AGP.

SUB-STANDARD SIZE CONTRACTS

A lot, of over 10 acres in size, that does not meet the minimum AGP size, lot size, and/or percentage of utilization criteria, may be considered for a LCA contract if it meets the following criteria:

1) meets all other requirements of these Guidelines,

2) is designated "Agriculture" in the General Plan,

14 Ibid.
3) is located in the existing AGP, and
4) the Agricultural Policy Advisory Committee (APAC) determines that the lot is utilized for commercial agricultural production.

The Board of Supervisors can approve or deny these proposals based on recommendations of the LCA Program, APAC, and the Planning Commission.

MINIMUM LOT SIZE

All eligible agricultural land must meet the production-specific applicable MINIMUM LOT SIZE identified in CHART I and must meet all other applicable requirements.

MINIMUM PERCENTAGE OF LOT UTILIZATION

One aim of the County's LCA program is to promote the full utilization of all, potentially useable land under contract. To be eligible for consideration for LCA and FSZ/LCA contracts, the lot size-specific percentages of land area must be planted or grazed and may also include compatible agricultural use. Land which meets the minimum requirements may nevertheless be required to fully develop all potentially useable land as a condition of entering into a contract.

GENERAL CRITERIA

(1) Irrigated Plant Products (criteria a, b, and c must be met):
   a. The land must be producing plant products for commercial purposes at a level equal to no less than 85 percent of the level of production of like products under comparable conditions for three (3) of the previous five (5) years or be planted to as yet non-bearing fruit or nut trees, vines, bushes or crops which have a non-bearing period of less than five (5) years;
   b. The land must be irrigated; and
   c. The land must have grossed no less than $200 per acre per year for at least three (3) of the previous five (5) years, or reasonably be expected to gross no less than $200 per acre per year for three (3) out of five (5) years when the bearing period begins; or

(2) Non-irrigated plant products (criteria a and b must be met):
   a. The land must be cultivated and producing plant products for commercial purposes at a level equal to no less than 85 percent of the level of production of like products under comparable conditions for three (3) of the previous five (5) years or be planted to as yet non-bearing fruit or nut trees, vines, bushes or crops which have a non-bearing period of less than five (5) years; and
b. The land must have grossed no less than $50 per acre per year for at least three (3) of the previous five (5) years, or reasonably be expected to gross no less than $50 per acre per year for three (3) out of five (5) years when the bearing period begins; or

(3) Animal Products (criteria a, b and c must be met):

a. The land must have supported twenty (20) animal units per year (as defined in CHART I and as determined by Head-Day-Taxes, paid by the owner or operator, and other evidence such as rent receipts as may be required) for the previous five (5) years and be reasonably expected to continue to support such animals on a bona fide commercial basis (The selling of a substantial number of animals or their food or fiber products annually shall constitute raising animals on a commercial basis.); and

b. The land must be fenced or otherwise bounded by barriers so as to contain the animals; and

c. There shall be adequate corrals and facilities as appropriate for animal husbandry of specific breeds and grazing of livestock.

FSZAs and FSZ/LCAs ADDITIONAL ELIGIBILITY CRITERIA

FSZAs and FSZ/LCA contracts must be consistent with all provisions of the LCA Guidelines and Government Code. The Code, specifically specifies that eligible properties shall be located in the areas predominantly designated on the Important Farmland Series maps as:

(1) Prime farmland

(2) Farmland of Statewide significance

(3) Unique farmland

(4) Farmland of local importance

(5) Or the land shall qualify if it is predominantly prime agricultural land as defined in the Government Code

The Federal Important Farmlands Inventory (IFI) system generally evaluates farmland based on its productive capabilities and soil conditions. The system recognizes that land in Ventura County is among the most productive agricultural lands in the nation. However, under the previous classification system, there was almost no “Prime” land in the County. Therefore, the classification system was revised.

“Prime farmland” and “Farmland of Statewide Importance” in the County were identified by the Department of Conservation in cooperation with the United States Department of

15 Government Code, Chapter 7, Section 51296
16 There are no provisions in the Code to allow FSZ/LCA Contract for Grazing Land as classified in the Important Farmlands Inventory.
Agriculture, Soil Conservation Service. The "Unique Farmland" and "Farmland of Local Importance" in the County are identified by local advisory committees composed of members of the agricultural community, citizen groups, and concerned public agencies.

ANNEXATIONS OF LAND SUBJECT TO FSZ/LCAs

Notwithstanding any provision of the Cortese-Knox Local Government Reorganization Act of 1985, a Local Agency Formation Commission (LAFCO) shall not approve a change of organization or reorganization that would result in the annexation of land within a designated FSZAs to a city. However, this provision shall not apply under any of the following circumstances:

1. If the FSZA is located within a designated, delineated area that has been approved by the voters as a limit for existing and future urban facilities, utilities, and services.

2. If annexation of a parcel or a portion of a parcel is necessary for the location of a public improvement, as defined in the Government Code, except as provided for as follows:
   - Notwithstanding Article 5 (commencing with Section 53090) of Chapter 1 of Division 2 of Title 5, a school district shall not render inapplicable a county zoning ordinance to the use of land by the school district if the land is within a designated FSZA; or
   - Notwithstanding any provision of law, a school district shall not acquire any land that is within a designated FSZA.

3. If the landowner consents to the annexation.

4. During the three-year period preceding the termination of FSZ/LCA contract.

Notwithstanding any provision of the Cortese-Knox Local Government Reorganization Act of 1985 (Division 3 commencing with Section 56000) a LAFCO shall not approve a change of organization or reorganization that would result in the annexation of land within a designated FSZ(A) to a special district that provides sewers, nonagricultural water, or streets and roads, unless the facilities or services provided by the special district benefit land uses that are allowed under the contract and the landowner consents to the change of organization or reorganization. However, this provision shall not apply during the three-year period preceding the termination of FSZ/LCA Contracts.

APPLICATION REQUIREMENTS

AGP, FSZA, LCA AND FSZ/LCA CONTRACT APPLICATION CONTENTS

Applications for AGP, FSZA, LCA and FSZ/LCA contracts shall provide for the identification of all information necessary to determine the eligibility of land for entrance into the LCA Program;

17 Government Code, Chapter 7, Section 51290.5
18 Government Code, Chapter 7, Section 512996
and any other information that might be deemed appropriate to satisfy the requirements of the State laws, County ordinances and resolutions, and the LCA Guidelines.

OWNERS' SIGNATURES

All persons, corporations, associations, partnerships, or other entities (except public utilities and public entities) having any right, or title or interest of any kind (except easement interest) in or affecting the surface use (extending to two hundred (200) feet below the surface) of the property, proposed for LCA or FSZ/LCA contracts, are required to sign the contract as OWNERS. The Board of Supervisors may excuse some of these landowners signatures at the time the contract is approved when it has been determined that such interests will not have a substantial impact on the land. Such signatures shall also be required for the filing of a Notice of Nonrenewal or a request for Cancellation unless excused by the Board of Supervisors.

OWNERSHIP REPORTS

One of the following reports shall be filed with an application for LCA or FSZ/LCA contract: title report, preliminary title policy, or lot book report. The report submitted must have been issued no later than sixty (60) days preceding the date of application. It must provide information regarding current ownership, legal description, trust deed beneficiaries, present holders of any right, title or interest in or affecting the surface use of the property (extending to two hundred (200) feet below the surface), including the recorded fee ownership and all encumbrances and liens.

The applicant must notify the Planning Director in writing of any change in the ownership of the property up to and including the date of the public hearing to determine whether the County will execute an LCA and/or FSZ/LCA contract. Such information shall also be required for the filing of a Notice of Nonrenewal (entire or portion of contracts), Rescissions/Re-entries, or a request for Cancellation.

REVIEW BY THE VENTURA COUNTY APAC AND PLANNING COMMISSION

All applications for AGPs, FSZAs within AGPs, LCA and FSZ/LCA contracts, and entitlements associated with land subject to LCA and FSZ/LCA contracts, or being considered for one shall be reviewed by the Ventura County Agricultural Policy Advisory Committee. The Planning Commission shall make recommendations to the Board of Supervisors which may approve or disapprove the subject request.

PUBLIC NOTICE

The legal notice requirements for entitlements and zone changes shall apply to the processing of AGP, FSZ, LCA and FSZ/LCA contract, and entitlements.

19 Established as Ventura County Agricultural Advisory Committee by the Board of Supervisors by Resolution dated August 31, 1976 and restructured on August 30, 1983, and in June 1996 as the Ventura County Agricultural Policy Advisory Committee (APAC). This Committee shall be "...responsible for reviewing, processing and making recommendations to the Planning Commission and Board of Supervisors relative to agricultural matters and shall specifically review and make recommendations on all applications for Land Conservation Act contracts and attendant entitlements."
CHART I

MINIMUM UTILIZATION OF LAND FOR LCA AND FSZ/LCA CONTRACTS

A minimum percentage of the land must be utilized for agricultural operations. The minimum percentage requirement varies with the size of each LEGAL LOT size as follows:

<table>
<thead>
<tr>
<th>LEGAL LOT SIZE</th>
<th>UTILIZATION PERCENTAGE FOR 10-YEAR CONTRACTS</th>
<th>UTILIZATION PERCENTAGE FOR 20-YEAR CONTRACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 TO 15 ACRES</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>15.1 TO 25 ACRES</td>
<td>75%</td>
<td>80%</td>
</tr>
<tr>
<td>25.1 TO 40 ACRES</td>
<td>65%</td>
<td>75%</td>
</tr>
<tr>
<td>OVER 40 ACRES</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>GRAZING - 80-ACRE MIN</td>
<td>75%</td>
<td>NO GRAZING CONTRACTS</td>
</tr>
</tbody>
</table>

AREA-SPECIFIC CONTRACTS

An area-specific LCA Contract may be requested and approved on a case-by-case basis for discrete areas within legal lots that meet all other requirements and criteria of the Government Code and the LCA Guidelines; and are consistent with the General Plan and Zoning Ordinance.

Approval or Denial of area-specific contract applications is based on the reviewing agency analysis and recommendation of the APAC and/or the Planning Commission to the Board of Supervisors. Decisions at the Planning Director level may be appealed to the Planning Commission; decisions at the Planning Commission level may be appealed to the Board of Supervisors.

A legal description must be prepared by a licensed land survey engineer for an area-specific contract.

EXCLUDED AREA CONTRACTS

When there is a ready distinction between utilized, unutilized, and/or underutilized portions of land being considered for an LCA contract, these areas may be excluded from the contract. Approval for the excluded-area contracts is on a case-by-case analysis by the reviewing agencies.

Approval or Denial of excluded-area contract applications is based on the reviewing agency analysis and recommendation of the APAC and/or the Planning Commission to the Board of Supervisors. Decisions at the Planning Director level may be appealed to the Planning Commission; decisions at the Planning Commission level may be appealed to the Board of Supervisors.

A legal description must be prepared by a licensed land survey engineer for an excluded-area contract.

---

20 Concentrated areas of agricultural production surrounded by nonagricultural uses, or eligible agricultural areas separated by topographical features, within legal lot.
CHART II

TABLE 1: DENSITY -- ANIMAL HUSBANDRY/GRAZING CONTRACTS

<table>
<thead>
<tr>
<th>AREA/ONE ANIMAL UNIT</th>
<th>MINIMUM LOT SIZE</th>
<th>MINIMUM ANIMAL UNITS/LOT*</th>
<th>MINIMUM AGP SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>.1 - 1 ACRES</td>
<td>20 ACRES</td>
<td>20</td>
<td>100 ACRES</td>
</tr>
<tr>
<td>1.1 - 2 ACRES</td>
<td>40 ACRES</td>
<td>20</td>
<td>100 ACRES</td>
</tr>
<tr>
<td>2.1 - 4 ACRES</td>
<td>80 ACRES</td>
<td>20</td>
<td>100 ACRES</td>
</tr>
<tr>
<td>4.1 - 8 ACRES</td>
<td>160 ACRES</td>
<td>20</td>
<td>160 ACRES</td>
</tr>
<tr>
<td>8.1 - 16 ACRES</td>
<td>320 ACRES</td>
<td>20</td>
<td>320 ACRES</td>
</tr>
<tr>
<td>16.1 - 32 ACRES</td>
<td>640 ACRES</td>
<td>20</td>
<td>640 ACRES</td>
</tr>
</tbody>
</table>

The minimum grazing Contract must be 80 acres in size and be able to sustain twenty animal units.

Legal lot size may be greater, depending on the productive capability of the land or as defined by the United States Department of Agriculture (USDA.) The

Minimum carrying capacity must be 20 animal units per lot.

*Legal Lot
### TABLE 2: ANIMAL HUSBANDRY UNIT EQUIVALENCY GUIDE

#### REQUIREMENTS PER LEGAL LOT

<table>
<thead>
<tr>
<th>TYPES OF AGRICULTURAL ANIMALS</th>
<th>ANIMAL UNIT FACTOR</th>
<th>20-ANIMAL EQUIVALENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPACAS</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>BISON, BUFFALO, BEEFALO</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td>BOVINE (COW, COW WITH CALF, BULL, OXEN)</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td>CHICKENS (HEN, ROOSTER)</td>
<td>0.10</td>
<td>200</td>
</tr>
<tr>
<td>DEER</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>DUCKS</td>
<td>0.10</td>
<td>200</td>
</tr>
<tr>
<td>EMUS</td>
<td>0.30</td>
<td>67</td>
</tr>
<tr>
<td>EQUINE (INCLUDING DONKEYS, BURROS, AND MULES)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMALL - UNDER 36 INCHES*</td>
<td>0.30</td>
<td>67</td>
</tr>
<tr>
<td>MEDIUM - 36 TO 38 INCHES*</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>LARGE - OVER 58 INCHES*</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td>GOATS</td>
<td>0.20</td>
<td>100</td>
</tr>
<tr>
<td>GEESE</td>
<td>0.16</td>
<td>125</td>
</tr>
<tr>
<td>GUINEA FOWL</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>HOGS/SWINE</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>LLAMAS</td>
<td>1.00</td>
<td>20</td>
</tr>
<tr>
<td>OSTRICHES, RHEAS</td>
<td>0.50</td>
<td>40</td>
</tr>
<tr>
<td>PHEASANTS</td>
<td>0.16</td>
<td>125</td>
</tr>
<tr>
<td>PIGEONS/SQUABS/QUAIL</td>
<td>0.10</td>
<td>200</td>
</tr>
<tr>
<td>PIGEONS/SQUABS/QUAIL</td>
<td>0.10</td>
<td>200</td>
</tr>
<tr>
<td>PYGMY GOATS</td>
<td>0.25</td>
<td>80</td>
</tr>
<tr>
<td>RABBITS</td>
<td>0.05</td>
<td>400</td>
</tr>
<tr>
<td>SHEEP</td>
<td>0.20</td>
<td>100</td>
</tr>
<tr>
<td>TURKEYS</td>
<td>0.16</td>
<td>125</td>
</tr>
</tbody>
</table>

Other animal categories shall be considered on a case-by-case basis and as included in the amendments to the Ventura County Zoning Ordinance.

*at the wither
APPENDIX 5
CALIFORNIA DEPARTMENT OF NAVIGATION AND OCEAN DEVELOPMENT (DNOD) SURVEY OF VENTURA COUNTY BEACHES (1977)
Sandy beach with low active dunes stabilized by seven groins backed by park facilities and houses. Beach subject to extreme change during high wave conditions. Emision between last groin and harbor jetty. Marna breakwater forms sand trap which is dredged periodically to nourish downcoast beaches.

Narrow sandy beach with low active dunes between Santa Clara River and Ventura Marina jetties backed by park facilities.

Narrow sandy bar backed by lagoon of Santa Clara River flood control channel. Large delta formed during flood conditions.

Sandy beach backed by low dunes with sparse vegetation. Park facilities, oil storage, wells, and pump plant within dune field. Beach width subject to extreme change during high wave conditions and flood flows.

Narrow sandy beach backed by wide intermedium dunes with sparse vegetative cover and urban development where dunes have been leveled. Several houses protected by rock seawall and/or are built on ples. Beach subject to extreme changes.
Wide sandy beach with low active dunes backed by houses. Beach stabilized by Channel Island north jetty.

Channel Island Harbor entrance.

Wide sandy beach with low, active, migrating dunes backed by beach facilities and homes. Beach stabilized and nourished periodically.

Port Hueneme Harbor entrance channel jetties.

Narrow sandy beach backed by rock seawall and industrial buildings.

Wide sandy beach with active dunes backed by park facilities, apartments, and industrial tract. Beach periodically nourished with sand dredged at Channel Island Harbor sand trap. Subject to extreme changes in width. Park facilities subject to damage during high wave conditions.

Wide sandy beach with narrow migrating dunes backed by naval facilities and pasture land. Periodically nourished by dredging at Channel Island Harbor sand trap. Beach subject to extreme changes.

Narrow sandy beach formed between three rock groins backed by naval facilities. Service road subject to damage.
Narrow sandy beach backed by low active dunes and naval facilities. Beach subject to extreme changes in width between nourishment periods.

Sand spit with narrow strip of low dune sand backed by naval facilities and rock seawall.

Sandy beach backed by low narrow dune strip and lagoon. Riffle range endangered by erosion.

Rocky shore with offshore rocks, frequent rock protrusions, and small pocket beaches backed by rock rubble embankment of highway. Frequent slides. Embankment maintained by spoil dumped over seaward edge.

Wide sand and cobble beach with low active dunes backed by park facilities. High sand dune against steep mountainside at downcoast end of beach. Park facilities subject to damage.
Rocky point with offshore rocks backed by rock rubble embankment of highway. Concrete seawall at several locations.

Sandy pocket beach backed by park facilities.

Rocky shore with offshore rocks and rock protrusions backed by highway embankment. Frequent slides. Embankment protected by concrete seawall and slide spoil.

Narrow sandy beach with short concrete groins constructed on rock outcrops backed by highway embankment. Wave erosion at base of highway embankment.

Narrow sandy beach with short ineffective concrete groins and rocky protrusions backed by highway embankment. Wave erosion at base of highway embankment with rock rip-rap protection at frequent locations where embankment has no protective beach.

Sandy beach backed by highway embankment and low bluff with houses built along beach and embankment. Houses subject to damage during high wave conditions.

Sandy beach backed by highway embankment partially protected by rock rip-rap.

Sandy beach backed by low bluff and highway with houses and condonments constructed on beach and into face of bluff. Subject to damage during high wave conditions.

Narrow sandy beach backed by eroding bluffs with frequent slides. Houses at base of bluff subject to damage during high wave conditions.

Wide sandy beach backed by parking lot and highway. Parking lot and park facilities subject to damage during high wave conditions.

Sandy beach backed by low eroding cliff on groyne. Rocky protrusions act as groins to stabilize beach.

Sandy beach backed by narrow bench along base of eroding cliff with many small slides. Highway cut along narrow coastal beach at base of steep mountain. Creek delta subject to cyclic accretion and erosion conditions.

Narrow rocky and sandy beach backed by rocky wave cut cliff of coastal terrace. Houses built along top of cliff.

Sandy pocket beaches between rocky points with offshore rocks backed by eroding cliff with houses on top. Houses on beach at base of cliff subject to damage during high wave conditions.

SCALE ONE MILE

VENTURA CO. — MI. 37-41.2
LOS ANGELES CO. — MI. 0-2

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF NAVIGATION & OCEAN DEVELOPMENT
APPENDIX 6

POLICY FOR LOCATION OF ON SHORE OIL FACILITIES (1968)
STATEMENT OF POLICY
FOR LOCATION OF
ON SHORE
OIL FACILITIES

JAN 16, 1968
VENTURA COUNTY PLANNING DEPARTMENT
VENTURA COUNTY BOARD OF SUPERVISORS

Mr. Howard F. Robinson, Chairman
Mr. John T. Conlan
Mr. Ralph R. Bennett
Mr. Joseph N. Appleton
Mr. Thomas E. Laubacher

Mr. Loren W. Enoch, County Executive

VENTURA COUNTY PLANNING COMMISSION

Mr. J. N. Sweetland, Chairman
Mr. Stanley Bunce, Vice-Chairman
Mr. Scotty Harris
Mr. John Rush
Mr. Alan Robertson

VENTURA COUNTY PLANNING DEPARTMENT

Mr. George H. Allen, Acting Planning Director
Mrs. Dorothy M. Rogers, Project Manager
Mr. Karel Dekker, Senior Planner

The Ventura County Board of Supervisors adopted the Statement of Policy for Location of Onshore Oil Facilities on February 20, 1968.
ACKNOWLEDGMENTS

The time and coordinated effort toward the design of this policy by the following people is greatly appreciated.

Mr. B. B. Haggard, Ventura County Fire Chief  
Mr. Fritz Huntsinger, Vetco Offshore Industries, Inc.

Mr. Henry W. Wright, Western Oil and Gas Association  
Mr. William B. Price, Mobil Oil Corporation  
Mr. G. L. Laurent, Standard Oil Company of California  
Mr. Frank R. Davis, Phillips Petroleum Company  
Mr. A. W. Williams, Shell Oil Company  
Mr. Gene Griffin, Union Oil Company of California

Mr. Gerald C. Lafferty, Planning Director, City of Ventura  
Mr. Jerry Draggoo, City of Oxnard Planning Department  
Mr. I. H. Housley, City Engineer, City of Port Hueneme

Mrs. K. Duane Lyders, League of Women Voters  
Mr. E. D. Marshall, Sierra Club  
Mr. Jack Morgan, California Coastal Conservation Committee  
Mr. Ron Hertel, Commissioner, Ventura Port District
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Characteristics of the Onshore Facilities</td>
<td>2</td>
</tr>
<tr>
<td>Examples of Existing Onshore Facilities in Santa Barbara and Ventura Counties</td>
<td>3</td>
</tr>
<tr>
<td>Potential for Facilities and Land Requirements</td>
<td>5</td>
</tr>
<tr>
<td>Existing Conditions in Ventura County</td>
<td>6</td>
</tr>
<tr>
<td>Locational Criteria and Policy Map</td>
<td>8</td>
</tr>
<tr>
<td>Development Conditions</td>
<td></td>
</tr>
<tr>
<td>Recommendation</td>
<td></td>
</tr>
<tr>
<td>Policy Map</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

The petroleum industry has contributed significantly to the growth of Ventura County for several decades. In conjunction with the industry program for exploration in coastal waters, the immediate need to plan for supporting onshore oil facilities is apparent. The purpose of this policy is to guide the location of onshore oil and gas handling facilities in Ventura County into areas located to serve the industry as well as protect natural scenic resources and other urban surroundings.

The production potential of Federal leases on the Outer Continental Shelf beyond the three mile limit will require processing, storage and marine shipping facilities. The very nature of the entire operation indicates its orientation to the coastline. The importance of preserving this natural resource along the 43 miles of its length in Ventura County should be considered on an equal basis with the policy for the location of onshore oil facilities. Areas best suited for potential residential and recreational use are of prime concern and should be protected by the policy.
CHARACTERISTICS OF THE ONSHORE FACILITIES

For clarification, the different types of onshore facilities are described as follows:

1. **Oil, Gas and Water Separation Plant**

   This facility splits the normal oil well production stream into the separate components of oil, gas, water and sand. The facility consists primarily of pressure vessels, storage tanks, heating equipment and measuring equipment.

2. **Gas Processing Facility**

   This facility is used to extract liquid natural gasoline and/or propane and butane from natural gas. The facility consists primarily of pressure vessels, compressors, heating equipment, heat exchangers and pressure storage tanks.

3. **Tank Farm**

   The tank farm consists of various numbers and sizes of crude oil storage tanks. It is used to store clean crude oil prior to its shipment to a refinery. Shipment may be by truck, tank ship or pipeline. The size of the tank farm is dictated primarily by the method of transportation, i.e., tank ship transportation requires more storage than pipeline shipment.

4. **Marine Terminal**

   The marine terminal is used to load crude oil onto a tank ship from the tank farm. It consists of either a wharf or an offshore mooring for securing the tank ship during loading. Pipelines run from the tank farm to the wharf or mooring.
EXAMPLES OF EXISTING ONSHORE FACILITIES IN SANTA BARBARA AND VENTURA COUNTIES

Phillips Petroleum Plant - Ventura County (under construction)

The nature of the proposed Phillips Petroleum Plant is to separate gas, water and oil brought in by an underground pipeline from offshore drilling areas. Compressors are to be enclosed in buildings and equipped with mufflers. A 54-foot high, 140-foot diameter storage tank, above-ground pipelines, fencing, security lighting, and office buildings are some of the items to be constructed on the site. This plant is expected to set a high standard for site development and to be a model for other uses of this type which are similarly located.

Chanslor-Western - Ventura County

The existing oil facility located in the vicinity of Sea Cliff contains a diversification of processing activities and is a detraction from the scenic coastal highway. The scarred blackened hillsides and exposed equipment are incompatible with the surroundings. Ventura County's coastline is marred by this character of site development. If natural scenic values had been protected or if a buffer belt had been required at the time of construction, this existing plant would be less objectionable.

Union Oil Company - City of Ventura

This facility is a tank farm located adjacent to the Ventura Marina. The tanks are painted light green and a minimum amount of landscaping is apparent. However, the facility does fit into its surroundings without being obtrusive.
Standard Oil Plant - Carpinteria

The Standard Oil Company plant, located near Carpinteria, is a similar but larger facility than the one under construction in Ventura County by Phillips Petroleum Company. However, the type of equipment would be of the same nature using a lesser capacity. The entire operation is well screened by tall trees and dense shrubbery. From the adjacent residential area in Carpinteria 300 feet away only the large tank, 48 feet high, is visible above the trees. This plant is sited on a service road removed from any major thoroughfare. Within the compound of the plant a constant noise vibration is felt; this is lessened to a very low noise level outside of the immediate site, and an indication of petroleum fumes or vapors is noticeable in the immediate vicinity of the mechanical equipment only.

Phillips Petroleum Plant - Gaviota

A Phillips Petroleum plant is located in a remote open area, below the level of Highway 101 on a frontage road. The housed motors at this facility have less horsepower and the noise level is not as objectionable at a distance of 150 feet as that of a large diesel truck. Petroleum vapors or fumes were not noticeable with a breeze blowing inland from the sea. The open gas flame used at this site would be incompatible if used near a residential area. On one side of the site a planted hedge and trees serve as a screen. This site would not be adequately screened if it were situated at a higher level and in view of a residential area. The entire installation would be visible by day and at night with high intensity lighting.
POTENTIAL FOR FACILITIES AND LAND REQUIREMENTS

The four different types of facilities -- separation plants, gas processing facility, tank farm and marine terminal -- will be needed and applications for locating such uses can be anticipated. Such uses are industrial in nature and would generally be considered Conditionally Permitted Uses in an M-3 zoning district. Changes of zone and/or conditional use hearings would be necessary prior to the location of the types of facilities described.

Representatives of the industry have indicated that not more than ten firms would be interested in constructing onshore facilities. The extent of the construction would naturally depend upon the amount of petroleum found as a result of drilling experience. A need for oil refineries is not anticipated.

As indicated by industry representatives, the minimum amount of land required for an onshore oil facility would be approximately 10 acres, plus underground easements for pipelines to the sea. The maximum acreage to be required would be 40 acres. Such a large site could possibly serve a combined operation of tank farm and marine terminal.

These land requirement factors should be considered when an application for a facility is reviewed. If the facility is proposed to be located in an area where landscaping or buffer belts are required, enough land should be provided to effectively serve those ends.
EXISTING CONDITIONS IN VENTURA COUNTY

Locations of Existing Oil Operations

Existing oil field activity in the North Coastal area extends from approximately one half mile south of Punta Gorda to the Ventura River and several miles inland. At certain points oil facilities are located adjacent to Highway 101 and in other areas they can be found in barrancas and scattered within the surrounding hills. The recently approved facility for the Phillips Petroleum Company is now under construction 1000 feet north of La Conchita Del Mar, fronting on the highway.

In the southern half of the Coastal area, the existing oil facilities are located to the east of the City of Ventura and on both sides of Harbor Boulevard to the Channel Islands Harbor. Oil and gas wells are scattered in this area with a concentration in the vicinity of McGrath Lake. Part of this land along the beach front is proposed for an addition to McGrath State Beach Park.

Existing facilities in both the North and South Coastal areas contain various types of activities from oil wells to large tank farms.

GENERAL COASTAL CHARACTERISTICS AND LOCATION POTENTIAL

North Coast

The North Coastal part of the County from the Santa Barbara County line to the Ventura River has extremely rugged and steep terrain. Small, separated areas of land with less than a 30 percent slope can be found within this mountainous area. Two larger areas are also evident, one near the Santa Barbara County line and the other on the Taylor Ranch, north of the Ventura River. Approximately 75 percent of the land is
undeveloped although many oil wells and roads exist in the hills and canyons. All land north of the Ventura River is presently under County jurisdiction. Three small parks of less than five acres each are located on the beach. The Emma Wood Park, consisting of 14 acres, is included in the Regional Parks Plan. Also included in the Parks Plan is a proposed 150 acre park located on the high slopes east of La Conchita Del Mar.

Of the four existing residential areas, Rincon Point, Sea Cliff and Solimar are widely spaced along the beach front. La Conchita Del Mar is the only area located east of Highway 101. All of these residential areas are limited in the amount of developable land available for future growth.

The new freeway alignment for Highway 101 will lessen the amount of developable land on the coastal shelf. This part of Highway 101 is classified as a scenic highway.

South Coast

The South Coastal area is mainly flood plain with mountainous areas south of Point Mugu. From the Ventura River to Point Mugu the land is highly developed including two large Naval installations, Port Hueneme Naval Reservation and Point Mugu Naval Air Station; also two State parks, McGrath State Beach Park and Point Mugu State Park. Most of the land is under the jurisdiction of the Cities of Ventura, Oxnard or Port Hueneme; less than 20 percent is under County jurisdiction. The balance is controlled by the State of California or the United States Navy.

The Cities of Ventura, Oxnard and Port Hueneme are linked by Harbor Boulevard, which is proposed as a scenic highway.
LOCATIONAL CRITERIA AND POLICY MAP

A Policy Map has been prepared for the purpose of planning general locations for onshore oil facilities primarily in the North Coast area.

The Policy Map should be used in conjunction with the locational criteria in considering an application for a zone change and conditional use permit.

1. All land located between the new right-of-way for Highway 101 and the sea should be considered for residential or recreational use. This land should not be included as a potential area for the siting of any oil facilities.

2. Each application to construct a facility between the new right-of-way for Highway 101 and the hills or in the hills area, as designated on the Policy Map, should be in the form of a change of zone to be approved in conjunction with a conditional use permit.

3. The location of facilities on the landward side of the new Highway 101 right-of-way are encouraged to use the canyons and barrancas within the area generally designated as "existing oil activity area" on the Policy Map. Extensive landscaping should not be required in such canyons and barrancas.

4. Facilities located outside the area generally designated as "existing oil activity area" on the Policy Map should be located a minimum distance of 1,000 feet from any potential residential area on the landward side of the new Highway 101 right-of-way.

5. Facilities to be located within the general confines of the "existing oil activity area" and adjacent to a potential residential area should have a 150 foot setback from the common intervening property line, except for uses such as administrative or similar activities.
6. The grouping of facilities should be encouraged on the landward side of the new Highway 101 right-of-way adjacent to existing facilities, so as to maximize the scenic highway designation of Highway 101 and to permit the full utilization of the coastal area for all types of private and public uses. The approval of a facility in such an area should require extensive landscaping.

7. In the South Coastal area possible sites for onshore oil facilities within the County jurisdiction are limited. However, the land within the oil activity area and adjacent to an existing industrial facility should be considered.

8. The Cities of Ventura, Oxnard and Port Hueneme should establish their own locational criteria and land adjacent to the Port Hueneme Harbor or in industrial districts may be desirable for processing facilities.
DEVELOPMENT CONDITIONS

A set of standard conditions as follows should be attached to the approval of an application, plus any specific conditions which may be applicable to a pertinent application:

1. The compatibility of each facility shall be considered from the standpoint of noise, vibration, odor, air pollution, visibility, lighting, traffic, grading, flood and erosion control, land and water pollution, public safety and its impact on potential development of surrounding areas.

2. All structures shall be painted in blending colors or camouflaged. This may be altered where the structures are not exposed to public view or where other locational factors apply, subject to the approval of the Planning Director.

3. All entrance gates fronting on a public road shall be architecturally designed and constructed of masonry.

4. All lighting shall be shielded so as not to shine on adjacent properties. Visible gas flares are not permitted.

5. Petroleum odors or vapors shall not be allowed to emanate from the installation.

6. The permit area shall be completely surrounded by a two (2) inch mesh chain link fence constructed to a height of not less than six (6) feet and containing no openings except those actually required for ingress, egress and emergency, as shown on the plot plan.

7. No parking space shall be located within ten (10) feet of a vehicular entrance to the property. All parking areas shall be surfaced with asphaltic concrete and shall be suitably marked, outlining individual parking spaces and traffic flow.

8. There shall be no ingress or egress to the property except as shown on the plot plan. That the width and improvement of any such entrance shall be as required by and in accordance with the specifications of the Department of Public Works.

9. All asphaltic dikes, berms and bank stabilizers shall be painted with a colored emulsion coating to blend with the landscaping, except in locations not exposed to public view.
10. Prior to construction the permittee shall submit a drainage and grading plan to the Subdivision Engineering Division of the Department of Public Works for processing and approval.

11. All debris from clearing of the site shall be disposed of off the site and shall not be deposited in any flood control channel or natural water course.

12. Prior to construction, the permittee shall submit plans to the Department of Public Works for its approval of the location, type and adequacy of water lines, including fire suppression water requirements of the Ventura County Fire Department.

13. Provisions for fire prevention and fire suppression shall be in accordance with the Ventura County Fire Protection District Ordinance No. 6 and approved by the Ventura County Fire Chief.

14. Sewage and waste disposal shall be only by means of a system approved by the Ventura County Health Department.

15. Prior to any construction the permittee shall inquire of the Ventura County Health Department if the land for which a permit is issued, or any portion thereof, is located within a critical watershed area so designated by Ordinance No. 693 or any amendment thereto. If the land is located in such a critical watershed area, the proposed sewage disposal system shall be as approved by the Ventura County Health Department as required by said Ordinance.

16. All rules and regulations of the Los Angeles Air Pollution Control district and the Ventura County Health Department shall be included in regard to air, water, discharge, amount of gaseous substances, dust or smoke as a part of the applied conditions.

17. The exercise of any right granted by this permit shall conform in all respects to the regulations and requirements of the California State Regional Water Quality Control Board No. 4.

18. The Southern Pacific Railroad shall be consulted regarding easement across their railroad line.

19. The applicant shall be required to use the latest functional soundproofing equipment to insure that the operation is quiet.

20. No normal operational vibration shall be permitted which is discernible at or beyond the zoning district boundary when the use or activity is in customary operation.
21. Prior to construction a zone clearance shall be obtained from the Ventura County Planning Department and a building permit shall be obtained from the Department of Building and Safety.

22. All requirements of any law or agency of the State, Ventura County, and any other governmental entity shall be met.

23. Necessary oil and gas lines coming in from offshore shall be buried under the beach, freeway and railroad so that there will be no change in present beach use, view or contour.

24. A landscaping plan shall be submitted with the site plan where the location is within public view.

25. Prior to the approval of a final grading plan, a geology report, prepared by a qualified geologist, shall be submitted to the Department of Public Works for review.

RECOMMENDATION

IT IS RECOMMENDED THAT:

The Locational Criteria, Policy Map, and Development Conditions be adopted as policy for guiding the location of onshore oil facilities in Ventura County.