

Attachment 2:

Addendum to the
Orcutt Community Plan 2012 Amendments FSEIR

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ORCUTT COMMUNITY PLAN
2012 AMENDMENTS

ADDENDUM TO THE FINAL SUPPLEMENTAL
ENVIRONMENTAL IMPACT REPORT

09EIR-04

SCH#2009121057

MAY 22, 2013

Prepared by:
County of Santa Barbara
Planning and Development Department
Long Range Planning Division
123 East Anapamu Street, 1st Floor
Santa Barbara, CA 93101

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ADDENDUM TO THE
FINAL ENVIRONMENTAL IMPACT REPORT
(09EIR-04, SCH#2009121057)

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I. BACKGROUND AND PURPOSE

This *Addendum to the OCP 2012 Amendments Final SEIR* (Addendum) incorporates the OCP Key Site 22 Wetlands Delineation Removal Amendment revisions into the *Orcutt Community Plan (OCP) 2012 Amendments Final Supplemental Environmental Impact Report (SEIR)*, including the Revision Document (RV-1) certified by the Board of Supervisors on December 11, 2012. The purpose of the revisions are to make additional changes to the certified SEIR, the OCP FEIR (95-EIR-1) and OCP necessary for compliance with the court order issued in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452). The court found,

“...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the “OCP”) titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP area hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation.”

During their December 11, 2012 hearing, the Santa Barbara County Board of Supervisors, in consideration of the Orcutt Community Plan 2012 Amendments, certified the final Supplemental EIR to the OCP EIR (95-EIR-1) (SCH#2009121057), approved the Regional Basins Removal and Clark Avenue Level of Service Amendments and continued consideration of the Key Site 22 Wetlands Delineation Removal Amendment. On February 5, 2013, the Board of Supervisors further continued the hearing on the Key Site 22 Wetlands Delineation Removal Amendment until May 14, 2013. The Board’s direction was in response to the Key Site 22 property owner’s comments to provide staff additional time to complete property owner coordination and revise the amendments for compliance with the court order.

After further consideration, additional wetlands related text and maps for Key Site 22 were identified which do not have a clear source document were identified for removal from the OCP, OCP FEIR, and final SIER. These revisions represent no physical change to the project or impacts determinations in the final SEIR. Section III below details the identified revisions.

Pursuant to California Environmental Quality Act (CEQA) and the State CEQA Guidelines, this Addendum provides decision-makers with a detailed list of the proposed changes to the OCP Key Site 22 Wetlands Delineation Removal Amendment to be made subsequent to certification

of the SEIR. Section 15164 of State CEQA Guidelines states that an addendum to a previously certified EIR shall be prepared,

“...if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.”

An addendum does not need to be circulated for public review but can be included in or attached to the final EIR and considered by the decision making body prior to making a decision on the project.

This Addendum describes the proposed revisions to the certified SEIR and the 1997 OCP and FEIR. For each proposed revision in the Addendum, an explanation supports the findings that these revisions to the OCP Key Site 22 Wetlands Delineation Removal Amendment will not result in a substantial change as described in State CEQA Guidelines Sections 15162 requiring preparation of a subsequent EIR, including:

1. No substantial changes in the project are proposed in this addendum that require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in severity of previously identified significant effects; and
2. No substantial changes have occurred with respect to circumstances under which the project is undertaken that will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and,
3. No new information of substantial importance, which was not known and could not have been known with exercise of reasonable diligence at the time the previous EIR was certified, shows any of the following:
 - That the project will have one or more significant effects not discussed in the previous EIR;
 - Significant effects previously examined will be substantially more severe than identified in the previous EIR;
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
 - Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

II. PROJECT DESCRIPTION

The *OCP 2012 Amendments* address three minor, but important changes to the text, maps, policies, and implementing programs in the 1997 OCP. No changes to the *OCP 2012 Amendments* project description are included in this Addendum. The amendments 1) remove the

existing regional basins flood control policy and update flood control and drainage policies to reflect current standards, 2) change the traffic level of service for Clark Avenue through Old Town Orcutt from LOS “C” to “D” to encourage reduced traffic speeds consistent with the policies in the OCP, and 3) comply with a court order to remove reference to a wetlands delineation for properties known as Key Site 22 from the OCP and EIR.

III. DOCUMENT REVISIONS

This Addendum documents all revisions to the OCP, the OCP FEIR (95-EIR-1) and the Board of Supervisors certified SEIR for the OCP 2012 Amendments in compliance with the court order issued in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452). The Key Site 22 Wetlands Delineation Removal Amendment revisions are summarized below.

A. ORCUTT COMMUNITY PLAN AMENDMENT REVISIONS

The following OCP document chapters make a wetlands reference to Key Site 22 with direct or partial references to the Rindlaub wetlands delineation or indirect wetlands references which are proposed for removal.

- Introduction
- Chapter 19, Biology
- Chapter 11, Parks, Recreation, Trails, and Open Space
- Key Site #22 Section

The additional OCP chapter revisions that are a part of this Addendum are listed in **bold underline** in Table 1 in Attachment A along with the previously identified Key Site 22 Wetlands Delineation Removal Amendment court compliance edits. The OCP chapter pages with new revisions made as part of this Addendum are provided in Attachment A, and shown in **bold underline**. These revisions include additional edits removing text and map depictions from the OCP that 1) have a clear citation in the delineation stricken by the court or 2) a wetlands reference related to Key Site 22 that does not clearly reference a separate study or source document. Edits previously identified in the FSEIR are shown in underline and ~~strikethrough~~.

B. FINAL EIR (95-EIR-1) REVISIONS

The following OCP FEIR document chapters make a wetlands reference to Key Site 22 with direct or partial references to the Rindlaub WD or indirect wetlands references to be removed.

- Chapter 4.0 Environmental Setting
- Chapter 6 Alternatives
- 5.2 Biological Resources
- Appendices C (BRA) and D (WD)
- 5.5 Flooding and Drainage
- Key Site 22: Site Specific Impacts Analysis
- 5.16 Parks, Recreation, and Trails

The additional OCP FEIR section revisions that are a part of this Addendum are listed in **bold underline** in Table 2 in Attachment B along with previously identified Key Site 22 Wetlands Delineation Removal Amendment court compliance edits. The edited OCP FEIR pages with new revisions made as part of this Addendum are provided in Attachment A, and shown in **bold underline**. These revisions include additional edits removing text and map depictions from the OCP that 1) have a clear citation in the delineation stricken by the court or 2) a wetlands reference related to Key Site 22 that does not clearly reference a separate study or source document. Edits previously identified in the FSEIR are shown in underline and ~~strikethrough~~.

Biological Resources Assessment Revisions

The OCP FEIR Appendix C, *Biological Resources Assessment for Selected Sites within the Orcutt Planning Area (Rindlaub, Hunt and Storrer, July 27, 1995)*, was assessed to determine whether any conclusions in Appendix C were based in whole or in part on the wetlands delineation stricken by the court. The court found,

“...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the “OCP”) titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP are hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation.”

Although the court did not strike Appendix C from the OCP FEIR, the document was reconsidered herein since it has joint authorship with the author of the wetland delineation stricken by the court.

This Addendum removes the portion of Appendix C generally describing Key Site 22 (pages 18-35; 66 through 74, first paragraph; Appendix 3 Key Site 22 species lists). Removing this information should ensure no conclusions could be attributed in whole or in part to the wetlands delineation stricken by the court. The remainder of Appendix C applicable to other sites remains valid and should be retained, since no conclusions based on a wetlands delineation for a separate site can be drawn.

The *Botanical Resource Survey of Selected Sites* in the Orcutt Area was integrated into the biological resources assessment document above and referenced in a letter from Katherine Rindlaub to staff and is cited in OCP FEIR, Chapter 11, References, Page 11-2. The referenced *Botanical Resource Survey of Selected Sites* was integrated into the species lists in the OCP

FEIR Appendix C *Biological Resources Assessment for Selected Sites within the Orcutt Planning Area (Rindlaub, Hunt and Storrer, July 27, 1995)* and was not published as a separate study in the OCP FEIR. This Addendum would remove references to the Key Site 22 botanical resources in Appendix C. The Rindlaub letter citation in OCP FEIR, Page 11-2 and Biological Resources Assessment references on Page 11-3 will be removed.

Striking the references in Appendix C will also require edits to the following maps which correspond to the portion of the biological resources assessment for Key Site 22 to be removed:

- OCP Figure 24 Preliminary Map of Orcutt Significant Vegetation, page 188 (Same figure as FEIR Figure 5.2-1, page), and
 - Figure 25 Biological Habitat Map West, page 189.
- Only portions of the maps citing the Olsen, 1992 wetlands delineation would be retained.

C. OCP AMENDMENTS SEIR AND RV-1 REVISIONS

The additional SEIR, including Revision document (RV-1), revisions that are a part of this Addendum are listed in **bold underline** in Table 3 in Attachment C. The edited SEIR Sections are also provided in Attachment 3 in their entirety, with all the court compliance edits shown in underline and ~~strike through~~. These revisions include additional edits removing text and map depictions from the SEIR.

This Addendum includes the following revisions:

- Revise SEIR page 4.3-1 and SEIR Revision Document (RV 1), Appendix 1 to only cite the case and action to strike the Rindlaub wetlands delineation and conclusions based whole or in part thereon.
- Remove Table 4.3.1 OCP EIR Biological Resources Impacts and Mitigation Measures and SEIR Revision Document (RV 1), Appendix 1 text describing the table on Page 4.3.3.
- Replaces text describing the court case outcome on Page 4.3-7 and SEIR Revision Document (RV 1), Appendix 1 with a citation to the court case.
- Revises SEIR pages 4.3.1 and 4.3.8 text describing southwest Orcutt as the location.
- Replace final SEIR Chapter 2.0 Project Description Tables 2.2 and 2.3 OCP and OCP EIR Removal of Wetlands Delineation References (Pages 2-13 and 2-14) with Table 1 and Table 2 in the Attachments to this Addendum.
- Revise final SEIR Chapter 2.0 Project Description to incorporate the map edits as described above (vegetation, biological habitat). Specific revisions to the SEIR are included in Attachment C.

IV. REVISIONS TO THE SEIR ENVIRONMENTAL EFFECTS

The text and map revisions discussed herein represent minor clarifications furthering compliance with the court order issued in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452). The court found,

“...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers

Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the "OCP") titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP are hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation."

The revisions herein represent no physical change in the project or impacts determinations in the certified SEIR. Therefore, this Addendum to the SEIR, including Revision document (RV-1), substantiates findings that the OCP Key Site 22 Wetlands Delineation Removal Amendment will not result in new significant environmental effects requiring additional mitigation measures, or cause a substantial increase in the severity of previously identified significant impacts.

ATTACHMENT A:

Orcutt Community Plan Text and Map Revisions

1. Table 1 Summary of OCP Key Site 22
Wetlands Delineation Removal Text and Map Edits
2. Introduction, Page 15
3. Chapter 11, Parks, Recreation, Trails, and Open Space, Pages 87 and 96
4. Chapter 19, Biology, Page 196
- 4.a OCP Figure 24, Page 188 (4/25/2013)
Revised Map of Orcutt Significant Vegetation
(Same as OCP FEIR Figure 5.2-1)
- 4.b OCP Figure 25 (5/7/2013)
Biological Habitat Map West, Page 189
5. Key Site #22 Section
- 5.a: OCP Figure 22-3, Site #22, Page 22-6 (1/28/2013)
(Same figure as OCP FEIR Figure KS22-2, Page KS22.12)

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ATTACHMENT 1

Table 1

Orcutt Community Plan Summary of Key Site 22 Wetlands Delineation Removal Text and Map Revisions					
Plan Chapter	Page Numbers	Actions	Maps/Figures	Page Numbers	Actions
<u>Introduction</u>	<u>15</u>	<u>Text deletion</u>			
Chapter 11: Parks, Recreation, Trails, and Open Space	Pgs: <u>87, 96</u>	<u>Text deletions</u>	None	--	--
Chapter 19 Biology	Pgs: 192	Text deletion	<i>Figure 24</i> Map of Orcutt Significant Vegetation <i>(This figure is the same as Final EIR Figure 5.2-1)</i>	188	Map Revisions <u>Additional removal biological resources mapping with potential inferences to wetland delineation.</u>
			<i>Figure 25</i> Biological Habitat Map West	189	Map Revisions <u>Additional removal biological resource mapping with potential inferences to wetland delineation.</u>
Key Site #22 Policy Section	Pgs: <u>KS 22.1;</u> KS 22.3. <u>KS22.5, KS 22.6</u> and <u>KS22-7</u>	Text revisions & deletions <u>Additional text deletions. Delete portion of DevStd KS22-10, DevStd KS22-12 deleted</u>	<i>Figure KS22-2</i> Site #22 <i>This figure is the same as Final EIR Figure KS22-3</i>	KS22-12	Map Revisions <u>Additional removal biological resource mapping with potential inferences to wetland delineation.</u>

Additional revisions to documents noted in bold and underline.

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ATTACHMENT 2:

OCP Introduction, Page 15

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ORCUTT COMMUNITY PLAN

This sub-region contains an expanse of level fields bisected by the broad east-west tending floodplain of Orcutt Creek. Strawberry farming is the main use north of the creek, with irrigated pasture, grazing and occasional cultivated areas south of the creek. A relic sand dune/oak woodland is found in the northeast corner of this area, ~~and the largest known vernal pool complex in the county is located in the northern portion of the sub-region.~~ South of State Route 1, the undeveloped, grass-covered Casmalia Hills mark the western boundary of the planning area; this area has been used for grazing and there is currently some cultivated agricultural use adjacent to the south side of State Route 1.

Planning issues in this sub-region include protection of the Orcutt Creek corridor, the potential loss of agricultural lands, restrictions imposed by the Santa Maria Airport flight path, and the location of Union Valley Parkway.

East of U.S. Highway 101: This 2640-acre area contains the lands east of U.S. Highway 101 to the edge of the planning area. In 1996 there were 205 units in this sub-region, all low density single family dwellings, the majority of which (174 units) were found in Lake Marie Estates, a developed tract north of Clark Avenue and discontinuous with the main Orcutt urban area. The remaining units were found in the very southern portion of this sub-area on one-acre lots, with a scattering of ranchettes south of Clark Avenue.

The topography of this region is generally level with large areas of grassland, transitioning to rolling hills in the north and south. The southern hills contain mixed oak woodland and chaparral habitats. Existing uses consist of the Lake Marie Estates tract and other scattered residential development, scattered oil production, vineyards, strawberry fields, and cattle grazing.

Planning issues for this area include high visibility from U.S. Highway 101, the freeway division of the community, and how to provide public services to any development east of U.S. Highway 101.

Key Sites: The Orcutt Planning Area contains forty-three *Key Sites* which were identified by Planning and Development staff and the GPAC during the formulation of the draft Community Plan (Figure 8). Generally, the Key Sites are larger than three acres and consist of both individual lots and groupings of lots. Key Sites are identified in each of the four sub-regions previously described.

Within the Key Sites, areas suitable for development and constrained areas were identified. Environmental analysis of the Key Sites is contained in Volume II of the EIR (95-EIR-01). More detailed analysis was performed for Key Sites where owners funded special studies relating to their sites, thereby streamlining future environmental review when the actual development of the site is proposed. By using the information in the Key Sites analysis, better initial development plans can be expected with reduced permitting costs and accelerated processing timelines.

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ATTACHMENT 3

OCP Chapter 11, Parks, Recreation, Trails, and Open Space, Pages 87 and 96

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ORCUTT COMMUNITY PLAN

D. Sub-Area Setting

Central Urban Core: Existing park and recreational facilities include Waller Park and the 3.1-acre Stonebrook and 1.7-acre Lee West neighborhood public open spaces. The Santa Maria Valley YMCA on Skyway Drive provides an olympic size swimming pool, handball courts, a weight room, aerobics activities, 8,372 s.f. of therapeutic activities, rest rooms and a 25-child daycare facility. The Orcutt Recreation Center on Foster Road, operated by the Orcutt Youth Organization, is available to community groups for barbecues and indoor events.

Major core area open spaces contain about 400 acres in and around the Airport approach zone (Sites 23, 26, 27 and 30). An extensive network of unofficial trails exists on undeveloped public and private property within this open space, with public views provided from adjacent roadways. This corridor contains extensive grasslands, significant eucalyptus groves and relictual sand dunes. The County, Airport District, and City of Santa Maria have a unique opportunity to establish a regional open space corridor in conjunction with future buildout of the OPA and the Airport Research Park. An Action of the OCP calls for the County to work with other agencies on the development of a regional open space ("boundary park") incorporating active (golf course) and passive (Pioneer Park) recreation, and natural resource preservation (sand dunes, oak woodlands ~~and the vernal pool complex~~).

South Orcutt: Public parks are limited to turf area and playground equipment at the 1.1-acre Domino Open Space, and turf in the 0.8-acre Rice Ranch Open Space. In the urban area, the Orcutt Creek corridor provides a broad, 2-mile long expanse of scenic open space including steep bluffs, open meadows and major oak, riparian and eucalyptus woodlands. Highly visible from area roads and residences, this corridor and its watershed areas include Key Sites #3, 5, 6, 7, 8, 10, 11, 12, 14, B, C and F and contribute significantly to the community's semi-rural character. The corridor receives substantial public use on an extensive network of informal trails. In the rural area, the Solomon foothills are covered with chaparral, oak woodlands and on-going oil production and provide a 3,000-acre scenic natural backdrop for the community.

West Orcutt: Although no public parks exist in this area, the Rancho Maria Golf Club, the only public golf course in the OPA, is located here. Some areas of Site 22 adjacent to airport property contain trails used by walkers and bicyclists, and multi-use trail easements have long been recommended as part of any future development in the Ranchette Area (largely Key Sites 19, D and E). The Orcutt Creek corridor continues through this area, across Sites 19, D and 22, providing trails and scenic open spaces. Key Site 22 provides vast areas of open space adjacent to the urban area, ~~and contains the largest vernal pool/wetland complex in the northern part of the county.~~

Open spaces in the west also include the Casmalia foothills which encompass wide expanses of rural agricultural land (primarily used for grazing) interspersed with oak woodlands and eucalyptus groves in canyon drainages. The importance of these contiguous open spaces is augmented by the proximity of thousands of additional acres of largely undeveloped open lands immediately south and west of the planning area.

ORCUTT COMMUNITY PLAN

Proposed Open Space areas on Key Sites are depicted on the Key Site maps, with boundaries determined after extensive review of resources and constraints. Minor alterations are permitted only when necessary to improve project design and only when adjustments do not create adverse impacts to resources and/or recreational opportunities.

Major Corridors: Orcutt's proposed open spaces can largely be found in three major corridors: Orcutt and Pine Canyon Creeks, the foothill corridor, and northern Orcutt (Figure 20).

Orcutt Creek corridor: The significant open space corridor along Orcutt Creek traverses the entire community and is highly visible from public roads and adjacent neighborhoods. A natural hazard, the creek is prone to flooding during heavy rains, with a floodplain of up to 1,000 feet wide. Portions of this corridor are used for recreation with informal trails on a number of Key Sites (3, 5, 8, 13, 18). This corridor also contains a variety habitats (e.g., oak, riparian and eucalyptus woodlands) and is a major wildlife corridor. Figure 21 presents a schematic of how development could occur along the creek. Although Orcutt Creek's major tributaries, Pine Canyon and Graciosa Creeks, have small watersheds, these creeks often present similar flooding hazards and support important natural resources.

Foothill corridor: Unobstructed views of the Solomon Hills, available from almost the entire community, will be preserved by the foothill open space corridor. This corridor will also buffer the expanding urban area from hundreds of acres of highly flammable vegetation, protect the steep slopes that surround the community, preserve the diverse habitats of the hills (oaks, coastal sage scrub, chaparral, etc.), provide continued foraging grounds for a variety of animals, and preserve trail opportunities. The connectivity of the open spaces in the foothills is critical in allowing free movement between foothill areas and providing passageways to Orcutt Creek.

Northern corridor: This corridor encompasses a band of open space extending from the "No-build" corridor on Site 30 to the western edge of ~~the vernal pool complex on Site 22. This western area contains a vernal pool/grassland complex that is the largest of its kind in Santa Barbara County, supporting a wide variety of wildlife, including rare species, and serving as prime foraging habitat for numerous birds species.~~ The eastern area, including Key Sites 30, 26, 27, 28 and 29, contains some of the best remnants of Orcutt Terrace dune sheet topography and dune scrub habitat left in the planning area. This area also contains an extensive network of informal trails. This highly-visible corridor provides some visual relief in the highly developed urban core and will be connected to the hundreds of acres of open space and recreation planned around the southern portion of the Airport.

ATTACHMENT 4

OCP Chapter 19, Biology, Page 192

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ORCUTT COMMUNITY PLAN

South Orcutt: South Orcutt and the Solomon Hills support the highest biological diversity within the OPA because of the variety of plant communities represented. These include riparian communities along Orcutt Creek and smaller drainages, central dune scrub and grassland at lower elevations, oak woodland on north-facing slopes and in canyons, coastal sage scrub and sandhill chaparral on the higher and drier slopes, and Bishop Pine Forest on and near Graciosa Ridge. These habitats support a wide diversity of wildlife including deer herds, bobcats, etc.

Central Urban Core: Significant biological resources here consist of central dune scrub, eucalyptus woodland, mixed woodland, grassland, and riparian communities along Orcutt Creek and the drainages originating in Pine and Graciosa Canyons. These small but important areas link the open lands of the Solomon and Casmalia Hills with the extensive grasslands and wetlands beyond the limits of Orcutt and the City of Santa Maria.

West Orcutt: This area is relatively flat and dominated by grassland. ~~Riparian communities occur along Orcutt Creek and several unnamed drainages, and provide habitat continuity with the more rugged and open lands of the Solomon Hills, as well as access opportunities for foraging by birds and large mammals in the adjacent grasslands.~~ The sand dunes in the northeast corner of Key Site 22 support sandhill chaparral. ~~An approximately 50-acre vernal wetland/ancient sand dune complex is located south and west of the airport. This is the largest vernal wetland complex in Santa Barbara County and supports a diverse array of water-dependent birds, rare amphibians and plants (Rindlaub, 1995).~~

The grasslands in west Orcutt provide ideal hunting opportunities for many species of raptors, including the sensitive golden eagle, loggerhead shrike, and white tailed kite. The Casmalia Hills to the south are vegetated with grassland, oak woodland and central coastal scrub. Small wetlands occur near the ridge of these hills. Golden eagle and red-tailed hawk have been observed on the ridge. Tiger salamander, American badger and burrowing owl also live in this area.

East of Highway 101: This area is dominated by grassland which provides hunting grounds for a wide variety of raptors including northern harrier and white-tailed kite. Extensive wildflower displays occur here in the spring including lupines and owl's clover. Central dune scrub dominated by silver lupine occurs on some of the rolling dunes. Despite subjection to intensive grazing, agricultural, and oil-development activities, this area contains the largest and least-disturbed examples of Orcutt Terrace grassland.

The area east of 101 contains habitat for and populations of the silvery legless lizard, the coast horned lizard, the California tiger salamander, the spadefoot toad, and the American badger (Hunt, 1995). The open grassland and vegetated dunes of this area provide for free wildlife movement. A eucalyptus windrow along Telephone Road, north of Clark Avenue may support a turkey vulture roost.

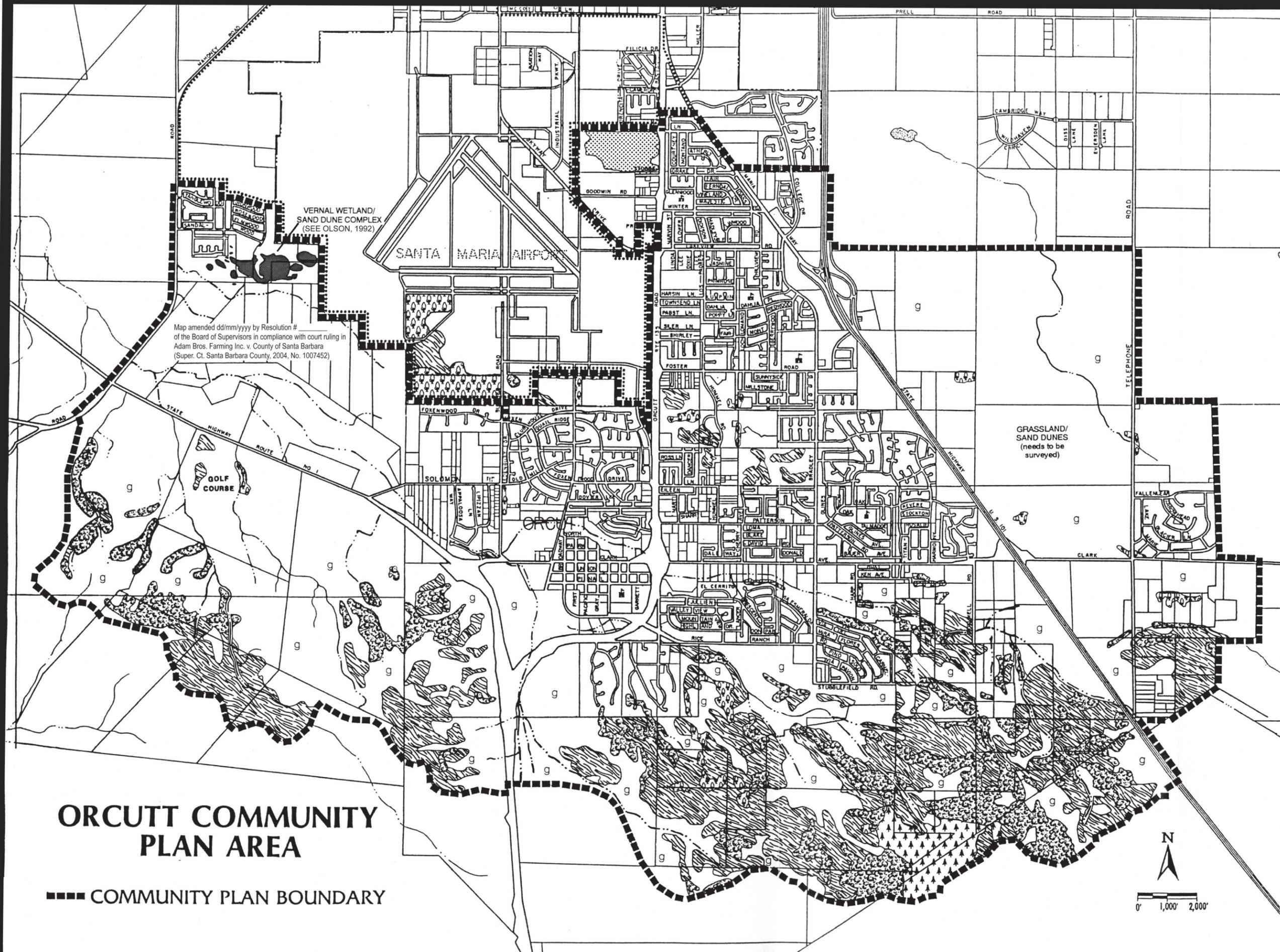
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ATTACHMENT 4.a

OCP Figure 24: Map of Orcutt Significant Vegetation, Page 188
(Same as OCP FEIR Figure 5.2-1)

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MAP OF ORCUTT SIGNIFICANT VEGETATION



VERNAL WETLAND/
SAND DUNE COMPLEX
(SEE OLSON, 1992)

Map amended dd/mm/yyyy by Resolution #
of the Board of Supervisors in compliance with court ruling in
Adam Bros. Farming Inc. v. County of Santa Barbara
(Super. Ct. Santa Barbara County, 2004, No. 1007452)

ORCUTT COMMUNITY PLAN AREA

--- COMMUNITY PLAN BOUNDARY

-  Vernal Pool
(See Olson, 1992)
-  Oak Woodland
-  Coastal Scrub/
Sandhill Chaparral
-  Eucalyptus
Woodland
-  Bishop Pine
Forest
-  Mixed Woodland/
Park
-  Grassland

NOTE: A Biological Resources Map at a larger scale showing greater detail exists and is available for reference from Planning & Development.

Figure 24
Page 188

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ATTACHMENT 5

OCP Key Site #22 Section

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ORCUTT COMMUNITY PLAN AREA BIOLOGICAL HABITAT - WEST HALF

- COMMUNITY PLAN BOUNDARY
- MAPPED DELINEATION OF HABITAT TYPE
- ow Coast Live Oak Woodland
- bpf Bishop Pine Forest
- sc Sandhill Chaparral
- ccs Central Coastal Scrub
- cds Central Dune Scrub
- euc Eucalyptus Woodland
- mw Mixed Woodland
- nn Non-Native Woodland
- vp Vernal Pool (vp* = see Olson, 1992)
- seep Freshwater Seep
- pond Freshwater Pond
- g Grassland (not delineated)
- ng Native Grassland (usually *Nasella* spp.)
- # Sensitive Plant Location (see "Sensitive Plants of Santa Barbara County", by Tara Wiskowski, 1988)
- P#-# Sensitive Plant Location (species#-source#)
- A#-# Sensitive Animal Habitat/Location (species#-source#) (Aa=amphibian, Ar=reptile, Ab=bird, Am=mammal)
- Determined Extent of Sensitive Plant/Animal/Community (if no boundary shown then extent not determined)
- o Location where Sensitive Animal Observed
- # Monarch Butterfly Site (see "Monarch Butterfly Overwintering Site Locations in Santa Barbara County", by William Calvert, 1991)

Map amended dd/mm/yyyy by Resolution # of the Board of Supervisors in compliance with court ruling in Adam Bros. Farming Inc. v. County of Santa Barbara (Super. Ct. Santa Barbara County, 2004, No. 1007452)

For Description of Habitat Types see "California Vegetation", by V.L. Holland & David J. Keil, 1990.

Figure 25
Page 189

Map Created September 14, 1995
Map Updated January 16, 1996
Map Revised May 7, 2013

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ATTACHMENT 5

OCP Key Site #22 Section

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ORCUTT COMMUNITY PLAN

KEY SITE 22 (West Orcutt)

Background:

Site 22 consists of 16 individual parcels totaling 1,179.45 acres. The site is located in west Orcutt, and bounded by Solomon Road and Highway 1 to the south, Black Road to the west, the Tanglewood residential subdivision to the north, the Santa Maria Public Airport to the northeast, and ranchettes (Key Site E) to the east (Figure KS22-1).

Approximately 480 acres are in agricultural production, including 380 acres of strawberries and 80 acres of irrigated pasture. Most of the remaining 700 acres is open grassland, floodplain ~~and wetlands,~~ and is used for grazing. The site contains four single family residences, several greenhouses and agricultural coolers. The old road bed for Dutard Road crosses the northern portion of the site from west to east and another dirt road enters the southeast corner from Solomon Road and extends along the eastern site boundary.

Setting:

Topography/Aesthetics: The site is mostly level with the exception of two canyons cut by unnamed drainages near the northwest corner. Orcutt Creek's wide meandering floodplain extends through the entire southern portion of the site, generally parallel to Highway 1. Site 22 contains panoramic open spaces, contributes significantly to the semi-rural character of Orcutt, and provides a scenic gateway to west Orcutt from Highway 1.

Natural Resources: Orcutt Creek's floodplain ranges from 500 to 1,000 feet in width and occupies approximately 130 acres of the site (Figure KS22-2). ~~The floodplain contains 110 acres of federal jurisdiction wetlands and supports scattered riparian vegetation. The Orcutt Creek channel becomes wide and flat throughout the central portion of the site, supporting several freshwater marsh areas. Freshwater marsh is also found at three locations along the western site boundary.~~

The largest known vernal pool complex in Santa Barbara County (120 acres), located north of Dutard Road, supports a wide variety of wildlife including such rare species as tiger salamanders, Pacific chorus frogs, and larvae of the western spadefoot toad, along with many resident and migratory bird species, including several types of shorebirds and ducks.

A 33-acre stabilized dune area along the central eastern boundary, adjacent to the Santa Maria Public Airport, contains sandhill chaparral including a large number of multi-trunked coast live oaks. The dunes are one of the last such intact habitats in the planning area. Water accumulates and ponds in depressions between the dunes during wet years and supports wildlife such as the western pond turtle, a threatened species. A thin strip of central dune scrub separates these areas from cultivated fields to the south. The remainder of the areas which are not in active cultivation are covered by

ORCUTT COMMUNITY PLAN

large tracts of annual grassland, which serve as foraging habitat for a number of bird species including the golden eagle.

Archaeological Resources: A recorded archaeological site (SBA-1159) is also located on Site 22. Several additional archaeological and historical sites have been identified on the property, but the site records have not been officially recorded at this time.

Noise: Approximately 90 acres of the site lie beneath the flight approach zone for runway 2/20 at the Santa Maria Public Airport and are affected by noise from aircraft overflights. Potential development on strips of land along the western and southern site boundaries would be affected by roadway noise from Black Road and Highway 1 respectively. Portions of the site which lie adjacent to the future extensions of "E" Street and Union Valley Parkway would also be affected by traffic generated noise.

Safety/Hazards: The 90-acre area under the flight approach zone would not be suitable for development which creates high concentrations of people (no more than 4 units/acre or 25 persons/acre if commercial) due to hazard concerns from the Airport.

Project Description:

Once the urban core is more fully developed, this site's size and physical characteristics could accommodate extensive residential development, while allowing flexibility in locating future structures and major roads, neighborhood commercial facilities and public services (e.g., schools, fire stations) needed to serve the residences.

Residential Development: The land use designation and zoning are Res Ranch/RR-20. To allow the urban core area of Orcutt and other "infill" parcels an opportunity to develop, and to delay costly infrastructure improvements/extensions to Site 22, a consideration of redesignation/rezone of this site to PD/PRD is to be delayed 10 years or until such time as 60% of the available units on all the other Key Sites have received Land Use Permits, whichever occurs first.

Under the PRD zone, a variety of densities could be developed on this site. In general, the lowest densities would be located along the Highway 1 corridor, the highest would be located near the intersection of Union Valley Parkway and "E" Street, and moderate density development would be located throughout the remainder of the developable area. Development would be clustered within 743 acres of the site, located mainly within areas currently used for grazing or agricultural production.

Transfer of Development Credits: If Site 22 is rezoned to PRD, several hundred acres of agricultural land will be lost to residential and commercial development. To help mitigate this loss and address the loss of prime agricultural land valley-wide, Site 22 has been identified as a TDC receiver site for credits from other agricultural land in the Santa Maria Valley. If a Countywide

ORCUTT COMMUNITY PLAN

TDC program is implemented, it will be necessary to identify potential receiving site(s) and Key Site 22 may provide the only significant opportunity as a large receiving site for the Santa Maria area. With the potential increase in development on this site from approximately 50 units to 2-3,000 units, this site could afford to purchase some development credits to offset the loss of agricultural land.

Specific Plan: In order to address project phasing, distribution of densities across parcels, infrastructure financing, school construction funding, affordable housing, and park and trail development, a Specific Plan will be prepared to address future development of this site. Figures KS22-4 and -5 show conceptual plans which identify areas for different densities, as well as land for protection as Open Space.

Access: To provide access to the site, Dutard Road would be realigned to the south and upgraded to a primary road. In addition, a two lane segment of Union Valley Parkway (UVP) would be extended through the southeast portion of the site connecting to Hwy 1, with right-of-way reserved for expansion to four lanes. Finally, the City of Santa Maria's Circulation Element contains a proposal for a new \$8,000,000 north-south primary road, "E" street, which could connect development on Site 22 more directly with future industrial development on the Airport and with planned development west of the City (Figure KS22-3).

Commercial Development: The PRD zone allows for up to 2 acres of supporting "neighborhood" commercial facilities on a 200 unit or more PRD "site." However, since Key Site 22 may have up to 3,000 units and seven of the 15 parcels exceed 100 acres in size, it is anticipated that up to 15 acres of commercial development could be accommodated.

Open Space: The floodplain of Orcutt Creek, the canyons of the drainages near Black Road, the vernal wetland/grassland complex and remnant dune area on the northern portions of the property are to be retained as open space (Figure KS22-3). This open space area would reduce flooding and geologic hazards, provide land for a park and a community center, and protect sensitive biological and cultural areas.

The open space area would also include most of the public trails and a park sited in the Flight Approach Zone of the Santa Maria Public Airport. The rest of the open space area serves to satisfy the goals of the PRD zone district by protecting the site's most sensitive biological resources, including ~~two wetland/floodplain areas of Orcutt Creek~~, a 30+ acre ancient sand dune area with specimen oaks, and about 120 acres of vernal pool grassland complex. The habitat and hazard-based open space totals 436 acres, and when combined with schools and active parks, total open space would constitute approximately 45% of the site.

Parks: A variety of parks will be developed on this site to accommodate the needs of new residents. For example, a minimum of 28 acres of parkland will be needed at buildout of 2,000 units,¹ and 42

¹ (2,000 x 3 persons/unit = 6,000 persons into the Board-adopted standard of 4.7 acres of parks per 1,000 persons =

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acres at 3,000 units. A 15-20 acre regional park could be developed partially within the Orcutt Creek floodplain and include active recreational facilities such as baseball/softball fields, group and family picnic areas, and passive recreational space. This park could also include a community center with meeting rooms, a swimming pool and banquet facilities, and could be linked to the linear park along the Orcutt Creek greenway. The greenway would include a paved bikepath, walking trails, picnic areas and space for habitat restoration/urban forest areas. An additional 20+ acres would still be required to meet the minimum park standard and could be utilized for a system of 1-2 acre neighborhood parks.

Major Trails: A 1.3-mile segment of Class I bikepath/multi-use trail would parallel the northern bank of Orcutt Creek across the entire site. An additional Class I bikepath would be located along the eastern site boundary between the future location of UVP and Solomon Road and a Class II bikepath would be located along UVP through the site. Hiking trails are also proposed along the northern bank of the unnamed drainage which flows through the northern portion of the site, along the southern edge of the oak woodland/dune scrub area, along the western site boundary between Dutard Road and the northern edge of the Orcutt Creek floodplain, and parallel to the Class 1 bikepath along Orcutt Creek (Figure KS22-3). Additional local trails would be constructed to link neighborhoods to parks, the community center, and regional trails.

~~*Retention Basins:* The SBCFCD identified potential locations for three regional retention basins along the site's western boundary to accommodate runoff from urbanization on the site (Figure KS22-3). These basins would be located within the three canyons of the drainages north of Orcutt Creek, and developed through modification of the culverts under Black Road. These basins would be designed to accommodate all runoff from future development and would preclude the need for multiple, project-specific basins.~~

Public Services: Two 12-acre elementary school sites and a 19-acre junior high school site will be necessary to serve development on Key Site 22 at the 2,000 unit level. If more than 2,000 units are built, a 40-acre high school site will also be needed. However, airport restrictions may limit development of schools on Site 22 and off-site locations may need to be found.

Portions of the site lie outside of the Fire Department's 5-minute response zone. To provide service to the entire site and improve service to western Orcutt, a half-acre fire station site would need to be located in an area approved by the County Fire Department.

Site Constraints/Considerations:

Urbanization on the southern portions of the site could change the visual character of the site and eliminate the scenic value of the northern side of the Highway 1 corridor between Black Road and Solomon Road, adversely impacting views from this Scenic Highway/"gateway road." ~~New development will also cause a reduction in and disruption of habitat, including the Orcutt~~

28.2 acres)

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~~Creek wildlife corridor and the freshwater marsh and vernal pool complexes.~~ Destruction or displacement of historic/archaeological resources could also occur.

Conversion of large portions of the site from agriculture and open space to urban use will result in significant increases in stormwater runoff and exposure of residents to flood hazards. Roadway noise from Highway 1 and Black Road will increase significantly in association with traffic generated by urbanization of the project site. Decreased level of service on area roadways, long-term exposure of residents to noise, and exposure of residents and property to airport hazards are also expected to occur.

KEY SITE 22 DEVELOPMENT STANDARDS

Policy KS22-1: Key Site 22 is designated Res Ranch and zoned RR-20. Any proposed development on Key Site 22 shall comply with the following development standards.

DevStd KS22-1: The project shall include development of Union Valley Parkway between Highway 1 and the eastern site boundary, and "E" Street between the northern site boundary and Union Valley Parkway. "E" Street shall be aligned as shown in Figure KS22-1. The exact alignment of this road shall be determined at the time of the Specific Plan.

DevStd KS22-2: Development shall not be located within 50 feet of Highway 1 and an appropriate distance from UVP and "E" Street, as established in a site-specific noise analysis. Noise reducing features such as vegetated berms, building orientation, adequate setbacks, and extensive landscaping shall be incorporated along the airport approach zone and the site's southern boundary. Soundwalls shall not be utilized along public highways. Residential uses proposed within the 60 dB or greater CNEL airport noise contour shall provide an aviation easement to the Santa Maria Public Airport District.

DevStd KS22-3: Drainage improvements shall be provided to control contaminated run-off from paved surfaces. Parking areas shall incorporate design features such as perimeter drains equipped with silt/grease interceptors and catch basins to reduce contaminant levels in runoff before it enters the storm drain system.

DevStd KS22-4: Any development shall include an erosion control plan. Energy dissipators, silt fencing, straw bales, and sand bags shall be used in conjunction with other methods to prevent erosion on slopes and siltation of the stream channel and other wetland habitats

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DevStd KS22-5: Paved access sufficient to support the weight of SBCFCD maintenance vehicles and/or emergency vehicles shall be provided along Orcutt Creek. This road shall also function as a Class I bikepath.

DevStd KS22-6: If development is proposed in areas where archaeological/historical resources have been identified in the EIR, it shall be conducted consistent with County CEQA Guidelines. The areas within the identified development setbacks shall be incorporated into the project design as "Undevelopable Open Space" and the site shall be seeded prior to sale of units. The areas designated "Undevelopable Open Space" shall be clearly labeled on all development and grading plans. Fill shall not be placed on archaeological resources within environmentally sensitive areas.

DevStd KS22-7: Development shall be located and constructed in a manner which reduces exterior noise affecting residential units to a maximum of 65 dB.

DevStd KS22-8: If agricultural wells are to be converted for use as a municipal water source, evidence shall be submitted as a part of the Development Plan that water quality meets state and federal standards. Any measures recommended by CCWC or CEHS shall be implemented prior to issuance of a Land Use Permit.

DevStd KS22-9: Development (including fences) shall be not be located within 50 feet of the site's southern boundary with Highway 1. Structures shall not be located within 100 feet of this boundary. Property fences along the Highway 1 corridor must be designed to allow for unobstructed views through the fence (e.g., polecraft fencing). Landscaping within these setbacks shall be designed to accentuate the semi-rural character of the area, and include sufficient densities of trees and shrubs to break up building masses without obstructing primary views north from Hwy 1.

DevStd KS22-10: Any subdivision application shall include a landscape, open space management, and habitat protection and restoration plan to be prepared by or under the direction of P&D. This plan shall:

- ~~Protect the vernal wetland/grassland complex from urban encroachment;~~
- Enhance the disturbed vernal wetland/grassland complex immediately adjacent to the existing alignment of Dutard Road;
- Include protection measures, including the installation of fencing, signs, and landscape buffers of appropriate native trees and shrubs;
- ~~Protect and enhance the Orcutt Creek corridor;~~
- ~~Plant groves of appropriate native trees and stands of shrubs along selected portions~~

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- ~~of the "banks" and top of bank of Oreutt Creek;~~
- ~~Restore and enhance selected wetlands areas within the floodplain;~~
- ~~Install fencing around the most significant wildlife areas and install signs and walkways to help guide public use of these areas and the Oreutt Creek greenway; and~~
- Provide measures to ensure biological connectivity between Orcutt Creek and the primary drainage coming from the Casmalia Hills.

DevStd KS22-11: Any development within the floodplain shall be sited and designed to minimize the exposure of such development to hazardous or nuisance conditions (e.g., flooded yards) arising from flooding of developed facilities, such as buildings, parks, and parking. Such development shall also be sited and designed to minimize or avoid any increase in the cost, frequency and intensity of channel maintenance activities required to protect these areas from flooding. As part of the application for any development within the floodplain, the developer shall fund a study under the guidance of SBCFCD and P&D to evaluate the effects of project design on downstream floodwater volumes, increases in maintenance, and potential impacts to biological resources within the creek channel. The goal of the study shall be to provide development and modified channel designs which allow the creek system to function in a natural manner (e.g. one which allows meandering and deposition of sediments), in addition to protecting development and the creek's resource values.

~~**DevStd KS22-12:** No grading shall occur in the area identified as vernal pools/wetland until the Army Corps of Engineers has made a determination whether a Section 404 permit is needed.~~

DevStd KS22-13: Any residential development constructed under the RR-20 zone district shall be located outside of productive agricultural land to the greatest degree feasible.

Policy KS22-2: When either 2000 LUPs have been approved on the other OCP Key Sites or after January 1, 2017, whichever is sooner, the County shall consider redesignating/rezoning Key Site 22 to PD/PRD. The site shall also be considered as a TDC receiver site if the County has a TDC program at that time. Key Site 22 shall be developed only subject to a Specific Plan (Government Code §65450). Any proposed development shall comply with the following development standards. *Amended by Res. 01-226, 7/10/2001*

DevStd KS22-14: The Specific Plan shall include the following public dedications and improvements:

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- A. Three schools sites: a 17 acre junior high school and two 10 acre elementary school sites. To the maximum extent feasible, these school sites shall be located adjacent to developed parkland; and
- B. A 40-acre high school site dedicated to the Santa Maria Joint Union High School District if more than 2,000 units are proposed for development; and
- C. A half acre Fire Station constructed and dedicated to County; and
- D. The areas designated "Open Space" in Figure KS22-1 shall be dedicated to the County or other County approved group/agency; and
- E. A 15-acre developed regional park in the Santa Maria Airport approach zone adjacent to Orcutt Creek; and
- F. 1-2 acre developed neighborhood parks (approximately one acre park/200 units) distributed appropriately throughout the site; and
- G. The Orcutt Creek Class I bikepath and hiking trail system depicted on Figure KS22-1 developed to Public Works Department standards with linkage to the parks and schools.

DevStd KS22-15: Compliance with DevStds KS22-1 through -11 shall be demonstrated in the Specific Plan.

DevStd KS22-16: The Specific Plan shall include a phasing plan specifying that development shall occur on the eastern portions of the site (nearest to the existing urban core) first.

DevStd KS22-17: The Specific Plan shall include development of Dutard Road between Black Road and "E" street. Dutard Road shall be aligned as shown on Figure KS22-2.

DevStd KS22-18: The 12 unit/acre or greater density shall be located adjacent to commercial uses, parks and with convenient access to public transportation.

DevStd KS22-19: If a high school site has been dedicated, the Specific Plan shall contain a reimbursement provision to enable the developer of Key Site 22 to obtain funding from other developers in the area to potentially offset the cost of the high school.

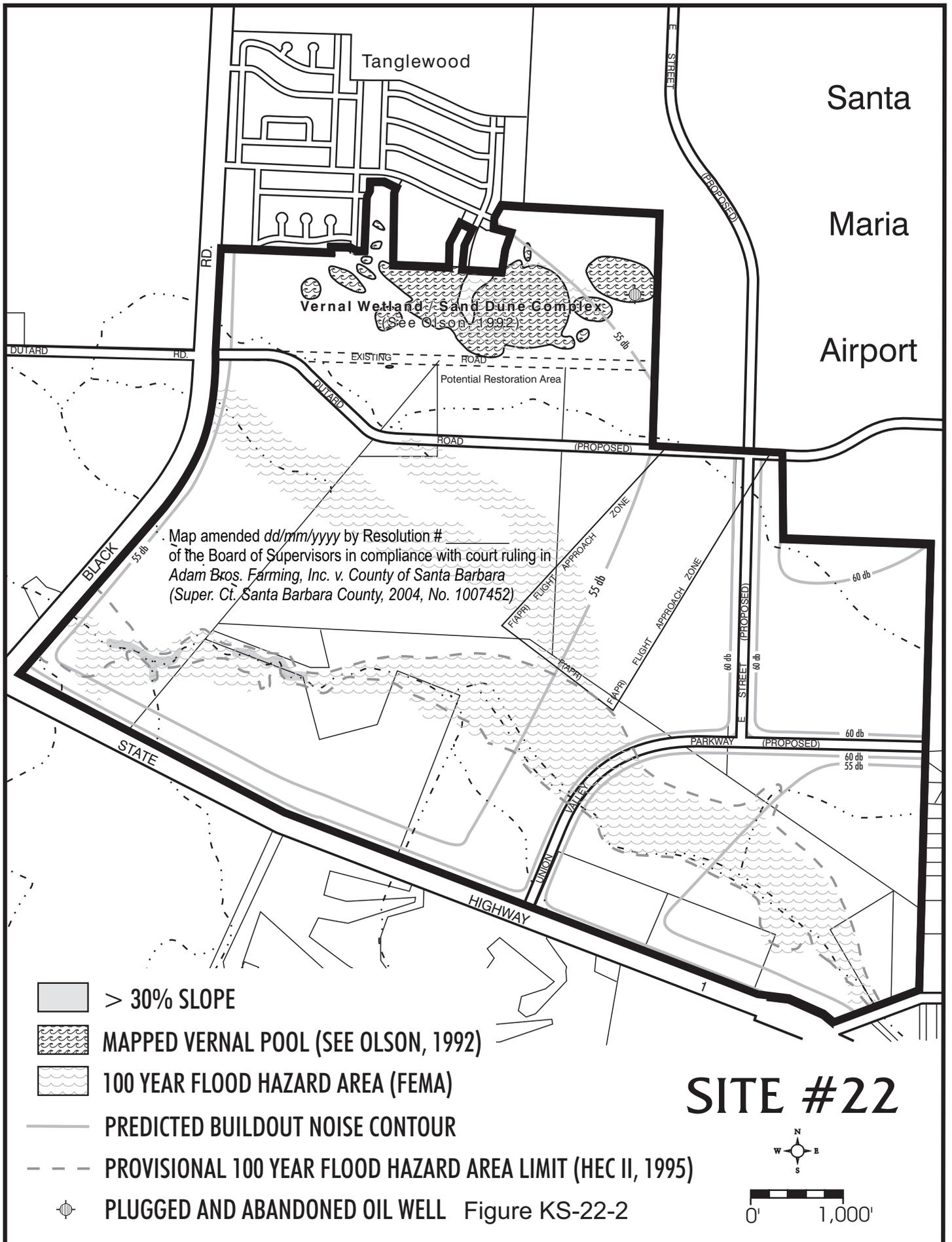
DevStd KS22-20: All required affordable housing shall be developed onsite.

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- DevStd KS22-21:** Uses and development in the Flight Approach Zone shall be of lower population density, such as low density residential, parking lots, recreation, and open space.
- DevStd KS22-22:** Structures and paved surfaces, except paved walkways, bikepaths, or interpretive displays, shall not be developed within the open space corridor of the vernal pool/dune complex.
- DevStd KS22-23:** No structures shall be located within 20 feet of the western site boundary and development in this area shall be screened with extensive landscaping.
- DevStd KS22-24:** Prior to receiving approval for major (over 50,000 sf) commercial development, the developer of Site 22 shall submit an economic analysis which assesses potential economic effects of that development on Old Town. This analysis shall include potential current and future draw from Old Town, direct and indirect competing uses, and any other relevant effects which may reduce Old Town's long-term commercial viability. *(See Policy LUC-O-4 and Action LUC-O-4.1)*
- DevStd KS22-25:** In the environmental analysis for Site 22, the area east of US 101 and west of Telephone Road shall be examined as an alternative site for the development proposed for Site 22.

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ATTACHMENT B:

Orcutt Community Plan Final EIR (95-EIR-1) Text and Map Revisions

1. Table 2: Summary of OCP FEIR Revisions
2. OCP FEIR Key Site 22: Site Specific Impacts Analysis
3. OCP FEIR Chapter 4.0 Environmental Setting, Page 4-1
4. OCP FEIR Biological Resources
5. OCP FEIR Chapter 6 Alternatives, Pages 6-11, 6-27 and 6-39
6. OCP FEIR Chapter 11, References, Pages 11-2 and 11-3
7. OCP FEIR Appendix C: Revised Biological Resources Assessment for Selected Key Sites Within the Orcutt Planning Area Final Report (4/22/2013)
8. *To be removed from OCP FEIR Appendix D:
Vernal Wetlands and Orcutt Creek Wetlands Delineation, K. Rindlaub Biological Consulting,
September 1, 1995.with
Appendix D: Replacement Page
Document available in 6/4/2012 Board Letter
Attachment 5: Planning Commission Action Letter
and for viewing and download at:
<http://longrange.sbcountyplanning.org/planareas/orcutt/orcutt.php>*

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ATTACHMENT 1

Table 2

Orcutt Community Plan Final EIR (95-EIR-01): Summary of Key Site 22 Wetlands Delineation Removal Text and Map Revisions					
EIR Section	Page Numbers	Actions	Maps/Figures	Page Number	Actions
Key Site #22 Site Specific EIR Analysis	Pgs: 22-6; 22-10; <u>22-13; 22-14;</u> 22-15; <u>22-17; 22-18;</u> 22-19 and 22-22	Text revisions & deletions <u>Impacts: KS22 BIO 1, KS22-BIO-3, KS-22-BIO-4 deleted</u> <u>Mitigation Measures: KS-BIO 1.3, KS-BIO-1.4, KS-BIO-3.2, KS-22-BIO-5 deleted</u>	<i>Figure KS22-3</i> Site #22 (Same figure as OCP Figure KS22-2)	22-6	Map Revisions <u>Additional removal biological resource mapping with potential inferences to wetland delineation.</u>
<u>Chapter 4.0 Environmental Setting</u>	<u>Pg. 4-1</u>	<u>Text deletion</u>	--	--	--
Chapter 5.2 Biology	Pgs: <u>5.2-1; 5.2-2;</u> 5.2-5; <u>5.2-6, 5.2-7;</u> <u>5.2-8, 5.2-14, 5.2-15, 5.2-17; 5.2-19</u> <u>5.2-20;</u> 5.2-2; <u>5.2-22, 5.2.23, and 5.2-25</u>	Text revisions & deletions <u>Impacts BIO 3 and BIO4, BIO-11, BIO-22 and Mitigation BIO-4, BIO 5, 19 deleted</u> <u>Impact BIO 13 edited</u> <u>Mitigation BIO-14 and BIO-17a edited</u> <u>Residual Impacts edited</u>	<i>Figure 5.2-1</i> Preliminary Map of Orcutt Significant Vegetation (Same figure as OCP Biology Figure 24)	5.2-3	Map Revisions <u>Additional removal biological resource mapping with potential inferences to wetland delineation.</u>
Chapter 6 Alternatives	Pgs:6-11; 6-27, <u>and 6-39</u>	Text deletions	--	--	--
<u>Chapter 11 References</u>	<u>Page 11-2 and 11-3</u>	<u>Text deletions</u>			
<u>Appendix C</u> <u>Biological Resources Assessment for Selected Key Sites Within the Orcutt Planning Area, Rindlaub, Hunt and Storrer</u> <u>(7-27-1995)</u>	<u>Pgs: 18-35; 66 through pg 74, first paragraph</u> <u>Appendix 3</u>	<u>Text deletion Key Site 22 section of analysis</u> <u>Remove Key Site 22 species lists from BRA Appendices</u>	<u>Site #22 Map</u>	<u>Appendix 1</u>	<u>Remove Entire Map</u>
Appendix D <i>Vernal Wetlands and Orcutt Creek Wetlands Delineation, Rindlaub</i> <i>(9-1-1995)</i>	All	Text and figures deletion	All	All	Removal of Entire Consultant Study per Super. Ct. Santa Barbara County, 2004, No. 1007452

Additional revisions to document noted in bold and underline.

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ATTACHMENT 2

OCP FEIR Key Site 22: Site Specific Impacts Analysis

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KEY SITE 22: SITE SPECIFIC IMPACT ANALYSIS

A.PROJECT OVERVIEW

A.1Project Location and Legal Description

Key Site 22 consists of 16 individual parcels comprising 1,179.45 acres in west Orcutt. It is bounded by Solomon Road and Highway 1 to the south, Black Road to the west, the Tanglewood residential subdivision (4.6 units/acre) to the north, the Santa Maria Public Airport to the northeast, and ranchettes (0.3 units/acre) to the east (Figure KS22-1). The APN, Acreage, and Owner for the individual parcels on the site are indicated in the Table KS22-1:

TABLE KS22-1: SIZE AND OWNERSHIP OF KEY SITE 22 PARCELS

APN	ACRES	OWNER
111-220-22	152.72	Mahoney, Patricia
111-240-01	4.60	Bonetti Trustee
111-240-05	11.31	Rancho Meadows
111-240-07	9.11	Rancho Meadows
111-240-18	105.32	Ruffoni John/Jaqueline Trustees
111-240-20	6.85	Barnard Raymond/Jeanette
111-240-22	9.80	Shahrabani David/Anne
111-240-24	234.39	Rancho Meadows
111-240-25	20.00	Roman Catholic Archbishop LA
111-240-26	20.02	Bautista, Javier/Teresa
111-240-27	149.90	Ruffoni John/Jaqueline Trustees
111-240-28	139.43	Sutti, Lillian Trustee
111-240-29	165.05	Sutti, Emilio Edward Et.al.
111-240-30	145.95	Grisingher, Elaine Trustee

A.2Existing Designations

The majority of Key Site 22 (877.77 acres) lies outside of the existing Urban/Rural Boundary Line (Figure KS22-2).

Land Use: Land use designations on the site are A-II (Agriculture, 40 acre minimum parcel size) outside the Urban/Rural Boundary Line (URBL), and Planned Development (Max. Density 3.3 units/acre) inside of the line.

Zoning: The entire site is zoned under the obsolete 661 zoning ordinance. Parcel 111-240-20 is zoned 10-R-1, and the remainder of the site is zoned for agriculture.

Table KS22-2 shows the land-use designation and zoning for each parcel on the site, and their location of the individual parcels with respect to the Urban Rural Boundary Line:

TABLE KS22-2: DESIGNATIONS AND URBAN/RURAL STATUS OF KEY SITE 22 PARCELS

APN	LAND-USE DESIGNATION	ZONING	INSIDE/OUTSIDE URBL
111-220-22	A-II	100-AL-0 and AG-II-100	Outside
111-240-01	A-II	100-AG	Outside
111-240-05	Planned Development	20-AG	<u>Inside</u>
111-240-07	Planned Development	20-AG	<u>Inside</u>
111-240-18	A-II	100-AG	Outside
111-240-20	Planned Development	10-R-1	<u>Inside</u>
111-240-22	A-II	20-AG	Outside
111-240-24	Planned Development	20-AG	<u>Inside</u>
111-240-25	Planned Development	20-AG	<u>Inside</u>
111-240-26	Planned Development	20-AG	<u>Inside</u>
111-240-27	A-II	100-AG	Outside
111-240-28	A-II	100-AG	Outside
111-240-29	A-II	100-AG	Outside
111-240-30	A-II	100-AG	Outside

Potential Buildout Under Existing Designations: The south portion of the site is located within the URBL and approximately 53 residential units on parcels designated for planned development at a density of 3.3 units per acre could be constructed.

A.3 Environmental Setting

Current land uses are primarily agricultural including strawberry cultivation (approximately 379.8 acres), irrigated pasture (approximately 81.1 acres), and grazing (approximately 564.93 acres). Four single family residences are located on the site, as well as several greenhouses and coolers.

The site is fairly level with the exception of two canyons cut by unnamed drainages near the northwest corner of the site. A wide and shallow drainage corridor is also present along Orcutt Creek, which extends across the southern portion of the site, generally parallel to Highway 1. The floodplain of Orcutt Creek covers approximately 126 acres.

The site is underlain by 23 soil types. These are primarily sandy soils with high erosion and soil blowing hazards. The dominant soil types are Betteravia Loamy Sand and Marina Sand.

Insert Figure KS22-1 (Vicinity/Location Map)

Insert Figure KS22-2 (Urban Boundary Line on Key Site 22)

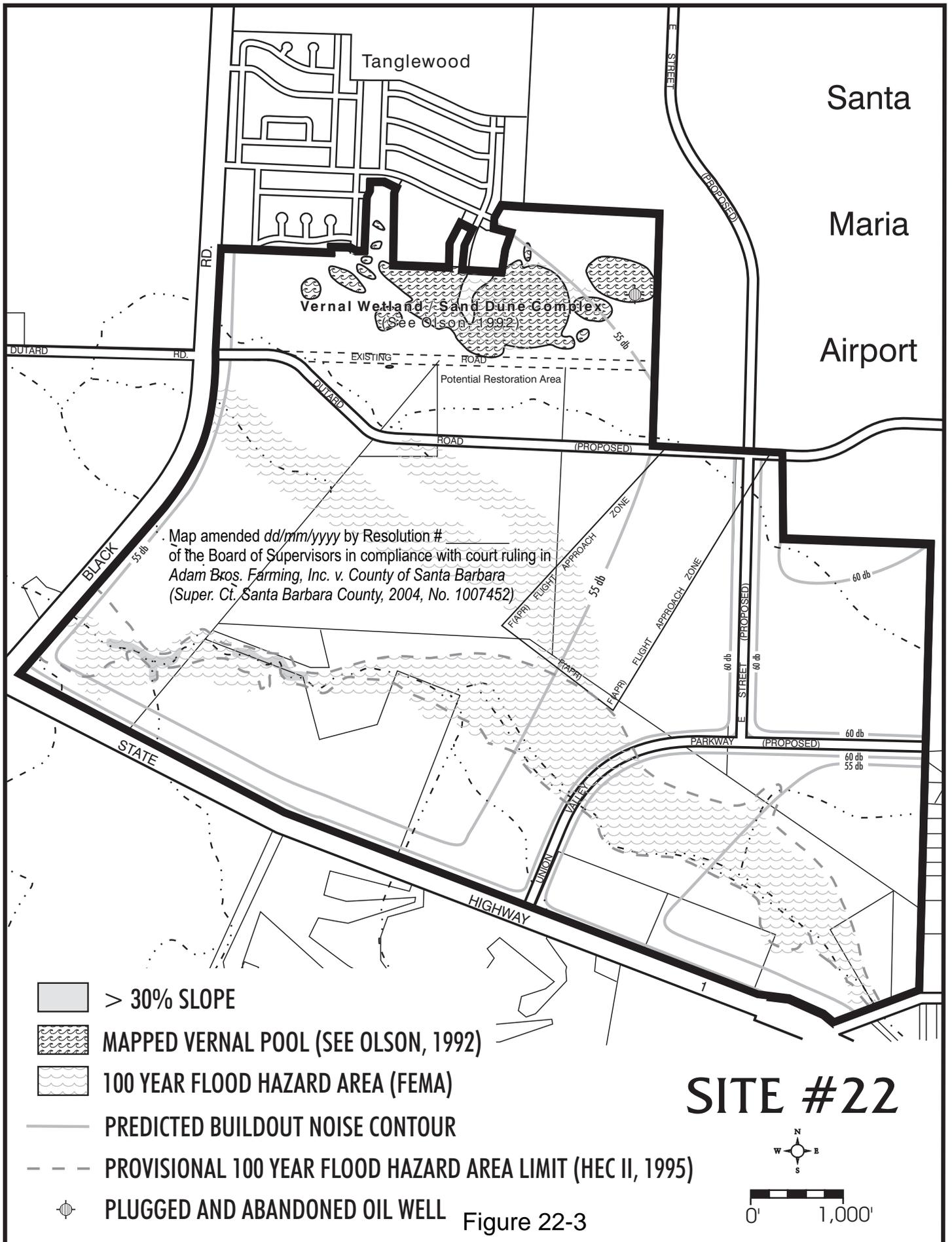
Approximately 481 acres are under cultivation or developed with agricultural industry support facilities. A large portion of the remaining 700 acres are used as grazing land, and several areas support significant ecological communities. In the southern portion of the site, the Orcutt Creek stream channel and corresponding flood plain, ranging from 500 to 1,000 feet in width, traverses the site from east to west, generally parallel to Highway 1. ~~Scattered riparian and/or wetland vegetation is located along this flood plain.~~ A vernal wetland/grassland complex occupies approximately 120 acres north of Dutard Road, and contains the largest known vernal pool complex in the County. ~~These areas support a wide variety of wildlife including tiger salamanders, Pacific chorus frogs, and larvae of the western spadefoot toad. The vernal wetland/grassland/dune areas also serve as prime foraging habitat for many bird species, including several shorebirds and ducks.~~

Sandhill chaparral, dominated by multi-trunked coast live oak, mock heather, and coyote brush, with scattered Purisima manzanita, occupies a 33 acre stabilized dune area along the central eastern boundary, adjacent to the Santa Maria Public Airport. Pondered water accumulates in depressions between the dunes during wet years, and support species such as the western pond turtle (a candidate for the endangered species list). A thin strip of central dune scrub separates these areas from cultivated fields to the south. ~~The Orcutt Creek channel becomes wide and flat throughout the central portion of the site, and supports rush, bulrush and several freshwater marshOrcutt Creek areas. Freshwater marshOrcutt Creek is also present at three locations along the western site boundary. The remainder of the areas not in active cultivation are covered by large tracts of annual grassland, which constitute prime foraging habitat for a number of bird species including the golden eagle.~~ Figure KS22-3 shows the locations of the site's biological resources.

Two roads provide access to the site. The old road bed of Dutard Road enters the northern portion of the site from Black Road, approximately 1,100 ft from the northern site boundary. This unimproved asphalt and dirt road provides access to a residence and agricultural fields, and extends to the eastern site boundary. Another dirt road enters the southeast corner of the site from Solomon Road, and extends along the eastern site boundary.

A.4 Project Description

The existing Urban/Rural Boundary Line would be extended to incorporate approximately an additional 800 acres of the site which currently lie outside of it (Figure KS22-2). The proposed designations for the site would be **Planned Development (Max. 2,000 units)/PRD**. This designation would allow for the construction of up to 2,000 residential units of various densities, and a community center. Development could also include a supporting commercial facilities. It is also likely that two 10 acre elementary school sites and a 17 acre junior high school site would be located on Key Site 22, to serve residents of west Orcutt at this level of development. As referenced in the main project description, the Planned Residential Development zoning district identifies a 40% minimum open space requirement, which would total a minimum of 471.8 acres for this site (40% of 1179.45 acres). This zoning allows for clustering of units so that hazardous and sensitive areas may be avoided, adequate public services are provided, and open space is preserved. The floodplain of Orcutt creek, Canyons of the drainages near Black Road, and the sensitive biological resources on the northern portions of the property and the northeastern corner generally meet the criteria for open space as outlined in the PRD zoning district. Therefore, in order to be consistent with the purpose and intent of this zone district, it is likely that development on the site would be clustered within 743 acres of the site, located mainly within areas currently used for grazing or agricultural production. Figure KS22-4 shows the likely developable areas on the site.



Insert Figure KS22-4 (2000 Unit Conceptual Development Plan)

To provide access to these recommended "development pods" Dutard Road would be realigned to the south, and upgraded to a primary road. In addition, in order to provide more direct access to the community, to Hwy 135 and US Hwy 101, a two to four lane segment of Union Valley Parkway (UVP) would be extended through the southeast portion of the site connecting to Hwy 1. Finally, the City of Santa Maria's Circulation Element contains a proposal for a new \$8,000,000 north-south primary road, "E" street, which could connect development on site 22 more directly with new industrial development on the Airport and with planned development west of the City (Figure KS22-4).

A 1.3 mile segment of Class I bikepath/multi-use trail is proposed to parallel the northern bank of Orcutt Creek across the entire site. An additional Class I bikepath is proposed along the eastern site boundary between the future location of Union Valley Parkway and Solomon Road. Hiking trails are also proposed along the northern bank of the unnamed drainage which flows from east to west through the northern portion of the site, along the southern edge of the oak woodland/dune scrub area, along the western site boundary between Dutard Road and the northern edge of the Orcutt Creek floodplain, and parallel to the Class 1 bikepath along Orcutt Creek. These components would be added to the regional bikeway and PRT maps for the Orcutt area.

Consistent with Planning Commission direction, the Flood control district has identified potential locations for three regional retention basins along the Site's western boundary to accommodate runoff from urbanization on the site. These basins would be located within the three canyons of the drainages north of Orcutt Creek, and developed through modification of the culverts under Black Road. These basins would be designed to accommodate all runoff from future development and would preclude the need for development of multiple, project-specific basins.

Potential Open Space Overlay: As part of the draft community plan, the Planning Commission initiated a community wide Open Space Overlay. Although general applications for the overlay were discussed, no formal map was initiated. The overlay's purpose is to provide a contiguous open space network for the community, to promote recreational opportunities, to avoid hazards and to minimize impacts to sensitive resources (Section 2.6, Figure 2-14). Based upon these initiated criteria, and the goals of the PRD zone district, and a review of the Site's resources and constraints, the Open Space Overlay for Key Site 22 would be applied to three portions of the site, with a combined area of 436 acres (37% of the site). This potential overlay area would accomplish the following goals:

Hazards: Avoidance of flooding hazards along Orcutt Creek by setting all development back 50 feet from the edge of the 100 year floodplain.

Recreation: A 15-20 acre park could be developed adjacent to the Orcutt Creek floodplain, on the northwest corner of the "E" street/UVP intersection, to serve the recreational demands of future residents. The park could include active recreational facilities such as baseball/softball fields, group and family picnic areas, in addition to passive recreational space. It is also likely that this park would include a community center with meeting rooms, a swimming pool, and banquet facilities. This regional park would be linked to the potential Orcutt Creek Greenway located along the north bank of Orcutt Creek. The greenway would accommodate a paved bikepath, walking trails, picnic areas and space for habitat restoration/ urban forest areas. An additional 30+ acres would still be required to meet the minimum 40% open space requirement of the PRD zone district. These 30+ acres could be utilized for a system of neighborhood parks.

Resources: The potential Open Space Overlay would protect the Site's most sensitive biological resources including ~~the wetland~~-floodplain areas of Orcutt Creek, a 30+ acre ancient sand dune area with specimen oaks and about 120 acres of Vernal Pool grassland complex. This area would also accommodate a trail and provide a buffer between the City and the unincorporated areas. several historic and/ or archaeological sites would also be covered by the overlay.

Figure KS22-4 shows the areas to which the Open Space Overlay would be applied. This configuration would approximate the open space areas shown in a previous conceptual site plan endorsed by the Planning Commission and Board of Supervisors.

Potential Buildout Characteristics: The proposed designations would allow for a diversity of housing types to be constructed on the site. Proposed densities range from 1 unit/acre to 6 units/acre, and a preliminary plan identifies areas for each unit density (Figure KS22-4). In general, the lowest densities would be located along the Highway 1 corridor, the highest would be located near the intersection of Union Valley Parkway and "E" Street, and moderate density development would be located throughout the remainder of the proposed developable area.

Under this development scenario, the existing alignment of Dutard Road would be abandoned, and the roadway would be realigned to the south. The new alignment would provide through access between Black Road and "E" Street. Under the City of Santa Maria's Circulation Element, "E" Street would be a north-south arterial roadway along the site's western-most north/south boundary with the Santa Maria Airport, and would terminate at the proposed extension of Union Valley Parkway (Figure KS22-5). However, this proposed alignment has significant biological impacts which are discussed in further detail in Section 5.2 (Volume I) and Section B.1 in the Key Site 22 analysis (Volume II). Union Valley Parkway is proposed to extend from the center of the site's eastern-most boundary to Highway 1. The eventual alignment of the "E" Street and Dutard Road corridors may be affected by open space planning and the protection of biological resources. Figure KS22-5.1 shows Planning and Development's recommended alignment of Dutard Road and "E" Street through Key Site #22. Figure KS22-5.2 depicts feasible access points from Highway 1, Black Road and UVP.

Potential Commercial Center: A 15 acre neighborhood commercial center could be constructed at the northeast corner of the "E" Street/UVP to serve development on the site. The PRD zoning district allows for 2 acres of supporting commercial facilities on a PRD "site". However, Key Site 22 is comprised of 15 parcels ranging from 4.6 acres to 234.39 acres in size. Seven of the parcels exceed 100 acres in size and could each have at least 2 acres of supporting commercial facilities if they were developed individually. This center has not been assessed in standard impact analysis for this site; however, the center's impacts have been assessed in Alternative 2 (High Buildout).

Figure KS22-5 (City of Santa Maria's proposed alignment of "E" Street)

Figure KS22-5.1 (County's proposed realignment of Dutard Road and "E" Street)

Figure KS22-5.2 (Potential Access points, ATE)

B. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The sections which follow do not include discussions of impacts to the following areas: Police Protection, Natural Gas, Electricity, and Library Services. Either no significant impacts to these resources (eg electricity, natural gas) were identified during initial evaluation of the proposed project, or these issues are adequately addressed in the regional impact analysis in Volume 1 (eg library/ police service). Significant impacts are anticipated for several other issue areas and are described in detail below.

B.1 Biological Resources

Setting

Of the 1179.45 acres on this site, approximately 481 acres are either under cultivation or are developed with agricultural industry support facilities. A large portion of the remaining 700 acres are used as grazing land, and several areas support significant ecological communities. The following biological information was obtained from a botanical survey by Holland between April 25 and June 26 1991, a botanical survey of the vernal pool complex by Olson on May 21 and May 26 1991, ~~a brief cursory survey by Rindlaub on May 13 and 15 1994, and an intensive survey in April and May 1995 by Rindlaub, Storrer and Hunt, and wetland delineations by Rindlaub and Storrer, 1995.~~

~~Key Site 22 contains a wide variety of biological resources. The Site's location in a rural area surrounded on three sides by extensive tracts of lightly developed or undeveloped land provides relatively accessible linkages from the site to larger habitat areas.~~ In the southern portion of the site, the Orcutt Creek stream channel and corresponding flood plain, ranging from 500 to 1,000 feet in width, traverses the site from east to west, generally parallel to Highway 1. ~~Scattered riparian and/or wetland vegetation is located along this 126-acre flood plain. A wetland delineation performed in Spring 1995 identified 110.34 acres of wetlands in the floodplain (Rindlaub, 1995). The creek corridor provides both important habitat itself and linkages both upstream and downstream to relatively undisturbed areas for wildlife movement and the dispersal of plants.~~

A vernal wetland/grassland complex occupies approximately 120 acres north of Dutard Road. This habitat extends eastward onto the Santa Maria Public Airport. ~~This area contains the largest known vernal pool complex in the County and consist of a complex of sandy uplands with annual grasslands, with 41 acres of vernal ponds, vernal pools, vernal flats, and freshwater marsh swales (Rindlaub, 1995). The 80 acres of upland habitat that surround the vernal pools and other wetlands are critical habitat for the spadefoot toad and tiger salamander that live in burrows within the grasslands during the dry months of the year. Towards the northeast corner of the site, this complex becomes interlaced with a wetland/dune complex, which continues to the east onto airport property. A portion of the complex also extends south of Dutard Road, but portions of this area have been degraded by grading and agricultural activity. Pools and marshes form in low lying areas and depressions due to the hardpan variant of Narlon Soils which is prevalent throughout these areas. The mashes and pools in the low lying areas and the grasslands and scrub habitats in the uplands exhibit significant ecological interaction. For example, some of the species which depend upon the pools for breeding during the winter and spring migrate or "retreat" into the adjacent upland grassland and dune areas during the summer, fall and early winter. This is particularly true of several amphibian species, such as the spadefoot toad and tiger salamander. These species were formerly wide spread within the Santa~~

~~Maria Valley, but now are both candidates for listing for protection under the federal Endangered Species Act.~~

~~In addition to these federal candidate species, this complex supports a wide variety of other types of wildlife. Pacific chorus frogs were observed in the vernal pools during a site visit. These areas also serve as prime foraging habitat for many bird species, including a wide variety of shorebirds and ducks. Shorebird species observed in these areas include the western grebe, long billed dowitcher, great egret, green heron, black-necked stilt, etc. Ducks observed include the northern pintail, cinnamon teal and American widgeon. Small mammals inhabit the upland areas and increase their value as foraging grounds for raptors. A golden eagle was observed diving on prey during a site visit by County staff in April 1995.~~

Sandhill chaparral, dominated by multi-trunked coast live oak, mock heather, and coyote brush, with scattered individuals of the rare Purisima manzanita, occupies a 33 acre stabilized dune area along the central eastern boundary, adjacent to the Santa Maria Public Airport. Pondered water accumulates in depressions between the dunes during wet years, and support species such as the western pond turtle (a candidate for the endangered species list). A thin strip of central dune scrub separates these areas from cultivated fields to the south.

Eucalyptus windrows occur on the eastern site boundary, and on portions of the western parcel boundary of 111-240-30. The eastern windrow also contains several Monterey cypress trees. These windrows serve as roosting areas for raptors which forage in the site's grasslands.

~~The Oreutt creek channel becomes wide and flat throughout the center of the segment which crosses this site. This has resulted in significant sedimentation, and the formation of a unique inland delta area, with the main channel diverging into several small stream channels. A freshwater marshE emergent vegetation such as rush and bulrush has developed along these segments of the creek, and supports emergent vegetation such as rush and bulrush, which provide excellent nesting habitat for red-winged and Brewer's blackbirds. Freshwater marsh is also present at 3 locations along the western site boundary, where dDrainages are impounded at 3 locations along the western site boundary by the berm which supports Black Road.~~

~~The remainder of the areas not in active cultivation are covered by large tracts of annual grassland, which constitute prime foraging habitat for a number of bird species including: white tailed kite, red-tailed hawk, golden eagle and loggerhead shrike. The terrain and its associated vegetation comprise prime habitat for the burrowing owl, a species which has declined dramatically in Santa Barbara County. Black-tailed jackrabbit and ground squirrels are also common in these areas. Overall, the 1179-acre Site's variety of habitats, undeveloped character and location in a rural area provide varied habitats for a wide variety of wildlife. Larger mammals using the site are expected to include grey fox, coyote, deer and possibly bobcat and badger.~~

Impacts

Development of this site with 2,000 or more units would substantially alter existing habitat values not only by direct removal of substantial amounts of habitat, but by fragmentation of remaining habitats and the introduction of substantial disturbances from new human populations including noise, light, polluted run-off

and domestic animals. In addition to the County's proposed realignment of Dutard Road and "E" Street, as depicted in Figure KS22-5.1, Figure KS22-6 depicts the potential realignment of "E" Street via Dutard Road and Black Road. This alternative would completely avoid the sensitive vernal pool/wetland sand dune complex, however it may not satisfy north/south circulation needs.

KS22-6 Potential E Street Alignment

~~General Impacts (Volume I): Impacts BIO-3: Union Valley Parkway extension, BIO-4: E Street Construction, BIO-5: Dutard Road, BIO-8: Trail Construction and Use, BIO-9: Paved Bicycle Paths, BIO-11: Dutard/Solomon Trunk Line, BIO-14: Retention Basins, BIO-15: Creek Maintenance and Emergency Work, BIO-16: Construction of New Schools, BIO-20: Elimination of Wetlands, BIO-21: Elimination of candidate species, BIO-22: Fragmentation of wetland and upland habitat, BIO-23: Elimination of Grasslands, BIO-24: Elimination of ancient sand dunes, BIO-25: Elimination of Sandhill Chaparral, and BIO-33: Weed Invasion, listed in Section 5.2 are anticipated to result from future development on this site.~~

The following **site-specific** impacts are also anticipated:

~~Impact KS22-BIO-1 Reduction in Habitat: Development of 2,000 units on the site, would create *potentially significant* impacts through elimination of 120 acres of vernal wetland/grassland complex, 37 acres of sandhill chaparral, 90 acres of along Oreutt Creek freshwater marsh, and 451 acres of annual grassland.~~

Impact KS22-BIO-2 Disruption of Habitat: The construction of "E" Street would cause *potentially significant* impacts by disrupting the large contiguous vernal wetland/grassland/dune complex which covers the northern portions of the site, and extends onto the Santa Maria Public Airport Property. Construction of the roadway would inhibit wildlife movement between vernal flats and dune upland areas, significantly reducing the ability of these interrelated habitat areas to support a wide variety of species.

~~**Impact KS22-BIO-3 Contamination of Freshwater Marsh Oreutt Creek and Vernal Complexes:** Runoff from streets and paved surfaces within developed areas could contaminate freshwater marsh Oreutt Creek areas and vernal complexes on the site. Residual oil which accumulates on paved surfaces could be carried to marsh and vernal wetland areas by stormwater runoff. Due to the sandy soils and high infiltration rates, contaminants could build up over time, increasing in concentration and reaching harmful levels. This impact is considered *potentially significant*.~~

~~**Impact KS22-BIO-4 Impacts to Wildlife:** The project could cause *potentially significant* impacts to wildlife associated with eventual habitation of the site including disturbance of habitat by domestic animals, nuisances to wildlife from noise and light sources, disruption of wildlife migration routes, etc.).~~

~~**Impact KS22-BIO-5 Impacts to Oreutt Creek wildlife Corridor:** Development of Key Site 22 from a rural into a suburban community could substantially disrupt the utilization by and movement of wildlife along the Oreutt Creek wildlife corridor creating *potentially significant* on and off site impacts to wildlife populations and diversity. Species which would be particularly vulnerable would be ground nesting species and animals dependent upon concealment and low levels of disturbance for survival.~~

Mitigation Measures

~~**General Mitigation Measures (Volume I):** Mitigation measures **BIO-1 through 10, BIO-13 and 14, BIO-17a through 24, and BIO-28** listed in Section 5.2 shall apply to future development proposals on this site.~~

The following **site-specific** measures shall also apply:

Mitigation KS22-BIO-1.1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. (~~addresses impacts *KS22-BIO-1* and 3~~)

Mitigation KS22-BIO-1.2: Development plans shall incorporate the realignment of Dutard Road and "E" Street, as shown in Figure KS22-5.1. (~~addresses impacts *KS22-BIO-1* and 2~~)

~~**Mitigation KS22-BIO-1.3:** The County shall implement a habitat protection and restoration program for the vernal wetland/grassland complex to protect the area from urban encroachment and to enhance the disturbed vernal wetland/grassland complex immediately adjacent to the existing alignment of Dutard Road. Protection measures shall include the installation of fencing, signs and landscape buffers of appropriate native trees and shrubs. The plan shall be funded by the developer(s) of areas within Site 22 and subject to review and approval by P&D. (*addresses impacts *KS22-BIO-1* and 2*)~~

~~**Mitigation KS22-BIO-1.4:** In order to protect the wetland/dune complex, the County shall work with the property owners, the U.S. Army Corps of Engineers and the California Department of Fish and Game to raise the funds necessary to purchase fee title, or development credits.~~

Mitigation KS22-BIO-3.1: Structures and paved surfaces, except paved walkways or bikepaths or interpretive displays, shall not be developed within 500 feet of the edge of the vernal wetlands. (*addresses impacts *KS22-BIO-2* through 4*)

~~**Mitigation KS22-BIO-3.2:** The overall drainage improvement plan for the Site 22 shall provide methods to control contaminated run-off from paved surfaces. Parking area design shall incorporate design features such as perimeter drains and catch basins to reduce contaminant levels in runoff before it enters the storm drainage system. (*addresses impact *KS22-BIO-3**)~~

~~**Mitigation KS22-BIO-4.0:** A habitat protection and enhancement plan shall be prepared and implemented for the Orcutt Creek corridor including planting of groves of appropriate native trees and stands of shrubs along selected portions of the "banks" and top of bank of Orcutt Creek, the restoration and enhancement of selected any wetlands areas within the floodplain, installation of selected areas of fencing around the most significant wildlife areas, installation of signs and walkways to help guide public use of these areas and the Orcutt Creek greenway, biological connectivity between Orcutt Creek and the primary drainage coming from the Casmalia Hills. The Plan shall be funded by the developer(s) of Site 22 and subject to review and approval by P&D.~~

Residual Impacts

~~The mitigation measures listed above, in combination with measures in Section 5.2 would help to reduce the magnitude of loss and disruption of habitat and impacts to wildlife. However, these impacts would remain **Significant and Unavoidable (Class I)**. Impacts associated with contamination of freshwater marsh Orcutt Creeks and vernal wetlands would be reduced to **Less than Significant (Class II)**.~~

B.2 Agricultural Resources

Setting The site contains the majority of the productive cultivated agricultural land within the 15,000 acre planning area. Agricultural uses on the site include strawberry cultivation and irrigated row crops on mostly non-prime soils. Approximately 80 acres of prime agricultural soils south of Orcutt Creek in the southwest portion of the study area are currently used for irrigated pasture. The area north of Orcutt Creek and south of Dutard Road east of the Eucalyptus windrow is in strawberry production on non-prime soils which have historically supported a variety of crops. Most of the remainder of the site is used for pasture. Several parcels are under current Williamson Act agricultural preserve contracts, a number of which are in non-renewal status. Current agricultural uses on the site are indicated in the Table KS22-3:

TABLE KS22-3: AGRICULTURAL USES ON KEY SITE 22

APN	APPROXIMATE ACREAGE IN PRODUCTION/USE	CROP/USE
111-220-22	152.72	Grazing
111-240-01	4.60	Grazing
111-240-05	11.31	Grazing
111-240-07	9.11	Grazing
111-240-18	81.09	Irrigated Pasture
111-240-20	6.85	Grazing
111-240-24	234.39	Grazing
111-240-25	20.00	Row Crops
111-240-27*	138.90	Strawberries
111-240-28*	120.43	Strawberries
111-240-29*	120.49	Strawberries
111-240-30	145.95	Grazing

*Currently under Agricultural Preserve Contract and have filed a Notice of Non-Renewal.

The State Important Farmland Map identifies approximately 97 acres (primarily on APN 111-240-18) as Prime Farmland (land with the best combination of physical and chemical features for the production of agricultural crops). These areas are primarily underlain by soils with Class I and II capability units. The remainder of the soils on Key Site 22 consist of Class III and Class IV capability units. These soils are well suited to grazing and, some may be used for the production of specialty crops if irrigated.

Impacts

~~**General Impacts (Volume I): Impacts AG-1: Conversion of Agricultural Land, and AG-2: Land Use Conflicts, listed in Section 5.3 are anticipated to result from future development on this site.**~~

The following **site-specific** impacts are also anticipated:

Impact KS22-AG-1 Urban/Rural Land-Use Conflicts: Development of 2,000 residential units on the site could lead to *potentially significant* urban/rural land-use conflicts with existing agricultural uses south of Highway 1 and a small area west of Black Road. Conflicts could include complaints about fertilizer and pesticide drift into residential areas, noise and dust from plowing, increased trespassing onto agricultural lands, and harassment of cattle by domestic animals (dogs chasing cows).

Impact KS22-AG-2 Conversion of Agricultural Land to Urban Uses: Buildout could result in *potentially significant* impacts through the conversion of approximately 1,046 acres of agricultural land to urban uses. This would primarily result from the construction of units on Class III and Class IV soils in the central portions of the site which are currently in strawberry production. Additionally, approximately 68 acres with Class I and II capability soils near the intersection of Black Road and Highway 1 would be converted to urban use, along with between 600 and 700 acres of land currently used for grazing.

Mitigation Measures

General Mitigation Measures (Volume I): AG-1 through 4, listed in Section 5.3 of this EIR shall apply to future development proposals on this site.

The following **site-specific** mitigation measure shall also apply:

Mitigation KS22-AG-1.1: Development plans for the site shall include installation of windrows of trees along the site's southern and southwestern boundaries to provide a buffer area (eg: block over-spray) from adjacent agricultural uses. Trees shall be limited to species which have a large clearance from the ground to the lower branches, so as not to obstruct views from Highway 1. (*addresses impact KS22-AG-2*)

Residual Impacts

The measure listed above, in conjunction with the measures in Section 5.3 would help to reduce impacts associated with urban/rural land use conflicts, but these impacts would remain **Significant and Unavoidable (Class I)**. No measures are available to mitigate conversion of agricultural land to urban use, and this impact would remain **Significant and Unavoidable (Class I)**.

B.3Geology

Setting

The project site is located in a seismically low risk area based on the Seismic Safety Geological Problems Index. Severity of high groundwater and expansive soils are listed as low to moderate.

The site is primarily composed of sandy soils of the Betteravia, Botella, Corralitos, Elder, Garey, Marina, Oceano series. Most of the soils on the site are easily eroded, and many have high soil blowing hazards. In the past, residents to the east have complained of the nuisance from blowing sand during routine agricultural plowing. A unique hardpan variant of Narlon Sand is present in the northern portions of the site. This soil forms impermeable layers which result in perched water tables and are conducive to the formation of vernal pools. Corralitos sandy soils are associated with the floodplain of Orcutt Creek.

Impacts

General Impacts (Volume I): Impacts **GEO-1:** Increased Erosion, **GEO-2:** Blowing Sand, **GEO-3:** Seismic Hazards, and **GEO-4:** Septic Constraints listed in Section 5.4 are anticipated to result from future development on this site.

The following **site-specific** impacts are also anticipated:

Impact KS22-GEO-1 Siltation of Orcutt Creek: Due to the erodible nature of the site's soils, removal of surface vegetation during large scale grading and construction onsite, or the possible placement of fill within the floodplain of Orcutt Creek would result *potentially significant* impacts through substantial increases in siltation of Orcutt Creek, ~~and possibly of other wetland habitats such as the vernal pool areas.~~

Impact KS22-GEO-2 Soil Blowing: Removal of surface vegetation during construction activities could expose substantial acreages of highly mobile sandy soil to wind erosion, particularly prevailing west winds, resulting in *potentially significant* impacts from severe soil blowing and deposition of wind-borne sediment on adjacent properties, particularly to residential areas downwind to the east.

Impact KS22-GEO-3 Damage to Structures from High Groundwater Levels: Development of residential units in the northern portions of the site (north of Dutard Road) could lead to *potentially significant* impacts resulting from the effects of high groundwater on structures and foundations. Damage could include foundations cracking as a result of settling or soil expansion, and damage to flooring resulting from saturation of building slabs.

Mitigation Measures

General Mitigation Measures (Volume I): **GEO-1 through 13** listed in Section 5.4 of this EIR shall apply to future development proposals on this site.

The following **site-specific** mitigation measures shall also apply:

Mitigation KS22-GEO-1: Silt fencing, straw bails, sand bags shall be used in conjunction with other methods to prevent erosion on slopes and siltation of the stream channel, ~~and other wetland habitats.~~ An erosion control plan shall be submitted to and approved by P&D, Public Works Grading Division, and Flood Control prior to Land Use clearance and shall be implemented prior to commencement of grading or construction. (*addresses impacts KS22-GEO-1 and 2*)

Mitigation KS22-GEO-2: All exposed areas of the site shall be wet down at the end of each work period, or as frequently as deemed necessary by County inspectors. Sand fencing, limitations in the amount of acreage exposed and immediate reseeded of graded areas with temporary cover crops shall be required where appropriate. (*addresses impact KS22-GEO-2*)

Mitigation KS22-GEO-3: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. (*addresses impact KS22-GEO-3*)

Residual Impacts

These mitigations, in conjunction with those presented in Section 5.4 would substantially reduce project impacts. However, the highly erodible nature of the Site's soils when combined with potentially extensive areas to be graded would result in **Significant and Unavoidable Impacts(Class I)**.

B.4 Flooding & Drainage

Setting

Orcutt Creek and its associated floodplain cross the project site from east to west. A detailed hydrologic analysis (HEC 2) of Orcutt creek was conducted to verify the accuracy with which the Key Site 22 floodplain is depicted on existing federally approved (FIRM) maps (Penfield & Smith 1995) . This analysis produced results which suggest that the "true" floodplain of Orcutt Creek varies significantly from its depiction on the FEMA maps. The floodplain derived from the HEC 2 analysis will be referred to as the provisional floodplain until it is adopted by FEMA. Once initiated, this process is likely to take a minimum of six months to complete. During the interim, consistent with a CEQA worst case analysis, the floodplain and floodway will be delineated in the more restrictive location between the boundaries indicated on the present FIRM Map and the provisional boundaries derived from the HEC-2 analysis (SB County Flood Control/ Penfield and Smith, 6/95). The width of the provisional floodplain varies from approximately 200 feet near Solomon Road to as much as 1075 feet near the center of the site, and covers approximately 126 acres. The existing and provisional floodplains are depicted in Figure KS22-3.

Impacts

General Impacts (Volume I): Impacts **FLD-1:** Development within the 100-year floodway, **FLD-2:** Development within the 100-year floodplain, **FLD-3:** Increased storm flows from impervious surfaces, **FLD-4:** Decreased channel capacity from increased sedimentation, **FLD-5:** Increased flooding/sedimentation in the Guadalupe Lakes, **FLD-10:** Maintenance of flood channels/regional basins, **FLD-11:** Increased storm flows, erosion and sedimentation, flooding, personal injury and property damage, and **FLD-12:** Parks and recreation, listed in Section 5.5 of this EIR are anticipated to result from future development on this site.

The following **site-specific** impacts are also anticipated:

Impact KS22-FLD-1 Exposure to Flood Hazards: Development within and adjacent to the floodplain and/or floodway of Orcutt Creek could result in *potentially significant* impacts through the exposure of new homes, yards, parking areas, playgrounds, etc., and future residents to flood damage during a 100 year storm event.

Impact KS22-FLD-2 Impacts to the Floodplain: Fill used to create building pads for units in the floodplain/ floodway could cause a *potentially significant* decrease the volume of the floodplain on the project site, resulting in larger volumes of floodwater affecting properties downstream.

Impact KS22-FLD-3 Increased Stormwater Runoff: Development of the site would result in the creation of several hundred acres of impervious surfaces (roofs, roadways, parking facilities, etc.) which would create *potentially significant* impacts to downstream areas (eg Sanitation Plant, Guadalupe Lakes, farmland, etc) by increasing the amount and height of stormwater runoff.

Impact KS22-FLD-4 Restriction of Access: Development along Orcutt Creek could cause *potentially significant* flooding impacts through restriction of access for flood control vehicles to the creek. If the stream channel became obstructed, response time to clear the channel would be increased resulting severe localized flooding.

Impact KS22-FLD-5 Localized Erosion of the Creek Channel: Project runoff directed into the stream channel of Orcutt Creek could cause *potentially significant* localized erosion at drainage outlet points.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation measures **FLD-1 through 12**, listed in Section 5.5 of this EIR shall apply to future development proposals on this site. The following mitigation measures shall also apply:

Mitigation KS22-FLD-1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4 and no development shall be permitted within this overlay, except for recreational uses (eg bikepaths, trails, etc). (*addresses impact KS22-FLD-1*)

Mitigation KS22-FLD-2 Should development be permitted within the floodplain, finished floor elevations for all new buildings shall be 2 feet above the 100 year flood elevation pursuant to SBCFCD regulations. (*addresses impact KS22-FLD-1*)

Mitigation KS22-FLD-2b: Any development within the floodplain shall be sited and designed to minimize the exposure of such development to hazardous or nuisance (eg flooded yards) conditions arising from flooding of developed facilities (eg buildings, parks, parking etc). Such development shall also be sited and designed to minimize or avoid any increase in the cost, frequency and intensity of channel maintenance activities required to protect these areas from flooding. As part of the application for any development within the floodplain, the developer shall fund a study under the guidance of Flood Control and P&D to evaluate the effects of project design on downstream floodwater volumes, increases in maintenance, potential impacts on the creek's biological values. The goal of the study shall be to provide development and modified creek designs which allow the creek system to function in a natural manner (eg meandering, deposition of sediments etc), while still protecting development and the creek's resource values. (*addresses impact KS22-FLD-2*)

Mitigation KS22-FLD-3: The developer shall purchase capacity in the regional retention basin system, or construct on-site retention facilities with a sufficient capacity to reduce site runoff to a pre-development rate of 0.7 cubic feet per second pursuant to Santa Barbara County Flood Control standards. Wherever feasible, on-site retention facilities shall be dual use (e.g. also serving as open space/ habitat or park facilities). On site retention facilities shall be clearly labeled on all development and grading plans. The capacity of individual basins shall be listed on the development plan. Design of on-site retention facilities must be approved by SBCFCD and P&D prior to land use clearance. (*addresses impact KS22-FLD-3*)

Mitigation KS22-FLD-4: The proposed Class 1 Bikepath shall be constructed in a manner which would allow it to support the weight of SBCFCD maintenance vehicles. (*addresses impact KS22-4*)

Mitigation KS22-FLD-5: Drainage outlets into the creek channel shall be constructed in a manner which

causes outlet flow to approximate the general direction of natural stream flow. Energy dissipators beneath outlet points shall be incorporated where appropriate, and designed to minimize damage to riparian vegetation. Outlet points shall be labeled on the drainage plan. A separate figure depicting the proposed design for each type of energy dissipator to be used shall be included with the drainage plan. Drainage plans shall be submitted for review by P&D and SBCFCD prior to land use clearance. (*addresses impacts KS22-FLD-5*)

Residual Impacts

These mitigations, in conjunction with measures presented in Section 5.5, and existing SBCFCD regulations would reduce all flooding impacts to a level of **Less Than Significant (Class II)**.

B.5 Water Resources

Setting

Currently, all fresh water within the Santa Maria Valley is supplied by groundwater from the Santa Maria Groundwater Basin (SMGB). The basin underlies approximately 110,000 acres of land, including the entire community of Orcutt, and has a storage capacity of 1.5 million acre feet. Net groundwater demand and perennial yield for the basin are approximately 100,000 AFY and 80,000 AFY, respectively, resulting in a net overdraft of approximately 20,000 AFY. Water quality in the Orcutt storage unit of the Santa Maria groundwater basin is superior relative to other parts of the SMGB and has the highest concentration of municipal wells. However, the pumping depressions which this creates reduce municipal water quality by drawing in poorer quality water from adjacent areas.

Approximately 481 acres of the site are currently used for irrigated agriculture (primarily strawberry production, resulting in approximately 889 acre feet per year (AFY) of existing consumptive use. Water service for residential development on the project site would be provided by the California Cities Water Company (CCWC). The CCWC obtains its water from 14 wells which draw primarily from the Orcutt storage unit. Maximum combined production capacity is 12,700 gpm, with a current maximum daily demand of 11,275 gpm. Development on the site could be served by an extensions of existing water lines to the east, existing agricultural wells on the site, or a combination of these sources.

Impacts

General Impacts (Volume I): Impacts **WAT-1:** Increased overdraft by 2006, and **WAT-2:** Increased overdraft at buildout, listed in Section 5.6 of this EIR are anticipated to result from future development on this site. The following impacts are also anticipated:

Impact KS22-WAT-1 Impacts to Municipal Water Pressure: Extension of sufficient municipal water infrastructure to serve development on the site could result in *potentially significant* impacts to municipal water pressure throughout the urbanized areas of Orcutt. The proposed project for this site represents an 18% increase in residential units within the community, and its water demand could decrease water pressure throughout the entire community's water delivery infrastructure.

Impact KS22-WAT-2 Health Hazards Associated with Poor Water Quality: Use of onsite agricultural wells to provide water service could result in *potentially significant* health hazards associated with municipal water supplies which fail to meet state and federal standards.

Impact KS22-WAT-3 Long Term Increase in Water Demand: The project would cause *potentially significant* impacts through contributing to overdraft of the Santa Maria Groundwater Basin. Based upon the water duty factors in Appendix P, buildout on the site could increase *net* demand on the Santa Maria Groundwater Basin by 450 AFY. This substantially exceeds the threshold of 25 AFY for the SMGB, and would contribute to cumulative impacts.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation measures **WAT-1** and **WAT-4** listed in Section 5.6 of this EIR shall apply to future development proposals on this site.

The following **site-specific** mitigation measures shall also apply:

Mitigation KS22-WAT-1: The developer shall work with Cal Cities Water Company to assure adequate pressure for water and fire protection services. (*addresses impact KS22-WAT-1*)

Mitigation KS22-WAT-2: If agricultural wells are to be converted for use as a municipal water source, the developer shall consult with CCWC and County Environmental Health Services (CEHS) to insure that proper measures are taken to insure that water quality meets state and federal standards. Any measures recommended by CCWC or CEHS shall be implemented prior to land use clearance. (*addresses impact KS22-WAT-2*)

Residual Impacts

Mitigation measures presented in Section 5.6 would reduce impacts associated with the project's anticipated water demand. However, the impacts referenced in this section would be considered **Significant and Unavoidable (Class I)**.

B.6 Archaeological and Historic Resources

Setting

In March of 1995, ISERA Group conducted a records and literature search to determine the extent of previous archaeological surveys on the site. This search, in combination with a review of archaeological maps and records, revealed that the southern portion of the site had been surveyed in 1980 by L. Spanne, and again in 1982 by the Office of Public Archaeology, University of California, Santa Barbara (Snethkamp and Colton 1982). A small survey was conducted for correcting a highway drainage problem adjacent to State Highway 1 at Black Road (Osland 1981). One prehistoric site (CA-SBA-1159) and two prehistoric isolated finds were recorded within the project area during the course of these two surveys. Together these surveys covered approximately 208 acres, but the procedure used during these surveys did not meet current County standards. The remainder of the 1,179 acre site had never been systematically surveyed.

In March and April of 1995 ISERA Group performed a field survey of the entire areas which had not been previously surveyed. The cultivated fields allowed for excellent visibility, ranging from 50 to 100 percent in the broccoli fields. Much of the strawberry field was covered with plastic, but furrow bottoms and tears in the plastic allowed adequate ground visibility. The ground visibility in the grazing lands varied, but tended

to be poor. In areas of near zero visibility, the crew cleared the ground surface as required by the County guidelines. Vernal pools and marshy areas located to the north of Dutard Road prevented ground inspections at those locations. Thick brush and large stands of poison oak hampered transect sweeps in the oak woodland/dune scrub area at the northeast corner of the site. Inquisitive bulls prevented surveying in stock pens at the southwest corner of the property, and personnel at the produce company asked the surveyors to stay away from the structures and traffic areas adjacent to structures, for their own safety and for insurance reasons. An adequate amount of the ground surface was inspected to adequately determine the presence or absence of cultural materials.

Three previously unrecorded prehistoric sites, a multi-component site (prehistoric and historic), three historic sites, and eight isolated finds, were recorded in addition to the previously recorded prehistoric site (CA-SBA-1159).

CA-SBA-1159: This prehistoric site is a low density lithic scatter covering an area of approximately 2,500 square meters.

ISERA 22-1: This small prehistoric site covers approximately 672 square meters.

ISERA 22-2H: This historic site consists of a cluster of historic features, and a scatter of historic artifacts which indicate a late nineteenth or early twentieth century domestic occupation.

ISERA 22-3: This prehistoric site covers approximately 3,650 square meters.

ISERA 22-4: A prehistoric site covering approximately 1200 square meters.

ISERA 22-5/H: This is a multi-component site containing both prehistoric and historic components. The site covers approximately 15,600 square meters.

ISERA 22-15H: ISERA 22-15H consists of the remains of several historic structures. A concentration of historic artifacts indicates an occupation beginning sometime between 1880 and 1920. This site corresponds to an area originally indicated by Spanne (1980:3) as being a potentially historic site; however, he did not officially record this area, and no site number was assigned.

ISERA 22-16H: This site number was assigned to an existing residence near the corner of State Highway 1 and Black Road. The structure is a small, rectangular, wood frame structure with a hipped roof, possibly dating to the turn of the century or earlier. Several sheds and animal enclosures are also present in the vicinity of the residence. Also associated with the structures is an artifact scatter. The current resident informed the field supervisor that the structure was built around the turn of the century or earlier in Santa Maria and was moved to the property around 1950. The 1905 edition of the USGS Lompoc 30 minute quadrangle does not show any structures at this location; however, by 1942 a cluster of four structures were present, suggesting that the structure was probably moved prior to that date.

Isolated Finds: Eight isolated artifacts were also located on the site, of which seven were prehistoric.

Miscellaneous Materials: In addition to the resources described above, occasional historical fragments were

found throughout the surveyed area on Key Site 22. These are not considered significant by themselves, but together with the historic sites described above, are considered significant.

The 1905 edition of the USGS Lompoc 30 minute quadrangle indicated that two structures were located within the project area. One of these structures was located at the intersection of Solomon Road and the eastern project boundary, and the other was located on the north side of Orcutt Creek in the vicinity of ISERA 22-15H. An attempt was made to locate any surface expression of historic resources at these locations, but no material was noted. A local property owner also mentioned the presence of an old house in the vicinity of ISERA 22-16H. This area was spot checked again after acquiring this information, but no historic resources were noted. Two structures that appear on the 1942 USGS Santa Maria map corresponds to a craftsman bungalow and possibly a Quonset hut located within the produce company's compound fronting State Highway 1. Three other structures were shown on this map at the location of the present well site adjacent to the strawberry field. Thorough examination of this area did not disclose any historic features or deposits. Subsurface elements of any of these structures may still exist on the site and may be significant.

Impacts

General Impacts (Volume I): Impacts **ARCH-1:** Destruction of Resources, **ARCH-2:** Increased pilferage and vandalism, **ARCH-3:** Cumulative impacts from grading and increased pilferage/vandalism, and **HIST-1:** construction on historic sites, listed in Sections 5.7 and 5.8 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-ARCH/HIST-1 Destruction or Displacement of Historic/Archaeological Resources: Grading and construction activities associated with construction of roads or homes in the central portion of the site, or the Class 1 Bikepath along Orcutt Creek could result in the physical destruction of archaeological resources, or displacement from their original context (e.g. crushing during grading or compaction, earthmoving activities). This impact is considered *potentially significant*.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation measures **ARCH-1 through 8, ARCH-10,** and **HIST-1** listed in sections 5.7 and 5.8 shall apply to future development proposals on this site.

The following **site-specific** mitigation measures shall also apply:

Mitigation KS22-ARCH-1.1: The Open Space Overlay shall be applied to the site as depicted in Figure KS22-4. (*addresses impact KS22-ARCH/HIST-1*)

Mitigation KS22-ARCH-1.2: Development setbacks shall be applied to identified historic/archaeological resources on the project site as indicated in the table below:

SITE NUMBER	TYPE	REQUIRED SETBACK
ISERA 22-1	Prehistoric Artifacts present	50 ft.
ISERA 22-3	Prehistoric artifacts present	50 ft.
ISERA 22-4	Prehistoric artifacts present	50 ft.

The areas within the identified setbacks shall be incorporated into the project design as "Unbuildable Open Space". These areas shall be seeded with shallow-rooted vegetation. The areas designated "Unbuildable Open Space" shall be clearly labeled on all development and grading plans. The developer shall post a performance security with P&D to establish and maintain plantings for a two (2) year period. Security shall be posted prior to land use clearance and the site shall be seeded prior to sale of units. *(addresses impact KS22-ARCH/HIST-1)*

Mitigation KS22-ARCH-1.3: If development is proposed in areas where impacts to SBA-1159, could occur, the developer shall fund a phase II investigation to evaluate the nature and extent of archaeological resources shall be conducted pursuant to County Guidelines. Impacts to SBA-1159, and ISERA 5/H shall be reduced through placement of 30 cm of culturally sterile soil on top of these sites. A data collection program shall be conducted prior to filling on top of these sites. This measure shall not apply to ISERA 1 or ISERA 2H, as they are located within sensitive areas which would be adversely affected by fill placement. *(addresses impact KS22-ARCH/HIST-1)*

Mitigation KS22-HIST-1.4: If development is proposed to occur over ISERA 15H, the developer shall contract a County certified archaeologist to map locations of structures and artifacts prior to clearing this site. *(addresses impact KS22-ARCH/HIST-1)*

Mitigation KS22-HIST-1.5: If development is proposed to occur in the current location of ISERA 16H, the developer shall fund relocation of the existing structure to an alternate location. *(addresses impact KS22-ARCH/HIST-1)*

Residual Impacts

This mitigation, in conjunction with measures presented in Section 5.7 would reduce impacts to archaeological resources to a level of **Less than Significant (Class II)**.

B.7Traffic/Circulation

Setting

The site is located outside the developed urban portions of the community, approximately 3/4 mile northwest of Old Town Orcutt. The site is bounded on the north by the existing Tanglewood neighborhood and undeveloped airport land, on the south by State Hwy 1, on the east by estate residential development and undeveloped airport lands and on the west by Black Road. Current traffic volume for both adjacent roadways is 3,400 Average Daily Trips (ADT), and both roadways and nearby intersections in the western Orcutt area operate at acceptable levels of service (LOS). The only existing road access into the 1179 acre site is from an unmaintained segment of Dutard Road in the northwest and an existing dirt road in the southeast. No existing access is available to link the site to the community to the east. Existing nearby

intersection levels of service are shown in Table KS22-5.

Access to the site would likely be provided by a combination of new roadways off of Hwy 1 and Black road and the extension of several major new roads to serve the site. The County's Circulation Element identifies a proposed extension of Union Valley Parkway (UVP) as an east/west expressway (primary arterial) westward through the southeastern portion of the site, from the Site's eastern boundary to Highway 1. In addition, although not identified on County plans, the City of Santa Maria's Circulation Element proposes a north-south primary arterial roadway (E Street) that would enter the northern-most boundary of the site, and continue south along the site's boundary with the Santa Maria Public Airport, eventually linking with UVP (Figure KS22-5). Figure KS22-5.1 depicts the preferred alternative alignments of Dutard Road and "E" Street through Key Site 22. The county defines roadway and intersection operation in terms of level of service (LOS) A-F, with A being free flow and F being highly congested. LOS C is the County's current acceptable standard. Intersection operations in the vicinity are shown in Table KS22-5 (in the impact section below), where the worst case Peak hour traffic conditions are reported.

Impacts

Development of 2,000 residential units on over 1100 acres in a rural area currently served by a rural highway and country road, with no "internal" road network and with inadequate roadway links to the community would raise a number of circulation planning issues/ impacts. The need for and sizing of the major road links such as Union Valley Parkway and "E" Street is largely dependent upon the intensity of development projected to occur within Site 22. For example, at the proposed level of development, both Union Valley Parkway and "E" Streets would operate well within the capacity of a two lane primary with predicted volumes. Union Valley Parkway and "E" Street are projected to carry 8,500 ADT and approximately 10,000 ADT respectively. Therefore, if development were to proceed at the currently proposed levels, it is likely that these two roads could be downsized from four to two lanes.

Based upon standard trip generation rates contained in the Institute of Traffic Engineers Traffic Generation Manual, for the various densities of potential residential uses on Site 22, development of the site with approximately 2,000 units would generate a potential increase in traffic of approximately 19,100 ADTs with 2,020 of these as afternoon Peak Hour Trips (PHTs). Table KS22-4 identifies trip generation rates for the site. Although no site specific traffic analysis was performed for the property, Table KS22-5 lists the existing and cumulative levels of service for intersections likely to be impacted by site development. The cumulative levels of service are based on the future traffic volume forecasts derived from the Orcutt Traffic Model 10-year growth scenario. The increase in traffic from development of the site would create the following general impacts to the area circulation system:

TABLE KS22-4: PROJECTED TRIP GENERATION FOR KEY SITE 22

LAND USE	SIZE	AVERAGE DAILY TRIPS (ADT)	P.M. Peak Hour Trips (PHT)
Residential	2,000 units	19,100	2,020

TABLE KS22-5: EXISTING AND PROJECTED LEVELS OF SERVICE FOR AREA INTERSECTIONS

INTERSECTION	CONTROL	EXISTING V/C RATIO / LOS	CUMULATIVE V/C RATIO / LOS
Clark/US Highway 101 N ^a	1-Way Stop	2.2 sec./A	NA/F ^c
Clark/US Highway 101 S ^a	1-Way Stop	1.8 sec./A	NA/F ^c
Clark/Blosser ^a	1-Way Stop	5.2 sec./A	14.8 sec./C
Clark/Broadway-California ^a	4-Way Stop	.26/A	1.01/F
Clark/Route 135 N	Signal	.35/A	.72/C
Clark/Route 135 S	Signal	.43/A	.68/B
Foster Rd./Route 135 ^b	Signal	.75/C	.87/D

^a V/C ratio not applicable. LOS based on delay.

^b LOS assumes completion of the funded improvements at this location.

^c Volumes exceed capacity. Delay value not applicable.

Bolded-Underlined values exceed LOS C.

The following general impacts listed in Section 5.9 are anticipated to result from future development on this site:

General Impacts (Volume I): Impacts **CIRC-1 & 15:** Significant overall increases in traffic volumes/delays, **CIRC-6 & 25:** Blosser Road/Clark Ave congestion-turning movements, **CIRC-9 & 28:** Black Road n/o Route 1 congestion, **CIRC-14:** Alternative Transportation Mode Deficit, **CIRC-16:** Traffic Volume Increase to un-signalized intersections, **CIRC-18:** Foster Road/State Route 135 traffic delays, **CIRC-34:** Changes to Emergency Response Plans/Times, and **CIRC-37:** Regional traffic increases on HWY 135 through Los Alamos.

The following **site-specific** impact is also anticipated:

Impact KS22-CIRC-1 Decreased Levels of Service on Area Roadways: The project could cause *potentially significant* impacts to levels of service (LOS) on Highway 1 and Black Road. Trips on Highway 1 would travel east to Vandenberg or west into Orcutt. A significant number of northbound and southbound trips are also expected on Black Road as a result of travel between the site and employment centers in Santa Maria. The project could also contribute to a decrease in LOS on Highway 135 as a result of traffic using Union Valley Parkway to travel east before heading north to Santa Maria.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation measures **CIRC-1, CIRC-8, CIRC-24,** and **CIRC-26,** listed in Section 5.9 shall apply to future development proposals on this site.

The following **site-specific** mitigation measure shall also apply:

Mitigation KS22-CIRC-1: The developer shall fund the design and construction of Union Valley Parkway between Highway 1 and the eastern site boundary, "E" Street between the northern site boundary and Union Valley Parkway, and Dutard Road between Black Road and "E" street. Site plans, roadway plans, and intersection plans shall be submitted for review by P&D and Public Works Transportation Division with the Specific Plan/ Development Plan applications. Plans for proposed roadways shall identify roadway construction phasing and include cross-sections and a note describing building materials to be utilized. (*addresses impact KS22-CIRC-1*)

Mitigation KS22-CIRC-2: A detailed traffic study shall be prepared in conjunction with the required Specific Plan for Key Site 22. (*addresses impact KS22-CIRC-1*)

Residual Impacts

The measures referenced above would help to decrease the extent of traffic impacts associated with the development of 2,000 units on the site; however, these impacts would remain **Significant and Unavoidable (Class I)**.

B.8 Noise

Setting

Key Site 22 is affected by noise from vehicle traffic on Highway 1 and Black Road, and by aircraft noise from the flight approach to runway 2/20 at the Santa Maria Public Airport. A noise analysis was conducted by Impact Sciences Inc. to determine the extent of noise from existing and future roadways which would affect the site. Along the site's boundary with Highway 1, the 65 dB noise contour extends 36 feet toward the interior of the site, and the 55 dB contour extends to 230 feet from the boundary. The 65 dB contour from Black Road extends 14 feet toward the site's interior, and the 55 dB contour from this roadway extends 128 feet into the site. Noise from Union Valley Parkway and "E" Street would also affect development in the central portions of the site. The 65 dB contours for Union Valley Parkway and "E" Street are projected to extend 66 feet and 79 feet respectively, from the centerlines of these roadways. Additionally, the 55 dB noise contour associated with the flight approach for the Santa Maria Public Airport extends over approximately 25% of the site.

Impacts

General Impacts (Volume I): Impacts **NSE-1:** Noticeable noise level increase, **NSE-2:** Noise levels exceeding 65 dB(A), **NSE-3:** Construction related noise, and **NSE-4:** Airport related noise, listed in Section 5.10 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-NSE-1 Long-Term Exposure of Sensitive Receptors to Noise: Development of residential units within 230 feet of the southern site boundary, 128 feet from the western site boundary, adjacent to Union Valley Parkway and "E" Street and beneath the noise contour for the Santa Maria Public Airport could cause *potentially significant* impacts through the exposure of residents to noise levels which exceed County thresholds for interior and exterior living areas.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation Measures **NSE-1 through 7**, listed in Section 5.10 shall apply to future development proposals on this site.

The following **site-specific** mitigation measure shall also apply:

Mitigation KS22-NSE-1: No structures shall be located within 20 ft of the western site boundary and no development shall be located within 50 feet of Highway 1 and an appropriate distance from UVP and "E" Street, as established in a site-specific noise analysis. Noise reducing features such as vegetated berms, building orientation, adequate setbacks and extensive landscaping shall be incorporated, to the maximum extent feasible along the site's southern and western boundaries; However soundwalls shall not be utilized along the southern site boundary with Highway 1. Features shall be located and constructed in a manner which reduces exterior noise affecting residential units to a maximum of 65 dB. (*addresses impact KS22-NSE-1*)

Mitigation KS22-NSE-1: Units shall be constructed in a manner which reduces interior noise levels to a maximum of 45 dB. The developer shall contract with a County approved consultant to conduct a study to determine the design/effectiveness of proposed noise reduction measures. Noise reduction features shall be depicted and clearly labeled on the Development Plan. (*addresses impact KS22-NSE-1*)

Residual Impacts

This mitigation, in conjunction with measures presented in Section 5.10 would reduce noise impacts to **Less Than Significant (Class II)**.

B.9 Air Quality

Setting

Site 22 lies within Region III of the South Central Coast Air Basin. Air quality in the region is typically good; however, the County currently exceeds California and federal health standards for two pollutants: Ozone (O₃) and particulate matter less than 10 microns in diameter (PM₁₀). Santa Barbara County is currently classified as "non-attainment" for state and federal ozone standards and the state 24 hour PM₁₀ standard. APCD formally submitted a redesignation request for the federal ozone standard to EPA in November, 1994. This request was based on monitored data collected between 1991, 1992, and 1993. However, monitoring data collected in 1994 revealed violations of the federal ozone standard which has prompted EPA to suspend review of Santa Barbara County's redesignation request and Maintenance Plan. Santa Barbara County continues to violate the more stringent state ozone standard between 10 and 20 times per year.

Impacts

General Impacts (Volume I): Impacts **AQ-1:** Significant Ozone Precursors, **AQ-2:** Dust and PM10 Generation, and **AQ-3:** Inconsistent with Clean Air Plan Growth Rate, listed in Section 5.11 are anticipated to result from future development on this site.

The following **site-specific** impacts are also anticipated:

Impact KS22-AQ-1 Short-Term Construction-Related Emissions: Project grading could generate short-term construction-related impacts with regard to dust generation and emissions from construction equipment if the project exceeds the County's threshold level of 2.5 tons/3 month period for PM₁₀ emissions. PM₁₀ emissions for the project can not be quantified at this time due to the lack of specific grading information. Due to the magnitude of grading which would be required, these impacts are considered *significant*.

Impact KS22-AQ-2 Long-Term Operational Emissions: Emissions from traffic associated with the development of 2,000 units would substantially exceed County thresholds of 25 pounds/day threshold for either ROC or NO_x (precursors of ozone). An URBEMIS 3 air quality model run (Appendix J) for 2000 units indicates emissions of these pollutants as shown below. This impact would be considered *significant*.

DEVELOPMENT TYPE	ROC*	CO	NO _x
Single Family Residential	280.95 lbs/day	4144.3 lbs/day	326.0 lbs/day

*Total organic gases (TOG: 313.3 lbs/day) is multiplied by a factor of 0.8967 in order to calculate reactive organic gases (ROC).

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation Measures **AQ-1 through 3** listed in Section 5.11 shall apply to future development proposals on this site.

The following **site-specific** measure shall also apply:

Mitigation KS22-AQ-1: Development shall be phased to avoid extended periods of construction activity with the potential to create emissions. The Specific Plan for Key Site 22 shall identify appropriate phasing for future development. (*addresses impact KS22-AQ-1*)

Residual Impacts

This mitigation, in conjunction with measures presented in Section 5.11 would reduce impacts from short-term construction related activities to a level of **Less than Significant (Class II)**. It is likely that impacts associated with long-term operational emissions would remain **Significant (Class I)**.

B.10 Risk of Upset/Hazards

Setting

The flight approach zone for runway 2/20 extends over an area of approximately 90 acres on Key Site 22, adjacent to the southwest corner of the airport property. Due to the prevailing wind direction, takeoffs and landings usually occur on the runway 12/30, the airport's main runway. However, unusual wind conditions occasionally dictate the use of runway 2/20.

The primary airport hazard to people or structures on the ground is the potential for an airplane to crash or to drop material (e.g., a detached section of the aircraft's body or fuel). Hazards to aircraft can be caused by some agricultural land uses, (such as grain fields which attract flocks of birds) or bodies of water which are highly reflective inhibit visual aircraft navigation. Approximately 15 percent of all civilian aircraft accidents occur near airport boundaries.

Impacts

General Impacts (Volume I): Impact **AIRPORT-1:** Development in Areas Overflown by Aircraft Using Santa Maria Airport, listed in Section 5.12 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-AIRPORT-1 Exposure of Residents and Property to Airport Hazards: Development of residential units beneath the flight approach zone for the Santa Maria Public Airport could result in *potentially significant* exposure of residents and property to hazards associated with aircraft overflight.

Mitigation Measures

General Mitigation Measures (Volume I): Measure **AIRPORT-1** listed in Section 5.12 shall apply to future development proposals on this site.

In addition, the following **site-specific** measures shall apply:

Mitigation KS22-AIRPORT-1: Residential density beneath the flight approach shall be subject to ALUC review. If residential development is allowed beneath the flight approach zone, densities shall not exceed 1.0 unit/acre. (*addresses impact KS22-AIRPORT-1*)

Mitigation KS22-AIRPORT-2: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. (*addresses impact KS22-AIRPORT-1*)

Residual Impacts

The mitigation measures listed above, in conjunction with measures in Section 5.12 would reduce impacts to **Less than Significant (Class II)**.

B.11 Wastewater

Setting

The Laguna County Sanitation District (LCSD) provides wastewater treatment for the community of Orcutt. Because the area's water supply is fairly "hard" due to moderately high dissolved mineral content, many residents have installed regenerating water softeners which increase the level of Total Dissolved Solids (TDS) in wastewater effluent. The TDS levels in Orcutt's effluent exceed the 1,000 milligram per liter (mg/l) discharge limit set by the Regional Water Quality Control Board (RWQCB). The RWQCB has placed a regulatory cap on the District's treatment capacity to slow degradation of the Santa Maria Groundwater Basin from high salinity in treated effluent.

The LCSD has plans to extend a trunk line to Stillwell Road, but does not have plans for treatment plant expansion or replacement. The existing plant has an operational capacity of 3.2 million gallons per day (mgd) and a permitted capacity of 2.4 mgd. The district can no longer issue new Can & Will Serve (C&WS) letters for new development (per RWQCB moratorium); however, they are accepting C&WS letters issued under their permitted capacity.

Impacts

General Impacts (Volume I): Impacts **WW-1:** Increase in TDS, **WW-2:** Additional trunk and feeder lines, **WW-4:** Potential flows exceed plant capacity, **WW-5:** Increase in grease or chemical levels, and **WW-6:** Impacts from retrofitting, listed in Section 5.13 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-WW-1 Increased Demand for Sewer Service: Based on a per unit demand 200 gallons per day (gpd), the project would generate 400,000 gpd of effluent. Because the existing LCSD treatment plant is operating at its regulated capacity, and long-term demand for additional services would exceed the treatment plant's physical capacity, project wastewater impacts are considered *potentially significant*.

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation Measures **WW-1 through 4** listed in Section 5.13 of this EIR shall apply to future development proposals on this site.

Residual Impacts

Implementation of the mitigation measures presented in the Wastewater section of the Community Plan EIR could help to reduce TDS levels in treated effluent from the LCSD, thereby increasing the level of sewer service from the current permitted capacity (2.4 mgd) to the operational capacity (3.2 mgd). However, the operational capacity of the existing treatment plant would be reached serving the demands of existing development. As a result, this impact is considered **Significant and Unavoidable (Class I)**.

B.12 Fire Protection

Setting

Fire protection service for the Orcutt area is provided by the Santa Barbara County Fire Department. The project site would be served by County Station 22, located at 1596 Tiffany Park Court. Response time to this site would be 5 minutes or less. Back up assistance would also be available from County Station 21, located near the airport at 3339 Skyway Drive and the Orcutt Volunteer Fire Department as needed. The Orcutt area has experienced a steadily increasing demand for fire protection service, and the existing level of service falls slightly below County standard of 1 fire fighter/4,000 residents (currently 1/4,066). The County currently collects a \$350 per unit fee to offset fire service impacts in the Orcutt area. Key Site 22 does not lie within a designated "High Fire Hazard" area; however, portions of the site lie outside of the Fire Department's five minute response zone.

Impacts

General Impacts (Volume I): Impacts **FIRE-1:** Inadequate Number of Firefighters, **FIRE-2:** Development Outside of Existing Five Minute Response Areas, **FIRE-4:** Fiscal Impacts to Fire District, and **FIRE-6:** Cumulative Fire Impacts, listed in Section 5.14.1 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-FIRE-1 Reduction in Level of Fire Protection Service: The development of 2,000 units with approximately 5,740 residents would cause *significant* impacts through substantially reducing the firefighter/resident ratio, causing it to fall further below County fire protection standards.

Mitigation Measures

General Mitigation measures (Volume I): Mitigation Measures **FIRE-2 through 4 and FIRE-6**, listed in Section 5.14.1 shall apply to future development proposals on this site.

The following **site-specific** mitigation measure shall also apply:

Mitigation KS22-FIRE-1: Site design shall incorporate a half acre area to serve as a site for a future fire station. The location and design of the station shall be subject to review and approval by the County Fire Department. The selected site shall be labeled appropriately on the development plan, and dedicated in fee to the Santa Barbara County Fire Department upon tract map approval. (*addresses impacts KS22-FIRE-1*)

Residual Impacts

This mitigation, in conjunction with measures presented in Section 5.14.1 could potentially reduce all impacts associated with reduction in the level of fire protection service to Less than Significant(Class II); however, because the existing fees and revenue structure would not support an adequate overall level of fire protection service in the community, the project's contribution to these regional impacts would be considered **Significant and unavoidable (Class I)**.

B.13 Solid Waste

Setting

Solid waste collection service in Orcutt is provided by Health Sanitation Service (HSS), a private refuse collection, recycling and disposal company. Solid waste is transported to the City of Santa Maria landfill, a Class III solid waste disposal site located at the northeastern corner of the Santa Maria city limits adjacent to the Santa Maria River. This 290 acre landfill is the second largest in the County, and receives approximately 300 to 400 tons/day of waste (109,500 to 146,000 tons/year). Although this facility is fully permitted by the Regional Water Quality Control Board (RWQCB), its capacity has been limited due to concerns about its proximity to the Santa Maria River, and corresponding threat to water quality. The estimated capacity of the landfill is approximately 3.0 million cubic yards, and could accommodate the current level of demand until 2008-2009.

Impacts

General Impacts (Volume I): Impacts **SW-1:** Increase in Solid Waste from 10-year Buildout, **SW-2:** Increase in solid waste from full buildout, and **SW-3:** Increased Need for a New Landfill, listed in Section 5.14.3 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-SW-1 Generation of Waste: A project is considered to result in significant impacts to landfill capacity if it would generate 5% (196 tons/year) or more of the expected annual increase in waste generation. Buildout on the project site would cause *potentially significant* impacts through generation of solid waste as indicated in the table below:

TYPE	GENERATION RATE ¹	WASTE GENERATED
Residential	2,000 units x 2.87 residents/unit x 0.95 tons/resident/yr	5,453 tons/yr

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation Measures **SW-1 through 4** and **SW-6** listed in Section 5.14.3 of this EIR shall apply to future development proposals on this site.

Residual Impacts

Mitigations presented in the Section 5.14.3 could reduce the project's waste stream by as much as 50%. However, the remaining increase (2,727 tons/year) substantially exceeds the County threshold (196 tons/year) by 88.5 tons/year. As a result, this impact is considered **Significant and Unavoidable (Class I)**.

¹Santa Barbara County Environmental Thresholds and Guidelines Manual, January 1995

B.14 Visual Resources/Open Space

Setting

Key Site 22 represents one of the largest contiguous open space areas within the Orcutt Community Plan Area. The site serves as a visual gateway to west Orcutt for eastbound travellers on Highway 1. This roadway has been designated as an "eligible highway" for a "Scenic Highway Designation" along its entire length through Santa Barbara County. Views to the northeast across the site include expanses of rolling grassland, the alluvial floodplain of Orcutt Creek, agriculture, eucalyptus windrows along the eastern site boundary, and the Santa Maria Public Airport. Residents in the southernmost portions of the Tanglewood subdivision to the north, experience an uninterrupted view of the Casmalia Hills across the site. The large open space which Key Site 22 represents contributes significantly to the rural character of west Orcutt.

The Open Space Element of the Comprehensive Plan ranks the Key Site 22 study area from low to high scenic value with the area of highest scenic value along Orcutt Creek. The Open Space Element classifies Highway 1 between Guadalupe and Orcutt as a Level Two corridor, which is defined as having scenic zones, which although not warranting preservation as open space, do justify special consideration of site design for future development.

Impacts

General Impacts (Volume I): Impacts **VIS-1:** Transformation from Semi-Rural to Urban Area, **VIS-2:** Increased Night Lighting, **VIS-3:** Unmaintained Stormwater Retardation Basins, **VIS-4:** Unmaintained Roadway Medians and Planter Strips, **VIS-5:** Degradation of Views along Gateway Roads to Community, **VIS-7:** Removal of Scenic Natural Resources, **VIS-8:** Fragmentation of contiguous open space, **VIS-9:** Structural Intrusion into Open Space Views, **VIS-14:** Elimination of existing open space, **VIS-17:** Expansion of Urban Activities into Existing Rural Open Space, and **VIS-18:** Degradation of views from designated scenic corridors, listed in Section 5.15 of this EIR are anticipated to result from future development on this site.

The following **site-specific** impacts are also anticipated:

Impact KS22-VIS-1 Change in Visual Character of the Site: Development of 2,000 residential units on the site would create *potentially significant* impacts as a result of the change from open space and pastoral views to medium and high density urbanization. Development in proximity to the Tanglewood subdivision would also eliminate views of the Casmalia Hills to the south.

Impact KS22-VIS-2 Impacts to Highway 1 scenic corridor: Urbanization throughout the southern portions of the site could eliminate the scenic value of the northern side of the Highway 1 corridor between Black Road and Solomon Road, adversely impacting views from this scenic "gateway road" and creating *potentially significant* impacts through construction of new development or masonry soundwalls in proximity to the roadway.

Mitigation Measures

General Mitigation Measures (Volume I): Measures **VIS-1a through 1c, VIS-2 through 7, and VIS-9** listed in Section 5.15 shall apply to future development proposals on this site.

The following **site-specific** mitigation measures shall also apply:

Mitigation KS22-VIS-1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. (*addresses impact KS22-VIS-1*)

Mitigation KS22-VIS-2: No development (including fences) shall be located within 50 feet of the site's southern boundary with Highway 1. No structures shall be located within 100 feet of the southern boundary. Property fences along the Highway 1 corridor must be designed to allow for unobstructed views through the fence (e.g. polecraft fencing). Landscaping within these setbacks shall be designed to accentuate the semi-rural character of the area, and include sufficient densities of trees and shrubs to break up building masses without obstructing primary views north from Hwy 1. (*addresses impact KS22-VIS-2*)

Residual Impacts

Impacts associated change to the visual character of the site would be **Significant and Unavoidable (Class I)**. Impacts to the Highway 1 scenic corridor would be **Less than Significant (Class II)**.

B.15 Parks, Recreation and Trails

Setting

The community of Orcutt lies within the jurisdiction of the Santa Barbara County Parks Department, and has 160.22 acres of dedicated public recreation space. Approximately 95% of this acreage is located within Waller park, which is also utilized by residents of the City of Santa Maria. With a population of approximately 36,500 the Orcutt area has an existing deficit of 8.98 acres of local parks & recreation facilities and open space areas. As a result, there is currently an insufficient inventory of open space allotted to meet existing recreation space requirement.

Approximately 16 acres of County maintained open spaces are located within the Orcutt planning area, of which 6.68 acres are developed as public neighborhood parks. However, there are no developed public parks in proximity to Key Site 22.

Impacts

General Impacts (Volume I): Impacts **REC-1:** Intensification of use in existing recreational facilities, **REC-2:** Increased demand for recreational facilities, and **REC-4:** Increased demand for neighborhood parks, listed in Section 5.16 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-REC-1: Increased Demand for Park Facilities. The construction of 2,000 units with approximately 5,740 residents would result in *potentially significant* impacts on the demand for park facilities in west Orcutt.

Mitigation Measures

General Mitigation Measures (Volume I): Measures **REC-1a through 1c, REC-3, REC-5 and 6, and REC-10** listed in Section 5.16 of shall apply to future development proposals on this site.

The following **site-specific** measure shall also apply:

Mitigation KS22-REC-1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. (*addresses impact KS22-1*)

Mitigation KS22-REC-1.1: The Specific Plan/Development plan shall include the siting, design and construction of a 15 acre regional park in the approach zone adjacent to Orcutt Creek. (*addresses impacts KS22-REC-1*)

Mitigation KS22-1.2: The Specific Plan/Development Plan for the site shall include the siting, design and construction of 10, one to two acre neighborhood parks (one acre park/200 units) distributed appropriately throughout the site.

Mitigation KS22-1.3: The Specific Plan/Development Plan shall include the siting, design and construction of the Orcutt Creek Class 1 bikepath and hiking trail system depicted on Figure KS22-4. (*addresses impact KS22-REC-1*)

Residual Impacts

These mitigation, in conjunction with measures presented in Section 5.16 would reduce site specific impacts to demand for park facilities to a level of Less than Significant (Class II); However, the project's would contribute substantially to regionally *unavoidable and significant* impacts to long term maintenance of Park facilities due to insufficient funding sources.

B.16 Schools

Setting

The project site is located within the Orcutt Union School District (OUSD) and the Santa Maria Joint Union High School District (SMJUHSD). Most of the facilities within these districts are at capacity or exceeding it. Although developers currently contribute a \$1.72/square foot fee for public schools, the districts are experiencing funding shortfalls, making improvements difficult.

Due to this site's location, and the magnitude of proposed buildout, it is difficult to determine which existing educational facilities would serve future residents. Given the community growth associated with the project, it is likely that additional educational facilities would need to be constructed, or existing facilities expanded,

to accommodate the educational demand of future residents.

Impacts

General Impacts (Volume I): Impacts **SCH-1:** Exceedance of OUSD's permanent/expanded school capacities, **SCH-2:** Capacity exceedance at Righetti High/need for need high school, **SCH-3:** Need for 1-2 additional elementary schools, **SCH-4:** Operational impacts, **SCH-5:** Exceedance of capacity at OUSD, **SCH-6:** Exceedance of capacity at SMJUHSD, **SCH-7:** Lack of school sites, and **SCH-8:** Lack of funding, listed in Section 5.17 are anticipated to result from future development on this site.

The following **site-specific** impact is also anticipated:

Impact KS22-SCH-1 Generation of Students: Future buildout and population of the project site would cause *potentially significant* impacts through increased demand for public schools. The proposed project would generate additional students as indicated in the table below:

EDUCATION LEVEL	GENERATION RATE ²	SPLIT FACTOR ³	# OF STUDENTS	THRESHOLD ⁴
Elementary	.38 students/unit X 2,000 units = 760 students	.75 X 760 students	570	29
Elementary/ Junior High	.38 students/unit X 2,000 units = 760 students	.25 X 760 students	190	29
High School	.099 students/unit X 2,000 units = 198 students	No Split Factor	198	28

Mitigation Measures

General Mitigation Measures (Volume I): Mitigation measures **SCH-1 through 3** listed in Section 5.17 of this EIR shall apply to future development proposals on this site.

The following **site-specific** mitigation measures shall also apply:

Mitigation KS22-SCH-1.1: The developer shall incorporate three school sites: a 17 acre junior high school site and two 10 acre elementary school sites, within the development plan for Key Site 22. These sites shall

²OUSD Developer Fee Justification Study, April 1994

³ Based upon current enrollment figures for OUSD schools

⁴County of Santa Barbara Environmental Thresholds and Guidelines Manual, January 1995

be labeled on the development plan and dedicated in fee to the OUSD upon tract map approval. To the maximum extent feasible, these school sites shall be located adjacent to developed parkland (see Section 5.17). *(addresses impact KS22-SCH-1)*

Mitigation KS22-SCH-1.2: Any Specific Plan adopted for the site shall include standards to ensure that the developer finance the acquisition and construction of adequate school facilities to accommodate the students generated by development within the Specific Plan area. *(addresses impact KS22-SCH-1)*

Mitigation KS22-SCH-1.3: The developer shall contribute the maximum fee allowable to the OUSD and SMJUHS pursuant to the State Law. Documentation of payment shall be provided by the developer prior to land use clearance. *(addresses impact KS22-SCH-1)*

Residual Impacts

Mitigations listed in this section, in conjunction with measures presented in Section 5.17, and construction of proposed educational facilities described in the Section 5.17, would reduce impacts associated with cumulative demand for Junior High Schools and High Schools to **Less than Significant (Class II)**. Impacts to elementary schools would remain **Significant and Unavoidable (Class I)**.

C.ALTERNATIVES TO THE PROPOSED PROJECT

C.1No Project

Description

Under existing designations, 53 dwelling units could be constructed on the site. Twenty-nine units would be single family dwellings on 10,000 sq. ft. lots located in the southeast corner of the site. Twelve 20 acre ranchettes and twelve 100 acre ranchettes could also be constructed, with the 20 acre ranchettes concentrated along the Orcutt Creek corridor.

Impact Discussion

In general, this alternative would have significantly lower impacts due to the dramatic decrease in development intensity relative to the proposed project.

Reduction and disruption of habitat would remain Class 1 however, due to the lack of flexibility to cluster units.

C.2 Alternative 1 (Low Buildout)

Description

Under this alternative, the entire site would be designated Residential Ranchette/RR-40, allowing for the construction of 21 additional units on the site, for a total of 25 units. Units would be single family residences on lots of 40 or more acres, with the exception of 4 units which would be built on parcels ranging from 4.6 to 20.0 acres (existing parcels which do not meet the minimum area requirement of the proposed designations would be allowed 1 unit each). This alternative would not require extension of Union Valley Parkway and "E" Street to serve the site, but would most likely be served by private roadways.

Impact Discussion

In general, the level of impacts associated with implementation of this alternative would be substantially lower relative to the proposed project. This would result from the significant decrease in the number of units and the extent of urbanization, which directly effects impacts in the areas of groundwater resources, flooding/drainage, air quality, traffic/circulation, fire protection, schools, solid waste and wastewater. Under this alternative, impacts in these areas would be Less than Significant (Class II) after implementation of the proposed mitigation measures.

Impacts to biological resources would be substantially reduced relative to the proposed project as a result of the decrease in units. However, the Residential Ranchette designation would not allow for clustering of units outside of biologically sensitive areas. Overall reduction in habitat would be Less than Significant (Class II) under this alternative, although disruption of habitat and possible damage to sensitive resources would remain Significant and Unavoidable (Class I) due to the potential for areas to be divided by roadways serving residences or by property fences. Contamination of ~~Freshwater Marsh Orcutt Creeks and Vernal Complexes~~ would be Less than Significant (Class II) in addition to Impacts to wildlife.

Conversion of agricultural land under this alternative would be Less than Significant (Class II) due to the fact that 40 acre parcels would be viable for production of irrigated specialty crops. However, this parcel size would not be viable for continued grazing activities. Impacts associated with urban/rural land use conflicts would be Less than Significant (Class II) due to the significantly lower density of urban use on the site.

Geology/Soils impacts would be Less than Significant (Class II), although the potential for damage to structures from high groundwater levels would increase as a result of the increased likelihood for structures to be located in the northern-most portions of the site.

Impacts to archaeological and historical resources could occur under this alternative, although there would be greater flexibility to site units in a manner which avoids disturbance of archaeological/historical sites. All impacts referenced in the historical/archaeological resources section would be Less than Significant (Class II).

All noise impacts would be Less than Significant (Class II). It would be relatively easy to locate units outside of areas exposed to high noise levels.

Impacts associated with airport hazards would be Less than Significant (Class II) due to the substantial decrease in density.

Visual impacts would be Less than Significant (Class II), as development possible under this alternative would be consistent with the existing rural character of the area.

C.3 Alternative 2 (High Buildout)

Description

This alternative would involve redesignation of the entire site to Planned Development (Max. 3000 units)/PRD. The developed areas would be similar to those for the proposed project, but the densities within these areas would be increased. This alternative would include all of the features mentioned in the project description for the proposed project, and would likely include a 15 acre neighborhood commercial center (with approximately 151,600 square feet of supporting commercial development) in addition to a 40 acre high school. It is also probable that an additional north/south primary arterial roadway would be provided to enhance circulation throughout the western portion of the site. This roadway would extend between the proposed realignment for Dutard Road and Highway 1. Figure KS22-7 shows a potential conceptual plan for this alternative.

Impacts Discussion

Impacts associated with implementation of this alternative would be substantially higher than those for the proposed project in several areas, as this option represents a 50% increase in density. Impacts in the areas of agricultural resources, geology/soils, flooding/drainage, historical and archaeological resources, noise, and visual/aesthetic resources would be similar those for the proposed project.

Impacts to wildlife and contamination of ~~freshwater marsh Orcutt Creeks and vernal complexes~~ would be Significant and Unavoidable (Class I) due to the substantial increase in density and associated increases in human disturbance, domestic predators, and numbers of vehicles utilizing roadways and parking areas.

Urban/rural land-use conflicts would remain Significant and Unavoidable (Class I), and would be more adverse than those expected for the proposed project. This would mainly result from the increase in residential population on the site, and the associated increases in complaints about fertilizer and pesticide drift, and trespassing onto agricultural lands.

Groundwater demand would be 936 AFY for this alternative, roughly double the demand of the proposed project. All impacts to groundwater resources would be Significant and Unavoidable (Class I).

This alternative would result in the generation of approximately 37,816 average daily trips and 3,885 peak hour trips. This substantial increase in traffic could adversely affect levels of service on area roadways and is considered Significant and Unavoidable (Class I).

Air quality impacts would be substantially greater for this alternative relative to the proposed project. Full buildout would result in the generation of 553 lbs/day of ROC, 7,792.4 lbs/day of CO, and 844.5 lbs/day of NO_x. These projected emissions are almost double those anticipated for the proposed project. Long term operational emissions would remain Significant and Unavoidable (Class I).

Exposure of residents and property to airport hazards would become more likely as a result of increased densities near the Santa Maria Public Airport flight approach zone; however, this impact would remain Less than Significant (Class II).

Insert Figure KS22-7 (3000 unit conceptual plan)

The potential buildout population of 8,610 residents possible under this alternative would substantially reduce the level of fire protection service within the community, and represents an increase of 2,870 residents above the buildout population for the proposed project. This impacts would be Significant and Unavoidable (Class I). Additionally, impacts to schools would be Significant and Unavoidable (Class I) due to the large increase in population. This population increase would also lead to greater impacts to Parks, Recreation and Trails, which would remain Significant and Unavoidable (Class I).

Uses associated with development possible under this alternative could result in the generation of approximately 8,317 tons of solid waste per year. This impact would be Significant and Unavoidable (Class I). This alternative would also generate approximately 600,778 gallons per day of wastewater effluent, a Significant and Unavoidable (Class I) impact.

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ATTACHMENT 3

OCP FEIR Section 4.0 Environmental Setting, Page 4-1

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4.0 ENVIRONMENTAL SETTING

4.1 REGIONAL SETTING

The community of Orcutt is located near the northern edge of Santa Barbara County, in the Santa Maria Valley. The Orcutt Planning Area is generally bounded by the Santa Maria Public Airport and the City of Santa Maria to the north, U.S. Highway 101 to the east, the ridgeline of the Solomon Hills to the south, and the ridgeline of the Casmalia Hills to the west. Portions of the Santa Maria Public Airport and the southern reaches of the City of Santa Maria are included within the planning area "zone of concern" since land use and infrastructure issues within these areas can affect the community of Orcutt.

4.2 BUILT ENVIRONMENT

LAND USE

The existing community characteristics of Orcutt are described in terms of four sub-regions: the Central Urban Core, West Orcutt, South Orcutt, and East of Highway 101. Each is described below.

Central Urban Core: This area is the core of the community which consists primarily of residential development. The existing Santa Maria Public Airport influences surrounding neighborhoods and undeveloped parcels within the airport's flight approach zones located to the southeast and northwest. The only major commercial development within the community is located at the intersection of Clark Avenue and Bradley Road, with scattered smaller centers to the north near Lakeview Road and Highway 135, as well as the historic Old Town Orcutt commercial district.

West Orcutt: West Orcutt consists of approximately 2,000 acres and is bounded by Black Road and the ridge of the Casmalia Hills. A large expanse of level, cultivated agricultural land lies north and south of Highway 1. The Tanglewood neighborhood is located northwest of the Santa Maria Public Airport along Black Road. The east-west trending floodplain of Orcutt Creek forms the northern perimeter of cultivated agriculture. ~~Vernal wetlands, sand dunes and chaparral are located to the north of the creek.~~ Much of this area is grazed by livestock. The moderately steep Casmalia Hills to the west are erosive and covered mostly with grasses with oaks and scrub in the canyons.

South Orcutt: This area is characterized by generally low to moderate density single family residential development located primarily between Clark Avenue and Rice Ranch Road. The open floodplains of Orcutt and Pine Canyon Creeks provide a band of open space. Low density estate and residential ranchette development is located in the lower reaches of the Solomon Hills. The southern boundary of the Orcutt area is characterized by moderate to steep slopes which are covered with grassland, scrub and chaparral. These hills are dotted with active and historic oil production facilities. Large expanses of undeveloped open land are located to the south and southwest.

East of U.S. Hwy. 101: The 2,600 acres within the planning area east of Highway 101 are fairly homogenous with undeveloped livestock grazing lands and scattered oil development. Topography is generally level with large areas of grassland transitioning to rolling hills in the north and south. Within this area are pockets of cultivated agriculture including a vineyard, eucalyptus cut flower operations and a christmas tree farm. The two existing semi-urban neighborhoods (Lake Marie Estates and "Oakey Flats") are located off Clark Avenue.

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ATTACHMENT 4

OCP FEIR Section 5.2 Biological Resources

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5.2 BIOLOGICAL RESOURCES

METHODOLOGY

~~The information contained in this section has been collected primarily from field surveys conducted for this Community Plan EIR (Katherine Rindlaub Biological Consulting 1995a, Rindlaub 1994), field surveys by County staff in 1994 and 1995, and a preliminary wetland delineation on Key Site 22 (K. Rindlaub 1995b). Other sources include Smith 1976, Sweet 1992, Holland 1991, Olson 1991 and 1992, Collins 1991, Enviroplan 1990 and 1991 and ERC 1991. Information on the unique geological features found within and around the project area came from Hunt 1994. Information has also been gained from 1938 (Weislander) and 1980 (Santa Barbara County Conservation Element) vegetation maps, and aerial photographs taken in Fall 1989.~~

~~Field surveys were performed in 1995 by Katherine Rindlaub Biological Consulting in Spring 1995 on ten "Key Sites" within the Orcutt planning area. Surveys were conducted by the consultant team during April, May, and June of 1995. These were supplemented by County staff surveys in: May and December 1994 and April 1995. Surveys consisted of walking through each site. Features of particular biological importance, such as wetlands, potential breeding sites for sensitive vertebrates, and plant communities of special interest, were surveyed most intensively.~~

5.2.1 EXISTING CONDITIONS

A. Physical Setting

The community of Orcutt is located in the southern portion of the Santa Maria Valley. It is bounded to the south by the Solomon Hills and to the west by the Casmalia Hills. The valley stretches northward, beyond Orcutt to the City of Santa Maria and the Santa Maria River. The valley also stretches east past US Highway 101, beyond the Planning Area boundary to the Santa Maria River at the base of the Sierra Madre Mountains. The Orcutt area is unusual biologically because of the broad valley floor covered by wind blown sand, deposited in dunes 6,000 to 80,000 years ago (Hunt 1994), surrounded by hills to the south and west, and exposure to hot, dry summers combined with prevailing winds from the northwest.

The aforementioned sand dunes are representative of one of the oldest, and last remaining wind blown dune systems in California, known as the Orcutt Terrace dune sheet. This massive sand dune sheet developed about the same time as Nipomo Mesa and Burton Mesa, and shares several of their unique plants and animals. Urban and agricultural development have eliminated many of the dunes and native habitat on the Nipomo and Burton Mesas. Similarly, much of the Orcutt Terrace dune sheet has experienced extensive urban and agricultural development, and none of the remaining dunes in Orcutt are protected.

Nevertheless, biological communities of regional significance remain in several undeveloped areas of the valley, along creek corridors, and in the Solomon and Casmalia Hills. The locations of plant communities within the Orcutt Planning Area are generally associated with differences in elevation, southern versus northern exposure to the sun, and proximity to water (both horizontal distance to stream courses, depth to groundwater, and the extent and duration of flooding). In general, wildlife occurs within specific plant communities. However, large and/or mobile wildlife will typically use several plant communities as their

"habitat". For example, most vertebrate species use more than one vegetative community for breeding, foraging, and shelter. The biological communities of Orcutt are shown in Figure 5.2-1

South Orcutt: The southern portion of the Orcutt Planning Area is notable for its biological diversity as it contains five of the six plant communities found in the planning area. These include ~~riparian communities along the~~ creeks and drainages, central dune scrub and grassland at lower elevations, oak woodland on north-facing slopes and in canyons, coastal sage scrub and sandhill chaparral on the higher and drier slopes, and bishop pine forest which includes the rare Lompoc yerba santa on and near Graciosa Ridge interspersed among sandhill chaparral.

The mosaic of oak woodland, scrub, ~~and grassland, and riparian~~ communities in South Orcutt provide continuity with the pine forest, chaparral and grassland ecosystem to the southeast in the Solomon Hills, and the ~~riparian,~~ oak woodland, scrub, ~~and grassland and wetland~~ communities through and beyond the urban area to the northwest. The diversity of this assemblage of contiguous plant communities is important because it provides habitat for a high diversity of animal and plant species, allows movement between communities, and enables these species to be capable of surviving extreme changes in the environment such as fire, flooding and disease.

Central Urban Core: The significant biological resources within the Central Urban Core consist of central dune scrub, eucalyptus woodland, mixed woodland, ~~and grassland, and riparian~~ communities along Orcutt Creek and the drainages originating in Pine and Graciosa Canyons. Although these areas are generally small, they provide continuity that is vital for plants and animals, linking the open lands of the Solomon and Casmalia Hills with the extensive grasslands and wetlands beyond the limits of Orcutt and the City of Santa Maria.

West Orcutt: This area is relatively flat and dominated by grassland. ~~Riparian communities occur along several unnamed drainages and Orcutt Creek, which provides habitat continuity with the more rugged and open lands of the Solomon Hills, as well as access opportunities for foraging by birds and large mammals in the adjacent grasslands. A marshy meadow occurs between these riparian areas on Key Site 22.~~ The sand dunes in the northeast corner of Key Site 22 support sandhill chaparral containing multi-trunked oak trees and a number of rare species. A vast vernal wetland/sand dune complex is located south and west of the airport. This vernal wetland/sand dune complex is reported to be the best example of vernal wetlands in Santa Barbara County (Olson 1991). It supports a diverse array of water-dependent birds, rare amphibians and plants. The grasslands in western Orcutt provide ideal hunting opportunities for many species of raptors, including golden eagles, loggerhead shrikes, and white tailed kites, providing connectivity with the Casmalia Hills to the south. The Casmalia Hills are vegetated by grassland, oak woodland and central coastal scrub (dominated by black sage and Lompoc monkey flower). ~~Small wetlands occur near the ridge of these hills.~~ Observed animal species include golden eagle, red-tailed hawk and others.

Figure 5.2-1 Biological Communities of Orcutt (11x17)

East of Highway 101: East of U.S. Highway 101, the planning area is dominated by grassland which provides superb hunting grounds for a number of raptors including northern harrier, and white-tailed kite (Kefauver 1995). Extensive wildflower displays occur here in the spring including lupines and owl's clover. Central dune scrub dominated by silver lupine, and including the sensitive plant Saint's Daisy, occurs on some of the rolling dunes. An ephemeral drainage meanders in a southerly direction. A stand of eucalyptus on the bank of the drainage supports a high diversity of songbirds, and a eucalyptus windrow along Telephone Road, north of Clark Avenue may support a turkey vulture roost. The open grassland and vegetated dunes east of the highway provide ample opportunity for wildlife to freely roam for miles in several directions.

B. Significant Biological Communities

Although a majority of the habitats within the Orcutt area have been significantly disturbed by past urban and agricultural development, regionally significant habitats remain in the Solomon and Casmalia Hills as well as the corridors of Orcutt, Pine Canyon, and Graciosa Creeks with other biological communities occurring on the remaining open lands throughout Orcutt. Even some of the open spaces within the urban area (such as the central dune scrub on Key Site 30) include unique ecological communities, substantially different from communities at higher elevations and on different soils. These areas therefore support significant populations of native plants and animals and serve as links or corridors from the surrounding hills to the valley floor (Figure 5.2-1).

Threatened Habitats

Several of the biological communities occurring in Orcutt are rare or threatened with elimination. Table 5.2.1 summarizes the status of these communities in California.

**Table 5.2.1
Status of Habitats in the Orcutt Area**

<u>Habitat</u>	<u>Number of Sites in California</u>	<u>OR</u>	<u>Acres Remaining in California</u>	<u>Status</u>
Central Dune Scrub	6-20		2,000 to 10,000	Threatened
Central Coastal Sage Scrub	21-100	10,000 to 50,000		Very Threatened
Central Maritime Chaparral	6-20		2,000 to 10,000	Threatened
Northern Vernal Pool	< 6		Less than 2,000	Very Threatened
Freshwater Marsh	6-20	2,000 to 10,000		Very Threatened
Southern Live Oak Riparian	21-100	10,000 to 50,000		Very Threatened
Central Coast Arroyo Willow Riparian	21-100	2,000 to 10,000		Very Threatened
Central Coast Riparian Scrub	21-100	10,000 to 50,000		Very Threatened
Coast Live Oak Woodland	>100	More than 50,000		Somewhat Threatened, but Apparently Secure
Southern Bishop Pine Forest	< 6	Less than 2,000		Very Threatened

SOURCE: California Department of Fish and Game, Natural Diversity Data Base 1991. "Terrestrial Natural Communities Ranking"

The fewer the number of sites, or number of remaining acres, causes the threat to be even more serious. For example, of the seven "very threatened" communities, vernal pools and bishop pine forest are the closest to being eliminated, and central dune scrub, maritime chaparral and willow riparian communities are not far behind them in terms of being at risk. These unique biological communities are described below.

Wetlands: The extent and quality of wetlands in California and the rest of the country have been dramatically reduced over the past century (National Audubon Society, 1992). Swamps and marshes have been drained, streams and rivers have been diverted and channelized, or used as convenient dumping grounds. Consequently, numerous plant and animal species that are dependent upon this habitat are threatened with extinction (See Table 5.2-1). Similarly, benefits derived from wetlands by humans such as water quality, aesthetics and duck hunting opportunities are also substantially reduced. Wetlands in the Santa Maria Valley probably once covered more than five thousand acres, supporting an exceptional diversity of water fowl and other wildlife. Total wetland acreage has likely been reduced to something less than a thousand acres (including the Santa Maria River mouth). ~~Remnants of this system include the wetland/sand dune complex on Key Site 22,~~ Wwhat remains of Betteravia Lakes and several isolated vernal ponds and pools in the City of Santa Maria, Sisquoc/Garey area, and north of Betteravia. *The Santa Barbara County Conservation Element describes vernal pools and freshwater marshes as being rare and/or endangered and recommends preservation of these habitats.*

Vernal Pools: Vernal pools are shallow depressions in the soil that are temporarily filled with water from winter rains and subsequently dry up during the spring and early summer. These pools are underlain by an impervious layer that slows or prevents water drainage. Vernal pools are perhaps the most unique, rare, and endangered type of wetland in California (California Department of Fish and Game 1995). They are unique because they are vegetated by herbaceous plants that are adapted to survive the beginning of their lives completely covered by water and later to survive and flower in a completely dry environment. The Orcutt pools are particularly uncommon and have unique characteristics because they occur on sand with a very shallow hardpan.

Many of the Orcutt pools are deeply flooded and persist into early summer particularly in wet years. Species composition may vary from year to year depending on the depth and duration of flooding, and some of the pools may join in wet years and remain separate in drier years. The vernal pools in the Orcutt area range from deep basins with many species of hydrophytic (water loving) plants to long shallow grooves dominated by just one or two species of wetland plants (Olson 1991). While some vernal pools remain isolated, other pools may form complexes, joining across low-lying grassland areas (vernal flats) in wet years but remain isolated in drier years. "Vernal flats" (Ferren, 1988) is used to describe wetlands that occur in shallow basins that are not deep enough to be discernable pools. In wetter years, vernal pool and other wetland species dominate these low areas. During dry years, upland grasses and other herbs may dominate the flats (Olson, 1992). In wet years in particular, they are an important component of the wetland/grassland complex as they often provide the transition or migration zone between flooded and upland areas. The only place that vernal wetlands occur in the Orcutt Planning Area is on the northern portion of Key Site 22. This complex continues offsite to the east and northeast on the airport property (Figure 3 in EIR Volume II, Key Site 22).

Dominants in the Orcutt area include numerous native species such as water starwort and wooly heads. Several amphibians in the Orcutt area are completely dependent upon these vernal pools for their survival. The California tiger salamander and western spadefoot toad (both candidates for the Federal Endangered Species List and listed as California Species of Special Concern) depend solely on these pools to breed in and develop in their larval stage. Other more widespread amphibian species (e.g. western toad, Pacific chorus frog) also use vernal pools for breeding, and garter snakes, in turn, feed on tadpoles and larval salamanders and are consequently attracted to vernal pools. A remarkable diversity of shorebirds and

waterfowl including killdeer, cinnamon teal, and black-necked stilt, among others use vernal pools for foraging, nesting and breeding. Great blue heron, great egret, snowy egret, green heron, additional species of ducks, greater yellowlegs, lesser yellowlegs, spotted sandpiper, western sandpiper, least sandpiper, and long-billed dowitcher are among the species that use the west Orcutt vernal pool complex from late fall into early summer.

Coastal Freshwater Marsh: Freshwater marsh often develops around the margins of ponds and lakes in the Santa Maria Valley. Marsh vegetation also develops in low-lying areas that retain moisture most of the year. These soils usually are rich in nutrients, and often are anaerobic (Holland, 1986). Dominant plant species have anatomical adaptations that permit the transfer of oxygen from the leaves to roots anchored in anaerobic soil. Typical plants include several species of rushes, sedges and cattails. Introduced species also are frequently found within freshwater marsh communities in the project area, particularly curly dock.

~~In the project area, freshwater marsh is best developed in and around the permanent ponds, stabilized dune swales, and Orcutt Creek floodplain on Key Site 22 (Rindlaub 1994). Freshwater marsh surrounding the ponds on Key Sites 22 and 11 provide breeding habitat for the western toad and Pacific chorus frog. These pools are frequented by coyotes, skunks, and raccoons for hunting or scavenging. Stands of bulrush, cattail, and rush are used for nesting by many bird species including gadwall, song sparrow and tri-colored blackbird (federal candidate for listing as threatened or endangered). The Conservation Element states that this community is extremely uncommon in the County, and that "most members of the marsh community cannot tolerate a reduction of water quality or quantity. The marsh areas are suitable for light recreation, but should be protected from other uses."~~

Freshwater Seep: Seeps or springs are wetlands which usually occur in grasslands, creating patches of permanently moist or wet soils. The vegetation around seeps is usually composed of a dense mat of perennial herbs (Holland, 1986). In the project area, seeps appear along the lower margins of steeper slopes on Key Site 12, and occasionally, at higher elevations on these slopes. These seeps may be fed by perched aquifers, supporting toad rush and spikerush. Western toads and Pacific chorus frogs may use these seeps and springs for breeding, provided there is prolonged surface water to complete breeding and metamorphosis.

Sandhill Chaparral: Sandhill chaparral is a regional variety of central maritime chaparral. The chaparral is composed mainly of woody, evergreen shrubs that are well adapted to periodic wildfires and rapid regrowth every 30 to 50 years. This type of chaparral is unusual from other types of chaparral in that this form grows on ancient stabilized dunes near the coast (thus its name "maritime"). The only place in the world that this community exists is on these ancient dunes on and near the central coast of California. As shown in Table 5.2-1, this community is very threatened and has little remaining acreage. It is distributed from the Lompoc area in the south (including Burton Mesa), north to Morro Bay, but has been largely destroyed and/or broken into fragments in most of the region. Several preserves encompass portions of this habitat, with the largest being the Burton Mesa Ecological Reserve north of Lompoc, which contains roughly 3,000 acres of chaparral.

Within the Orcutt Planning Area, sandhill chaparral occurs on the slopes and foothills of the Solomon Hills and on the remaining sand dunes south of the Santa Maria Airport. ~~It undoubtedly was more extensive on the dune sheets prior to agricultural and urban development in the Santa Maria Valley (K. Rindlaub~~

~~Biological Consulting 1995~~)-This chaparral community includes several that are endemic¹ to the stabilized sand dunes of Orcutt and the surrounding area. These endemics include sand mesa manzanita, Purisima manzanita and coast ceanothus. Other uncommon species occurring in the chaparral include: sand almond, San Luis Obispo wallflower, Lompoc monkey flower, and two varieties of spineflower. Multi-trunked coast live oaks which are found on Key Sites 3, 7, 12, and 22, are an important and unusual component of the chaparral (Figure 2-5). Of all the plant communities in California, chaparral provides the most effective watershed protection by preventing erosion and storing and slowly releasing groundwater.

Sandhill chaparral supports a diverse animal community including at least twelve species of reptiles including several sensitive species such as coast horned lizard, coastal whiptail, striped racer and possibly the silvery legless lizard. ~~The vernal pools situated between the chaparral covered dunes south of the airport also support southwestern pond turtle (a candidate for the Federal Endangered Species List).~~ At least eight species of rodents occur in the dense and diverse vegetative cover on friable soils. Larger mammals include coyote, long-tailed weasel, bobcat and mule deer. California quail, roadrunner, Anna's hummingbird, Costa's hummingbird, wrentit and thrasher are among the characteristic breeding birds of this community. The blue-gray gnatcatcher and others nest only sparingly in the Santa Barbara Region, typically in chaparral.

Central Dune Scrub: Central Dune Scrub is composed of soft-leaved shrubs typically forming a dense cover about three feet high. Only 2,000 to 10,000 acres of this threatened community remain in California (Table 5.2-1). In Orcutt, central dune scrub was probably once wide spread and now it occurs only on a few sites in Orcutt's valley bottom with the best example on Key Site 30 (Figure 2-5). In Orcutt, it is dominated by silver lupine in association with mock heather. The fauna within dune scrub vegetation does not differ significantly from coastal sage scrub. However, notable exceptions include the Coast Horned Lizard (California Species of Special Concern) and possibly the silvery legless lizard (a candidate for the Federal Endangered Species List) which tend to be more common in dune scrub. Curly-leaved monardella, a sensitive plant also occurs here.

Bishop Pine Forest: Bishop Pine Forest occurs on and near Graciosa Ridge interspersed among Sandhill Chaparral. This community includes Lompoc yerba santa (a candidate for the Endangered Species List). As shown in Table 5.2-1, Bishop pine forest occurs in several very small and disjunct places in California. Graciosa Ridge, is one of these places. Other major sites in the county include Santa Cruz Island, Jualachichi Summit and Harris Grade (Smith 1976). These forests primarily need the heat of a wildfire to open the pine cones and release the seeds necessary to regenerate. Without fire for a period of 80 years or more, these trees may become susceptible to rust gall infection and to secondary infections by fungus (Vogl, Armstrong, White & Cole, 1977). *The County Conservation Element includes this community in its list of 14 ecological communities that are either rare or endangered.*

Central Coastal Scrub: Central Coastal Scrub is a community dominated by generally soft-leaved shrubs including mock heather, black sage Lompoc monkey flower, sagebrush and others. This community remains on about 10,000 to 50,000 acres in California (Table 5.2-1). In the Orcutt area it appears to occur on south-facing slopes on older soils. On the Solomon Hills this community tends to be dominated by mock heather and black sage; whereas on the Casmalia Hills, Lompoc monkey flower is more common and mock

¹ "Endemic" means that the species only lives in a specific region of the world.

heather and coffeeberry are far less frequent. Although not recognized in Hickman (1993), Lompoc monkey flower has been classified as a separate subspecies in the past (Munz and Keck, 1959), and is still regarded as a local concern species by the County of Santa Barbara (1994). Animals occurring in central coastal scrub also often occur in the chaparral. Because this community often interfaces between grassland and chaparral, vertebrate diversity is enhanced.

~~***Riparian Communities:** Riparian communities occur along creeks and intermittent drainages. In Orcutt riparian habitat provides a corridor of vegetation that has several canopy layers. Development of an herb layer and occasional taller trees increases the types of microhabitats for both plant and wildlife species. Depending on the water regime, it may include emergent wetlands within the creek channel, or the channel may be relatively bare during the dry months. Within the Community Plan boundary, riparian forests and riparian scrub are associated with the tributaries of Orcutt, Solomon and Pine Canyon Creeks. The Conservation Element of the Comprehensive Plan states that streams are delicate habitats. "Highway or road construction, housing development... profoundly affect the streams. Some undesirable effects are the erosion of banks, increased siltation in slower reaches, more abundant growths of algae, higher water temperatures, ... and decreased diversity among the invertebrates (insects, worms crustaceans, etc)." It continues to recommend buffer strips a minimum of 100 feet wide on either side of the stream.*~~

Central Coast Riparian Scrub: In the Orcutt Planning Area, where rainfall is restricted to a few winter months, and sandy soils drain rapidly, creek vegetation is dominated by arroyo, yellow and narrow-leaved willows that generally do not form a closed canopy. Associated shrubs and herbs, particularly mule fat and coyote brush. Coast live oak trees occasionally occur along the creek banks. During the 1995 surveys, little emergent wetland vegetation was observed in the creek channels, which were scoured by the high water flows of an exceptionally wet winter. Emergent perennial herbs, such as rushes and bulrushes would normally establish where surface water lingers in depressions or where silts are deposited on bars or along curves in the creek channel. Riparian scrub is found on Key Sites 8, 10, 11, 12, ~~and 18 and 22.~~

Southern Coast Live Oak Riparian Forest: Riparian vegetation is dominated by coast live oak trees with an herbaceous understory where creeks flow out from north-facing slopes. This oak-dominated riparian vegetation is often contiguous with coast live oak woodlands. Typical understory plants in the Orcutt area are poison oak, fiesta flower, blackberry, miners' lettuce, and wild cucumber. Recruitment of numerous young oaks along the northwest side of Orcutt Creek on Key Site 7 (Figure 2-5) suggests oak riparian forest would be the mature riparian vegetation on this site. ~~and perhaps others along Orcutt Creek (K. Rindlaub 1995).~~ Wildlife occurring in the live oak riparian forest is typically a mixture of oak woodland and riparian scrub communities.

Riparian corridors are used extensively for movement by many species of mammals including coyote, gray fox, raccoon and skunk. The continuity between the Solomon Hills and lowland is maintained by the riparian corridor. Willow thickets are especially attractive to resident and migratory songbirds. They are an excellent foraging and nesting resource for birds, in addition to the refuge provided by the dense willow canopy. Examples of typical riparian breeding species are the downy woodpecker and Pacific-slope flycatcher. The diversity of birds in the riparian community exceeds all other habitats in Orcutt.

Other Biological Communities in Orcutt

Oak Woodlands: Extensive oak woodlands are present on the north facing slopes of several canyons and drainages on the lower Solomon Hills (Key Sites 3, 7, 8, and 12) and Casmalia Hills south of Key Site 21. Woodland density ranges from nearly complete canopy cover to scattered trees, to occasional oaks that extend out onto the creek floodplain. These woodlands are dominated by Coast Live Oak with more than eight plant species in the generally well developed understory. Dense oak woodlands on the slopes of the main drainages and tributary canyons provide a corridor of valuable cover that facilitates wildlife movement (particularly for deer) to and from the Solomon and Casmalia Hills. Where live oaks occur in smaller stands among the coastal scrub and chaparral, or near grasslands, they add significantly to the animal diversity of these communities. The oaks in the chaparral often have multiple trunks, an unusual feature that appears to correlate with the ancient sand dunes of northern Santa Barbara County and southwestern San Luis Obispo County.

Live oak woodland and its associated understory provide a multi-dimensional habitat for wildlife including at least eleven reptile and amphibian species (eg: arboreal salamander and western fence lizard) that are often found in the leaves, bark, and decaying material on the woodland floor. Small mammals such as deer mouse and dusky-footed woodrat, and larger predators such as coyote, raccoon, skunk and bobcat are also expected. The resident mule deer herd relies heavily upon oak woodlands for cover and food, particularly acorns. More than 29 species of birds have been observed utilizing the oak woodlands in Orcutt including barn owl, great-horned owl, kestrel, ash-throated flycatcher, violet-green swallow and dark-eyed junco.

Oak woodlands in the planning area provide diverse resources to wildlife including: shade in summer, shelter and warmth in winter, perching, roosting and nesting opportunities, and food storage sites. Acorns are the most plentiful food source produced by the oaks, but oak catkins, twigs, leaves, buds, sap, galls, fungi, lichens, and roots all provide important foods that help sustain the ecosystem. The understory of low growing plants is also an important food source for wildlife. Insects feeding in oak woodlands are eaten by birds, reptiles, amphibians, mammals and other insects which in turn feed larger predators such as owls, hawks, snakes, coyotes and bobcats. Some oak trees (including some dead ones) are "granary trees" where acorn woodpeckers store acorns. Scrub jays often inadvertently "plant" acorns when they store them in the ground. Dead trees or snags are an equally important part of the ecosystem as they provide perching, feeding, and nesting sites for raptors and small mammals as well as relief from temperature extremes.

Grasslands: Grassland (consisting primarily of annual European grasses) occurs on the valley bottom, and the foothills and ridges of the Solomon and Casmalia Hills. In addition to the non-native grasses that dominate this community such as brome and foxtail, there are many native wildflowers here including California poppy, owls clover and goldfields. The grasslands on the hillsides support even more diverse annual species such as white layia, sun cup and farewell-to-spring.

Although not a threatened community, the grasslands are a critical component of the habitat for a wide variety of animal species. For example, the sand upon which these grasses grow provide excellent habitat for a diverse assemblage of animals including some that are rare such as spadefoot toad, badger, and burrowing owl. Commonly occurring amphibians and reptiles include the western toad, Pacific chorus frog, western skink, coast horned lizard and striped racer. The racer is uncommon in the Santa Barbara region and is most often found in grassland. In addition to three species of rabbits in Orcutt, the grasslands support an abundance of rodents including squirrels, gophers, mice and voles. This substantial prey base attracts a number of predators including coyote, gray fox and the rare badger. Grasslands are also an important foraging resource for bats who help keep insect populations down.

Several bird species, such as meadowlark and horned lark, nest in annual grasslands. Other bird species depend on the grasslands in the Santa Maria Valley for hunting, such as ferruginous hawks, golden eagles, white-tailed kites and great horned owls. The grasslands are critical to the survival of all of these species. The Santa Barbara County Conservation Element specifically calls out the Santa Maria Grassland as a habitat for the spadefoot toad and recommends protection of this community. Without the grasslands which are adjacent or close to oak woodlands, chaparral and scrub, vertebrate diversity in the Santa Maria Valley would be significantly reduced.

Eucalyptus Woodland: Eucalyptus woodland is not a native community. Tasmanian blue gum, the most commonly encountered species in the Orcutt area and elsewhere, was planted out over large tracts of land in the late 1800s and early 1900s, under the false hope of being a timber resource. Eucalyptus continues to be planted as windbreaks or used in landscaping. There is usually little or no understory in eucalyptus woodlands due to toxins produced by eucalyptus leaves and roots that inhibit or prevent the growth of most other plants. Often, the ground within these woodlands is densely littered with decomposing leaves, exfoliated bark, and fallen branches, which also prevents establishment of other species. Eucalyptus often replace themselves in old plantations, and spread into adjacent native habitats, particularly along creeks, replacing native riparian species.

Eucalyptus woodlands are used by a variety of migratory and resident songbirds. The winter-blooming flowers of the eucalyptus provide a seasonal food resource for birds that feed on nectar and insects. Stands of eucalyptus are often used by raptors such as red-tailed hawk, great-horned owl and barn owl for roosting and/or nesting. Because of the poorly developed understory, there are usually few amphibians, reptiles, and small mammals. Monarch Butterflies occasionally use these trees as well. In the Orcutt area, the Rancho Maria Golf Course is the only known Monarch Butterfly autumnal site² (Calvert, 1991). There are no known butterfly wintering sites in the Orcutt Planning Area. Overall wildlife habitat value for this vegetation type is comparatively low.

5.2.2 FEDERAL AND STATE LAWS REGARDING BIOLOGICAL RESOURCES

Federal

The Federal Endangered Species Act provides legal protection for threatened and endangered species nationwide. Federal protections for biological resources are also granted by the Fish and Wildlife Conservation Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, the National Environmental Policy Act (NEPA), the Clean Water Act Section 404 (for protection of wetlands), Executive Order 11990 (wetlands protection), and the Rivers and Harbors Act Section 10.

Candidate Species under consideration for listing as a Federal Endangered Species appear in the Federal Register (USFWS, 1993; 1994b). These are species that may eventually be added to the List of Endangered and Threatened Wildlife and Plants, depending on the results of ongoing investigations. Candidate species are assigned to one of three categories, with Category 1 classification indicating the highest priority for formal listing. Candidate species in the Orcutt area, as shown in Table 5.2-2, include: California tiger

²An autumnal site is one in which the butterflies congregate in the fall of most years and then move on to a more suitable site for the winter.

salamander, western spadefoot toad, southwestern pond turtle, coastal whiptail and western burrowing owl. The silvery legless lizard, also a federal candidate, may occur in Orcutt. These species have been formally proposed for listing, and the U.S. Fish & Wildlife Service is presently considering these petitions.

State

The Native Species Conservation and Enhancement Act declares a policy of maintaining sufficient population of all species of wildlife and native plants, and the habitat necessary to ensure their continued existence at optimum levels. **California Fish and Game Code Section 1800** states that it is the policy of the State to: *"encourage the conservation and maintenance of sufficient populations and habitat of all species of wildlife"*. **The Natural Community Planning Act (NCCP)** (California Fish and Game Code Section 2800) provides for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth. **The California Endangered Species Act** and its corollary law, the **California Native Plant Protection Act**, provide protection for state candidates that is equivalent to protection for listed species. The California Department of Fish and Game (CDFG) has jurisdiction over species listed as threatened or endangered.

"Species of Special Concern" are those that have not been formally listed by federal or state agencies, nor are they presently under consideration for federal listing. However, these species are known to be experiencing downward trends in distribution and population size. Where these patterns appear to indicate a decline that is moving toward "the point of no return", the species may be recognized on various "watch lists" published by the agencies and conservation groups. CEQA considers plants and animals that are "Species of Special Concern" to be rare or endangered when their populations have the same characteristics as a listed species (CEQA Guidelines, 15380). The most useful references for species in this category are the "List of Special Animals" and "List of Special Plants", published annually by the California Department of Fish and Game (CDFG 1994a; 1994b), and the Inventory of Rare and Endangered Plants of California that is used by the State Department of Fish and Game (Skinner and Pavlik, 1994).

"Sensitive Species" is a broad term that may include species listed as threatened or endangered, candidate species, as well as "species of special concern" and species that are locally rare, uncommon or endemic to particular sites as acknowledged by private or public institutions such as the Santa Barbara Botanic Garden, the Santa Barbara Museum of Natural History, or the University of California Santa Barbara.

CEQA (California Public Resources Code Section 21001c) states that the State's policy is to:

"Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history."

5.2.3 THRESHOLDS OF SIGNIFICANCE

CEQA Appendix G states that: *a project will normally have a significant effect if it will: (c) substantially affect a rare or endangered species of animal, plant or the habitat of the species; (d) interfere substantially with the movement of any resident or migratory fish or wildlife species; or (e) substantially diminish habitat for fish, wildlife or plants.*

The County Environmental Thresholds and Guidelines Manual (1995) states that disturbance to habitats or species may be significant if it would impact significant resources by substantially:

- a. reducing or eliminating species diversity or abundance
- b. reducing or eliminating quantity or quality of nesting areas
- c. limiting reproductive capacity through losses of individuals or habitat
- d. fragmenting, eliminating, or otherwise disrupting foraging areas and/or access to food sources
- e. limiting or fragmenting range and movement (geographic distribution or migration routes)
- f. interfering with natural processes, such as fire or flooding, upon which the habitat depends.

Habitat-Specific Potentially Significant Impacts (from County Thresholds and Guidelines Manual)

The following describes impacts for specific habitats that may be potentially significant. Habitats not discussed below would be assessed based upon the general guidelines set forth above.

1. Wetlands (General)

- a) Projects which result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten the continuity of wetland-dependant animal or plant species.
- b) Projects which substantially interrupt wildlife access, use and dispersal.
- c) Projects which substantially alter the hydrology of wetlands.

2. Vernal Pools

- a) Direct removal of a vernal pool or vernal pool complex.
- b) Direct or indirect adverse hydrologic changes such as altered freshwater input, changes in the watershed area or run-off quantity and/or quality, substantial increase in sedimentation, introduction of toxic elements or alteration of ambient water temperature.
- c) Disruption of larger plant community (eg: grassland) within which vernal pool occurs, isolation or interruption of contiguous habitat which would disrupt animal movement patterns, seed dispersal routes or increase vulnerability of species to weed invasion or local extirpation. For example, fragmentation of habitat may interrupt interaction between the habitat and the organisms within the pools (pollination, seed, invertebrate and vertebrate dispersal, provision of drinking and bathing water, etc.).

3. Riparian Communities

- a) Direct removal of riparian vegetation.
- b) Disruption of riparian wildlife habitat, particularly animal dispersal corridors and or understory vegetation.
- c) Intrusion within the upland edge of the riparian canopy, leading to potential disruption of animal migration, breeding, etc. through increased noise, light and glare, and human or domestic animal intrusion.
- d) Disruption of a substantial amount of adjacent upland vegetation where such vegetation plays a critical role in supporting riparian-dependent wildlife species (eg: amphibians), or where such vegetation aids in stabilizing steep slopes adjacent to the riparian corridor, which reduces erosion and sedimentation potential.
- e) Construction activity which disrupts critical time periods (nesting, breeding) for fish and other wildlife species.

4. Oak Woodlands and Forests

- a) Habitat fragmentation
 - b) Removal of understory
 - c) Alteration to drainage patterns
 - d) Disruption of the canopy
- e) Removal of a significant number of trees that would cause a break in the canopy or disruption in animal movement in and through the woodland.

5.2.4 IMPACTS

Development of approximately 6,200 new residential units and 2.2 million square feet of commercial-industrial space, its associated growth in population of 17,000 new residents and all of the associated public and private infrastructure needed to support this level of growth would produce a wide range of impacts on biological resources. These include direct removal of about 2,000 acres of open space containing extensive habitat areas in order to accommodate this new development. In addition to direct habitat elimination, the remaining 1,500 acres of open lands could experience a significant reduction in their ability to support what remains of native plant and animal populations. Populations would be reduced due to fragmentation of habitat (interruption of contiguous and interrelated habitats) and increased levels of human disturbance (eg: noise, light, dogs and cats, etc.) within these remaining open lands. A potentially significant reduction in the diversity of plants and wildlife in the remaining open spaces is also likely. Finally, encroaching development on these remaining open lands is expected to introduce the presence of many non-native weeds which may, over time, replace a significant percentage of the native populations. In short, species that occur in wild rural lands, such as the golden eagle, will probably no longer occur here, and instead will be replaced by smaller, much more urban-tolerant species such as mocking birds and crows.

A. PUBLIC PROJECTS:

Many of the public projects needed to accommodate the proposed growth under the draft community plan are still in the formative stages, making precise impact evaluation difficult. For example, although Union Valley Parkway is tentatively scheduled for construction in 1996, no engineered drawings have yet been completed and only the general route west of Hwy 135 is known. Similarly, although proposed sewer trunk line extensions have been on the maps for many years, precise routes are unknown. Finally, some public projects, such as the regional flood control basins, are of recent conception, and are only now entering the preliminary design stage. *In order to streamline future review, the following impact assessment identifies the impacts of the major public projects to the extent feasible; however, additional review may be required.*

ROADWAY EXTENSIONS

Impact BIO-1: Foxenwood Lane realignment. The proposed realignment of this roadway would create potentially significant impacts to Orcutt Creek riparian habitat through placement of extensive fill within and adjacent to the creek, leading to direct removal of at least 1/2 acre of the best remaining woodland along this creek segment and by creating a source for long-term sedimentation and weed dispersal along the creek.

Impact BIO-2: Stillwell-Stubblefield extension. The extension of this roadway, 60 feet wide for about 1.3 miles, entering into the undeveloped foothills, across Orcutt Creek and across three tributaries, would lead to the direct removal of about 10 acres of open land. The project would create *potentially significant* impacts through removal of roughly 2 acres of riparian scrub, 1.5 acres of coast live oak riparian woodland, 3 acres of central coastal scrub, and 2 acres of sandhill chaparral. This would significantly fragment habitats in the foothills, such as sandhill chaparral and the wildlife corridors of Orcutt Creek and a major tributary canyon (Key Sites 7, 8 and 12).

~~Impact BIO-3: Union Valley Parkway extension. The six mile extension of this road from its current terminus near Hummel Drive to Highway 1, within a corridor 200 feet wide, would lead to direct removal of up to 130 acres of open land. Construction of this road would create *potentially significant* impacts through removal of approximately 5 acres of willow riparian scrub and freshwater marsh (Figures in EIR Volume II, Key Site 22) and by creating a major barrier and source of disturbance to wildlife using the Orcutt Creek corridor. The road extension would also remove about 5 acres of eucalyptus woodland which is *potentially significant*.~~

~~Impact BIO-4: E Street construction. The construction of this 4 lane 2.2 mile roadway through a roughly 140 foot wide corridor would lead to direct removal of about 41 acres of open land, including 18 acres on Key Site 22. This would create *potentially significant* impacts through elimination of approximately 8 acres of vernal pool/sand dune complex (a very threatened community) on Key Site 22 and adjacent airport lands. This road would fragment the eastern portion of the vernal pool/sand dune complex, and create a barrier between wetland breeding sites and upland retreat sites for two federal candidate species (California tiger salamander and western spadefoot toad). This would create a high potential for increased mortality to these species and introduce noise, light, human disturbance, and runoff of petrochemicals into the vernal wetland/sand dune complex (Figures in EIR Volume II, Key Site 22). Road construction would also cause *potentially significant* impacts by contributing to the elimination of grassland (± 10 acres) in addition to the loss of 1 acre of riparian/freshwater marsh vegetation at Union Valley Parkway.~~

Impact BIO-5: Dutard Road. Widening, paving and heavy usage of this road (Figure 3 in EIR Volume II- Key Site 22) would *significantly* impact the vernal wetland/sand dune complex through elimination of a vernal pool and interrupt contiguous habitat between this wetland and upland retreat sites for two federal candidate species: the spadefoot toad and tiger salamander.

Impact BIO-6: Hummel Drive Extension. This project could eliminate several eucalyptus trees in a planted windrow. Some of these non-native trees may be used by raptors or other birds for perching or nesting. However, given the extent of existing development and low habitat value of the surrounding area, extensive use by wildlife is not expected and the impact would be *insignificant*.

Impact BIO-7: Clark Avenue widening to 4 lanes. This project from SR 135 to US 101 could remove an estimated 20 to 30 eucalyptus trees that currently line Clark Avenue. Given that they are non-native and situated between a major road and urban development, this impact is considered *adverse but insignificant*.

TRAILS AND BIKE PATHS

Impact BIO-8: Trail construction and use. Although many trails would follow existing dirt roads and paths, construction of over 15 miles of trails within remaining undeveloped areas of the community (Figure 2-8), particularly in the foothills, could create *potentially significant* impacts to biological resources through direct removal of rare plants, such as those associated with vernal pools, central dune scrub and sandhill chaparral. Additional *potentially significant* long-term impacts to biology would include increased disturbance of wildlife by hikers and dogs, which in sensitive riparian and vernal pool areas may cause a decline in nesting and breeding activities and increased mortality of wildlife. Sensitive animal species are expected to be able to move out of the way during trail construction (which generally goes slowly, and with hand crews), and are expected to be able to cross active trails without being significantly impacted.

Impact BIO-9: Paved Bicycle Paths. The Class I facility along Orcutt Creek (Figure 5.9-5) could have a *potentially significant* impact on riparian habitat and associated animal species through direct removal of vegetation and increased disturbance of wildlife. Other Class I and Class II facilities would be along existing or proposed roadways (eg: along Union Valley Parkway) and would therefore *not significantly impact* biological resources.

EXPANSION OF SEWER SERVICE

Impact BIO-10: Bradley/Solomon Trunk Line. The 1.5 mile extension between Bradley and Stillwell Roads in the bed of Orcutt Creek (Figure 5.13-1) could cause a substantial amount of disturbance to the riparian scrub, coast live oak riparian, and central coastal scrub communities by cutting a 15+ foot wide corridor, 5 feet deep, in and along the stream channel. Temporary impacts of construction would include: 1) destruction of roughly 3 acres of riparian habitat, and 2) reduction in the number of wildlife species in the creek and surrounding grasslands and oak woodlands. Although revegetation may occur, these *potentially significant* impacts are expected to reoccur every 40 to 80 years, as the lines are replaced.

~~**Impact BIO-11: Dutard/Solomon Trunk Line.** The 6 mile extension from Blosser Road to the LCSD plant west of Black Road (Figure 5.13-1) would result in *potentially significant* impacts including destruction of roughly 11 acres of riparian willow forest, scrub and fresh water marsh, and disturbance to the wildlife populations utilizing the riparian corridor and adjacent grasslands and marsh. The reoccurrence of this disturbance every 40 to 80 years is *potentially significant*.~~

Impact BIO-12: New LCSD Sewage Treatment Facility. Construction of a facility similar to the existing 5 acre facility plus roughly 300 acres of additional land for sewage settling ponds or spraying areas could permanently eliminate over 300 acres of grasslands that may contain vernal pools (a very threatened community), and lead to damage to or removal of the riparian willow woodland along Orcutt Creek, which would constitute *potentially significant* impacts to these resources.

WATER SUPPLY

Impact BIO-13: Orcutt Creek stream diversion. The potential diversion of 300 acre feet per year from Orcutt Creek could *significantly* impact ~~the riparian communities~~ by reducing water flow and substantially reducing the amount of water available to support ~~riparian vegetation that provides~~ habitat for a great diversity of animal species.

FLOOD CONTROL

Impact BIO-14: Retention Basins. Construction of retention basins on Key Sites 3, 8, 12, 18, ~~22~~ and 30 could result in the *potentially significant* impacts associated with removal of approximately 17 acres of riparian scrub, forest and oak woodland.

IMPACT BIO-15: Creek Maintenance and Emergency Work. Although no changes in the Flood Control District's maintenance practices are proposed, levels of effort of maintenance (desilting, channel shaping, vegetation removal and herbicide spraying in the channel) may increase in Orcutt, Solomon and Pine Canyon Creeks in order to protect future development within the floodplain or floodway. These new maintenance areas could cause *potentially significant* impacts by: 1) alteration of the physical features of the creek channel, 2) removal of riparian scrub, forest, and live oak communities, and 3) temporary but reoccurring disturbances to wildlife on Key Sites 3, 5-8, 10-13, 15, 19, ~~22~~, A, F, and D. Responses to emergency flooding could also *significantly* impact these riparian communities as a result of the use of heavy equipment in and around the creek to remove fallen logs and other debris blocking the channel.

SCHOOLS

IMPACT BIO-16: Construction of new schools. Construction of up to four new schools on Key Site 22 and one on Key Site 12 could result in *potentially significant* impacts by removing approximately 100 acres of habitat for sensitive species, as discussed within the impact discussions for Key Sites 12 and 22.

FIRE MANAGEMENT

IMPACT BIO-17: Vegetation clearing in response to increased fire risk in foothills. Construction of homesites in the foothills adjacent to chaparral and other combustible communities would present a significant fire risk to these homes. Inadequate access and space to fight a wildfire is likely to result in bulldozing vegetation during a wildfire to create a fuelbreak in order to protect homes. This would result in eliminating a threatened community including sensitive species such as purisima manzanita, sand mesa manzanita and sand almond, fragmenting habitat areas, introducing and spreading invasive weeds and increasing erosion on hillsides and sedimentation in creeks which is considered *potentially significant*.

IMPACT BIO-18: Fire suppression. Fire suppression in the wildlands could lead to *potentially significant* impacts by allowing increases of dead vegetation, potentially resulting in less species diversity and an increase in the potential severity of fire hazard, leading to unplanned habitat destruction by construction of emergency fuel breaks.

B. PRIVATE PROJECTS

Implementation of the Orcutt Community Plan would result in the direct removal of about 2,000 acres of open space including: 900 acres of grassland, 250 acres of sandhill chaparral, ~~200 acres of wetlands~~, 150 acres of central coastal sage scrub, 100 acres of central dune scrub, 200 acres of oak woodlands, and 150 acres of riparian scrub, forest and woodlands. Direct elimination and wide spread fragmentation of "threatened" or "very threatened" habitats (Table 5.2-1), along with extensive acreages of supporting less threatened habitats, would lead to a direct reduction in total wildlife numbers and diversity, as well as the constriction of wildlife movement along corridors. Substantial increases in human disturbances would also

occur including noise, light, glare, hunting and disturbance by dogs and cats, increased runoff of toxic materials into surface water, etc.

Specific impacts resulting from private development on individual parcels of land are discussed within the Key Sites Section (Volume II) of this EIR.

Impact BIO-19: Elimination of 2,000 acres of habitat/ habitat fragmentation. The permanent loss of 2,000 acres of habitat, the fragmentation of an additional 1500 acres and disruption to several thousand acres of adjacent habitat from urban expansion would create *potentially significantly* impacts to at least 6 threatened or very threatened communities and substantially diminish populations of associated wildlife through direct loss of habitat and the disruption of remaining wildlife corridors through encroachment upon remaining open lands with disturbances such as noise, light and glare, domestic animals, weed invasion, etc.

Impact BIO-20: Elimination of wetlands. Elimination of ~~200 acres~~ of wetlands would eliminate a substantial percentage of the last remaining freshwater wetlands on the central coast of California (90 percent of original statewide total has been eliminated and would constitute a *potentially significant* impact. The elimination of the vernal wetlands in particular including "the best example of vernal pools in the County" [Olson 1991], (less than 2,000 acres remain in California) would create *potentially significant* impacts to these habitats. The loss of these wetlands would result in *potentially significant* impacts to a number of shorebirds and waterfowl such as black-necked stilt, killdeer, cinnamon teal, wood duck, and possibly the federal candidate species of tri-colored blackbird and long billed curlew through the loss of critical foraging and breeding habitat.

Impact BIO-21: Elimination of candidate species. Eliminating the 100⁺ acre vernal wetland/sand dune complex would eliminate most if not all of the remaining populations of at least three candidates for the endangered species list: spadefoot toad, California tiger salamander, and southwestern pond turtle from the 15,000 acre planning area, and cause substantial declines of these populations in the Santa Maria Valley as a whole. Because there is so little habitat remaining for these animals, elimination of these wetlands could bring these species (particularly the spadefoot toad and tiger salamander) significantly closer to extinction, which is a *potentially significant* impact.

~~**Impact BIO-22: Fragmentation of wetland and upland habitat. Development between wetland and upland retreat sites of amphibians (or on the uplands themselves) would have a *potentially significant* impact on two federal candidates for the Endangered Species List: California tiger salamander and spadefoot toad, and would lead to their eliminated from the Orcutt Planning area.**~~

Impact BIO-23: Elimination of grasslands. Elimination of approximately 900 acres of grassland would create *potentially significant* impacts through elimination of habitat for at least eight California Species of Special Concern: coast horned lizard, white-tailed kite, golden eagle, northern harrier, Cooper's hawk, California horned lark, loggerhead shrike, badger and burrowing owl (also a State candidate), as well as numerous other wildlife species either wholly or partially dependent on these areas.

Impact BIO-24: Elimination of ancient sand dunes. Elimination of the remaining ancient wind blown sand dunes, containing significant multi-trunked specimen live oaks, primarily on the northeastern portion of site 22 and southwestern portions of the Santa Maria Airport, would create *potentially significant* impacts to these biological communities on or among these dunes including a population of rare large-flower linanthus, which was previously thought extinct in Santa Barbara County.

Impact BIO-25: Elimination of sandhill chaparral. Elimination of roughly 250 acres of sandhill chaparral would contribute substantially diminishment and fragmentation of the remaining central maritime chaparral on the central coast of California and create *potentially significant* impacts through substantial reductions in the populations of 2 rare endemic plant species (CNPS List 1B): purisima manzanita and sand mesa manzanita, 3 uncommon species (CNPS List 4): Palmer's spineflower, San Luis Obispo wallflower, and sand almond, Eastwood spineflower (a species of local concern), and two animal species of special concern: coast horned lizard and potentially the silvery legless lizard.

Impact BIO-26: Elimination of central dune scrub. Elimination of approximately 100 acres of central dune scrub would create *potentially significant* impacts through elimination of some of the last remaining stands of this community (Table 5.2-1) along with several resident sensitive species including: Blochman's leafy daisy (rare and a state candidate), curly-leaved monardella, Blochman's groundsel, and coast horned lizard and silvery legless lizard, both California Species of Special Concern.

Impact BIO-27: Elimination of central coastal sage scrub. Urban development on roughly 150 acres of central coastal sage scrub would cause *potentially significant* impacts to this declining community (Table 5.2-1) and the uncommon Lompoc monkey flower.

Impact BIO-28: Elimination of riparian communities. Development of 150 acres of riparian areas and urban encroachment on riparian communities, including development adjacent to streams and creeks, and the construction of road bridges and culverts would create *potentially significant* impacts through removal of riparian vegetation, polluted runoff, noise, light and glare, importation of fill, sedimentation, increased maintenance activities, physical alteration of creek channels, and increased human and dog disturbance.

Impact BIO-29: Elimination of oak woodlands. Elimination of 200 acres of oak woodlands would create *potentially significant* impacts through elimination of and substantial reduction in the vast array of wildlife that is dependent upon this community.

Impact BIO-30: Disturbance to Bishop Pine forest. Although urban development is not proposed in the Bishop Pine Forest on Graciosa Ridge, recreational development may occur here and, if implemented, could cause *potentially significant* impacts to this threatened community and associated species such as the endemic plant, Lompoc yerba santa, which is endangered in a portion of its range.

Impact BIO-31: Removal of oak trees: Removal of oak trees due to site development would be *potentially significant* due to the wildlife habitat value that even a single oak tree in an urban environment provides for insects, reptiles, birds, and small mammals.

Impact BIO-32: Removal of eucalyptus woodlands. Removal of eucalyptus woodlands that are used as a roosting and/or nesting site for raptors could have a *potentially significant* impact on raptor populations, many of whom are California Species of Special Concern.

Impact BIO-33: Weed invasion. Landscaping with weedy species in the proposed newly urbanized areas could have a *potentially significant* impact on the remaining acreages of native plant communities by displacing native species and thus significantly altering habitat characteristics and ecological functions. These weedy species include iceplant, pampas grass, veldt grass, eucalyptus, spiny cholla and Australian fireweed.

Policy Impacts

Adoption of the Orcutt Community Plan may include adoption of numerous policies affecting future development. Those policies that have the potential of significantly impacting biological resources are discussed below. The following analysis is based upon the draft policies contained within the November 15, 1994 Initiation Draft Orcutt Community Plan.

Impact BIO-34: Parks, Recreation and Schools policies. Draft policies 1, 3, 5 and 8 encourage or direct the County to increase recreational opportunities on open land, including encouraging private development to incorporate facilities such as golf courses. In particular, Draft PRT policy 8, and Schools policies 1 and 5 could result in elimination of a substantial portion of the vernal wetland/sand dune complex (next to Arrellanes School), ~~and other wetlands on Key Site 22.~~ This could result in the elimination of critical habitat areas and is *potentially significant*.

Impact BIO-35: Trails policies. Draft policies 22, 23 and 24 encourage the County to develop a comprehensive trail system on open lands. This could result in elimination of sensitive plants, as discussed in Impact BIO-8 which is *potentially significant*.

Impact BIO-36: Sewer system policies. Draft policies 1 and 2 could result in *potentially significant* impacts to creeks and wetlands as described in Impacts BIO-10, 11, and 12.

Impact BIO-37: Transportation policies. Draft policy 1 requires completion of needed roadways which would have *potentially significant* impacts as described in Impacts BIO-1 - 7.

Impact BIO-38: Flood Control policies. Draft Policies 6 and 12 requiring retention basins would have *potentially significant* impacts to riparian and other systems (Impact BIO-15).

C.Cumulative Impacts

Cumulative impacts from development of the Orcutt Community Plan in addition to development in the City of Santa Maria, Vandenberg Air Force Base and southwestern San Luis Obispo County would be most severely **cumulatively significant** to ~~wetlands, riparian,~~ central dune scrub, oak woodlands, central coast scrub and sandhill chaparral communities. In particular, development of portions of the proposed golf course and Union Valley Parkway extension on the southern portions of the airport property would

contribute substantially to cumulatively significant impacts to ~~riparian scrub~~, oak woodland, vernal pools and sand dune complexes.

5.2.4 MITIGATION MEASURES [PUBLIC PROJECTS]

Mitigation BIO-1: All roads shall be constructed in a manner that minimizes filling within creek and stream corridors and that completely avoids or minimizes removal of riparian vegetation. Bridges over major creeks, streams and within wildlife corridors under the open space overlay shall be constructed with maximum vertical clearance for adequate wildlife passage as determined by Planning and Development in consultation with Public Works. A minimum 6-foot vertical clearance above the channel should be the minimum, unless flood flows or topography dictate a different height. If a span bridge is not feasible, a box culvert (or other less intrusive structure) shall be designed to permit wildlife passage. (*Addresses Impacts BIO-1, 2, 3 and 4*).

Mitigation BIO-2: Bicycle path construction shall avoid removal of riparian vegetation to maximum extent feasible. The Orcutt Creek bike path shall be set back a minimum of 50 feet from the outside edge of riparian vegetation or the top of the bank of Orcutt Creek or other streams (whichever is further), unless this would make the link infeasible. Path construction shall include riparian restoration between the edge of existing native vegetation and the bicycle path. Any lighting along the path shall be directed away from the creek. (*Addresses Impacts BIO-1, 2, 3, 4 and 9*)

Mitigation BIO-3: Habitat restoration plans shall be required of all **public** projects that would significantly impact wetlands, riparian woodlands and oak woodlands. The goal of the plan should be to restore a greater number of acres than that which was impacted. If restoration on or near the site is not feasible, acquisition and permanent preservation of additional habitat acreage should be considered as long as the mitigation project results in a substantial increase in ecological functions. The habitat restoration plan shall be reviewed and approved by P&D, and bonded for by the applicant, prior to issuance of a Land Use Permit on the site. (*Addresses Impacts BIO-1 through 5, 8 through 12, 15, 17, 18, and 21*)

~~Mitigation BIO-4: Prior to construction of any roads crossing the vernal pool areas (eg: E Street), wildlife surveys shall be conducted for sensitive species in the wetland areas within 300 feet of both sides of the outside edges of grading these roads. A habitat restoration plan for the project shall be submitted to P&D for approval prior to construction, and may include pre-construction relocation of sensitive animals. The habitat restoration plan shall include restoration of all wetland and dune habitats to previous or better conditions. The restoration plan shall be approved by P&D and PW and funded prior to construction. Implementation shall begin within one year of commencement of grading, and completed within 3 years of roadway completion. (*Addresses Impact BIO-3*)~~

~~Mitigation BIO-5: Union Valley Parkway and E Street shall be designed and constructed to include a bridge or bridges over the greatest amount of wetlands and sand dunes possible. Adequate vertical clearance beneath the bridge(s) for wildlife passage shall be accommodated where feasible. Where a bridge is not feasible, the road(s) shall be constructed on berms above the adjacent ground surface, with box culverts~~

~~beneath the road, suitable for passage by tiger salamanders and spadefoot toads, and maintained a minimum distance of every 500 feet and smaller flat bottomed culverts at closer intervals. (Addresses Impacts BIO-3 and -4)~~

Mitigation BIO-6: Segments of roadways that traverse wildlife corridors within the Open Space Overlay shall avoid use of street lights or other lights in these corridors, except as absolutely necessary for public safety. Light "spill over" from any lighting shall be minimized by directing lighting away from the open space area, the use of hoods, and landscape screening (with appropriate native species) alongside the road. (Addresses Impacts BIO-1, 2, 3, and 4)

Mitigation BIO-7: The County Public Works and Planning and Development Departments shall work with the City of Santa Maria and the Airport to realign E Street as far to the east as possible in order to avoid the wetland/sand dune complex that occurs both on Site 22 and Airport property (Figures in EIR Volume II, Key Site 22). (Addresses Impact BIO-4)

Mitigation BIO-8: Dutard Road shall be realigned to the south outside of the vernal pool/ dune complex, to the south of the east-west canyon-drainage system as depicted on Figure in EIR Volume II, Key Site 22). The current alignment of the old road bed of Dutard Road shall be abandoned and restored to vernal pool/dune complex habitat (Addresses Impact BIO-5).

No mitigation is required for Impacts BIO-6 and -7 (Clark Avenue Widening and Woodmere Extension).

Mitigation BIO-9: All trails shall be sited and designed to minimize removal of native vegetation. To the maximum extent feasible, trails shall follow existing dirt road and trail alignments. Where this is not possible, prior to final trail alignment of these trail segments, the proposed trail route shall be surveyed by a P&D-qualified botanist. The botanist, in consultation with P&D, shall reroute the trail alignment to avoid sensitive species. The final alignment shall be approved by P&D. Signage shall be placed alongside the trails providing educational and interpretive information. (Addresses Impact BIO-8 and -9)

Mitigation BIO-10: All sewer trunk line extensions shall be constructed with a minimum of 50 feet between the inside edge of the construction zone and the dripline of riparian and marsh vegetation. (Addresses Impact BIO-10 and -11)

Mitigation BIO-11: Siting and construction of the new sewage treatment facility and associated ponds and/or spraying grounds shall avoid all sensitive habitat areas including upland amphibian retreat sites. Facility siting shall be based upon the results of surveys by a P&D-qualified botanist and wildlife biologist for sensitive species. The surveys shall be conducted during the appropriate time of spring, when sensitive species would be present. A minimum 100 foot buffer between the facility and any wetlands shall be required. If sensitive amphibian species are found or are likely to be present, the new facility shall be located a minimum of 500 feet from the edge of the wetland. (Addresses Impact BIO-12)

Mitigation BIO-12: The plan for diversion of Orcutt Creek water shall include formulation and implementation of a Orcutt Creek Watershed Management Plan that shall provide for adequate supplies of water in and below the stream channel to provide riparian habitat for all plant and animal species that are presently associated with the stream. (*Addresses Impact BIO-14*)

Mitigation BIO-13: All new retention basins shall be sited and designed in a manner that avoids or minimizes impacts to wetlands, riparian habitats and oak woodlands. Excavated fill shall not be placed within these habitats and areas adjacent to or within these habitats which are disturbed during construction shall be revegetated with appropriate native species. Basins on Key Sites 3, 8 and 22 shall require implementation of Mitigation BIO-3. The Key Site 12 basin shall be located on the east side of the existing access road. The retention basin on Key Site 30 shall be located in the area of the site currently lacking sensitive habitat. All sensitive habitat areas adjacent to these basins shall be fenced prior to commencement of grading to prevent disturbance and stockpiling in these areas.
(*Addresses Impact BIO-14*)

Mitigation BIO-14: Development on Key Sites 3, 5-8, 10-13, 15, 19, 22, A, F, and D, except hiking/biking trails and other recreational facilities, shall be located outside of the floodway and a minimum distance of 50 feet from the dripline of riparian vegetation. Due to particularly high habitat values on Key Sites 3 ~~and 22~~, the minimum distance shall be increased. (See Key Site descriptions.)
(*Addresses Impact BIO-15*)

Mitigation BIO-15: In order to minimize the need for fuelbreaks, all new developments adjacent to open lands vegetated by chaparral, grassland, scrub or oak woodlands shall be sited and designed to minimize fire hazards including the use of paved roads on the perimeter between development and open lands, and paved access at development edge for fire-fighting equipment to the maximum extent feasible. A minimum structural setback of 100 feet from the edge of designated Open Space shall be required for such developments. No landscaping within this setback shall be large enough to prevent fire-fighting equipment from utilizing this area. The paved road and trails may be included within this 100 foot setback. (*Addresses Impact BIO-17*)

Mitigation BIO-16: Planning & Development, with input from the County Fire Department, shall prepare a Fuel Management Program for wild lands within the Open Space Overlay which could include a controlled burn program for the Solomon Hills. This program shall be funded by foothill development parcels (*Addresses Impact BIO-18*)

MITIGATION MEASURES [PRIVATE PROJECTS]

Mitigation BIO-17a: Unified Open Space Overlay. Concurrently with the adoption of the Orcutt Community Plan, the County shall adopt an Open Space Overlay for the community of Orcutt, as shown in Figure 2-8, to provide for the protection of contiguous bands of open space within the northern Orcutt, Orcutt Creek, Solomon Hills, Casmalia Hills and West Orcutt open space corridors. The purpose and intent of this overlay shall be to provide for long term protection of contiguous bands of public and private open space. The biological objectives of the Open Space Overlay shall be: 1) preserve the diversity of unique habitats and species in Orcutt; 2) preserve contiguous habitat areas and riparian corridors between the

Solomon and Casmalia Hills, through the urban area to the grasslands, and dunes ~~and wetlands~~ on the valley floor; 3) preserve ecological systems as a whole; and 4) provide opportunities for habitat restoration.

Mitigation-BIO-17b: Unified Open Space Plan. As part of adoption of the Open Space Overlay, the County shall adopt a unified open space plan for the general location and intensity of allowable uses within the Open Space Overlay. The Open Space Plan shall set standards for protection of significant natural resources, for provision of active and passive recreation and for the mitigation of the aesthetic impacts from development adjacent to designated open space areas.

Mitigation-BIO-17c: Landscape-Open Space Maintenance District. The County shall form a Landscape and Open Space Maintenance District to provide for long term management of public areas of the open space overlay to ensure long term protection of natural resources, installation and maintenance of both passive and active public recreation facilities and the clean up and maintenance of landscape planter strips and medians along major travel corridors. All new development shall provide \$100 per unit to fund the Orcutt Community Landscape and Open Space District. Said funds shall be used to maintain, enhance, acquire and preserve public landscape and open space areas.
(Addresses Impacts BIO-19 through BIO-29)

Mitigation BIO-18: The open space overlay shall be applied to the vernal pool/dune complex as depicted on Figure 2-8. No structures shall be permitted within the complex or buffer area except for structures of a minor nature that help implement preservation of the resource (ie: interpretive/educational signs). As part of the habitat restoration plan for this area, the perimeter of this open space area shall be fenced and a landscape buffer strip of appropriate native trees and shrubs planted to screen the area from surrounding development. A trail shall be permitted near the edge of the buffer area (Addresses Impact BIO-20, 21, and 22)

~~**Mitigation BIO-19:** A minimum buffer of 100 feet, or fifty feet with installation of major screen planting native riparian vegetation, shall be maintained in natural condition from the edge of the wetland meadow along Orcutt Creek on Key Site 22. No structures shall be permitted with the complex or buffer area except for structures of a minor nature that help implement preservation of the resource (ie: fences and interpretive/educational signs). Passive recreational development such as seating areas, bike paths and a trail shall be permitted within fifty feet of the edge of the wetland.
(Addresses Impact BIO-22 and 28)~~

Mitigation BIO-20: All new developments shall be sited and designed to preserve and enhance significant wildlife corridors, particularly between wetlands and adjacent uplands areas.
(Addresses Impact BIO-19, 21, and 22)

Mitigation BIO-21: In order to protect the maximum contiguous areas of open space feasible, the County shall increase land use densities, modify road width or building height where feasible.
(Addresses Impact BIO-19 and 24)

Mitigation BIO-22: The ancient sand dunes of Orcutt shall be protected and preserved to the maximum extent feasible. All feasible measures shall be taken to avoid impacts to these dunes, including but not limited to: realignment of roads and construction of bridges over rather than through dunes.

(Addresses Impact BIO-24).

Mitigation BIO-23: Sandhill chaparral, central dune scrub, oak woodlands and central coastal sage scrub shall be protected to the maximum extent feasible. Developments adjacent to these areas shall employ setbacks, clustering, native landscape buffers and restoration of degraded areas including any impacted rare species. The goal of the plans shall be to have no net loss of habitat.

(Addresses Impacts BIO-25, -26, -27, and -29)

Mitigation BIO-24: Riparian vegetation shall be preserved to the maximum extent feasible. A minimum buffer of 50 feet from the dripline of riparian vegetation shall be maintained. All new development adjacent to creeks and streams shall be required to implement a riparian habitat restoration plan. The project shall minimize the effects of adjacent urbanization by: 1) locating the restoration onsite to the maximum extent feasible, 2) hooding and directing all lights away from the creek, 3) providing a long-term drainage plan that directs any potentially polluted drainage away from the creek, and 4) implementing an erosion and sedimentation control plan during construction.

(Addresses Impact BIO-28)

Mitigation BIO-25: No recreational or other development shall be permitted that would adversely impact the Bishop Pine Forest. In order to preserve the potential for wildfire and regeneration to occur, any new structures shall be located a minimum of 300 feet from the forest boundary.

(Addresses Impact BIO-30)

Mitigation BIO-26: Oak trees shall be protected to the maximum extent feasible. Measures taken to preserve oak trees should include modification of project design (eg: clustering, narrower road width, taller building heights, etc). The area protected from grading, paving and other disturbances should include the area 6 feet outside of the dripline. Where oak trees are killed, they shall be replaced in a manner consistent with County standards. *(Addresses Impact BIO-31)*

Mitigation BIO-27: Eucalyptus woodlands that are used as roosting and/or nesting site for raptors shall be protected to the maximum extent feasible. Where eucalyptus trees are removed, they should be replaced by native trees. *(Addresses Impact BIO-32)*

Mitigation BIO-28: Landscape plans for developments on the edge of open space areas shall include trees and shrubs native to the Santa Maria Valley. (The Orcutt Biological Resources Technical Report [Rindlaub 1995a] contains a list of species.) Planting of invasive weedy plants such as iceplant, pampas grass, veldt grass, monterey pine, eucalyptus, spiny clotbur and Australian fireweed shall be strongly discouraged and removed where feasible in these areas. *(Addresses Impact BIO-33)*

5.2.5 RESIDUAL IMPACTS

Implementation of all of the mitigation measures above would not substantially reduce the amount of open space lost below 2,000 acres. However, these measures would substantially reduce the adverse effects of buildout of the community plan on biological resources, in particular by the adoption of the Open Space Overlay and accompanying design (eg: setbacks, buffers) and restoration (eg: creek replantings, **wetland restoration**). Nevertheless, the residual adverse impacts to wetlands, sandhill chaparral, central dune scrub, oak woodlands, and riparian communities and the species contained therein, and would remain ***Significant and Unavoidable*** (Class I) due to habitat fragmentation, increased disturbances, introduction of weedy species, removal of substantial amounts of native vegetation, increased urban runoff, etc.

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ATTACHMENT 5

OCP FEIR Chapter 6 Alternatives, Pages 6-11, 6-27 and 6-39

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Vastewater Treatment: Adequate sewer capacity is a significant issue for the community both under the existing and proposed plans. The current RWQCB moratorium for Laguna County Sanitation District would remain in effect. Even if the existing wastewater treatment plant were allowed to operate at full capacity, the plant would not have sufficient remaining capacity to accommodate the wastewater demands of buildout of the existing plan. A supplemental wastewater treatment plant will likely have to be constructed or the existing plant torn down and replaced.

Retention Basin System: Buildout under the existing plan would contribute additional run-off from future development within the Orcutt Creek watershed. The current system of conditioning individual subdivisions to construct smaller on-site retention basins to gather and control run-off would continue under the existing plan.

Schools: Due to the significant increase in student enrollment since 1980, Orcutt area school districts have identified a need for three additional elementary schools, one junior high and one high school to serve buildout of the existing plan. However, no new potential school sites are identified in the 1980 plan.

6.2 IMPACT ANALYSIS

ALTERNATIVE 1: "NO PROJECT"

A. *Land Use:* Impacts associated with land use patterns of development would be less under the No Project alternative since future development would primarily be associated with urban in-fill and limited development in the Solomon foothills and west Orcutt. Density reductions on Key Sites 22 and 33 would minimize infrastructure, air quality, and traffic impacts associated with "leap frog" development. In addition, growth inducing impacts associated with the precedent setting action of extending the Urban/Rural Boundary line and urban services west to Black Road and east of Hwy 101 would be avoided under the existing plan. Nevertheless, some urban development could occur on rural land. Thus, the impacts would be significant and unavoidable (Class I)/

However, since many parcels would retain their antiquated County Ordinance 661 zoning designations, minimum parcel sizes would remain unresolved for portions of the Orcutt planning area under the "no project" alternative.

In addition, the proposed Oil Activity Overlay, Open Space Overlay, and Transfer of Development Credits program "planning tools" would not be available to address specific land use concerns associated with buildout of the existing plan.

B. *Biological Resources:* Overall impacts to biological resources would be substantially less severe than the proposed project primarily due to density reductions on Key Sites 3, 7, 12, 13, 14, 15, 22, 23, 30, 33, and 35, but also due to existing development restrictions on Site 12. Potential impacts would also be significantly reduced to rare and unique habitats such as ancient sand dunes on Key Sites ~~22 and 30~~, and ~~extensive vernal pools and associated wetlands on Key Site 22~~. Reduced development would have fewer impacts to oak woodlands, grasslands, sand hill chaparral, central coast sage scrub, and ~~riparian~~ forest and woodland communities. However habitat elimination and fragmentation would still result in significant unavoidable impacts (Class I).

3. **Biological Resources:** Impacts to biological resources would be substantially less than the proposed project primarily due to density reductions on Key Sites 7, 8, 12, 14, 15, 22, 33, and 35. ~~Potential impacts would also be significantly reduced to rare and unique habitats such as ancient sand dunes on Key Site 22, and extensive vernal pools and associated wetlands on Key Site 22.~~ Reduced development would have fewer impacts to oak woodlands, grasslands, sand hill chaparral, central coast sage scrub, and ~~riparian~~ forest and woodland communities, however habitat elimination and fragmentation would still result in significant unavoidable impacts (Class I).

Impacts associated with public infrastructure improvements would be reduced by the absence of the extension of Stubblefield Road/Stillwell Road and "E" Street extensions of the proposed plan. Remaining public infrastructure improvements have the potential to result in impacts to biological resources. Significant impacts to resources would remain in the Orcutt Creek and southern foothill areas. Overall, impacts would remain significant and unavoidable.

C. **Agricultural Resources:** Agricultural impacts would be substantially reduced by reduction in buildout on Keysites 12, 22, and 33 from the 1,992 units of the project to 25 dwellings on forty acre parcels. Current agricultural production acreages for these sites include: approximately 60 acres of cultivated agriculture on Key Site 12, approximately 480 acres of cultivated and 300+ acres of grazing land on Key Site 22, and approximately 260 acres of grazing land on Key Site 33. Keys Sites 22 and 33 would retain their rural agricultural designations, while potential development on Key Site 12 would occur on grasslands which have not been grazed in recent history. Impacts to agriculture from the low-growth alternative would be less than significant (Class II).

D. **Geology:** Geologic impacts would be similar to those of the proposed project, with the exception that reduced buildout in the foothills and along Orcutt Creek, would have corresponding reductions in erosion hazards (i.e., blowing sand, erosion, collapsible soils, etc.) related to buildout on steep slopes in the foothills and along Orcutt and Pine Canyon Creeks. Under the low-growth scenario, few Key Sites have standard single family lot zone designations (e.g. 1-E-1, 20-R-1, etc.) requiring minimum lot sizes and setbacks. However, since extensive development would still occur within the foothill and Orcutt Creek canyon areas, overall impacts from exposure of new development to geologic hazards would remain less than significant (Class II) with development created increased in erosion remaining unavoidable and significant (Class I).

E. **Flooding\Drainage:** Flooding and drainage impacts would be slightly less than those identified for the proposed project primarily due to reduced development potential, and consequently reduced storm water run-off, for Key Sites located along Orcutt Creek (Key Site 7, 8, 22) and Pine Canyon Creek (Key Sites 12, 15). Run off from development of these sites could result in increased erosion and sedimentation of local creeks. The low-growth alternative could be served by a regional retention basin system (See discussion above). Under the low-growth scenario, few Key Sites would have standard single family lot zone designations (e.g. 1-E-1, 20-R-1, etc.) requiring minimum lot sizes and setbacks. Overall, impacts would remain less than significant (Class II).

F. **Water Resources:** Impacts on groundwater resources would be reduced corresponding to the decrease in residential development from the project (Table 6-7). Nonetheless, residential, commercial-industrial, municipal and agricultural growth within the OPA permitted under the low-growth alternative would create potentially significant impacts to groundwater resources due to the contribution to ongoing and increased overdraft of the Santa Maria Groundwater Basin by generating an increase in net water demand of 1,890 AFY

6.6 IMPACT ANALYSIS

ALTERNATIVE 3: "HIGH GROWTH"

A. Land Use: Impacts associated with land use patterns of development in south Orcutt, west Orcutt, and east of Highway 101 would be similar to the proposed project, however, the intensity of development would be significantly greater. The proposed addition of 10,270 residential units and 3,000,000 sf of commercial space would change the character of existing residential neighborhoods in Orcutt from a semi-rural "bedroom community" to a more urbanized community similar to Santa Maria. Significant density increases on Key Sites 3, 4, 5, 6, 11, 12, 14, 15, 17, 20, 21, 22, 29, 33, 35 and "C" would increase infrastructure, air quality, and traffic impacts which typically accompanies high levels of urbanization. These are significant and unavoidable (Class I).

The proposed Oil Activity Overlay, Open Space Overlay, and Transfer of Development Credits program "planning tools" identified for the proposed project would also be available to help address specific land use concerns and impacts associated with buildout of Alternative 3.

B. Biological Resources: Impacts to biological resources under this alternative would be significant and unavoidable (Class I) primarily due to density increase on Key Sites 3, 4, 5, 6, 11, 12, 14, 15, 17, 20, 21, 22, 29, 33, 35, "C" and "F". The permanent loss of 2,000+ acres of habitat, the fragmentation of an additional 1500 acres and disruption to several thousand acres of adjacent habitat from urban expansion would create significant (Class I) impacts to at least 6 threatened or very threatened communities and substantially diminish populations of associated wildlife through direct loss of habitat and the disruption of remaining wildlife corridors through encroachment upon remaining open lands with disturbances such as noise, light and glare, domestic animals, weed invasion, etc. ~~Potential impacts would also be significantly increased to rare and unique habitats such as ancient sand dunes and extensive vernal pools and associated wetlands on Key Site 22.~~ Increased development in the Solomon foothills, primarily on Key Sites 3, 6, 12, and 17 would result in significant impacts wildlife populations and native habitats such as oak woodlands, grasslands, sand hill chaparral, central coast sage scrub, and ~~riparian~~ forest and woodland communities.

Impacts associated with public infrastructure improvements (i.e., new roadways, water and sewer line extensions, parks and trails, flood control retention basins, and a new wastewater treatment plant) would be similar to the proposed plan. All of these public infrastructure improvements have the potential to result in impacts to biological resources.

C. Agricultural Resources: Impacts to agricultural would be similar to those identified for the proposed project. Buildout of Alternative 3 would result in the urbanization of roughly 2,000 acres of open land. The impact to agriculture from the potential development of an additional 10,270 units would substantially reduce agricultural activity within the Orcutt Planning Area west of U.S. Highway 101. Alternative 3 would result in conversion of roughly 1,100 acres of grazing land and 550 acres of cultivated land to urban uses which would constitute a significant and unavoidable (Class I) impact by substantially reducing agriculture in the Santa Maria Valley. With the exception of 250 acres that is proposed to be urbanized, agricultural lands east of the highway would remain intact.

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ATTACHMENT 6

Chapter 11 References, Pages 11-2 and 11-3

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ATTACHMENT 7

Appendix C:
Revised Biological Resources Assessment for Selected Key Sites Within the
Orcutt Planning Area Final Report (4/22/2013)

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Appendix C

Biological Resources Assessment

Revised by Resolution # _____ of the Board of Supervisors in compliance with court ruling in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452)

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Biological Resources Assessment

for

Selected Key Sites

Within the

Orcutt Planning Area

Final Report

Submitted to:

County of Santa Barbara

Planning and Development Department

123 East Anapamu Street

Santa Barbara, California 93101

Katherine Rindlaub, Lawrence Hunt, and John Storrer

Katherine Rindlaub Biological Consulting

P.O. Box 31111

Santa Barbara, CA 93101

July 27, 1995



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Appendices

Appendix 1. Key Site Maps.

Appendix 2. Vertebrate Species with Documented Occurrence in the Orcutt Planning Area.

Appendix 3. Plant Species Observed on the Key Sites.

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Summary

The intent of this report is to provide the Santa Barbara County Planning and Development Department with an inventory and evaluation of the relative biological resource values of ten undeveloped sites within the Orcutt Community Plan area. Plants, terrestrial vertebrates and their habitats are the focus of this study.

Investigations regarding the significant biological resources of the Orcutt Planning Area have relied primarily on field surveys. Field observations were augmented by contacts with local experts, a review of previous studies, and a search of museum records.

Three sites, the Rice Ranch (590 acres), Smith parcel (146 acres), and the Kelly parcel (32 acres) are contiguous with undeveloped lands that extend southwards from the City of Orcutt to the Solomon Hills. These three sites are linked by Orcutt Creek, which flows through the Urban Core, to the Solomon Creek parcel (78 acres), Bowers/Rees parcel (17 acres), George parcel (21 acres) and Southpoint parcel (21 acres). Isolated within the Urban Core is the Union Oil/Bradley parcel (79 acres). The Area 8 parcel is located on the outskirts of the sparsely developed West Orcutt Planning Area.

A discussion of the sequence of geological processes that shaped the Santa Maria Valley and surrounding environs, producing unusual topography and soils, provides a regional and temporal context for evaluation of local plant communities, wildlife habitats, and their biota.

Botanical resources are classified according to the widely used Holland (1986) system. Vegetation classification on each site was based on field observations of dominant plant species. Vegetation maps will be submitted separately from this report. Plant species regarded as sensitive by federal and state agencies, the California Native Plant Society, and local experts are emphasized in the site discussions. An inventory of plant species observed on each site is presented in an appendix.

Wildlife resources identified during field studies are described in terms of their habitats on a site-by-site basis. Wildlife species listed by state and federal wildlife authorities, conservation groups, and local researchers as species of special concern also were emphasized in the site discussions. Each site description includes an inventory of reptiles, birds, and mammals observed during field work, as well as sensitive species records gleaned from literature sources and museum records. These records are summarized in an appendix.

The Orcutt Planning Area supports regionally significant plant and wildlife resources. Development constraints are addressed on a site-by-site basis. Management recommendations include an evaluation of each site for overall habitat quality and restoration potential, biologically significant habitat, and presence of sensitive species. Mitigation recommendations are submitted for designation of planned open space to offset impacts, preserve and enhance viable regional wildlife corridors and significant habitats. Cumulative impacts and compatible fire management strategies are also discussed. Santa Barbara County's long-range planning goals and policies may enable preservation and enhancement of existing biological values in the Orcutt Planning Area.

Introduction

This report summarizes the results of field surveys conducted in relation to the Community Plan Update for the Orcutt Planning Area, in Santa Barbara County, California. The biological resources assessment is to be used in the development of long-range planning policies and guidelines for the project area. The study is also intended as technical support of an Environmental Impact Report (EIR) for the Comprehensive Plan Update Project.

The biological resources assessment was prepared by Katherine Rindlaub Biological Consulting under contract to the Santa Barbara County Planning and Development Department. Field surveys of botanical and terrestrial vertebrate resources were conducted by Katherine Rindlaub, Lawrence Hunt, and John Storrer. These individuals share authorship of the subject report.

Objectives

The purpose of this study was to provide information on the biological resource characteristics of the Orcutt Planning Area. Identification and mapping of sensitive flora and fauna were a particular focus of the survey effort. Biological sensitivities and resource constraints could then be used in determining appropriate land use guidelines. The planning recommendations offered in the impacts and mitigations section of each site treatment, and the final sections of the report are based on the results of the study.

Study Methodology

Field surveys were performed at ten "key sites" within the Orcutt planning area. These consisted of a pedestrian reconnaissance of representative habitat types within each site. Features of particular biological importance (e.g. wetlands, potential breeding sites for sensitive vertebrates, plant communities of special interest) were surveyed most intensively.

Plants that could not be conclusively identified in the field were collected for comparison with herbarium specimens curated at the Santa Barbara Botanic Garden. Voucher specimens were obtained from new plant localities. Distribution of plant communities and location of sensitive

plant species were mapped for future reference. An inventory of plant species for each of the key sites was compiled.

Wildlife species observed during the site visits were recorded. Evidence of animals not directly observed (e.g. tracks, scat, skeletal remains, burrows) was considered confirmation of site-specific occurrence. Techniques employed in addition to binocular-aided visual observations included raking litter, turning logs and boards to search for reptiles, and amphibians, and dip-netting for larval amphibians.

Surveys were conducted during April, May, and June of 1995. A synopsis of the field surveys is as follows:

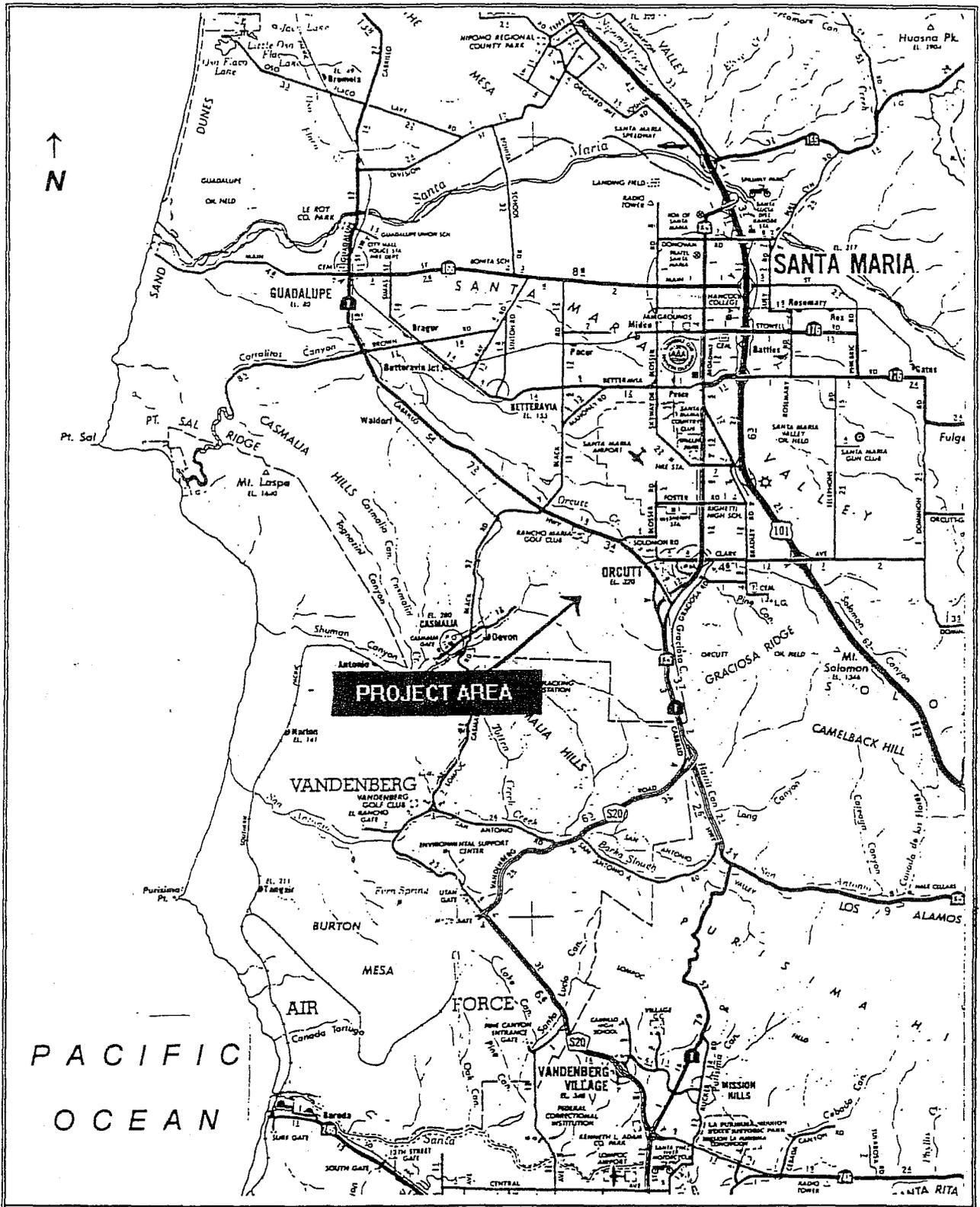
April 7	Sites 3, 7, 10, 11, 17, 18, 22
April 25	Site 12
May 6	Site 22
May 8	Sites 8, 11, 18, 22
May 11	Sites 3, 11, 18
May 16	Sites 3, 8, 22, 30
May 31	Site 12
June 2	Sites 7, 12, 17, 22, 30

A review of pertinent background material was used to augment data obtained from the field surveys. Previous biological surveys for the planning area include a wildlife resources assessment of Orcutt Creek (Collins, 1991), evaluation of vernal pools (Olson, 1991, 1992), and botanical resources survey of selected sites (Holland, 1991; Rindlaub, 1994). Environmental documents prepared for some of the parcels within the planning area (e.g. Enviroplan 1990, 1991; ERC 1991) also contain useful information on local flora and fauna. Information on the unique geological and edaphic features found within and around the project area came from Cooper (1967), Orme and Tchakerian (1986), and Hunt (1994).

Environmental Setting

Regional Overview

The project area is situated along the southern border of the Santa Maria Valley in northwestern Santa Barbara County, California (Figure 1), and extends from U.S. Highway 101 on the east to



PROJECT VICINITY

FIGURE 1



geological and edaphic template are unusual habitats which harbor a number of plant and animal species that have restricted distributions elsewhere in the region.

The Santa Maria Valley lies within the Santa Maria Basin, a northwest to southeast-trending synclinal trough extending from Morro Bay southward to Point Arguello and inland to approximately Buellton. The basin is one of six subsidence basins located along the west coast of California (Orme and Tchakerian, 1986). The Santa Maria Valley contains the most extensive Pleistocene-Holocene dune sheets in California. Together, these dunes form sequential, spatially-overlapping aeolian deposits. Geologically younger portions of dune sheets lie closer to the coast and range in age from the present to over 6,000 years old, while the inland dune sheets were deposited between 6,000 and 80,000 years (possibly 200,000 years) ago (Hunt, 1994).

The Santa Maria Basin contains three large dune complexes: the Morro Bay Dune Complex, the Santa Maria Valley Dune Complex, and the Santa Ynez Valley Dune Complex. The latter two complexes are subdivided into dune sheets of varying age, topography, and vegetational development. The dune sheets represent several depositional episodes, which form a consistent longitudinal pattern of increasing age progressing east from the present shoreline (Figure 1).

The Santa Maria Valley Dune Complex extends 28 km alongshore and 50 km inland. It is the largest system of coastal dunes in California and contains five distinct dune sheets (Figure 1). The Callender dune sheet contains two Holocene depositional events and includes coastal dunes extending from Pismo Beach south to Oso Flaco Lake. The Nipomo Mesa dune sheet lies approximately 75 m above sea level and is a Pleistocene dune deposit lying on top of a fluvial terrace 30 m above the adjoining Santa Maria River alluvial plain (Cooper, 1967). The Guadalupe dune sheet contains two Holocene deposits that lie entirely on the Santa Maria floodplain and extend from Oso Flaco Lake southward to the present mouth of the Santa Maria River. The Mussel Rock dune sheet is a series of four, partially-overlapping aeolian sand deposits that span the entire geologic sequence of dune emplacement in the Santa Maria Basin (Orme and Tchakerian, 1986; Orme, 1992). This dune sheet extends from the mouth of the Santa Maria River southward to Point Sal and lies partially on the southern edge of the Santa Maria River floodplain and partially on a series of marine terraces on the adjoining seaward slopes of the Casmalia Hills. The oldest (inland) portions of the Mussel Rock dune sheet extends eastward along a fluvial terrace bordering the southern edge of the Santa Maria River Valley to join the oldest portions of the Orcutt Terrace dune sheet. The Orcutt Terrace dune sheet encompasses two Pleistocene depositional events and is perched atop a fluvial terrace about 12 m above the present sea level (Woodring and Bramlette, 1950; Worts, 1951; Cooper, 1967). In addition to its great age, this

Black Road on the west. It is bordered on the south by the Solomon Hills and extends northward to the vicinity of the Santa Maria Airport.

The region has a Mediterranean climate, characterized by warm, dry summers and cool, wet winters. Additionally, the project area receives considerable coastal fog and low clouds throughout much of the summer. The average annual rainfall is 12 to 18 inches and the average annual air temperature is 57° F.

The Santa Maria Valley is a major structural feature of the Santa Maria Basin, one of six subsidence basins distributed along coastal California. The valley is roughly triangular, with its apex oriented to the southeast. The valley is bounded on the south by the Solomon and Casmalia Hills, on the north by the Santa Maria River, on the west by the Pacific Ocean, and on the east by the Sisquoc River and the foothills of the San Rafael Mountains.

Much of the Orcutt urban area is situated on the Orcutt Terrace dune sheet. This dune mass is composed of an ancient basal layer with a more recent dune mass overlying it. The Orcutt Terrace dune sheet is contemporaneous with the Nipomo Mesa, Mussel Rock dune sheet, and Burton Mesa. Similar ages and degree of soil development characterize these old dune masses and are largely responsible for their similar vegetation associations. Along the western and northern edges of the project area, shallow dune deposits, underlain by hardpan, allow formation of vernal pools. These seasonal wetlands provide critical breeding and foraging habitat for a number of animals.

Orcutt Creek, an intermittent stream which drains the northern slopes of the Solomon Hills and the southern portions of the Santa Maria Valley, including the Orcutt Terrace dune sheet, is the largest watercourse in the project area. The diverse riparian and adjacent upland plant communities associated with this watercourse provide important habitat for a wide variety of wildlife.

Geology

The plant and animal communities found in the project area are part of a regional wildlife complex that are properly viewed from the perspective of the unique geological history of the Santa Maria Valley. A combination of tectonic, topographic, climatic, and hydrologic forces, has formed the most extensive series of coastal dune masses in California at this location. These dunes form a chronologic sequence of advancing age away from the coast. Superimposed on this unique

dune sheet is further distinguished by the limits of its eastward transgression, further inland than any other dune sheet in the Santa Maria Basin.

Evolution of the Santa Maria Basin

Along the western coast of upper and lower California, recurring aeolian sand deposits are found at six localized, highly disjunct locations. Each of these sites is coincident with a subsiding basin: Monterey Bay (Salinas Basin); Santa Maria Valley (Santa Maria Basin); Ventura-Oxnard Plain (Ventura Basin); Santa Monica Bay (Los Angeles Basin); San Quintin Bay (San Quintin Basin), and Vizcaino Bay (Vizcaino Basin) (Cooper, 1967; Orme and Tchakerian, 1986). Probably the single most important factor in recurrent dune emplacement at these coastal locations is the tectonic development of a subsiding basin which provides catchment for repeated aeolian sand deposition. The Santa Maria Basin began its evolution during the mid-Miocene (10-15 million years ago), when extensional tectonic forces associated with the onset of clockwise rotation of the Santa Ynez Mountain Range away from the Santa Lucia Range produced a V-shaped gap at the intersection of the NW-trending Hosgri, Nacimiento, and Huasna Faults, and the presently EW-trending Santa Ynez River Fault. This elongation of the basin produced NW-trending crustal "slivers", separated by right-lateral strike-slip faults (Luyendyk, et al. 1980; Hornafius, 1985).

Clockwise rotation of the Santa Ynez Range slowed or stopped by the late Miocene, then resumed at a rapid rate in the Plio-Pleistocene (1.5-3 million years ago). Initial rotation of the mountain range produced crustal elongation; subsequent rotational activity compressed and uplifted the crustal "slivers" formed by extensional forces, and formed a radiating fold pattern emanating from the southeast corner of the basin. Compression, deformation, and uplift of these folds during early to mid-Pleistocene (1-2 million years ago), produced the present-day NW-SE-trending structural features of the basin, such as the San Luis Range, and the Casmalia, Solomon, and Purisima Hills (Woodring and Bramlette, 1950; Hornafius, 1985).

Once formed, the basin became a locus for marine deposition beginning in the middle Miocene and extending to the late Pliocene. The Monterey, Sisquoc, Foxen, and Careaga Formations underlie more recent deposits throughout the present-day basin (Woodring and Bramlette, 1950; Dibblee, 1988; 1989). Uplift and emergence of the basin allowed deposition of the first non-marine formation, the fluvial Paso Robles Formation from the early Pleistocene to late Pleistocene. The basin then and now, experienced spatially and temporally disparate rates of uplift and subsidence. Transient and local episodes of basinal subsidence occurred throughout the late

Tertiary and Quaternary times. It is these events that have maintained suitable conditions for recurring aeolian dune development along the shoreline and are responsible for the spatial and temporal sequence of dunes present in the Santa Maria Valley at present (Orme and Tchakerian, 1986). In contrast, adjacent, continuously uplifted coastal blocks only have thin, poorly developed aeolian sand deposits (e.g., Point Conception).

Pleistocene eustatic sea level fluctuations, coupled with basinal subsidence, allowed deposition of a thick layer of alluvium across the Santa Maria Valley. Deposition coincided with periods of glacial minima, when sea levels were relatively high. During glacial maxima, sea levels dropped and the floodplain was cut well below present sea level. Exposure of this broad alluvial plain allowed prevailing northwesterly winds to transport large amounts of sand inland, forming the present-day dune masses observable in the valley. The Santa Maria River and other watercourses currently meander across a depositional floodplain of fluvial sands and gravels up to 1000 m thick (Woodring and Bramlette, 1950; Worts, 1951). The present-day topography of the Santa Maria Valley consists of Pleistocene dune masses on the north and south ends of the valley (Nipomo Mesa and Orcutt Terrace), Holocene dunes fringing the coast, and the Santa Maria River floodplain.

Emplacement of the Orcutt Terrace dune sheet

The project area overlies the southern portions of the Orcutt Terrace dune sheet. This dune sheet is composed of two distinct depositional episodes (Figure 2). These are the Phase I paleodunes (Orcutt Sand) and Phase II dunes (Transverse dunes) of Orme and Tchakerian (1986). The Santa Maria Basin contains several disjunct examples of Phase I paleodunes. These formations have collectively been called the Orcutt Sand. The Orcutt Sand formation is composed of aeolian and fluvial sand and gravel deposits. These deposits underlie more recent dune sheets throughout the Santa Maria Basin (Figure 1). Woodring and Bramlette (1950), regarded the Orcutt Sand as the oldest, most extensive terrace deposit in the Santa Maria Basin. Muehlberger (1955) studied the vertical distribution of sediments in the Santa Maria lowlands and agreed with Woodring and Bramlette (1950) and Worts (1951) that the Orcutt Sand lies on top of older terrace deposits (the Paso Robles Formation), and is comprised of sand and gravel at its lower depths and sand in its upper portions. Cooper (1967) described the Orcutt Sand in the Santa Maria Valley as follows: "...on the south side of the Santa Maria Valley is an isolated body of ancient dunes, extensive but thin, with some small outliers. The principal mass is 10 km long and 5 km wide... [and] is confined to the [Orcutt] terrace and separated from the present floodplain by a low bluff, ...[it] must be

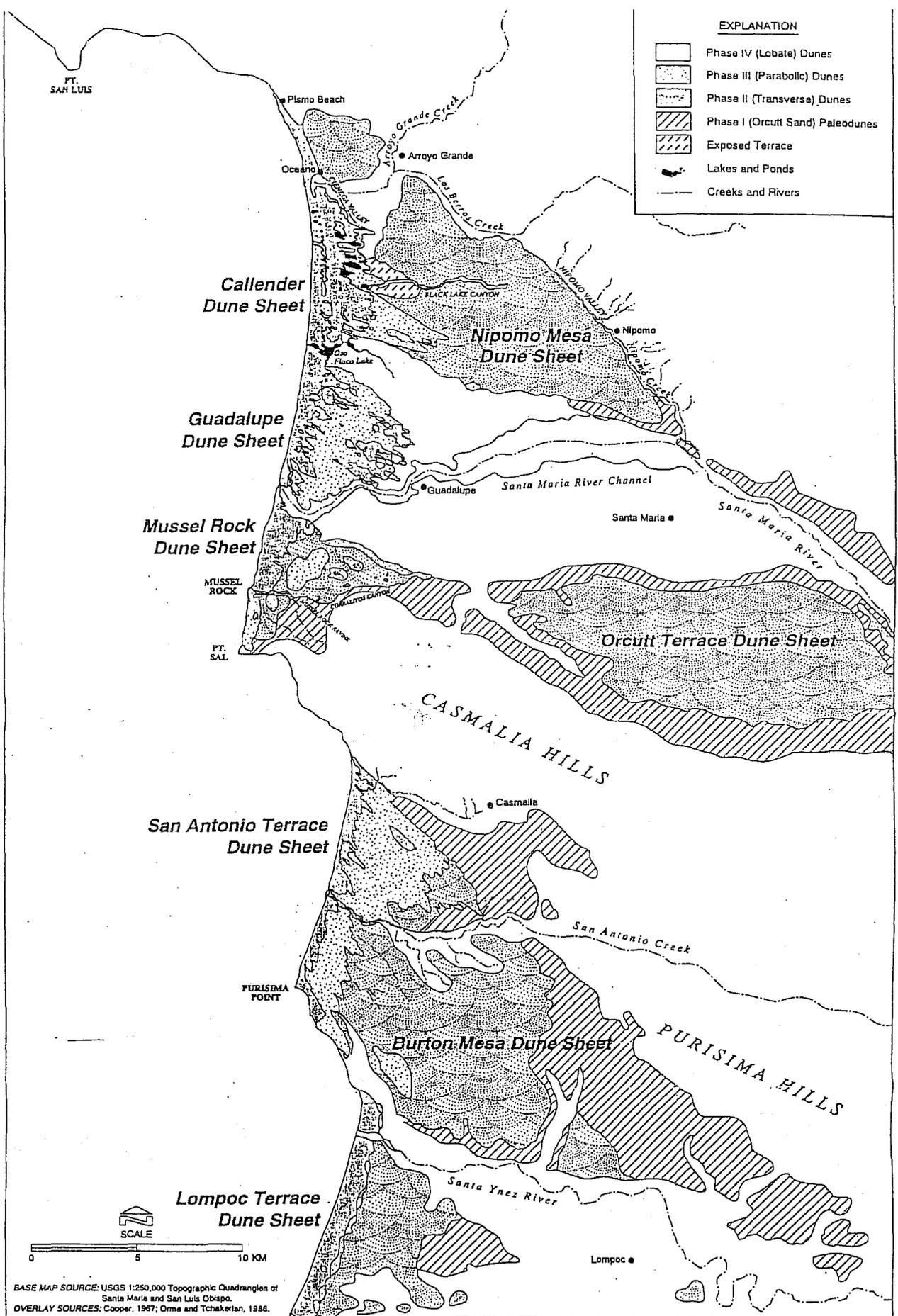


Figure 2
 COMPOSITE DISTRIBUTION OF DUNE SHEETS IN THE SANTA MARIA AND SANTA YNEZ RIVER VALLEYS
 Modified from Hunt, 1994

considered a sheet of river-valley dunes...". Subsequent stratigraphic and radiocarbon-dating by Orme and Tchakerian (1986) and Orme (1992), established that the Orcutt Sand is actually a complex of aeolian and fluvial sediments comprising two distinct origins: strongly indurated aeolian sand deposits (Phase I paleodunes), blown in at least 60,000 to 80,000 years ago, possibly as long as 200,000 years ago (Johnson, 1983), and fluvial deposits of sands and gravels laid down on top of these aeolian deposits between 25,000 and 32,000 years ago.

Surface exposures of Orcutt Sand (aeolian and fluvial elements) are confined to the Santa Maria River Valley and the Santa Ynez River Valley portions of the Santa Maria Basin. They occur within 3 km of the present shoreline and extend up to 42 km inland. The largest exposure is contained within the Burton Mesa dune sheet and forms the eastern half of the sheet. It lies along the southern flanks of the Purisima Hills (Figure 2).

In fact, the aeolian elements of the Orcutt Formation may once have blanketed virtually the entire Santa Maria Basin, from the foot of the San Rafael and Santa Lucia Mountains to the shoreline, and may have been partially eroded from the shoreline portions of the basin following uplift of the San Luis Range and the Casmalia, Solomon, and Purisima Hills (Woodring and Bramlette, 1950; Orme and Tchakerian, 1986). During periods of glacial maxima, Orcutt Sand would have covered extensive portions of the nearshore continental shelf. The Santa Maria River, prograding across this emerging shelf, transported and re-worked sediments stranded on emerging marine terraces. The river was also the source of abundant clastic material for dune construction (Hunt, 1994). Throughout the Santa Maria Basin Phase I paleodunes are either adjacent to or underlie Phase II deposits (Figure 2). Orme (1992) has demonstrated on geomorphic, pedologic, and stratigraphic grounds, that Phase I and Phase II dunes probably represent several aeolian events interspersed with fluvial deposition.

Overlying the Orcutt Sand formation on the Orcutt Terrace dune sheet, is another aeolian dune blown in between 6,000 and 25,000 years ago. These are the Phase II, or transverse, dunes of Orme and Tchakerian (1986) (Figure 2). Johnson (1983) found that Phase II dunes on the San Antonio Terrace south of the Casmalia Hills may have been deposited as early as 125,000 years ago. Phase II dunes are characterized by a subdued transverse dune topography (i.e., dune ridges parallel to the prevailing wind direction [NNW]), which indicate sand was deposited during periods of relative sea level regression and abundant sand budgets. As sea levels rapidly fell during the last glacial maximum (approximately 18,000 years ago), huge amounts of sediment exposed on the nearshore continental shelf would have been made available for aeolian transport onshore.

Phase II dunes are the most extensive surface dunes in the Santa Maria Basin and form the bulk of the Orcutt Terrace dune sheet (Figure 2).

The natural vegetation of Phase II dunes is quite different from that found on geologically younger dune sheets. Live oak woodland, chaparral, and coastal sage scrub are the dominant vegetation types. Multi-trunked coast live oaks (*Quercus agrifolia*) are also a prominent vegetative feature. Wells (1962) determined that many of the clumps of live oak sprouts in the fire-dominated chaparral on Nipomo Mesa in Phase II dune substrates, are spaced at the normal interval for a closed-canopy forest, indicating a very long period of stability.

Soils

Soils within the project area are dominated by aeolian sands of marine and fluvial origin perched upon marine terraces or benches. These sandy soils feather-out against the uplifted Cretaceous to Miocene marine sediments which comprise the Solomon and Casmalia Hills.

The Orcutt Terrace is composed of a pair of ancient aeolian dune masses. Because soil development increases with dune age, Phase I paleodunes are old enough to have developed a soil profile (Shipman, 1972; 1981). Subsoils are typically indurated by iron oxides however, surface exposures are commonly composed of loose sand. The surface deposits of these older dunes are characterized by a higher proportion of fine particles relative to their coastal counterparts, indicative of prolonged post-depositional weathering (Cooper, 1976; Orme and Tchakerian, 1986). Phase II dunes are composed of poorly consolidated to unconsolidated reddish-brown to yellow-brown sands with a clay-enriched B-horizon. The substratum is generally a dense, cemented sand layer (Shipman, 1972).

Soils within the project area fall into four major associations. The Betteravia-Garey Association comprises approximately 60% of the soils in the area and is characterized by soils that are nearly level to moderately steep, moderately well-drained and well-drained loamy sands to sandy loams developed from coarse-textured, wind-modified marine sands. They are found on low terraces or benches along the south edge of the Santa Maria Valley. Betteravia soils have a brown loamy sand surface layer with a yellowish-brown to reddish-brown massive, weakly cemented subsoil. Garey soils have a brown sandy loam surface layer with a light-brown to pinkish-grey sand loam to loamy sand subsoil, with cemented lenses.

Approximately 30% of the soils in the project area are assignable to the Marina-Oceano Association. These are nearly level to moderately steep, excessively drained aeolian sands on mesas and dunes. Marina soils have a greyish-brown to brown surface layer of sand, with a light-brown loamy sand subsoil. Oceano soils have a greyish-brown to brownish-grey sandy surface layer, with a pale-brown to yellowish-brown sandy subsoil (Shipman, 1972).

Other soil associations that comprise a minor portion of the project area include the Arnold Association and the Tangair-Narlon Association. The Betteravia-Garey and Marina-Oceano soils mantle the northern foothills of the Casmalia and Solomon Hills and, within the project area, grade into Arnold soils, characterized by a light brownish-grey sandy surface layer with a very pale brown sandy subsoil, underlain by a very pale brown, soft sandstone, and are typically associated with the Solomon Hills (Shipman, 1972).

Narlon soils consist of moderately well drained sands and loamy sands formed from marine terrace deposits. They have a pale-brown to light-grey surface layer of loamy sand or sand approximately 14 inches thick, underlain by about 12 inches of pink sand. The subsoil is a mottled, dark brown to yellowish-brown, dense sandy clay about 12 inches thick. Underlying the sandy clay subsoil are partially cemented sandy marine sediments. Within the project area, Narlon soils form a hardpan variant, consisting of moderately well drained soils formed on wind-modified, sandy, old marine terrace deposits. Permeability and surface runoff are very slow (Shipman, 1972). A perched water table often forms after rains, allowing development of vernal pools.

Vegetation and Wildlife Habitats

Factors governing the distribution of different vegetation types include climate, topography, soils and parent materials, as well as land use history. The vegetation types described below were identified during field reconnaissance of indicator and dominant species. Classification of the vegetation follows the Holland (1986) system and plant nomenclature follows Hickman (1993), unless otherwise noted.

In general, wildlife habitat types correspond closely to the plant communities as defined. However, more subtle distinctions between vegetation types are often recognized from a botanical perspective. For example, wildlife associations for the various wetland features described for the project area (e.g. vernal pools, vernal flats, freshwater marsh, and freshwater seeps) are quite similar. It is also important to note that most vertebrate species use more than one vegetative

community for breeding, foraging, and shelter. Although most animals express an affinity for one or more plant communities, a particular species' habitat typically encompasses a variety of vegetation types.

Scientific nomenclature follows Collins (1990) for amphibians and reptiles and Jones et al. (1992) for mammals. Nationally accepted common names for birds are found in the American Ornithologists' Union's Checklist of North American Birds (AOU 1983) and its supplements.

Uplands

Within the general region of Pt. Conception, several vegetation types characteristic of California's Central Coast shift to those characteristic of the South Coast. Consequently, typical species indicators from the range center may be poorly represented, absent, or replaced by similar species from an adjacent vegetation type.

Non-Native Grassland

As a result of past and present land use practices, including agriculture and ranching, grasslands in southern California are now largely dominated by introduced annual Eurasian grasses and herbs. Annual species can germinate and set seed before the moisture from winter rains evaporates from the upper soil layer. With shallow, fibrous root systems, grasses are particularly tolerant of soils that are briefly waterlogged in winter. Common introduced grasses and herbs include several species of brome (*Bromus diandrus*, *B. mollis*, and *B. rubens*), wild oat (*Avena barbata* and *A. fatua*), ryegrass (*Lolium multiflorum*), fescue (*Vulpia myuros*), foxtail (*Hordeum murinum*), filaree and storksbill (*Erodium botrys*, *E. cicutaria*, and *E. moschatum*), bur clover (*Medicago polymorpha*), and rose clover (*Trifolium hirtum*). Despite the designation of this vegetation type, native annual herbs are an important component of this vegetation, and often grow abundantly among the grasses. Widespread natives include showy wildflowers such as California poppy (*Eschscholzia californica*), owls clover (*Castilleja [Orthocarpus] densiflora*), goldfields (*Lasthenia chrysostoma*), Johnny jump-up (*Viola pedunculata*), red maids (*Calandrinia ciliata*), and lupine (*Lupinus bicolor*, *L. nanus*, and *L. truncatus*).

On the hillsides, natives are more common and more diverse where grassland occurs in openings within scrub communities. Common additional species include California croton (*Croton californica*), white layia (*Layia glandulosa*), microseris (*Uropappus [Microseris] lindleyi*),

popcorn flower (*Cryptantha* spp.), owls clover, sun cup (*Camissonia micrantha*), farewell-to-spring (*Clarkia purpurea*), lotus (*Lotus scoparius*, and *L. strigosus*), lupines, fiddleneck (*Amsinckia menziesii*, *A. spectabilis microcarpa*), everlastings (*Gnaphalium bicolor*, *G. californicum*, and *G. ramosissima*), dove weed (*Eremocarpus setigerus*), chanchalagua (*Centaurium davyi*), navarettia (*Navarettia atractyloides*) and spineflowers (*Chorizanthe angustifolia* and *C. coriacea*, *Mucronea californica*).

Annual grasslands are an important habitat resource for a variety of wildlife species. Commonly occurring amphibians and reptiles include the western toad (*Bufo boreas*), Pacific chorus frog (*Psuedacris regilla*), southern alligator lizard (*Elgaria multicarinata*), western skink (*Eumeces skiltonianus*), coast horned lizard (*Phrynosoma coronatum*), western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), common kingsnake (*Lampropeltis getula*), striped racer (*Masticophis lateralis*), and gopher snake (*Pituophis melanoleucus*). The racer (*Coluber constrictor*) is considerably less common in the Santa Barbara Region and is most often found in grassland situations. Three species of lagomorphs (hares and rabbits) forage in grassland habitats within the planning area: desert cottontail (*Sylvilagus audubonii*); brush rabbit (*Sylvilagus bachmani*); and black-tailed jackrabbit (*Lepus californicus*). Grasslands typically support an abundant rodent fauna. The California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), and California vole (*Microtus californicus*) are most often found in annual grasslands. This substantial prey base attracts a number of mammalian predators including the coyote (*Canis latrans*), common gray fox (*Urocyon cinereoargenteus*), long-tailed weasel (*Mustela frenata*), American badger (*Taxidea taxus*), western spotted skunk (*Spilogale gracilis*), striped skunk (*Mephitis mephitis*), and bobcat (*Lynx rufus*). Grasslands are an important foraging resource for bats. The California myotis (*Myotis californicus*), hoary bat (*Lasiurus cinereus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*) are three of the most common species in the region. Mule deer (*Odocoileus hemionus*) also frequent expanses of grassland. Several bird species nest in annual grasslands or use this open-habitat for foraging. The horned lark, lark sparrow, and Western meadowlark are examples of grassland nesters. Other bird species depend on grasslands for hunting. Vultures, hawks, eagles, owls, flycatchers, swallows, sparrows, and blackbirds are among the major groups. Raptorial species include the turkey vulture, white-tailed kite, northern harrier, red-shouldered hawk, red-tailed hawk, ferruginous hawk, golden eagle, American kestrel, and great horned owl.

Expanses of grassland in association with suitable nesting, breeding, and sheltering sites are essential requirements for each of these species. Grasslands are a critical component of the

ecosystem in the project area. Without this element, vertebrate diversity would be significantly reduced.

Coast Live Oak Woodland

Oak woodlands, dominated by coast live oak (*Quercus agrifolia*) form the typical vegetation on most of the north-facing slopes of Orcutt Creek and the lower Solomon Hills (Key sites 3, 7, 8, and 12). Woodland density ranges from nearly complete canopy cover to scattered trees, to occasional oaks that extend out onto the creek floodplain (oak savanna). Under dense canopies, the understory is usually a single, herbaceous layer. Within the woodland, common species are elderberry (*Sambucus mexicana*), gooseberry (*Ribes speciosum*), hummingbird sage (*Salvia spathecea*), poison oak (*Toxicodendron diversilobum*), hedge nettle (*Stachys bullata*), fiesta flower (*Pholistoma auritum*), miners' lettuce (*Claytonia perfoliata*), Chinese houses (*Collinsia* spp.), wild cucumber (*Marah macrocarpus*), and occasional ferns.

In the Orcutt area, where scattered oaks frequently occur on relatively gentle topography, coast live oak woodland is often interspersed with sandhill chaparral and central dune scrub. Shrub associates in these more open areas usually are typical of the surrounding vegetation. A combination of shrubs, herbs and grasses create a more complex understory where trees are more widely spaced. These oaks often have multiple trunks, an unusual feature that appears to correlate with the distribution of oaks on the ancient dune sheets of coastal, northern Santa Barbara County and southwestern San Luis Obispo County.

Live oak woodland and its associated understory provides a multi-dimensional habitat resource for wildlife. Reptiles and amphibians are often found in the litter and decaying material on the woodland floor. Species such as the arboreal salamander (*Aneides lugubris*), blackbelly slender salamander (*Batrachoseps nigriventris*), ensatina (*Ensatina eschscholtzii*), western toad, Pacific chorus frog, southern alligator lizard, western skink, western fence lizard, ringneck snake (*Diadophis punctatus*), common kingsnake, and gopher snake are typical of oak woodlands. Small mammals found within oak woodland include the deer mouse (*Peromyscus maniculatus*) and dusky-footed woodrat (*Neotoma fuscipes*). Larger predatory mammals such as the coyote, common gray fox, common raccoon (*Procyon lotor*), western spotted skunk, striped skunk, and bobcat are also to be expected. Mule deer rely on oak woodlands for cover and forage; acorns mast is a critical seasonal dietary component for these animals. Several bird species use the oak woodland understory and/or tree canopy for nesting and forage. Live oak woodland associates

include the barn owl, great-horned owl, Anna's hummingbird, Nuttall's woodpecker, northern flicker, Pacific-slope flycatcher, ash-throated flycatcher, violet-green swallow, scrub jay, plain titmouse, bushtit, house wren, western bluebird, American robin, Hutton's vireo, warbling vireo, orange-crowned warbler, yellow warbler, black-headed grosbeak, lazuli bunting, rufous-sided towhee, California towhee, lark sparrow, golden-crowned sparrow, white-crowned sparrow, and dark-eyed junco.

Within the Orcutt Planning Area, dense oak woodlands are found on the slopes of the main drainages and tributary canyons. In these situations they provide valuable cover that facilitates wildlife movement to and from the Solomon Hills. Live oaks also occur in smaller stands among the coastal scrub and chaparral communities. Here they add significantly to the faunal diversity of the scrub habitats.

Central Maritime Chaparral (Sandhill Chaparral)

Sandhill chaparral is a regional variant of central maritime chaparral. Dominant shrubs are tough-leaved, evergreen, and well adapted to periodic wildfires. Unlike most chaparrals, this form grows on ancient stabilized dune soils (Orcutt and related formations). It is distributed from the Lompoc area in the south (including Burton Mesa chaparral), north to Morro Bay. Disjunct and depauperate populations extend several miles inland. In the Orcutt vicinity, sandhill chaparral now occurs in the foothills of the Solomon Hills and on dunes south of the Santa Maria Airport. It undoubtedly was more extensive on the dune sheets prior to agricultural and urban development in the Santa Maria Valley. It intergrades with coastal and dune scrubs or coast live oak woodland.

Sandhill chaparral indicator species are sand mesa manzanita (*Arctostaphylos rudis*), Purisima manzanita (*A. purissima*) Santa Barbara ceanothus (*Ceanothus impressus*), and coast ceanothus (*Ceanothus ramulosus fascicularis*). Santa Barbara ceanothus apparently does not occur in the Orcutt area.

Common associates include coffeeberry (*Rhamnus californica*), and redberry (*Rhamnus crocea*). Mountain mahogany (*Cercocarpus betuloides*), and chamise (*Adenostoma fasciculatum*) are less common and appear to occur near rock outcrops. Multi-trunked coast live oaks are an important and unusual component of this chaparral type, which was found on Key Sites 3, 7, 12, and 22.

An usual facet of sandhill chaparral is that the shrub indicator species are also regional endemics. Several additional associated species share this restricted distribution. These factors have led to its recognition as a sensitive vegetation type by the County of Santa Barbara (Odion, et al. 1993), and its protection under County standards (Santa Barbara County, 1994a).

Sandhill chaparral supports a varied faunal community. Commonly occurring amphibians and reptiles include the ensatina, coast horned lizard, western fence lizard, side-blotched lizard, California whiptail, silvery legless lizard, ringneck snake, common kingsnake, striped racer, gopher snake, and western Pacific rattlesnake (*Crotalus viridis*). Rodents are well represented due to the dense vegetative cover, diversity of plant species, and friable soils. California pocket mouse (*Perognathus californicus*), Heermann's kangaroo rat (*Dipodomys heermanni*), Pacific kangaroo rat (*Dipodomys agilis*), western harvest mouse, California mouse (*Peromyscus californicus*), deer mouse, piñon mouse (*Peromyscus truei*), and dusky-footed woodrat (*Neotoma fuscipes*) are to be expected. Brush rabbits, desert cottontails, and black-tailed jackrabbits are found in chaparral scrub. Larger mammals include the coyote, common gray fox, long-tailed weasel, American badger, western spotted skunk, striped skunk, bobcat, and mule deer. The California quail, greater roadrunner, Anna's hummingbird, Costa's hummingbird, scrub jay, ash-throated flycatcher, Bewick's wren, wrentit, California thrasher, orange-crowned warbler, rufous-sided towhee, and California towhee are among the characteristic breeding birds of this community. The blue-gray gnatcatcher, rufous-crowned sparrow, sage sparrow, and phainopepla nest only sparingly in the Santa Barbara Region, typically in chaparral. Only the gnatcatcher was recorded during the field surveys.

Central Coastal Scrub

Typically, Central Coastal scrub occurs on shallow, often rocky soils with a southern exposure. In the Orcutt area it appears to occur on south-facing slopes on older soils. Dominated by soft-leaved shrubs, it includes a few tough-leaved evergreen species. Unlike coastal sage scrubs, this community may flower for most of the year, and remain somewhat active during the late dry season. Central Coastal scrub occurs at lower elevations on the coastal side of the Santa Lucia Mountains from Monterey to Pt. Conception (Holland, 1986).

Dominants in the Orcutt area include mock heather (*Ericameria ericoides*), California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), golden yarrow (*Eriophyllum confertiflorum*), black sage (*Salvia mellifera*), poison oak, and California coffeeberry (*Rhamnus*

californica). A local form of bush monkeyflower, Lompoc monkeyflower (*Mimulus aurantiacus lom pocensis*) is a frequent associate. Although not recognized in Hickman (1993), this entity has been separated at the subspecific level in the past (Munz and Keck, 1959), and is still regarded as a local concern species by the County of Santa Barbara (1994a).

Central Coastal scrub is similar in many respects to the chaparral community in terms of its faunal composition. Because this community often interfaces between grassland and chaparral scrub, vertebrate diversity is enhanced. The herpetofauna of the coastal scrub is similar to that described for sandhill chaparral. Mammals common to this community are the California pocket mouse, Pacific kangaroo rat, western harvest mouse, deer mouse, brush rabbit, desert cottontail, and black-tailed jackrabbit. Typical bird species of the coastal scrub include the mourning dove, bushtit, scrub jay, California thrasher, California quail, white-crowned sparrow, golden-crowned sparrow, and California towhee.

Central Dune Scrub

Central dune scrub is characterized by soft-leaved shrubs, sub-shrubs and herbs, and, in the absence of grazing or other disturbance, typically forms fairly dense cover about three feet high. It is best developed on the coastal strip between Pt. Conception and Bodega Bay (Holland, 1986). Dominants in northern Santa Barbara County include California croton, bush lupine (*Lupinus arboreus*), silver lupine (*Lupinus albifrons*), cudweed aster (*Corethrogyne filaginifolia*), coffeeberry and mock heather (Ferren, et al. 1984). Saw-toothed goldenbush (*Hazardia squarrosa*) is an occasional associate in the Orcutt area.

Dune scrub vegetation does not differ significantly from coastal sage scrub in terms of its resident fauna. The silvery legless lizard tends to be more common in dune scrub, especially in association with silver lupine and mock heather. Coast horned lizards are often found in this community.

Eucalyptus Woodland

Eucalyptus woodland, while a familiar feature in the Southern California landscape, is not a native community. Tasmanian blue gum (*Eucalyptus globulus*), the most commonly encountered species in the Orcutt area and elsewhere, was planted out over large tracts of land in the late 1800s and early 1900s, as a timber resource. Eucalyptus continues to be planted as windbreaks or used in landscaping.

There is usually little or no understory in eucalyptus woodlands. Eucalyptus leaves and roots produce toxins that inhibit or prevent the growth of most other plants. Often, the ground within these woodlands is densely littered with decomposing leaves, exfoliated bark, and fallen branches, which also prevents establishment of other species.

Since the climate of Southern California is often similar to their native climate, several eucalyptus species are naturalized, replacing themselves in old plantations, and often spreading into adjacent habitats. Tasmanian blue gum often naturalizes along creeks, where it may displace native riparian species.

Eucalyptus woodlands are used by a variety of migratory and resident songbirds. The winter-blooming flowers of the eucalyptus provide a seasonal food resource for nectivorous and insectivorous birds. Stands of eucalyptus are often used by raptors such as the turkey vulture, red-tailed hawk, red-shouldered hawk, American kestrel, barn owl, and great-horned owl for roosting and/or nesting. Because of the poorly developed understory typical of eucalyptus woodlands amphibians, reptiles, and small mammals are not well represented. Overall wildlife habitat value for this vegetation type is comparatively low.

Wetlands

~~The extent and quality of wetlands in California and the rest of the country have been dramatically reduced over the past century (National Audubon Society, 1992). Swamps and marshes have been drained, streams and rivers have been diverted and channelized, or used as convenient dumping grounds. Consequently, wetlands are now protected under the Federal Clean Water Act and State laws and County policies. The habitat of numerous plant and animal species, California's remaining wetlands represent a valuable and irreplaceable resource.~~

~~Wetland vegetation is an indicator of saturated soils for all, or a significant proportion, of the year. Although dominated by wetland plants during the wet season, species from upland habitats occasionally may be a common component where the moisture regime is intermittent or strongly seasonal.~~

~~Along creeks, riparian habitat provides a corridor of mesic vegetation that is often structurally complex compared to surrounding upland vegetation. Riparian habitats may include multiple~~

layers of vegetation, or may consist of dense thickets of a few species. Development of an herb layer and occasional taller trees increases the types of microhabitats for both plant and wildlife species. Depending on the water regime, it may include emergent wetlands within the creek channel, or the channel may be relatively bare during the dry months.

Within the Community Plan boundary, riparian forests and riparian scrub are associated with the tributaries of Orcutt, Solomon and Pine Creeks.

Wetland habitats offer superlative functional values for wildlife. The aquatic environment is a highly restricted yet critical habitat requirement for several sensitive and declining vertebrate species. The complexity of the riparian community is unsurpassed. This results in exceptional wildlife diversity.

Central Coast Riparian Scrub

In the Orcutt Planning Area, where rainfall is restricted to a few winter months, and sandy soils drain rapidly, creek vegetation is dominated by several species of willows (arroyo [*Salix lasiolepis*], yellow [*S. lucida* ssp. *lasiandra*], and narrow-leaved [*S. exigua*]) that generally do not form a closed canopy. Associated shrubs and herbs, particularly mule fat (*Baccharis salicifolia*), coyote brush, elderberry (*Sambucus mexicana*), mugwort (*Artemisia douglasiana*), and poison oak often are scattered among the willows. Coast live oak trees occasionally occur along the creek banks. Riparian scrub was found on Key Sites 8, 10, 11, 12, 18 and 22.

During the 1995 surveys, little emergent wetland vegetation was observed in the creek channels, which were scoured by the high water flows of an exceptionally wet winter. Emergent perennial herbs, such as (rushes [*Juncus*] and bulrushes [*Scirpus*]) would normally establish where surface water lingers in depressions or where silts are deposited on bars or along curves in the creek channel.

Creeks within the planning area (e.g. Orcutt Creek, Pine Creek) do not sustain perennial surface flow and thus they afford only seasonally-limited habitat for semi-aquatic amphibians and reptiles. Riparian corridors are used extensively for movement by many species of mammals; coyote, common gray fox, American raccoon, striped skunk, bobcat, and mule deer are perhaps the best examples. The continuity between the Solomon Hills and lowland, urban portions of the Orcutt Planning Area is maintained by virtue of the riparian system. Willow thickets are especially

attractive to resident and migratory songbirds. They are an excellent foraging and nesting resource for birds, in addition to the refuge provided by the dense willow canopy. Examples of typical riparian breeding species are the downy woodpecker, Pacific slope flycatcher, Hutton's vireo, warbling vireo, yellow warbler, black-headed grosbeak, song sparrow, and lesser goldfinch. Avian diversity in the riparian community exceeds all other habitats represented within the project area.

Southern Coast Live Oak Riparian Forest

Riparian vegetation may be dominated by coast live oak trees with an herbaceous understory where creeks flow out from north-facing slopes. This oak dominated riparian vegetation is often contiguous with coast live oak woodlands. Along the riparian strip, oak cover varies from a semi-open woodland to closed canopy. Typical understory plants in the Orcutt area are poison oak, fiesta flower, blackberry (*Rubus ursinus*), miners' lettuce, and wild cucumber. Few shrubs are part of this community, although they may occur in openings. In addition to poison oak, elderberry shrubs or occasional arroyo willows are common associates within this community on Key Sites 3 and 8. Recruitment of numerous young oaks along the northwest side of Orcutt Creek on Key Site 7 suggests oak riparian forest would be the mature riparian vegetation on this site.

The addition of coast live oak woodland to the riparian community greatly enhances its overall value to wildlife. Increased vegetative complexity results in correspondingly higher vertebrate diversity. Oak woodland in association with stream corridors markedly improves conditions for wildlife movement.

Vernal Pools

Shallow depressions in soils underlain by a clay pan or other impervious layer create conditions for vernal pools. Flooded by winter rains, these pools dry slowly, primarily from evaporation, during the spring and early summer. By mid-summer, vernal pools often become shallow basins of dry soil (Holland and Jain, 1977).

A unique assemblage of plant species is associated with vernal pools. These plants must be able to germinate and initiate growth in saturated or flooded soil, and continue to develop as the pool shrinks and dries. Slow evaporation and poor drainage of vernal pools often leads to the development of habitat zones, observable as concentric rings of species that sort out according to

their tolerance for differences in growth conditions as the water retreats. These zones have been characterized for some areas in California, but the pools of northern Santa Barbara County have not been well studied (Holland and Jain, 1977; Olson, 1992).

Because of the unusual hydrologic regime, few introduced species are able to invade or colonize vernal pools. Despite the prevalence of introduced grasses and herbs in the grasslands surrounding the pools, vernal pool vegetation usually is composed largely of native plants. Depending on the depth of flooding and duration of moist conditions, species composition may vary from year to year (Holland and Jain, 1977). Some pools may form complexes, joined across low-lying areas (vernal wetlands) in wet years but remain isolated in drier years. Others may remain completely isolated. These highly sensitive, scattered, and isolated ecosystems are also important to researchers as models of island biology principles (Holland and Jain, 1977).

Dominants in the Orcutt area include both native [popcorn flower (*Plagiobothrys* spp.), waterwort (*Elatine* spp.), water starwort (*Callitriche* spp.), flowering quillwort (*Lilaea scilloides*), toad rush (*Juncus bufonius*), water pygmy-weed (*Crassula aquatica*), white everlasting (*Gnaphalium palustre*), and wooly heads (*Psilocarphus tenellus* and *P. brevissimus*)] and introduced species [brass buttons (*Cotula coronopifolia*), sheep sorrel (*Rumex acetosella*), and lythrum (*Lythrum hyssopifolium*)].

Vernal pools are a critical breeding resource for amphibians in the project area. Sensitive species such as the California tiger salamander (*Ambystoma californiense*) and western spadefoot (*Spea hammondi*) depend on seasonally available pools for breeding and larval development. More widespread amphibian species (e.g. western toad, Pacific chorus frog) also use vernal pools for breeding. Garter snakes (*Thamnophis*) feed on tadpoles and larval salamanders and are consequently attracted to vernal pools. Shorebirds and waterfowl use vernal pools for foraging and breeding. Species such as the killdeer, mallard, cinnamon teal, gadwall, ruddy duck, American coot, black-necked stilt, and American avocet nest on the margins of larger vernal pools. The great blue heron, great egret, snowy egret, green heron, additional species of ducks, greater yellowlegs, lesser yellowlegs, spotted sandpiper, western sandpiper, least sandpiper, and long-billed dowitcher are among the species that use vernal pools in the project area on a seasonal basis.

Vernal Flats (Not a Holland Community)

Vernal flats (Ferren, 1988) differ from vernal pools in that their boundaries are not easily delineated as discrete basins. Annual fluctuations in rainfall patterns are reflected in shifts in dominance by wetland and upland species. In wetter years, vernal pool and other wetland species dominate these low areas. During dry years, upland species may dominate vernal flats (Olson, 1992).

The potential extent of vernal flats is clarified in exceptionally wet years. Although the appearance of wetland plants may be sporadic, wetland species may persist as buried seeds. Annual and seasonal variation in the water regime prevents development of hydric soils. In 1995, an exceptionally wet year, facultative wetland species predominate on the vernal flats in the Orcutt area (Site 22), particularly brown-headed rush (*Juncus phaeocephalus*) and toad rush (*Juncus bufonius*). However, vernal pool indicators, like popcorn flower (*Plagiobothrys undulatus*), also are found occasionally on Orcutt's vernal flats.

Vernal flats are also used for foraging, breeding, and development by several wildlife species. The extent to which these features are used is dependent on their size and on the duration of ponded surface water.

Coastal Freshwater Marsh

Freshwater marsh often develops around the margins of ponds and lakes. Marsh vegetation also develops in low-lying areas that retain moisture most of the year. These soils usually are rich in nutrients, and often are anaerobic (Holland, 1986). Dominant plant species are perennial monocots with anatomical adaptations that permit the transfer of oxygen from the leaves to roots anchored in anaerobic soil. Typical plants include several species of rushes (*Juncus*), bulrushes (*Scirpus*), spikerush (*Eleocharis*), sedges (*Carex*), and cattails (*Typha*). Introduced species also are frequently found within freshwater marsh communities in the project area, particularly curly dock (*Rumex crispus*).

In the project area, freshwater marsh is best developed in and around the permanent pools and stabilized dune swales on Site 22. It was seen occasionally in 1994 along Orcutt Creek on the same site (Rindlaub, 1994). The availability of soil moisture in the swales may be seasonal: saturated in winter and spring, but gradually drying through summer and fall. In this case, the

perennial species may die back (or be grazed back) late in the year, and grassland species, particularly tarweeds (*Hemizonia* and *Madia*), may become dominant late in the season (Holland and Keil, 1986).

Freshwater marsh in association with permanent pools provides breeding habitat for the western toad and Pacific chorus frog. These pools are frequented by coyotes, skunks, and raccoons for hunting or scavenging. Stands of bulrush, cattail, and rush are used for nesting by species such as the mallard, cinnamon teal, gadwall, ruddy duck, American coot, marsh wren, common yellowthroat, song sparrow, red-winged blackbird, tri-colored blackbird, and Brewer's blackbird.

Freshwater Seep

Seeps or springs are often associated with grassland habitats, creating patches of permanently moist or wet soils. The vegetation associated with freshwater seeps usually is composed of perennial herbs, and where sufficient moisture is available, develop complete cover (Holland, 1986).

In the project area, seeps appear along the lower margins of steeper slopes on Site 12, or occasionally, at higher elevations on these slopes. These seeps may be fed by perched aquifers. Depending on the amount and duration of soil saturation, associated wetland plants may include only one or two species of rush. Ephemeral seeps, like ephemeral freshwater marsh, may include only a few wetland species that are either annuals, or perennials that can die back to long-lived roots during the dry season, such as toad rush and common spikerush (*Eleocharis macrostachya*).

Western toads and Pacific chorus frogs may use seeps and springs for breeding, provided there is prolonged surface water to complete breeding and metamorphosis.

Resource Sensitivities and Constraints

Sensitive species are those that are afforded legal protection by state and federal legislation. The Federal Endangered Species Act of 1973 as amended, and the published list of Endangered and Threatened Wildlife and Plants (USFWS, 1994a) provide legal protection for threatened and endangered taxa nationwide. Federal protections for wildlife species are also granted by virtue of the Fish and Wildlife Conservation Act, the Migratory Bird Treaty Act, and the Bald and Golden

Eagle Protection Act. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over the Federal programs.

Candidate species under consideration for listing appear in the Federal Register (USFWS, 1993; 1994b). These are species that may eventually be added to the List of Endangered and Threatened Wildlife and Plants, depending on the results of ongoing investigations to determine whether such status is warranted. Candidate species are assigned to one of three categories, with Category 1 classification indicating the highest priority for formal listing. Certain candidates within the project area have been formally proposed for listing. The USFWS is presently considering these petitions.

The California Endangered Species Act of 1984 and its corollary law, the California Native Plant Protection Act of 1987, embody a similar mandate to the federal legislation, except that state candidates receive protection equivalent to listed species. The California Department of Fish and Game (CDFG) has jurisdiction over species listed as threatened or endangered.

"Species of Special Concern" are those that have not been formally listed by federal or state agencies, nor are they presently under consideration for federal listing. However, downward trends in distribution and population size have been documented for many of these plant and animal species over the last century. Where these patterns appear to be symptomatic of critical decline, the species may be recognized on various "watch lists" published by the agencies and conservation groups. Having been so designated, sensitive species are generally protected in resource planning and management. These plants and animals are considered candidates for state listing and are afforded protection from local extirpation pursuant to CEQA, Section 15380. The most useful references for species in this category are the "List of Special Animals" and "List of Special Plants", published annually by the California Department of Fish and Game (CDFG 1994a; 1994b). Additionally, the California Native Plant Society (CNPS) publishes an Inventory of Rare and Endangered Plants of California (Skinner and Pavlik, 1994).

Regional and site-specific development constraints are based on several factors, including: known or potential occurrence of sensitive species, relative size of the parcel, diversity of plant and wildlife communities, isolation of the parcel relative to adjacent land use, and possession of unique habitat features, such as wetlands or watercourses that may be of regional value to plants and wildlife.

Sensitive plant and wildlife species observed on the project sites, or that are expected to occur, are summarized in the following tables.

Table 1

Sensitive Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Common Name Scientific Name	Status ²	Habitat/Life History	Occurrence
	USFWS/CDFG		
California Tiger Salamander <i>Ambystoma californiense</i>	C1/CSC	Annual grassland and grassy understory of valley-foothill hardwoods. Breeds in vernal pools and ephemeral ponds. Rodent burrows in adjacent grassland, scrub, or woodland habitats are used as retreat sites. Retreats may be located hundreds of feet from the breeding site.	Known from several disjunct locations in the Santa Maria Valley. Two larval tiger salamanders were discovered in one of six vernal pools sampled on Site 22 on May 8, 1995. Occurrence is limited by requirement of syntopic distribution of breeding pools and retreat sites. Other pools in this vicinity may be suitable for breeding.
California Red-legged Frog <i>Rana aurora draytonii</i>	PE/CSC	Streams and ponds supporting adequate surface water and emergent and/or willow vegetation.	Recent observations of adults north of the project area indicate this species may utilize the vernal wetlands and Orcutt Creek on Site 22. Nearest observations are from Cañada Verde, approximately 0.6 mile north of Site 22 (Thompson, 1995).
Western Spadefoot <i>Spea hammondi</i>	C2/CSC	Ephemeral pools and ponds in open grasslands, sandy soil on alluvial fans, and areas near river flood plains. Rodent burrows in adjacent grassland, scrub, or woodland habitats are used as retreat sites. Retreats may be located hundreds of feet from the breeding site.	Recorded at several locations in the Santa Maria River Valley. Spadefoot tadpoles were found in three of the six vernal pools sampled on Site 22, near Dutard Road on May 8, 1995. Tadpoles were also found in the vernal wetlands in the northeastern portion of Site 22 on April 7, 1995.
Southwestern Pond Turtle <i>Clemmys marmorata pallida</i>	C2/CSC	Freshwater and brackish water ponds, sloughs, creeks, and rivers. Upland habitats adjacent to wetlands are used for nesting and overwintering. Nesting and overwintering sites may be located hundreds of meters from water.	Suitable habitat is limited within the Orcutt planning area. Pond turtles may potentially occur in areas that support year-round standing water. A single individual was seen in the vernal pools among the dune swales in the northeast portion of Site 22 on April 7, 1995. They have also been sighted in ponds east of the Betteravia sugar refinery in May 1995 (Thompson, 1995).

Table 1: Sensitive Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Common Name Scientific Name	Status ² USFWS/CDFG	Habitat/Life History	Occurrence
<p>Silvery Legless Lizard <i>Anniella pulchra pulchra</i></p>	<p>C2/CSC</p>	<p>A fossorial species that inhabits loose soils with leaf litter cover. Active near soil surface October through May. Avoids high soil temperatures. Occupies a variety of scrub and woodland habitats. Most abundant in sandhill chaparral and dune scrub habitats.</p>	<p>Highly disjunct distribution in the project area due to patchy occurrence of suitable soils and specific microhabitat requirements. Known from several locations throughout the northern portions of the project area. Suitable conditions are found in the sandhill chaparral and dune scrub on Sites 3, 7, 8, 12, 22, and 30.</p>
<p>Coast Horned Lizard <i>Phrynosoma coronatum</i></p>	<p>C2/CSC</p>	<p>Found in a variety of habitats, including sandy washes and slopes where fine loose soil and scattered shrubs provide cover. Active above ground April through October, depending on soil temperatures.</p>	<p>Appropriate habitat is found throughout the planning area. A juvenile specimen was recorded at Site 10 on April 7, 1995. Adults were found on Sites 12 and 30 on June 2, 1995. There are previous records for the Mesa Verde property adjacent to Site 7 (Enviroplan 1990). Suitable habitat occurs on most of the parcels examined for this report. This species is undoubtedly widespread in the project vicinity.</p>
<p>Long-billed Curlew <i>Numenius americanus</i></p>	<p>C2/CSC</p>	<p>Common winter transient and late spring/early summer visitor to the Santa Barbara Region. Relatively common in agricultural fields in the Santa Maria Valley.</p>	<p>Expected to occur within the appropriate habitats, especially in winter. Grasslands, wetlands, and agricultural lands on Site 22 provide excellent habitat for this species.</p>
<p>White-tailed Kite <i>Elanus leucurus</i></p>	<p>—/CSC</p>	<p>Uncommon and local resident of grasslands, savannah, marshlands, and similar open habitats. Populations fluctuate dramatically.</p>	<p>Suitable grassland habitats are found throughout the planning area. A pair of kites was observed at Site 3 during the April 7, 1995 field survey. A single individuals were recorded at Site 22 on May 8, 1995. Nesting within the project area is likely.</p>
<p>Golden Eagle <i>Aquila chrysaetos</i></p>	<p>—/CSC</p>	<p>Uncommon year-round resident in the Santa Barbara Region.</p>	<p>Golden eagles reside in the foothills bordering the Santa Maria Valley. Lowlands are used for foraging. An adult golden eagle (possibly the same bird) was seen in the grasslands at Site 22 during the April 7 and May 16, 1995 field surveys.</p>

Table 1: Sensitive Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Common Name Scientific Name	Status ²	Habitat/Life History	Occurrence
	USFWS/CDFG		
Northern Harrier <i>Circus cyaneus</i>	—/CSC	Year-round resident in Santa Barbara County, most often frequents open terrain.	The project area affords suitable foraging and marginal breeding habitat for this species. Harriers are expected to occur as transients throughout the planning area.
Sharp-shinned Hawk <i>Accipiter striatus</i>	—/CSC	Uncommon winter visitor and rare spring/summer resident. Winters in a variety of habitats; summers in woodland edges.	The project area affords suitable winter foraging habitat.
Cooper's Hawk <i>Accipiter cooperii</i>	—/CSC	Uncommon winter visitor and rare spring/summer resident, frequenting a variety of open habitats. Nests in well-developed riparian and oak woodlands.	The project area affords suitable foraging habitat and some breeding potential for this species. An adult Cooper's hawk chasing a crow at Site 3 on May 16, 1995, suggests the possibility of nesting on or near site.
Ferruginous Hawk <i>Buteo regalis</i>	C2/CSC	Winter visitor to open grasslands, scrub lands, and agricultural areas. Occurs uncommonly in fall and winter in the Santa Maria Valley.	The project area affords suitable foraging habitat. Expected as an uncommon winter visitor within the project area. This species was observed on the Santa Maria Airport property in winter, 1994 (Thompson, 1995).
Prairie Falcon <i>Falco mexicanus</i>	—/CSC	Prefers open country grasslands, scrub lands, and occasionally marshes for foraging. Very uncommon transient and winter visitor to the Santa Maria Valley.	The project area affords potential foraging habitat for this species.
Merlin <i>Falco columbarius</i>	—/CSC	Rare migrant and winter visitor that prefers open country for foraging.	Reported from the Santa Maria Valley (Philbrick 1990). Expected with uncommon frequency in the project vicinity.
American Peregrine Falcon <i>Falco peregrinus anatum</i>	CE/FE	Rare transient and winter visitor to coastal marshes, river mouths, and beaches.	Reported from east of the Santa Maria mouth (Philbrick 1990). The project area affords suitable foraging habitat for this species, however it is to be expected only as a rare transient.
Western Burrowing Owl <i>Speotyto cunicularia hypugea</i>	CSC/C2	Rare local breeder in extensive sparse grassland and agricultural areas in the Santa Maria Valley. Uncommon to rare winter visitor in the project region. Ground squirrel burrows are used for roosting and nesting.	Collins (1985) recorded a nesting pair of burrowing owls on Stinton Road, approximately 1.5 miles northwest of the planning area. Suitable breeding habitat is present in the project vicinity, particularly at Site 22.

Table 1: Sensitive Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Common Name Scientific Name	Status ²	Habitat/Life History	Occurrence
	USFWS/CDFG		
Southwestern Willow Flycatcher <i>Empidonax trailii-extimus</i>	—CE/C2	Rare and local breeder in well-developed riparian woodlands of Santa Barbara County.	Riparian habitat is marginally represented in the project area. The willow flycatcher is expected only as a rare spring/fall migrant within the Orcutt Creek corridor.
California Horned Lark <i>Eremophila alpestris-aetia</i>	—/CSC	Inhabits open country grasslands and agricultural fields. Fairly common breeder in short grass habitats in the Santa Maria Valley.	Horned larks were observed during each spring visit to Site 22 and on the May 8, 1995 survey of Site 30. An adult bird carrying food on May 8, 1995 is strongly suggestive of nesting at Site 22.
Loggerhead Shrike <i>Lanius ludovicianus</i>	—/CSC	Uncommon to fairly common permanent resident in open country habitats of Northern Santa Barbara County. More widespread in winter.	Loggerhead shrikes were seen at Sites 11 (April 7, 1995), 22 (May 8, 1995), and 30 (May 16, 1995). Considered a certain transient and possible breeder within the project area.
Yellow Warbler <i>Dendroica petechia</i>	—/CSC	Relatively common spring and fall transient in riparian woodlands. Uncommon and local summer resident in Santa Barbara County.	The yellow warbler is expected to occur as a spring and fall transient in oak woodlands and along the Orcutt Creek riparian corridor. Breeding habitat is marginal, however nesting within the planning area is possible.
Yellow Breasted Chat <i>Icteria virens</i>	—/CSC	Rare local breeder in dense riparian scrub habitats of Santa Barbara County. More common and widespread during migration.	Suitable nesting appears to be absent within the planning area. The chat is expected with uncommon frequency in riparian and oak woodlands as a seasonal migrant.
Bell's Sage Sparrow <i>Amphispiza belli-belli</i>	C2/CSC	Uncommon and local resident in chaparral habitats in North Coastal Santa Barbara County.	Suitable habitat is found in the sandhill chaparral on Sites 3, 7, 8, 12, and 22. The species was not detected during the field surveys but should be considered a possible resident in the planning area.
Tri-colored Blackbird <i>Agelaius tricolor</i>	C2/CSC	Uncommon visitor to agricultural fields and pastures during the non-breeding season. Breeds colonially in freshwater marshes, sparingly so in Santa Barbara County.	Large nesting colonies have been reported from dense stands of bulrushes and cattails in the Santa Maria Valley (Lehman 1994). Small, disjunct patches of this habitat are present within the planning area, particularly on Site 22, offering limited potential for nesting.

Table 1: Sensitive Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Common Name Scientific Name	Status ² USFWS/CDFG	Habitat/Life History	Occurrence
Pallid Bat <i>Antrozous pallidus</i>	—/CSC	Museum records indicate that this species is an uncommon, permanent resident of Santa Barbara County. A number of habitats are used for foraging.	An active pallid bat roost is located at the upper end of the Santa Maria Valley, approximately 7.5 miles northwest of the project area. Hunting forays from this roost could extend into the project area.
American Badger <i>Taxidea taxus</i>	—/CSC	Occupies a variety of open and semi-open habitats. Requirements seem to be sufficient prey, friable soils, and relatively open, uncultivated ground.	Suitable habitat for badgers is found throughout the planning area. Badgers have been recorded in the vicinity of Orcutt Creek on the Mesa Verde property (Enviroplan 1990). Badgers have been found dead along Black Rd. in June, 1995, and foraging on the Santa Maria Airport property in July, 1994 (Thompson, 1995). Evidence of badgers (e.g. den sites and diggings) was not found at most of the key sites. However, such evidence was found at Site 22 on May 8, 1995.

¹ Species list, status, and occurrence based on literature review and field surveys on April 7 and 25; May 8 and 16; and June 2, 1995.

² Status categories: FE = Federally listed as Endangered. CE = State listed as Endangered. PE = Proposed Endangered (federal). C1, C2 = Category 1, 2 Candidate for Federal listing as Threatened or Endangered. CSC = California Species of Special Concern.

Table 2

Sensitive Plant Species with Documented or Potential Occurrence in the Orcutt Planning Area¹

Species	Status ²		Habitat ³	Comments
	USFWS / CDFG / CNPS			
Aphanisma <i>Aphanisma blitoides</i>	C2/	/1B	Coastal bluffs, coastal scrub in sandy soils. The nearest known locations for this species are to the west (Pt. Sal) and south (west of Ventura).	This species is unlikely to occur as far inland as the project area. Not seen.
Black-flowered figwort <i>Scrophularia atrata</i>	C2/	/1B	Closed cone-conifer forests, chaparral, coastal dunes, riparian scrub. Endemic to coastal areas from Avila in San Luis Obispo County to Goleta in Santa Barbara County. Hybrids with <i>S. californica</i> have been reported in the Gaviota area in the past.	Possible on all project sites, but more likely on 3, 7, 12, and 22. Not found.
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	C2/	/1B	Chaparral, coastal scrub, valley / foothill grasslands: rocky, often heavy clay or serpentine derived soils. Known from fewer than 20 occurrences in California from San Diego County to San Luis Obispo County.	Unlikely in the project area however, could occur on Site 22 in vernal pool area.
Blochman's groundsel <i>Senecio blochmaniae</i>	Local Concern		Endemic to arrested dunes from Pt. Conception to Oceano, inland to Burton Mesa and Santa Maria Valley.	Possible on Site 12. Found on Sites 22 and 30.
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	C3c/	/1B	Coastal dunes, northern Santa Barbara and southern San Luis Obispo counties. Usually grows on moving dunes (Smith 1995).	Unlikely in the project area.
Brewer's calandrinia <i>Calandrinia breweri</i>	-/	/4	Chaparral, coastal scrub: in disturbed sites and burns. Known from the Santa Ynez Mountains northward to the Burton Mesa. Found at the Las Cruces school site.	Outside known range. Unlikely but possible in the project area.
California spineflower <i>Mucronea californica</i>	-/	/4	Sandy soils from Santa Barbara, Buellton to Lompoc, Pt. Sal, Los Alamos, Santa Maria, Nipomo Mesa.	Found on Sites 3, 12, and 30. Possible on Sites 7 and 22.
Contra Costa goldfields <i>Lasthenia congugens</i>	C1/	/1B	Wet valley grasslands, vernal wetlands and vernal pools. Known in Santa Barbara County from vernal flats and pools in the Isla Vista area.	Not known from the project area. Not found.

Table 2: Sensitive Plant Species with Documented or Potential Occurrence in the Orcutt Planning Area¹

Species	Status ²		Habitat ³	Comments
	USFWS / CDFG / CNPS			
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	C2/	1B	Coastal salt marsh, playas and vernal pools. Colonies around Carpinteria Marsh in Santa Barbara County.	Not previously recorded for the project area. Not found.
Curly-leaved monardella <i>Monardella undulata</i>	- /	14	Chaparral, coastal dunes, coastal scrub, ponderosa pine sandhills. from Sonoma County south to Santa Barbara County. Scattered in dunes and sandy hills from the Lompoc area, Graciosa Canyon, Solomon Hills and Nipomo Mesa (Smith 1976).	Found on Sites 22 and 30. Possible on Sites 3 and 12.
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	- /	1B	Coastal bluff scrub, coastal scrub. in alkaline soils. Scattered in Santa Barbara County from the coast to the Cuyama Valley.	Possible in the project area on all sites except 10 and 17.
Dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	C2/	1B	Maritime chaparral, coastal dunes. Known from mesas north of Lompoc, near Oso Flaco Lake and the Nipomo Mesa in northern Santa Barbara and southern San Luis Obispo Counties, also from Long Grade Cyn. in Ventura County.	Possible on sites 3, 7, 12 and 30 in project area, although slightly outside known range. All <i>Delphiniums</i> were <i>D. p. parryi</i> .
Eastwood's spineflower <i>Chorizanthe angustifolia</i> var. <i>eastwoodiae</i>	Local Concern		Endemic to sandy soils on scattered sites in coastal sage scrub, from Morro Bay to Honda Valley and Fox Canyon south of Santa Barbara.	Found on Sites 3, 7, 12, 22 and 30. Possible on Site 8.
Fuzzy prickly phlox <i>Leptodactylon californicum</i> ssp. <i>tomentosum</i>	- /	14	Coastal dunes and coastal strand at Oso Flaco Lake and north of Guadalupe. Described since publication of Smith (1976).	Unlikely in the project vicinity. Habitat is coastal strand (Gordon-Reedy 1990). Common, interior form was found.
Hoffmann's sanicle <i>Sanicula hoffmannii</i>	C3c/	14	Broad-leaved upland forest, chaparral, coastal sage scrub, usually in clay or serpentine soils.	Unlikely on the sandy soils of the project area. Not found.
Hoover's bent grass <i>Agrostis hooveri</i>	- /	14	Chaparral, cismontane woodland, valley/foothill grasslands. Northern Santa Barbara County to southern San Luis Obispo County.	Possible within the project area, particularly on Sites 3, 12, and 22.
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	C2/	1B	Closed cone conifer forests, coastal scrub. Possibly in coastal woodlands from Gaviota Pass to Lompoc and Pt Sal. To San Mateo County.	Possible on sites 3, 7, 8, 12, and 22 in oak woodlands with well developed understory. Very uncommon south of San Luis Obispo County (C. Smith, 1995) Not found.

Table 2: Sensitive Plant Species with Documented or Potential Occurrence in the Orcutt Planning Area¹

Species	Status ²		Habitat ³	Comments
	USFWS / CDFG / CNPS			
La Graciosa thistle <i>Cirsium loncholepis</i>		C1/CT/1B	Coastal dunes, brackish water marsh. Known historically from several locations in northern Santa Barbara County and southern San Luis Obispo County.	La Graciosa, site of the type collection of this endemic is probably the mouth of San Antonio Creek (Smith, 1976). Not found during field surveys.
Large-flower linanthus <i>Linanthus grandiflorus</i>		- / - / 4	Recorded from the Los Alamos valley, and in the vicinity of Santa Maria.	Found in vernal pool complex on Site 22.
Lompoc monkeyflower <i>Mimulus aurantiacus</i> (<i>lompocensis</i>)		Local Concern	Endemic to coastal sage scrub, chaparral and woodlands from Gaviota Pass and Nojoqui Falls into southern San Luis Obispo County. Hybrids to <i>Diplacus longiflorus</i> (Munz and Keck, 1959) around the southern range periphery. (Smith, 1976)	A form of <i>M. aurantiacus</i> with a glabrous calyx (Munz and Keck, 1959). Not recognized by Hickman (1993), but of concern locally. Occurs in the project area on Sites 3, 7, 8, and 12.
Lompoc yerba santa <i>Eriodictyon capitatum</i> ssp. <i>lompocense</i>		C1/CR/1B	Closed cone pine forests, chaparral. This species is endemic to northern Santa Barbara County. Often occurs along roads (Smith 1995).	This species potentially could move down from the higher elevations of the Solomon Hills along roads to Site 12. Not found.
Palmer's spineflower <i>Chorizanthe palmeri</i>		- / - / 4	Serpentine or serpentine derived soils, according to Reveal (1989); in Santa Maria area according to Smith (1976).	Possible on sites 3, 7, 8, 12, 22 and 30 in the project area as part of the <i>C. uniaristata-reclispina</i> complex.
Purissima manzanita <i>Arctostaphylos purissima</i>		- / - / 1B	Chaparral, in sandy soils. In coastal area from north of Gaviota Pass to the Burton Mesa and Pt. Sal.	Found on Site 3, 12 and 22.
Rayless ragwort <i>Senecio aphanactis</i>		- / - / 2	Cismontane woodland, coastal scrub on alkaline soils. Found particularly in disturbed places, from the eastern Santa Ynez Mountains to Jalama Beach in Santa Barbara County.	Possible in the project area except on Site 10.
Robinson's pepper grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>		- / - / 1B	Chaparral, coastal scrub. Known imprecisely from Santa Barbara County.	Possible in the project area on all sites except Site 10.
Saint's daisy <i>Erigeron sanctarum</i>		- / - / 4	Coastal scrub, cismontane woodland, chaparral. Burton Mesa, sandy hills southeast of Santa Maria, Pt. Sal. To coastal San Luis Obispo Co. May appear following fire or disturbance.	Likely to occur on Sites 3, and 12. Possible on Site 7 and 22.

Table 2: Sensitive Plant Species with Documented or Potential Occurrence in the Orcutt Planning Area¹

Species	Status ²		Habitat ³	Comments
	USFWS / CDFG / CNPS			
San Luis Obispo monardella <i>Monardella frutescens</i>	C2/	/1B	Coastal dunes. Endemic to Nipomo Mesa, Surf and Lompoc areas.	This species has not been recorded as far inland as Orcutt. Not found
San Luis Obispo wallflower <i>Erysimum capitatum</i> ssp. <i>lompocense</i>	- /	/4	Sandy soils, in coastal scrub and chaparral. Endemic to Burton Mesa, Purissima Hills near Lompoc, and inland to the Solomon Hills. North to the Nipomo Mesa.	Found on Sites 3, 7, 12, and 22. Possible on Site 8.
Sand almond <i>Prunus fasciculata</i> var. <i>punctata</i>	- /	/4	Maritime chaparral, cismontane woodland, coastal dunes and coastal scrub in sandy soil. Hills west of Los Olivos, Purissima Hills, Graciosa Canyon watershed, Oak woodland near Los Alamos, to Nipomo Mesa and Morro Bay	Found on Sites 3, 7. Likely on Site 12. Possible on Site 8.
Sand mesa manzanita <i>Aretostaphylos rudis</i>	C1/	/1B	Chaparral, coastal scrub in sandy soils. This species occurs primarily on the Burton Mesa. Purissima Hills, near Lompoc and Pt. Sal. A few individuals are known from near Gaviota Pass.	Occurs in patches of sandhill chaparral in several locations on Sites 12 and 22. Possibly occurs on Site.
Santa Barbara bedstraw <i>Galium elifonsmithii</i>	- /	/4	Cismontane woodland. Known from the south face of the Santa Ynez Mountains, Zaca Lake, to Monterey Co. and in Santa Monica Mts.	Possible in project area on sites 3, 7, 8 and 12. Not found.
Santa Cruz Island Oak <i>Quercus parvula</i> var. <i>parvula</i>	C3c/	/4	Closed cone pine forests, chaparral, cismontane woodlands. Known from coastal northern Santa Barbara County.	Possible on Site 12.
Seaside birds' beak <i>Cordylanthus rigidus</i> -ssp. <i>littoralis</i>	C1/CE/	1B	Closed cone pine forest, chaparral, cismontane woodlands, coastal dunes, coastal scrub in sandy soils. A disjunct population that approaches this Monterey County endemic is found in sandy hills near Lompoc, in the San Julian area and Refuge Pass. Intermediates to the species occur in the Santa Ynez Mountains	Not known from the Santa Maria Valley or the Solomon Hills, however sandy hills are appropriate habitat for this species. Not seen during field surveys.
Small-seeded fiddleneck <i>Amsinckia spectabilis</i> -var. <i>microcarpa</i>	Local Concern		Endemic to sandy hills and mesas. Buellton, Lompoc, Surf to Nipomo Mesa and Santa Maria area.	Found on Sites 3, 7, 8, 12. Possible on Sites 22 and 30.

Table 2: Sensitive Plant Species with Documented or Potential Occurrence in the Orcutt Planning Area¹

Species	Status ²		Habitat ³	Comments
	USFWS / CDFG / CNPS			
Southwestern spiny rush <i>Juncus acutus ssp. leopoldii</i>	1	- / - / 4	Wet areas in coastal dunes, alkaline meadows and seeps, coastal salt marsh. Not reported from the Orcutt area by Smith (1976), but reported by ERC (1991) near Santa Maria.	Possible on Sites 12 and 22.
Suffrutescent wallflower <i>Erysimum insulare ssp. suffrutescens</i>		- / - / 4	Coastal bluff scrub, coastal dunes, coastal scrub. Los Angeles County north to San Luis Obispo Co. Known from Surf, Purisima Pt. to Casmalia, Pt. Sal in Santa Barbara Co.	Possible in the project area, although this entity appears to occur close to the coast.
Vernal barley <i>Hordeum intercedens</i>		- / - / 3	Saline flats and depressions in valley / foothill grasslands, vernal pools. Known from the Santa Barbara/Goleta area.	Possible in the project area, particularly on Sites 12 and 22.
Western dichondra <i>Dichondra occidentalis</i>		C3c / - / 4	Chaparral, cismontane woodland, coastal scrub, valley and foothill grasslands. Occasional in northern Santa Barbara County.	Not recorded in the Orcutt area, but could occur on Site 12.

¹ Other sensitive species known from Santa Barbara County were eliminated from further consideration based on habitat, soils or parent rock materials, and distributional limits. Information on habitat and distribution was taken from Skinner and Pavlik, 1994, Smith, 1976 and Reveal 1989.

² Status Codes-

United States Fish and Wildlife (USFWS)

FE Federal Endangered

FT Federal Threatened

C1 Sufficient data on file to support Federal listing.

C2 Candidate for listing but with insufficient data on file to propose for listing.

C3c Too widespread or with insufficient threats to support listing.

California Department of Fish and Game (CDFG)

CE California Endangered

CT California Threatened

CR California Rare

California Native Plant Society (CNPS)

1B List 1B: Plants rare, threatened and endangered in California and elsewhere.

2 List 2: Plants rare, threatened and endangered in California but more common elsewhere.

3 List 3: Plants about which more information is needed.

4 List 4: Plants of limited distribution.

³ Habitat and distribution information is from Skinner and Pavlik 1994, Smith 1976, Reveal, 1989, and Hickman, 1993.

Key Site Descriptions, Impacts and Recommended Mitigations

The following sections describe each Key Site investigated for this project, including its location, land use, vegetation and habitat types and typical species. Any sensitive species observed on the sites are noted in this description. An impacts and recommended mitigations section treats Class I and Class II impacts identified for each site. To avoid redundancy, residual impacts, which are similar on most sites, are regarded as cumulative impacts and addressed in that section. Site maps showing recommended open space configuration are presented in Appendix 1. Key Sites (Figure 3) are organized numerically within subdivisions of the Orcutt Planning Area.

The project area has the distinction of being situated on one of the oldest aeolian dunes in California--the Orcutt Terrace dune sheet. This dune mass is contemporaneous with the Nipomo Mesa and Burton Mesa, and shares a number of their unique plants and animals. Development and agriculture have eliminated much of the surface topography and native habitat on the Nipomo Mesa. Relatively large portions of Burton Mesa have also been developed. Much of the surface topography and habitat of the Orcutt Terrace dune sheet has been lost to similar land uses. Currently, no portion of the Orcutt Terrace dune sheet receives protection. The opportunity exists to preserve remnants of this unique geological feature and the biota that it supports.

Ecological principles discussed in the County's Comprehensive Plan Conservation Element are applicable to the Orcutt Planning Area. Primary objectives are to preserve contiguous habitats and habitat associations, to maintain biological diversity, and to ensure that ecosystems remain functionally sound.

Preservation of large tracts of open space, and functionally-linked habitat mosaics, is essential to achieving these goals. Portions of Sites 3, 7, 8, 12, and ~~22~~ offer the best opportunities for preserving biological values on the urban fringe. These open space preserves should incorporate as many contiguous habitat types as possible in order to maximize plant and wildlife diversity. Known and potential occurrences of rare plants and animals should be taken into consideration when planning and designing future development.

Orcutt Creek is important in maintaining biological function within and beyond the urban portions of the planning area. The riparian corridor is essential for dispersal and migration. To ensure that

these functions remain unimpeded, the Orcutt Creek corridor should be preserved and enhanced through the establishment of adequate buffers and active restoration.

Unique examples of the Orcutt Terrace dune sheet and the native plant and animals communities it supports should be preserved. These features are discussed in the site-specific recommendations.

South Orcutt:

Site 3 (Smith parcel)

Site 3 is situated approximately 0.3 miles southwest of the junction of U.S. Highway 101 and Clark Avenue, in the southeastern portion of the project area. The parcel covers 146 acres and is bordered on the east by U.S. Highway 101 (Appendix 1). To the south, this parcel is contiguous with a large tract of nearly pristine undeveloped land that extends into the foothills of the Solomon Hills.

Soils

Site 3 lies along the southern border of the Orcutt Terrace dune sheet. This parcel contains soils typically associated with the Orcutt Terrace dune sheet: sandy soils of the Marina, Garey, Betteravia, and Arnold series. Arnold soils cover the north and northeast-facing slopes south of Orcutt Creek. The grassy southwest-facing slopes consist of Marina and Garey sandy loams. Surface soils in this parcel are typically light brown sand overlying a pale brown, very soft, porous sandstone.

Orcutt Creek forms a relatively broad, level, sandy streambed throughout this parcel. Erosion and deposition appear to be balanced by the high bed loads during peak flow periods along this reach.

Vegetation and Wildlife Habitats

The Orcutt creek channel on this site has a scoured, sandy bottom and steep but low banks. The creek vegetation is dominated by coast live oak riparian forest, which is contiguous with oak woodland to the south. Beneath the oak canopies, the typical understory is dominated by poison oak, miners' lettuce and other native herbs, with some Italian thistle. Many native herbs, including

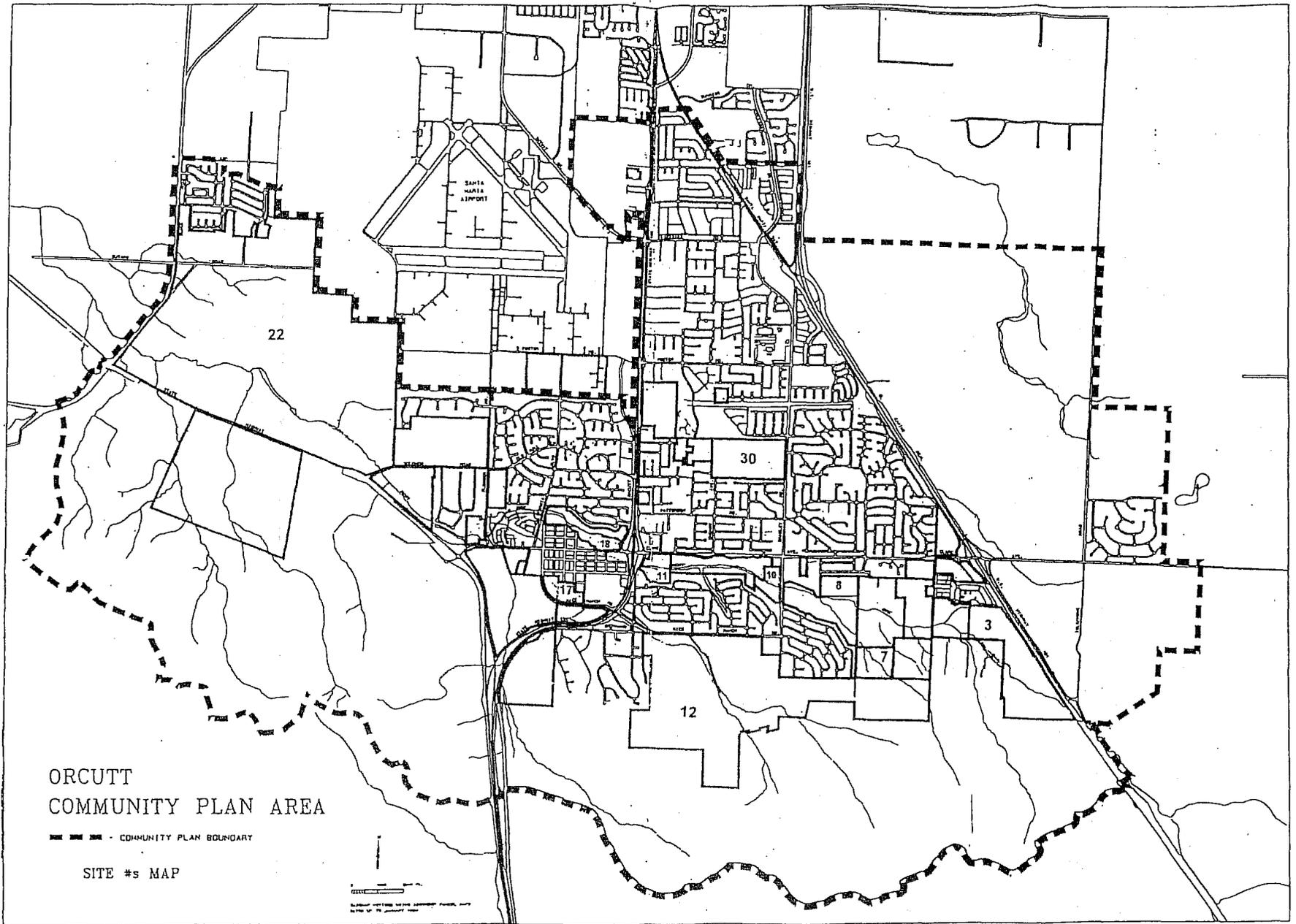
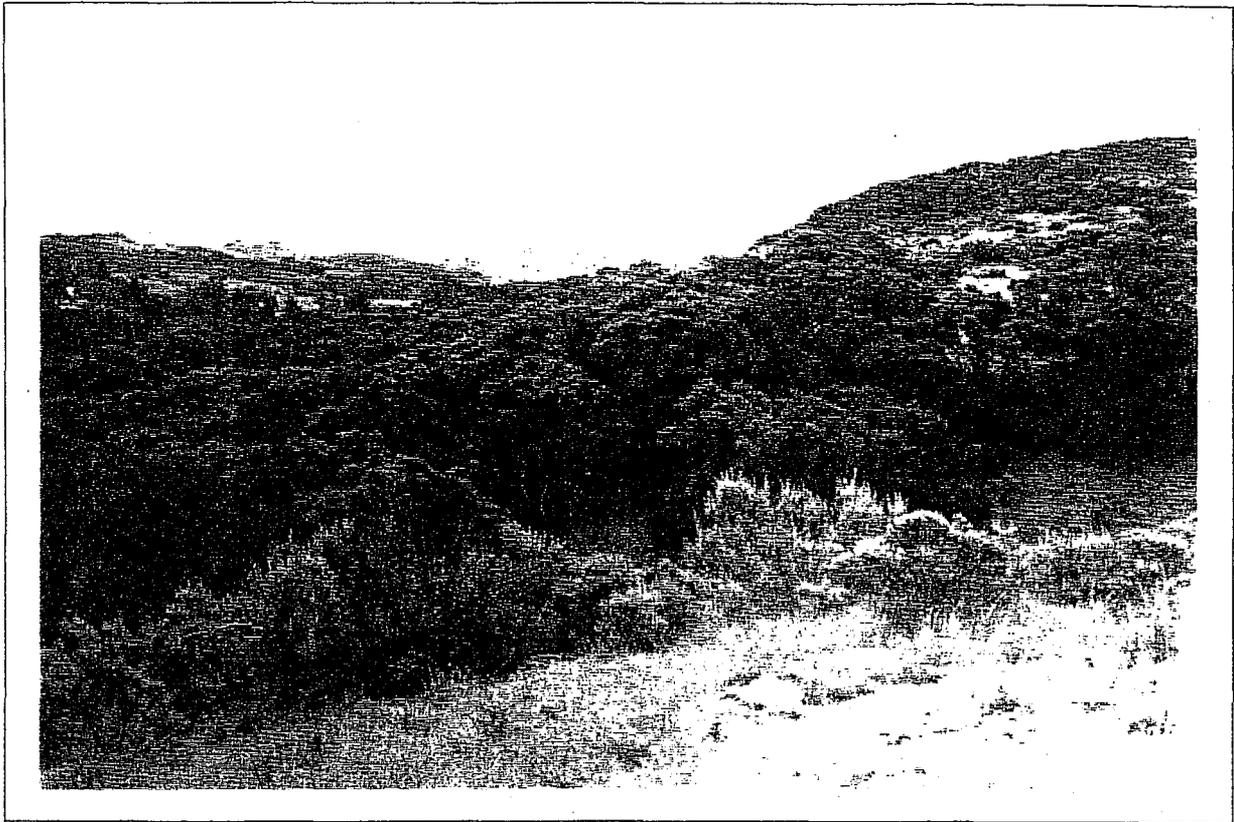


Figure 3

Key Site Locations





John Storer

SITE 3: Sandhill Chaparral and Oak Woodland south of Orcutt Creek; from west slope looking northeast.
(Part of panoramic series)



John Storer

SITE 7: Oak Woodland and Coastal Scrub. Looking east from west side of Orcutt Creek toward Site 6.



the sensitive California spineflower and Eastwood's spineflower, grow in patches of sparse grassland along the southern creek bank.

Oak trees flanking this portion of Orcutt Creek form a nearly closed-canopy woodland. Bird diversity is extremely high. Among the species recorded here were the Nuttall's and downy woodpecker, Anna's hummingbird, Pacific slope flycatcher, plain titmouse, scrub jay, American crow, plain titmouse, bushtit, house wren, Hutton's vireo, warbling vireo, orange-crowned warbler, rufous-sided towhee, lazuli bunting, dark-eyed junco, and lesser goldfinch. A pair of white-tailed kites was seen perching in the live oaks during the April 7 site visit. Evidence of dusky-footed woodrat, coyote, mule deer, and raccoon was found in the streambed. This sandy, flat reach of Orcutt Creek is probably not a major breeding site for amphibians.

Coast live oak woodland, including multi-trunked coast live oaks, blankets the steeper north-facing slopes. Central dune scrub, dominated by mock heather, silver lupine, coyote brush, California sagebrush, and California croton dominates lower elevations. At higher elevations, near the upper site limit, elements of Central Coastal scrub (black sage) and sandhill chaparral (coast ceanothus) mingle with the central dune scrub and continue up the slope and off the site. Sand almond (*Prunus fasciculata punctata*), a sensitive species, was found during the 1994 survey (Rindlaub 1994) just outside the southern boundary.

Mixed among the dominants south of the creek is a diverse flora of shrubs and herbs, including coffeeberry, redberry, climbing penstemon (*Keckiella cordifolia*), fuchsia-flowered gooseberry (*Ribes speciosum*), California croton, golden yarrow (*Eriophyllum confertiflorum*), peony (*Paeonia californica*), and death camas (*Zygadenus fremontii*). The locally sensitive Lompoc monkeyflower (*Mimulus aurantiacus lompocense*) is common among the shrubs. The sensitive San Luis Obispo wallflower (*Erysimum capitatum lompocense*), is occasional along the edges of the oak woodlands.

Lower elevations of the northeast-facing slope on the southern section of this property support central dune scrub dominated by silver lupine, with many native herbs in the sparse grassland between shrubs. At higher elevations, mock heather is more dominant, and appeared to be the host species for a population of at least 50 individuals of California broomrape (*Orobanche californica*) along one ridge top. Lower slopes on the western side also support central dune scrub, but are more disturbed. A dirt vehicle track has a much higher percentage of weedy species.

A diverse faunal assemblage was found among the scrub/oak vegetation complex on the slopes south of Orcutt Creek. Bird species included the California quail, Cooper's hawk, ash-throated flycatcher, wren, California thrasher, bushtit, Bewick's wren, blue-gray gnatcatcher, Hutton's vireo, orange-crowned warbler, rufous-sided and California towhee, white-crowned sparrow, and Lawrence's goldfinch. Mammalian species such as the kangaroo rat, brush rabbit, black-tailed jackrabbit, coyote, and mule deer were noted. The well-developed oak woodland associated with Orcutt Creek and other areas on the north-facing slopes appear to provide excellent habitat for terrestrial amphibians such as California slender salamanders, ensatina salamanders, and Pacific chorus frogs.

North of Orcutt Creek, the site is highly disturbed and degraded, apparently due to past agricultural use on the flats. It is dominated by non-native grassland. The northernmost pasture was grazed by horses and cattle at the time of the survey. Within the pasture, the species composition of the non-native grassland is typical of grazed rangeland, with low diversity and few natives. A few scattered eucalyptus and pine trees grow along the eastern edge of this parcel, which borders U.S. 101.

A band of California sagebrush grows on the southeast facing slope. Coyote brush shrubs are scattered within the grassland on the floodplain, and along the top of the flat outside the pasture. A north/south strip lacking shrubs probably was cleared relatively recently. A large eucalyptus and a cluster of locust (*Robinia*) trees grow on the floodplain near the creek bank.

The annual grassland and coyote brush scrub north of Orcutt Creek provides foraging habitat for a number of raptors. The turkey vulture, red-shouldered and red-tailed hawk, white-tailed kite, and American kestrel were observed during the field surveys.

The high biological value of this site lies in its relatively large size, geographic position bordering a large amount of open space along the north base of the Solomon Hills, and the fact that a relatively undegraded reach of Orcutt Creek traverses the site. The diversity of both herbaceous and woody native species is high on the hillsides south of the creek, including trees, shrubs, sub-shrubs, and perennial and annual herbs. The site supports a correspondingly diverse faunal assemblage.

The coastal sage scrub and chaparral plant communities covering the slopes southeast of Orcutt Creek are important from both plant and wildlife perspectives. Coast live oaks and the associated understory are richly developed. Sandhill chaparral indicator species are present in this

community, owing to the development of this vegetation type on Arnold soils derived from weathering of soft, massive sandstone deposits. Vertebrate species diversity is high on this parcel due to its diverse habitat mosaic, as well as the extensive, contiguous areas of open space to the west and south. Additionally, the southern portion of this site provides vital habitat continuity between the Orcutt Creek riparian corridor and the Solomon Hills.

This segment of Orcutt Creek warrants special protection because of its associated live oak woodland and connections to scrub habitats to the south and southeast. Overall high bird diversity, including a pair of white-tailed kites, exemplifies the importance of this corridor for wildlife.

Sensitive wildlife species include the white-tailed kite, which was observed over the grassland north of the creek as well in the live oaks to the south. Cooper's hawk also was seen in the oak woodland and scrub habitat south of the creek. Evidence of badger was not found, however conditions are suitable for this species. Scrub and grassland habitats on-site likely provide suitable habitats for a number of reptiles, including uncommon and sensitive species such as the horned lizard, silvery legless lizard, and racer.

The vegetation mosaic south of Orcutt Creek also provides habitat for several sensitive plants in addition to the sandhill chaparral community, which includes coast ceanothus, and possibly Purisima manzanita (seen farther upslope), and sand mesa manzanita. Sand almond grows just outside the southern boundary. San Luis Obispo wallflower and Lompoc monkeyflower are scattered among the oaks and adjacent shrubs. California spineflower, and Eastwood's spineflower are scattered in grassland openings. Black-flowered figwort and Saint's daisy are likely to occur on this site. Oak woodlands are potential habitat for Kellogg's horkelia and Santa Barbara bedstraw. Dune larkspur and Palmer's spineflower could occur in the grassland openings.

Impacts and Mitigation Recommendations

Class I Impacts:

Impact: Development north of Orcutt Creek will result in permanent loss of grassland and coastal scrub: an important foraging habitat for raptors, including the locally sensitive white-tailed kite. Reptiles expected inhabit this area include coast horned lizard, silvery legless lizard, and racer.

Class II Impacts:

1) Impact: Increased human presence due to residential development north of Orcutt Creek will impact the relatively undisturbed creek corridor and habitats south of the creek. This creek corridor provides an essential habitat link to the nearly pristine open lands to the south in the Solomon Hills. Domestic and feral cats and dogs, will reduce the numbers of small mammals, reptiles, and birds in the general area. Increased noise, light and activity will prevent use of the site near the development by breeding bird species with low tolerance for disturbance. These factors also will lower the habitat value of the creek as a movement corridor for large mammals.

Mitigation: A minimum structural setback of 300 feet measured from the top of the creek bank on both sides of the creek will mitigate these impacts to insignificant levels. The bicycle path could be placed within this setback provided it were routed on the north side of the creek just within the outer edge of the setback. In this case, the bicycle path should not be lighted. Disturbance to nocturnal wildlife species can be minimized by requiring directional lighting in the development that avoids the creek area. Development south of the creek is not recommended.

2) Impact: Recreational development south of the creek will introduce regular human presence into a relatively undisturbed, rich habitat mosaic of grassland, dune scrub, coastal scrub, oak woodland, and sandhill chaparral. This mosaic is contiguous with similar, nearby habitats, particularly to the south, which extend into the Solomon Hills. These provide movement corridors, and permanent and seasonal habitat for wildlife.

Mitigation: The impact of this intrusion into wildlife habitat will be mitigated to insignificant levels by confining the development to previously disturbed areas. Most disturbance on this site south of the creek has occurred on the western side, where there is a power line and an off-road vehicle track. Part of the hillside along the vehicle track has excellent views across the valley. The picnic/overlook site should be located within this existing disturbance area. The foot trail also should be routed along the existing track, or within the power line easement. Although people using the site may explore to the east, additional trails should not be constructed eastward. Trail maintenance should be limited to removal of invasive weeds and dead or dangerous tree branches that overhang the path and picnic site.

3) Impact: The proposed trail and picnic area will probably cause soil disturbance and erosion resulting in invasion by exotic plants, such as mustards and thistles, which frequently displace native species.

Mitigation: These impacts can be mitigated to insignificant levels by limiting the spread of invasive non-native species by implementing an annual weed maintenance program. Invasive species that colonize the picnic site and footpath should be controlled annually by hand pulling or cutting before they set seed. The trail and picnic area should be engineered to minimize erosion of these sandy soils.

4) Impact: An access road into the development from Chancellor Street will cross Orcutt Creek. Wildlife movement along the creek could be adversely affected by this crossing.

Mitigation: Align the access road to avoid removal of oak trees. Span the creek with a box culvert or bridge design with a minimum six foot clearance that will permit passage of large mammals. Implementation of these measures will reduce this impact to insignificant levels.

Site 7 (Kelly parcel)

Site 7 is situated along the southern margin of the project area and contains approximately 32 acres. It lies at the eastern terminus of Stubblefield Road, approximately 0.8 miles southwest of the junction of U.S. Highway 101 and Clark Avenue. This site is bordered on the west side by a housing development, but the southern boundary is the undeveloped Rice Ranch. Undeveloped land also adjoins this site to the east, across Orcutt Creek (Appendix 1).

Soils

Site 7 is adjacent to the southern margin of the Orcutt Terrace dune sheet. Soils on this parcel consist of a reddish-brown, relatively compacted coarse sand of the Marina and Arnold series west of the Orcutt Creek tributary. The southwestern and northeastern portions of the site contain loose, sandy greyish-white soils of the Garey series. The latter series supports primarily grassland, while the distribution of scrub and oak woodland coincide with Arnold and Marina soils. The tributary traversing the site supports steep, sandy terrace escarpment soils.

Vegetation and Wildlife Habitats

The northeast-facing slope on the southwestern side of Orcutt Creek is vegetated by a strip of coast live oak woodland, with a two-layered understory of herbs and central dune scrub. This

woodland continues off the site in both directions. The creek channel supports a large colony of poison hemlock, Douglas's false-willow (*Baccharis douglasii*), creek nettle (*Urtica holosericea*), and bulrush. Occasional California sagebrush, elderberry shrubs, and mature coast live oak trees grow on the bank. A stand of eucalyptus marks part of an historic house site.

The southwestern corner of Site 7 supports open central dune scrub, dominated by coyote brush, poison oak, coffeeberry, horehound (*Marrubium vulgare*), and California sagebrush. Two individuals of sand almond were found among the shrubs. A few Monterey pines grow near the southwestern corner, where non-native grassland is mowed to accommodate recreational use by adjacent residents. The remainder of the western third of the site is vegetated by non-native grassland.

On the northeastern side of the creek channel, the vegetation is a mosaic of non-native grassland and central dune scrub. A few individuals of chamise occur on a sandstone ridge, with widely scattered coast live oaks. The vegetation appears to be recovering following a 1985 fire, with numerous small coast live oaks near the creek, and patches of California croton, black sage, and mock heather in the grassland. Eastwood's spineflower, a local endemic, is common in the grassland (Rindlaub, 1994).

The chaparral/scrub/live oak complex on this parcel offers excellent habitat for wildlife. Bird species recorded during the April 7 and June 2 field surveys are typical of chaparral and oak woodland. They include the Northern flicker, Anna's hummingbird, scrub jay, American robin, wren-tit, Hutton's vireo, rufous-sided and California towhee, golden-crowned sparrow, house finch, and lesser goldfinch.

This site contains a variety of habitats for reptiles. Common, widespread species expected to be here include western fence lizard, side-blotched lizard, alligator lizard, gopher snake, common king snake, striped racer, and western rattlesnake. A California whiptail was found during the June 2, 1995 site visit.

The biological value of the site is relatively high owing to the varied habitats found on-site. In addition to oak woodland and grasslands, the site supports remnants of sandhill chaparral flora, including extensive clumps of multi-trunked live oak woodland, and a major tributary of Orcutt Creek. This site is particularly interesting in that it is recovering from a 1985 fire (Pierce, 1994). Over time, sandhill chaparral could colonize the sandstone ridge outcrop at the northeastern end, which is the same substrate that supports this community on the Rice Ranch (Site 12).

Site 7 is an essential link between the lower reaches of the Solomon Hills and the Orcutt Creek corridor through the adjacent Rice Ranch parcel. It is also connected to parcels to the north and east that are currently under open space. The continuity of this site with these undeveloped properties imparts additional habitat values. Wildlife dispersal to and from lowland portions of the planning area is facilitated by this habitat continuum. Regular mule deer use of the site is evidence of the functional value of this corridor. This habitat linkage is equally important for gene flow and dispersal of plant species. The connection to the oak woodlands, shrub, grassland, and wetland habitats on the Rice Ranch, provide a dispersal corridor for members of these communities to suitable habitats to the west.

The habitats on Site 7 include, or potentially include, several sensitive species. Sand almond grows in the remnant of dune scrub in the southwest corner of the site. San Luis Obispo wallflower grows around and within the well-developed oak woodland, which could also shelter Kellogg's horkelia, and Santa Barbara bedstraw. The creek is likely habitat for black-flowered figwort. California spineflower probably occurs with Eastwood's spineflower in the sparse grasslands north of the creek. The silvery legless lizard likely occurs in Marina sands associated with scrub and oak woodland vegetation southwest of the drainage ravine bisecting the site. Coast horned lizard probably occurs in grasslands along scrub margins.

Impacts and Mitigation Recommendations

Class I Impacts:

Impact: Proposed development on this parcel will result in permanent loss of grassland and sandhill chaparral. If left undeveloped, fire recovery could eventually include recolonization by sandhill chaparral along the sandstone ridge to the northeast, which is similar to sandhill chaparral substrate on the adjacent Site 12. Development will remove habitat for sensitive plant species such as sand almond, California spineflower, and San Luis Obispo wallflower. Habitat will be lost for coast horned lizard and silvery legless lizard. Development of the grasslands would result in loss of foraging habitat for raptors.

Class II Impacts:

1) Impact: A major road is proposed that would cross the site diagonally from the southwest to the northeast. Construction of this road will fragment the oak woodland, scrub and wetland

habitats on the parcel that link those on the Rice Ranch (Site 12) and along Orcutt Creek with those to the west. Fragmentation of these habitats will adversely affect wildlife movement along this major corridor.

Mitigation: These impacts can be mitigated to insignificant levels by designing the road crossing in the area of Orcutt Creek to avoid or minimize removal of coast live oaks, scrub and herbaceous understory habitats. The creek should be spanned by a bridge or a box culvert with a minimum of six feet clearance to permit free movement for large mammals. Any specimen coast live oaks removed or damaged should be mitigated by installation and maintenance of replacement plantings in accordance with standards of the County of Santa Barbara (1994a).

2) Impact: Residential development on this parcel will increase the adverse effects of human influence, including noise, disturbance, lighting, and predation by cats and dogs. This is of particular concern in the strip of woodland and scrub habitat southwest of the creek and along the creek channel itself. These human influence factors will reduce biological values, preventing or inhibiting dispersal and movement of wildlife species.

Mitigation: Preservation of these habitats as a viable wildlife corridor is of primary importance in maintaining a link between this parcel, the Rice Ranch (and Solomon Hills) and similar habitats along the drainage to the west. This can be achieved by designating an open space corridor between a 100 foot structural setback from the top of the creek bank on the northeast side, and a 100 foot structural setback from the outer oak tree driplines on the southwest side. No development should be permitted within these setbacks, excepting the mitigated road crossing. Lighting within developed areas of the parcel should be directional or shielded to avoid impinging on this area of native habitat.

3) Impact: Loss of sand almond shrubs, a CNPS List 4 species.

Mitigation: Plant, protect, and maintain sand almond shrubs within sandhill chaparral on the east end of the Rice Ranch parcel at a ratio of five replacement shrubs for each mature plant removed. Protection and maintenance of these shrubs until they are at least five feet tall and in good health will offset the loss of mature plants on Site 7.

Site 12 (Rice Ranch)

This parcel consists of 590 acres and is located at the southern border of the Orcutt Urban Area. It is bounded on the north by Rice Ranch Road and by open space to the east, south, and west (Appendix 1).

Soils

The northern half of Rice Ranch appears to lie on the southern margin of the Orcutt Terrace dune sheet. Marina soils, formed over aeolian sand deposits, are scattered throughout the northern edges of the parcel. Southward and eastward, Arnold and San Andreas-Tierra soils, developed over soft, massive sandstone, predominate. The western portions of the parcel are predominately gullied land, where the soil profile has been largely destroyed by erosion.

Vegetation and Wildlife Habitats

The Rice Ranch property is significant because of its size, the diversity of upland and wetland habitats it encompasses, and its continuity to undeveloped portions of the Solomon Hills to the south and east. Wildlife movement from the Solomon Hills to lowland sites within the urban parts of the planning area is made possible by this contiguous open space.

This site can be divided into three major areas (Appendix 1). The eastern section, extending to a line south from Via Alta is crossed from the southeast to the northwest by Orcutt Creek. Dense coast live oak woodland along the creek extends off-site in both directions. Patches of central dune scrub and/or sandhill chaparral are interspersed with large areas of non-native grassland.

Vegetation on this eastern section includes stands of sandhill chaparral along the southern and western margins, and a large tract of floristically diverse sandhill chaparral, coastal scrub, and coast live oak woodland along a minor tributary west of Orcutt Creek. Sand mesa manzanita, Purisima manzanita, coast ceanothus, and Lompoc monkeyflower are commonly found within these stands, with chamise, mock heather, coyote brush, California sagebrush, black sage, elderberry, poison oak, California coffeeberry, and verbena. Along the margins, scattered shrubs, including the manzanitas and ceanothus, extend into the surrounding non-native grasslands. A small seep, with brown headed rush, and trickling water, was found near the southern extent of the oaks on the westernmost branch of this tributary and gully system. Patches of well developed

native needlegrass (*Nasella* spp.) grasslands grow along the margins of the coast live oak woodland.

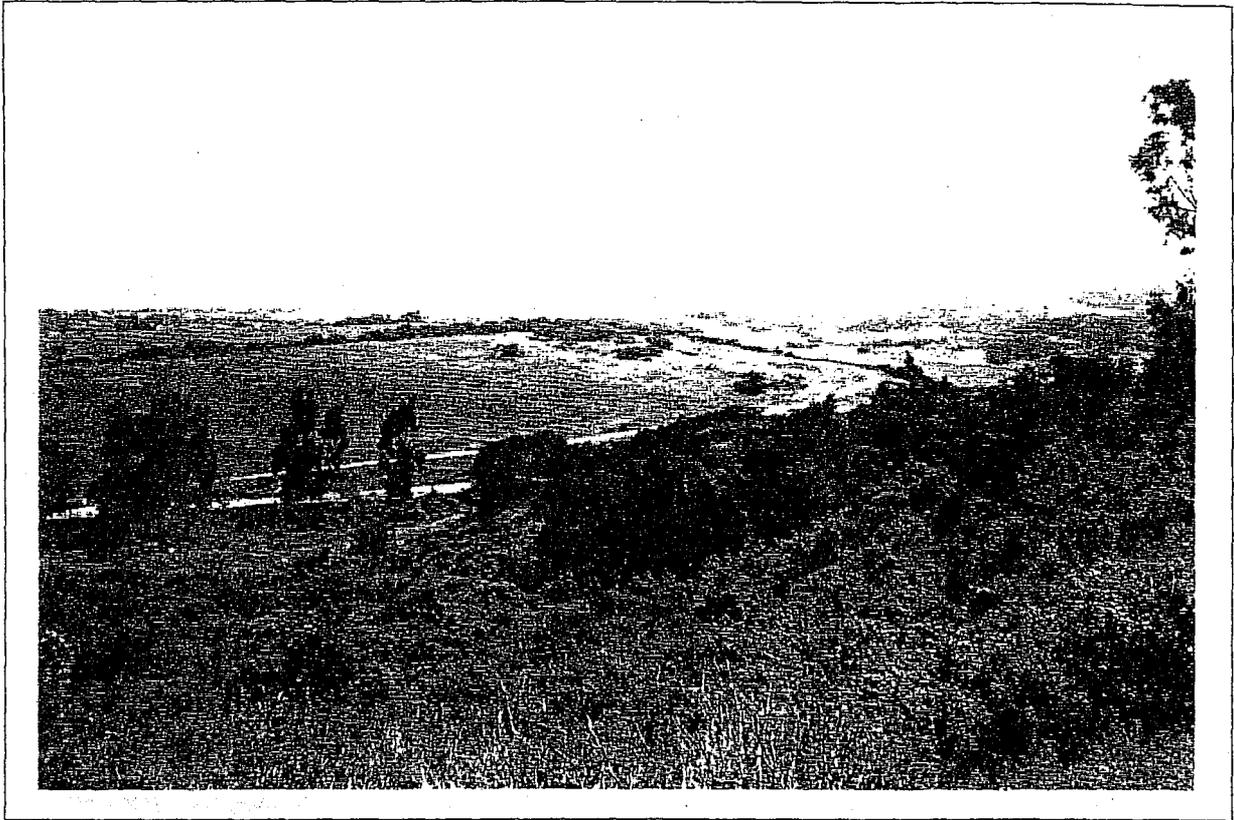
Bands of coastal sage scrub extend along the smaller gullies of this complex toward the southern and western borders of this section of the Rice Ranch. The relatively bare zone around the shrubs included few introduced grasses but a showy wildflower display, including chanchalagua (*Centaureum dayvi*), navarettia (*Navarettia atractyloides*), verbena (*Verbena* sp.), horkelia (*Horkelia cuneata*), pimpernel (*Anagallis arvensis*), hedge nettle (*Stachys bullata*), everlastings, and eucrypta (*Eucrypta chrysanthemifolia*).

Non-native grasslands vary from fairly dense to rather sparse, with a several of native herbs, including owls' clover, purple clarkia (*Clarkia purpurea*), lupine, and lotus (including *L. hamatus*).

The well developed oak woodland has a diverse understory including fiesta flower, miners' lettuce, hummingbird sage (*Salvia spathecea*), wild cucumber, poison oak, hedge nettle, fuchsia-flowered gooseberry, and several ferns. Despite occasional patches of Italian thistle (*Carduus pycnocephalus*) along the margins where cattle bed down, the eastern margin of the oak woodland supports larkspur (*Delphinium parryi*), occasional small patches of Venus' looking-glass (*Triodanus biflora*), and San Luis Obispo wallflower.

East of this strip of oak woodland is the main channel of Orcutt Creek. Soils next to the creek were still saturated at the time of the site visit (May 31, 1995), and support brown-headed rush, toad rush, Mediterranean barley and rabbitsfoot grass (*Polypogon monspeliensis*). A large band of coyote brush joins the oak woodland and creek corridor just above the common boundary between Site 12 and Site 7. Riparian vegetation is dominated by coyote brush, with poison oak, mugwort, California sagebrush, elderberry, and hemlock. West of the creek toward the southern margin of this section of Rice Ranch is a patch of loose, sandy soil with dune scrub dominated by bush lupines, and with scattered native herbs in the sparse grasses.

The mosaic of live oak woodland, scrub, and grassland vegetation within the eastern portion of the site supports an extremely diverse vertebrate community. Species typically associated with each vegetation type were encountered during the field surveys. An ensatina and black-bellied slender salamander were recorded in oak woodland. Birds observed in these stands of oak woodland include the red-tailed hawk, red-shouldered hawk, Anna's hummingbird, Nuttall's woodpecker, northern flicker, Pacific-slope flycatcher, scrub jay, plain titmouse, bushtit, house



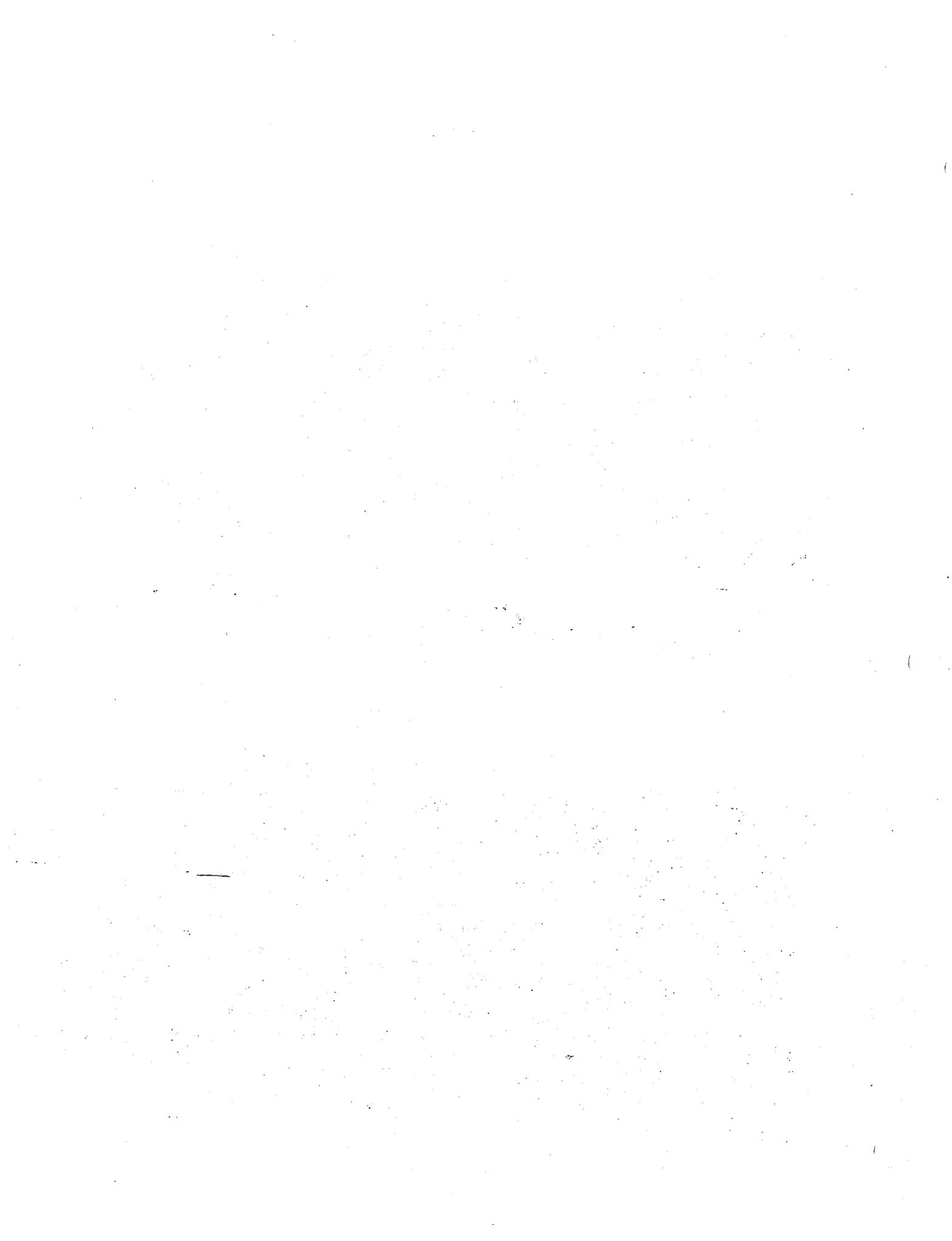
John Storer

SITE 12: From slope west of utility buildings along paved access road; looking southeast.



John Storer

SITE 8: Oaks and Coastal Scrub; looking NE from slope south of Orcutt Creek, near mid-property line .



wren, Hutton's vireo, warbling vireo, orange-crowned warbler, rufous-sided towhee, house finch, and lesser goldfinch. Coastal sage scrub and chaparral were found to support California quail, Bewick's wren, wren-tit, California thrasher, rufous-sided towhee, and California towhee. Brush rabbits were abundant within and bordering stands of scrub. The silvery legless lizard and California whiptail are expected to occur in the sandhill chaparral community. An adult coast horned lizard was found in this community in the central portion of the parcel on June 2, 1995. Turkey vultures, red-tailed hawks, mourning doves, cliff swallows, American crows, lark sparrows (nesting), and Western meadowlarks were found in the grasslands in the eastern portion of the site. Evidence of coyote and mule deer was widespread.

The central section extends west to a southwest-trending paved road that provides access from Rice Ranch Road. Pine creek, a tributary of Orcutt Creek, cuts across this section from the southeast to the northwest. The creek vegetation is a mixture of coast live oak riparian woodland and willow riparian scrub, with elderberry and shrubs characteristic of central dune scrub. Understory vegetation within the deep channel includes many native herbaceous species. South of this creek and east of the paved access road are agricultural fields. Another agricultural field extends along the north side of Pine Creek and off the site to the east. A small area of freshwater marsh with arroyo willow, bulrushes, spikerush and rush (*Juncus effusus*), is located near the southern boundary just east of the paved access road.

The riparian habitat associated with Pine Creek is especially attractive to birds. Species indicative of the streamside community were observed during the field surveys (e.g. red-shouldered hawk, Pacific-slope flycatcher, black phoebe, orange-crowned warbler, yellow-rumped warbler, black-headed grosbeak, song sparrow, and northern oriole). This stream corridor is flanked by annual grasslands and a live oak/coastal sage/chaparral scrub mosaic. Wildlife species commonly associated with these habitat types were recorded during the field survey. Extensive grasslands in eastern and western portions of the site are a significant resource for birds such as the turkey vulture, red-tailed and red-shouldered hawk, American kestrel, western kingbird, cliff swallow, lark sparrow, and western meadowlark. Each of these species was observed during the site surveys. Evidence of bobcat, coyote, mule deer and raccoon was also found here.

Non-native grassland, including many native herbs, dominates the central section. California spineflower and a locally rare herb (*Lotus hamatus*) (Smith, 1995), were found in this grassland. North of the creek, a ridge underlain by sandstone supports oak woodland and sandhill chaparral. Individuals of Purisima manzanita, coast ceanothus, and sand mesa manzanita were found among the oaks, chamise and California coffeeberry. Rock outcrops support live-forevers (*Dudleya*

lanceolata) among chamise and sagebrush shrubs. California and Eastwood's spineflower were found in the loose, sandy soils at the highest elevations on the ridgeline.

These grasslands are also important to several vertebrate species. Many of species recorded in grasslands in the eastern portion of the site were also found here (e.g. coyote, mule deer, turkey vulture, American kestrel, western kingbird, cliff swallow, lark sparrow, western meadowlark). In addition, a striped racer, coast horned lizard, and barn swallows were noted in these central grasslands.

The section west of the paved access road rises up a steep hillside to eucalyptus woodland. Seeps with freshwater marsh vegetation (*Juncus effusus*, *J. phaeocephalus*, *Rumex* spp., and *Elymus triticoides*) edge the eastern base of this hill, joining Pine Creek as it crosses the paved access road. A colony of horehound and hemlock, with a few old horticultural plantings, merges into dune scrub around an old shed and barn that border this wetland area. Alligator lizards, western fence lizards, a striped racer, and gopher snake were found in this vicinity. The wetlands associated with Pine Canyon and adjacent seeps provide suitable breeding habitat for Pacific chorus frog, ensatina, black-bellied slender salamander, and possibly western toads. A common garter snake was found during the field surveys, just south of this parcel in similar seeps.

Oak and eucalyptus woodlands on slopes along the southwestern portions of the parcel provide suitable habitat for ensatina and slender salamanders. The extensive mesic grasslands along the western border of the parcel provide suitable habitat for other widely-foraging snakes such as striped racer and racer. The latter species is uncommon and appears to be declining regionally.

Oak woodland, non-native grassland and central dune scrub form a mosaic along the northeast facing slope of the hill. One patch of black sage (*Salvia mellifera*) extends into the grasslands. Scattered San Luis Obispo wallflowers and Lompoc monkeyflower grow among the shrubs and trees.

The eucalyptus grove on the ridge has a sparse understory of grasses and a few colonies of hummingbird sage (*Salvia spathecea*). The grove is edged with sandhill chaparral shrubs on the east, north and west. Well-developed sandhill chaparral, with sand mesa manzanita, purisima manzanita, coast ceanothus, and Lompoc monkeyflower, extends southward along the ridge. From the eucalyptus grove, the land falls to the north and northwest, where the dominant vegetation is again non-native grassland. Deep gullies score the slope. Coast live oak and sandhill chaparral shrubs were found along the edge of the western gully. Sandhill chaparral also vegetates

a small knob on the west slope. This community is expected to support a population of the silvery legless lizard.

Near the southern fenceline, the land drops steeply through oak woodland into a small valley. The vegetation is this relatively undisturbed and diverse at the head of this valley, with typical oak understory plants, grading into a mosaic of dune scrub shrubs and non-native grassland, with native grasses and herbs. A line of Monterey cypress trees is located near the mouth of the valley.

Small springs were found near the western margin of the eucalyptus grove and to the west in the grassland. Seeps with wetland vegetation were found on the lower north-facing slope above the housing development and around the eastern base of the western hill. The predominance of facultative species (brown head rush, toad rush, and sheep sorrel) suggest these are ephemeral wetlands; the activity of these seeps may vary annually.

Impacts and Mitigation Recommendations

Class I Impacts:

1) Impact: Development of the Rice Ranch property for residential and recreational use would result in the loss of habitat for a number of sensitive plants and animals. Removal of sandhill chaparral would eliminate habitat for the sand mesa manzanita, Purisima manzanita, coast ceanothus, spineflower, silvery legless lizard, and coast horned lizard. Loss of prime grasslands would also occur. These grasslands support several vertebrate species and are an essential element in their foraging ecology, as well as the habitat mosaic of several portions of the parcel.

2) Impact: Construction of residences, roads, and trails would disrupt movement corridors for wildlife. Habitat fragmentation (i.e. reduction and separation of annual grasslands, coast live oak woodlands, riparian woodlands, sandhill chaparral, and coastal sage scrub) would cause an overall decline in biological resource values by imposing barriers to wildlife movement and restricting genetic exchange for both plants and animals.

Class II Impacts:

1) Impact: Urban intrusion into the Rice Ranch site will result in additional loss of functional values for plants and wildlife. The adverse effects of noise, lighting, weed invasion, human activity, and domestic pets will result in an overall decline in resource quality.

Mitigation: Preserve intact, contiguous habitat mosaics of annual grassland, live oak woodland, sandhill chaparral, coastal sage scrub, and riparian woodland. Establish an open space overlay that maintains contiguous, diverse habitat assemblages. The recommended open space preserves, from a biological perspective, are shown in Appendix 1. The eastern block of grassland, oak woodland, sandhill chaparral, and coastal sage scrub should be maintained. This will maximize species diversity in addition to preserving valuable habitat for sensitive plants and wildlife. This corridor is also a critical link between the Solomon Hills and interior, lowland portions of the planning area. The central east-west trending ridgeline supporting live oak woodland and sandhill chaparral should also be preserved. A buffer of 25 feet from the south bank of Pine Creek should be maintained in this area. The east facing slope rising above and west of, the unnamed paved road contains excellent examples of coastal sage scrub and sandhill chaparral which should also be preserved. The open space overlay should include the wetland south of Pine Creek, east of the unnamed paved road at the entrance to the private driveway. The southwest corner of the site containing live oaks, dune shrubs, and non-native and native grasslands should be protected. This area, containing a narrow valley, is contiguous with undeveloped property to the south, thereby enhancing its value. An Open Space District should be established for the management of the open space preserve.

Mitigation: Recreational trails and roads should be aligned with existing trails and roads to the extent possible.

Site 17 (Old Town South parcel)

This parcel consists of 19 acres and is located approximately 0.5 mi. southwest of the junction of Clark Avenue and Dyer Street. It is bordered on the south and west by West Rice Ranch Road, and on the east by Dyer Street. Residential, commercial, and light industrial development border the site on the north (Appendix 1).

Soils

Soils on this small parcel are uniform Garey sandy loam. This well-drained soil occupies rounded, rolling, wind-modified terraces typical of the southern edges of the Santa Maria Valley in this vicinity.

Vegetation and Wildlife Habitats

Habitat diversity on this small, isolated site is very low, consisting almost entirely of non-native grassland and a small number of cultivated pine trees. Only one shrub (California coffeeberry) and curly dock grow more than a few inches in height.

A survey of this site revealed only marginal wildlife habitat values. The site consists almost exclusively of disturbed annual grassland. The uniformity of the vegetation is reflected in the bird species observed. Only the cliff swallow and Western meadowlark were recorded. The site provides suitable habitat only for common reptiles such as the western fence lizard and side-blotched lizard that frequent ruderal and other disturbed habitats.

Impacts and Mitigation Recommendations

Class I Impacts:

None.

Class II Impacts:

None.

No significant impacts to biological resources will result from development of this isolated and disturbed site

Central Urban Core:

Site 8 (Solomon Creek parcel)

Site 8 consists of 78 acres and is located approximately 0.1 miles southeast of the intersection of Clark Avenue and Bradley Road. Bordered on the south by a large housing development, and on the north by housing and commercial development, this site is contiguous with open land only along Orcutt Creek to the east. The western boundary is Bradley Road. Patches of eroded and gullied land extend from the creek northwards just east of Harp Road (Appendix 1). The site may

occasionally be used for off-road vehicle recreation as well as for dumping. Building materials and old furniture were seen in and along a small section of the creek.

Soils

Soils on this site are similar to those found on Site 7, with the addition of Corralitos soils, which consist of loamy sands developed over recent water-deposited sandy materials. This soil is associated with, and forms from the action of, Orcutt Creek. Site 8 lies along the southern margin of the Orcutt Terrace dune sheet.

Vegetation and Wildlife Habitats

Non-native grassland covers much of the site, broken by patches of central dune scrub and oak woodland, particularly along the creek and in the southeastern quarter. The western half of the southern floodplain is almost entirely grassland, with few native species. North of the creek, the slope is vegetated by non-native grassland with scattered coyote brush shrubs and coast live oak trees. A few eucalyptus trees are scattered on the northern floodplain, with mock heather, elderberry, coast live oak, and coyote brush.

Eucalyptus, Monterey cypress and Monterey pine form windrows along the eastern boundary, the western boundary, and along Harp Road. Yellow willow, arroyo willow and mule fat compose part of the eastern windrow where the creek channel enters the parcel.

The creek bottom is sandy and scoured. Although the creek banks are steep, they are fairly well vegetated by coyote brush, California sagebrush, eucalyptus, elderberry, willows, mule fat, mugwort, and poison oak.

The eastern half of the southern floodplain is a mosaic of non-native grassland, central dune scrub, and open oak woodland (oak savanna). The composition of woody plants is similar to the north side, except it includes a number of California coffeeberries, but the percent cover by shrubs is greater. Many native annual species were found among the grasses and shrubs. This relatively undisturbed habitat mosaic continues up to the water treatment facilities at the southeastern corner of the parcel, and merges into the oak woodland and coastal scrub on the steep southern slope.

A strip of well-developed coast live oak woodland, with a shade-tolerant herbaceous understory, follows an ephemeral tributary of the creek along the base of the steep southern slope. Another dense line of oaks follows a small drainage down from the southeastern corner of the site. The southern, north-facing slope is generally very well vegetated with oak woodland and coastal scrub, including coyote brush, poison oak, elderberry, California sagebrush, poison oak, and Lompoc monkeyflower. Grassland openings and bare zones in this vegetation appear to be associated with disturbance (e.g. erosion, bicycle trails, and foot paths).

The oak-wooded slopes south of Orcutt Creek support a number of bird species. The mixture of introduced pines and eucalyptus enhances wildlife diversity of the site. Species observed during the May 16, 1995 field survey included the California quail, Anna's hummingbird, Nuttall's woodpecker, olive-sided flycatcher, Pacific-slope flycatcher, black phoebe, scrub jay, American crow, plain titmouse, bushtit, Bewick's wren, blue-gray gnatcatcher, western bluebird, northern mockingbird, Hutton's and warbling vireo, rufous-sided and California towhee, hooded and northern oriole, house finch, and lesser goldfinch.

The oak savannah and annual grasslands traversed by the stream corridor provide foraging opportunities for raptors. A pair of red-tailed hawks is believed to have been nesting in the eucalyptus row at the east end of the site. Mule deer frequent the Orcutt Creek riparian corridor as well as woodland habitats elsewhere on the parcel. A gopher snake was found adjacent to Orcutt Creek and two striped racers were found in grassland vegetation in the southeast corner of the site and eucalyptus windrows east of Harp road. Other common species, including western fence lizard, side-blotch lizard, common king snake and western Pacific rattlesnake are expected on this site.

Site 8 encompasses a critical link along the Orcutt Creek corridor. Less disturbed than other key sites surveyed within the urban core, it retains high wildlife values, particularly south of the creek. The creek itself has been subjected to previous land use impacts. However, open coastal scrub with scattered oaks provides good habitat for wildlife. This scrub, grassland and savanna mosaic connects the creek with the oak woodland that covers much of the slope south of the creek. Evidence of extensive use by mule deer attests to the importance of this site to wildlife.

The base of the slope to the south of this site supports an excellent example of oak woodland with a dense canopy and rich herbaceous understory. The mosaic of oaks and shrubs on the steep southern slope of this site includes a number of Lompoc monkeyflower individuals, and probably harbors San Luis Obispo wallflower and black-flowered figwort. Openings among the oaks are

potential habitat for Kellogg's horkelia, rayless ragwort, and Santa Barbara bedstraw. Silvery legless lizards are likely to live in the oak/scrub complex. The grassland and scrub mosaic is particularly well suited to coast horned lizard and California whiptail.

Impacts and Mitigation Recommendations

Class I Impacts:

Impact: Proposed development on this site will result in permanent loss of oak savanna, coastal scrub and grasslands, resulting in fragmentation of wildlife movement corridors along Orcutt Creek in the urban core, and consequent loss of wildlife values. Development on the eastern half of this site will result in the loss of habitat for coast horned lizard and silvery legless lizard.

Class II Impacts:

1) **Impact:** Proposed development alternatives for open space on this parcel could significantly reduce the wildlife habitat values on this site.

Mitigation: Preserve a section of the habitat mosaic south of the creek. The eastern border should be the eastern parcel boundary south of the creek. The southern border should follow the southern parcel boundary westward to the point where Via Alta turns from WNW/ESE to NW/SE. The western border should connect this point to the creek along a line trending NNW from that point. The creek is the northern boundary (Appendix 1). Degraded areas within the oak woodland on the southern slope and on the valley bottom should be restored.

2) **Impact:** Development will result in increased human influence on this site. Increased levels of disturbance, noise, predation by cats and dogs, and stray lighting will reduce the value of this site for wildlife species.

Mitigation: To reduce these impacts to insignificant levels, establish a 100-foot structural setback from the oak canopy edge along the base of the southern slope, and 150-foot structural setbacks from the top of the creek banks. Use of these buffer areas should be limited to foot or bicycle paths. Residential development should be clustered on this site. In addition, require directional lighting around developments to avoid illumination of the oak woodland/scrub habitats south of the creek and within the creek buffer area.

3) Impact: Access to the southern part of this site will probably require a bridge or culvert over Orcutt Creek, and will necessitate removal of some riparian vegetation. It could potentially interfere with wildlife movement along the riparian corridor.

Mitigation: Span Orcutt Creek with either a bridge or box culvert with minimum six feet clearance to ensure continued use of the creek corridor by large mammals. In addition, restoration of the creek would mitigate this impact to insignificant levels. Such restoration should include removal of the furniture and other debris that has been dumped in and along the creek channel. Revegetation of disturbed areas along the creek should include both trees and understory plants typical of undisturbed segments of Orcutt Creek.

4) Impact: Retention basins are planned for the creek floodplain on this site. The primary basin would be cleared out every two to three years by flood control personnel, resulting in an area of relatively sterile habitat. Frequent disturbance associated with basin maintenance could promote the invasion and spread of exotic weedy species into the creek area.

Mitigation: Locate the retention basin west of Harp Road, where the vegetation consists of grassland with few native species. Restore the creek corridor by planting and maintaining additional native riparian tree and understory species, which would improve the overall quality of the riparian habitat on this site. Control invasive weeds around the basin and in Orcutt Creek as part of the maintenance program. Weeds should be hand-removed or treated with an herbicide approved by the CDFG for wetland use before they set seed. Schedule sediment removal operations to commence in late May or June to minimize impacts to breeding amphibians. Implementation of these mitigation measures will reduce these impacts to insignificant levels.

5) Impact: A second retention basin is planned for the creek floodplain, resulting in a loss of grassland habitat. This secondary basin would be maintained less frequently by flood control personnel, probably every 5 to 10 years. Disturbance associated with basin maintenance will promote invasion by undesirable, weedy species that could spread into the creek.

Mitigation: Locate this basin west of Harp Road. Following its construction, and following sediment removal, revegetate the slopes and perimeter with native riparian tree and understory species typical of creeks in the Orcutt area. In years when this basin is not cleared, it could provide an additional breeding area for amphibians and birds. Basin maintenance should be scheduled to begin after mid-June to avoid impacts to breeding wildlife. Monitor both the basin

vicinity and the creek for invasive weeds and hand remove or treat with an herbicide approved for use in wetlands by the CDFG before they set seed. Implementation of these measures will reduce these impacts to insignificant levels.

6) Impact: A planned foot trail will pass through the oak woodland and scrub habitats on the southern slope of this parcel. This trail will promote increased human presence within this structural setback, and will fragment the dense shrub cover, particularly toward the eastern end of the parcel.

Mitigation: The impacts of this foot trail can be mitigated to insignificant levels by implementing the following measures. Route the planned trail along an existing informal trail wherever possible. Avoid the denser clusters of oak trees. Engineer the trail to avoid exacerbation of existing erosion problems, and repair eroded areas.

7) Impact: Removal of specimen coast live oak trees.

Mitigation: Offset removal of specimen (dbh > 6 inches) coast live oaks by planting, protecting and maintaining coast live oaks at a ratio of 10 plantings for each oak removed until the plantings are at least five feet tall and in good health. Seed for these replacement trees must come from oaks in the Orcutt vicinity, or from the Solomon Hills. Mitigation plantings can be located on-site on a few degraded and/or eroded areas along the southern slope. Restoration of these degraded areas and establishment of young oaks will reduce this impact to insignificant levels, and could potentially enhance the oak woodland on the southern border of the site.

Site 10 (Bowers/Rees parcel)

Site 10 consists of 17 acres and is located in the center of the Orcutt Planning Area approximately 0.1 miles southwest of the junction of Clark Avenue and Bradley Road. The parcel is bordered on the east by Bradley Road, on the north by commercial development fronting Clark Avenue, and on the south by residential development (Appendix 1).

Soils

The northern portions of the parcel consist of a steep, sandy terrace escarpment, vegetated by non-native grassland. The distribution of this soil is contiguous with similar soils found on Site 7,

and is associated with Orcutt Creek and its tributaries. The surface layer is loose sand overlying a very slowly permeable subsoil. The center of the parcel, associated with Orcutt Creek and its floodplain, is relatively level and currently under cultivation. Soil in the floodplain is classified as Corralitos loamy sand, with rapid permeability and slow surface runoff. South of the floodplain is a north-facing slope vegetated by scattered live oak and elderberry. Soil on this slope is classified as Marina sand, found on dissected terraces containing aeolian sand deposits. This site lies along the southern margin of the Orcutt Terrace dune sheet.

Vegetation and Wildlife Habitats

The creek banks are native soil, with the active channel incised approximately 15 feet below the adjacent floodplain. Riparian vegetation bordering the creek channel is degraded, consisting of scattered arroyo willows, mule fat, coyote bush, and occasional small coast live oaks.

The remainder of the site on the north side of the creek is dominated by non-native grassland with scattered coyote brush, mock heather, and California sagebrush shrubs. The southern floodplain is cultivated.

Wildlife values on this site are concentrated within the Orcutt Creek corridor and in the live oaks on the slopes to the south. The grassy slopes either side of the creek offer some foraging habitat for raptors, swallows, and blackbirds. A red-shouldered hawk, barn swallows, and Brewer's blackbirds were recorded here. A Pacific-slope flycatcher and Nuttall's woodpecker were associated with planted conifers at the site perimeter. The presence of ground squirrel burrows suggests some foraging potential for badgers.

This parcel, despite its relatively small size, isolation, and disturbance apparently supports a high density of certain reptile species, including alligator lizards, western fence lizards, and side-blotched lizards. A first-year coast horned lizard was found on sandy, open soil in disturbed grassland on the south-facing slope near the north-central portion of the parcel. This indicates that reproduction and possibly recruitment is occurring in this species at this location.

Impacts and Mitigation Recommendations

Class I Impacts:

Impact: Development of the site would eliminate foraging habitat for raptors (e.g. turkey vulture, red-tailed hawk, red-shouldered hawk, American kestrel). Habitat for the coast horned lizard would also be lost.

Class II Impacts:

1) Impact: Residential or commercial development will result in indirect impacts to the riparian corridor along Orcutt Creek. Urban influences such as noise, lighting, and site runoff have potential to further degrade the value of the stream corridor for wildlife. Increased use of the riparian zone by humans and pets will result in disturbance to resident and migratory wildlife.

Mitigation: A structural setback of 150 feet from both banks of Orcutt Creek, measured from top of bank, should be established. Restoration of the Orcutt Creek riparian corridor should be required in order to partially offset the adverse effects of nearby development.

Site 11 (George parcel)

This parcel contains 21 acres and is situated approximately 0.1 miles southeast of the junction of State Highway 135 and Clark Avenue, along the southern margins of the Orcutt Terrace dune sheet. The site is bordered on the west by Orcutt Road, on the north by Clark Avenue, and on the south and east by residential development (Appendix 1).

Soils

Soils in this parcel are similar to those found on Site 10, consisting of sandy terrace escarpment exposures along the north end of the parcel, Corralitos series and riverwash soils associated with Orcutt Creek floodplain, and Marina sandy soils on the north-facing slope along the southern border of the parcel.

Vegetation and Wildlife Habitats

The parcel is bisected by Orcutt Creek, which appears to have formerly meandered across a broader floodplain. The active channel on-site is relatively straight and bordered by degraded riparian scrub, including scattered willows, mulefat, coyote brush, and a few bush lupines. Herbs and the subshrub, mugwort, are common where willow cover is sparse. A considerable amount of broken concrete is piled along the creek.

The upland vegetation is predominantly non-native grassland, with scattered shrubs from the central dune scrub community. A patch of shrubs on the northern slope is dominated by mock heather, coyote brush and saw-toothed goldenbush (*Hazardia squarrosa*). Scattered shrubs and oaks dot the hillside that rises from the floodplain to the housing development. The southern floodplain has apparently been plowed or disked in recent years. A windrow of Monterey pine and eucalyptus runs along the eastern border of this site, separating it from the undeveloped parcel upstream.

A pond caused by impoundment on the southwestern corner of the floodplain appears to be fed partly by runoff from the highway and frontage road to the west. Vegetation surrounding the pond includes a few willows, some toad rush and curly dock on the north and east sides, with coyote brush and California sagebrush along the south and west margins.

Aside from Orcutt Creek and the pond in the southwestern corner of the site, this highly disturbed parcel has retained only limited wildlife habitat value. Orcutt Creek allows for wildlife dispersal through the urban portion of the planning area. Grasslands on either side of the creek undoubtedly support a few vertebrate species. The man-made impoundment near the site's western perimeter is used to some extent by birds. Mallards (probably domesticated) were recorded during one of the site visits. A greater variety of waterfowl probably makes opportunistic use of the pond during migration. The Orcutt Creek corridor is utilized by large mammals including mule deer, coyote and raccoon.

The disturbed condition of this parcel precludes use by all but common, widespread reptile and amphibian species. The pond located near the southwest corner of the parcel, however, provides breeding habitat for the western toad, a regionally declining amphibian. Hundreds, perhaps thousands, of recently metamorphosed western toads were found in large aggregations in ruderal grassland and disturbed ground along the north side of the pond during the May 8, 1995 survey. This pond is a locally important breeding site for this species.

Impacts and Mitigation Recommendations

Class I Impacts:

None.

Class II Impacts:

1) Impact: Development of this parcel has the potential to eliminate an important breeding pond for western toads. The pond at the west end of the site is also used by waterfowl and shorebirds.

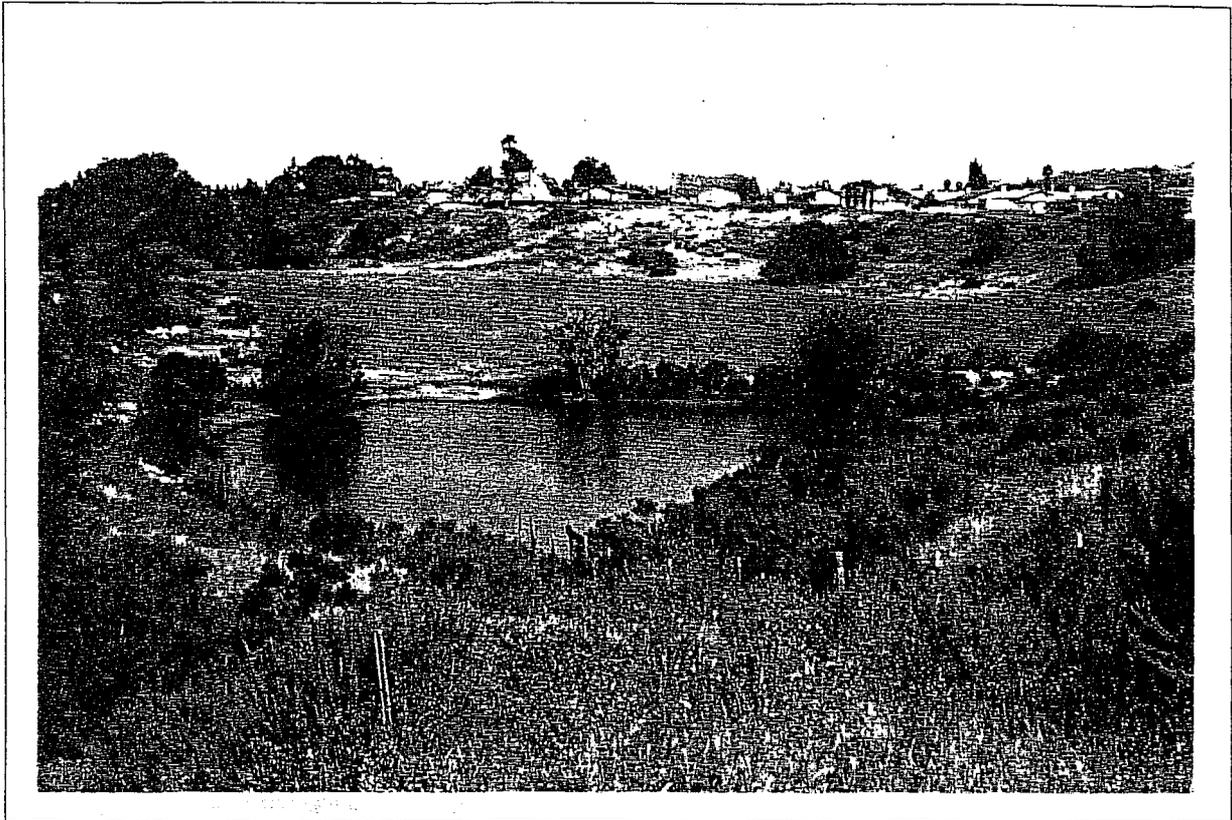
Mitigation: A structural setback of 150 feet around the perimeter of the pond is necessary to ensure preservation of upland retreat sites for adult toads. Site drainage for future development should be designed to avoid introducing contaminants from urban runoff into the pond. Habitat values for wintering birds can be improved by planting the margin of the pond with willows and/or emergent marsh vegetation. However, the berm and concrete rip-rap border of the pond should remain in its current open condition, in order to facilitate amphibian thermoregulation and provide retreat and cover sites.

2) Impact: Development of this property for residential, commercial, or recreational uses would further degrade the Orcutt Creek riparian corridor. Noise, lighting, runoff, and human intrusion would limit wildlife habitat values as described for Site 10 above.

Mitigation: A structural setback of 150 feet measured from the top of each bank of Orcutt Creek should be established. This segment of the Orcutt Creek riparian corridor would benefit immensely by restoration. Hard bank structural features (i.e. concrete and other debris placed on the bank to curtail erosion) should be removed. Native vegetation should be planted in order to restore both the riparian understory and overstory.

Site 18 (Southpoint parcel)

This property comprises 21 acres and is located approximately 0.1 miles northwest of the intersection of Clark Avenue and State Highway 135. The site is bounded on the north and south



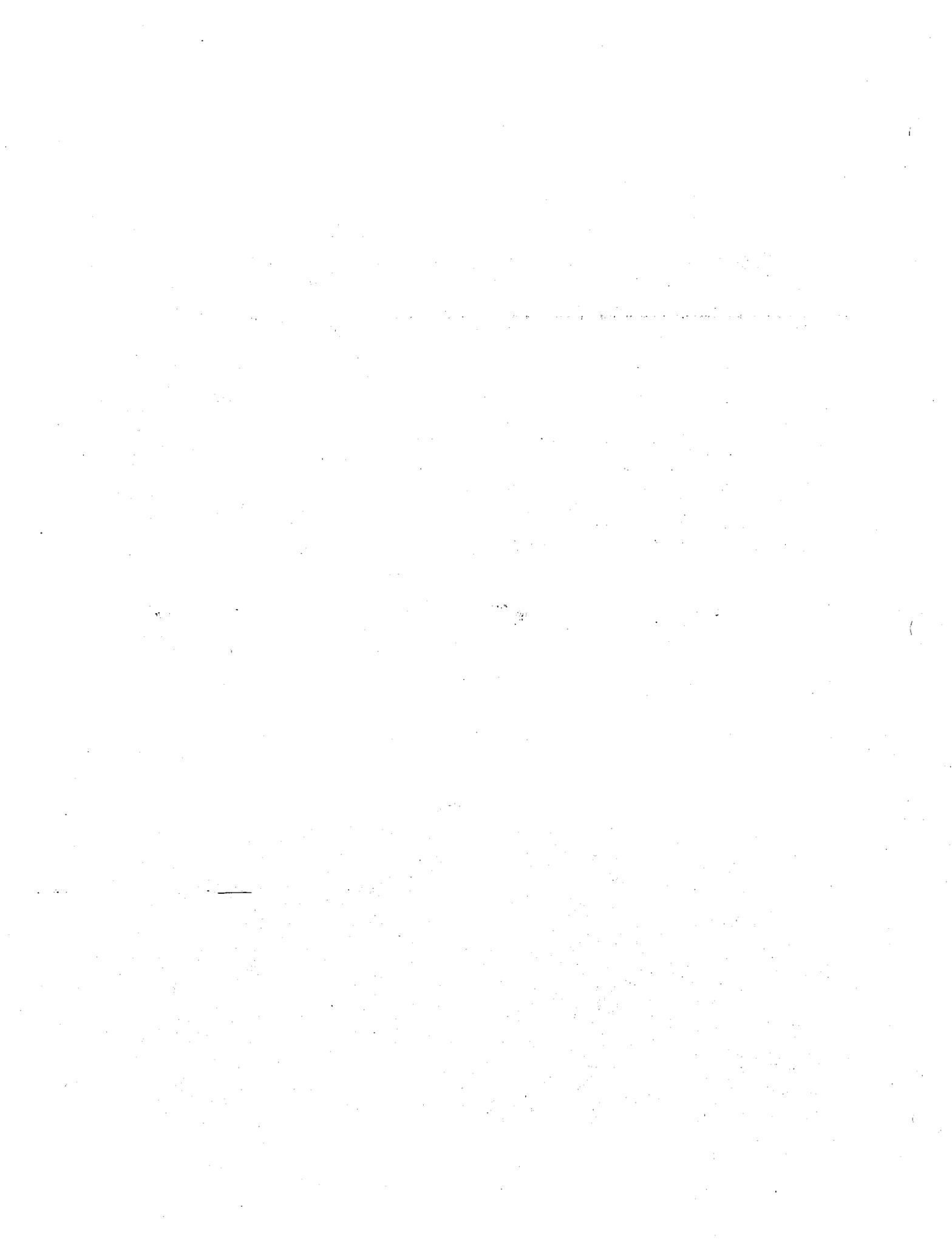
John Storer

SITE 11: Artificial pond near west end of site, south of Orcutt Creek; looking toward the southeast.



John Storer

SITE 30: Dune Scrub. Looking southward from central knoll (part of panoramic series).



by housing and commercial development, on the east by a berm and culvert, and on the west by California Boulevard (Appendix 1).

A settling basin and dredged spoil piles occupy nearly all of the western one-third of this site. The settling basin collects sediment during storm flows, which is then regularly removed by flood control personnel. The north side of the eastern end of the parcel has been disked, and the south side of this area has been used as a dump.

Soils

The Orcutt Creek floodplain, bisecting this parcel from east to west, contains Corralitos loamy sandy soil. The steep north and south-facing slopes adjacent to Orcutt Creek are composed of Marina sand and sandy terrace escarpment soils, respectively. The latter soil is associated with the southern margin of the Orcutt Terrace dune sheet.

Vegetation and Wildlife Habitats

Non-native grassland dominates the creek floodplain. A dense population of Italian thistle (*Carduus pycnocephalus*) on the south side suggests that this part of the floodplain may have been plowed or disked in the past. A few individuals of California sagebrush, coyote brush, and saw-tooth goldenbush, and even fewer coast live oaks and a toyon grow on the floodplain and slopes. Escapes from landscaping, particularly iceplant (*Carpobrotus* spp.), and the invasive veldt grass (*Ehrharta* spp.) were found along or near the creek.

The scoured creek channel becomes progressively shallower from east to west until the banks are only a few inches high where it enters the settling basin. The riparian vegetation is predominantly willow scrub, with a few oaks and central dune scrub shrubs. Arroyo willow, with scattered yellow willow, line the creek along the eastern half of the creek, and narrow-leaf willow predominates towards the western end. A few introduced trees, such as locust (*Robinia* sp.), Fremont cottonwood (*Populus fremontii*), and cassia (*Cassia* sp.), grown among the willows at the eastern end of the riparian corridor.

Site 18 is similar in many respects to Site 11 in terms of its wildlife characteristics. Although extensively modified by human activities, Orcutt Creek has retained moderate riparian attributes. Bird species recorded along the riparian zone included mourning dove, downy woodpecker, American crow, bushtit, northern mockingbird, yellow-rumped warbler, and song sparrow. A

loggerhead shrike was observed in the grasslands south of the creek. The sediment retention basin at the west end of the parcel, in the Orcutt Creek floodplain, is subject to regular flood control activities (e.g., sediment removal), and consequently is of limited wildlife value. Pacific chorus frogs, killdeer, and cliff swallows were observed in this portion of the parcel. Raccoon, coyote, bobcat, and domestic cat and dog tracks were observed along the margins of the sediment basin during field surveys. This portion of the site appears to be used as a movement corridor for mammals, but the degree of disturbance associated with flood control operations precludes use of the settling basin by all-but-common, widespread amphibians and reptiles such as the Pacific chorus frog and western fence lizard.

Impacts and Mitigation Recommendations

Class I Impacts:

None.

Class II Impacts:

1) **Impact:** Portions of the riparian corridor will be disturbed by the proposed Foxenwood Drive extension across Orcutt Creek along the eastern end of the parcel.

Mitigation: This segment of Orcutt Creek may offer some of the best prospects for restoration and enhancement of any of the interior urban parcels. The degraded stream channel supports ample stands of willow and other riparian trees. Restoration of the riparian corridor throughout the parcel, focusing on removal and control of non-native vegetation, and planting of native tree and understory species, would mitigate this impact to insignificant levels. Orcutt Creek should be spanned (preferably) by a bridge or at least by a tall box culvert.

Control of non-native invasives such as ice plant and veldt grass in the grassland areas adjacent to the creek should be undertaken to improve habitat value of the riparian corridor and adjacent open space.

2) **Impact:** Residential and commercial development, as proposed, would impact overall plant and wildlife values of the site due to influences associated with urbanization, including increased human presence within and around the Orcutt Creek riparian corridor, increased use of the site by

domestic (and feral) cats and dogs, and negative effects associated with incidental noise and stray lighting.

Mitigation: A minimum structural setback of 100 feet, measured from both sides of the top of bank of Orcutt Creek, would retain and possibly improve wildlife values over existing levels, as well as allow for some degree of creek restoration.

The sediment removal operations in the settling basin at the west end of the parcel should be timed to minimize impacts to breeding amphibians. Removal operations starting in late May or early June would avoid most of the breeding season for amphibians.

Site 30 (Union Oil/Bradley parcel)

This parcel comprises 79 acres and is located approximately 0.2 miles north-northwest of the intersection of Clark Avenue and Bradley Road. It is bordered on the east by Bradley Road, on the north by residential development and open space, on the south by residential development, and on the west by residential development and open space extending to the Santa Maria Airport property. A seasonally-flooded drainage traverses the west-central portions of the parcel, running approximately north to south. The drainage enters the parcel from a concrete pipe draining the adjacent residential development and continues northward off the parcel (Appendix 1).

The parcel is currently grazed. It appears that sand was removed from an extensive portion in the center of the parcel, associated with the small, central drainage. An abandoned oil well is situated west of this drainage in the center of the parcel, and much of the parcel lies within the flight approach zone for the Santa Maria Airport.

Soils

This parcel lies within the central portions of the Orcutt Terrace dune sheet. Consequently, soils are uniform, containing relatively intact as well as moderately degraded remnants of Oceano dune sand. This site also contains good examples of the sand hill topography (i.e., Phase II transverse dunes) that originally covered most of this area.

Vegetation and Wildlife Habitats

The central dune scrub vegetation found on much of the site appears to be present in two distinct phases. Scrub vegetation east of the central drainage consists of monotypic lupine scrub (silver lupine), with a dense understory of non-native grassland. Reproduction and recruitment of silver lupine in this area is high. The shrubs appear to be of uniform age and development, with practically no dead or senescent individuals. West of the central drainage the dune scrub vegetation is much more diverse and appears to be relatively undisturbed. Grass density is much less than that found to the east and generally does not occur beneath the canopy of the shrubs. Shrub diversity is high and includes silver lupine, bush lupine, and mock heather. As of the June 2, 1995 survey, several individuals of Blochman's groundsel and thousands of individuals of curly-leaved monardella, were found among the shrubs and in the grassland west of the drainage. California spineflower and Eastwood's spineflower are also scattered on this site.

This parcel contains some of the best remnants of Orcutt Terrace dune sheet topography (transverse dunes) and dune scrub vegetation remaining in the project area. Despite adjacent residential development and grazing within the parcel, the vegetation appears only moderately disturbed. The western portion of the site that supports well-developed dune scrub vegetation provides excellent habitat for several sensitive reptile species, including the silvery legless lizard and coast horned lizard, as well as several common species such as the western fence lizard, California whiptail, gopher snake, and common kingsnake. Bird species observed on-site include American kestrel, mourning dove, horned lark, northern mockingbird, loggerhead shrike, western meadowlark, and Brewer's blackbird. The parcel also provides excellent habitat for the burrowing owl. The burrowing owl, horned lark and loggerhead shrike have a restricted breeding distribution in Santa Barbara County and suitable nesting habitat for both species occurs on this parcel.

Impacts and Mitigation Recommendations

Class I Impacts:

Impact: The proposed residential development in the northeastern corner and especially in the southwestern corner of the parcel will result in permanent loss of dune scrub habitat for a number of rare plants and animals, including Blochmann's groundsel, curly-leaved monardella, California spineflower, coast horned lizard, silvery legless lizard, burrowing owl, horned lark, loggerhead shrike.

Class II Impacts:

1) Impact: Proposed recreational use of the parcel will significantly impact sensitive plants and animals on the remainder of the parcel. Soils throughout the parcel are highly erosive and sensitive to foot, bicycle, and vehicular disturbance.

Mitigation: Restrict recreation use of the parcel to the central drainage area. Re-route the proposed bicycle/pedestrian trail to enter the parcel along the southern perimeter, then traverse the parcel through the central drainage area, then westward along the northern perimeter of the parcel. Information signage could be placed along this trail informing users of the biological sensitivity of the surrounding sand hills.

Limit grading to a "no-grade zone" (Appendix 1). Require finished grade to blend with natural contours in central (no-grade zone) area of parcel over 100 feet. These 100 foot blending zones should be outside the no-grade-zone and should become the fire management buffers for the residential developments, so that fire management of adjacent dune scrub vegetation will be minimal or unnecessary.

2) Impact: Proposed residential development will increase direct and indirect impacts of increased human use of the parcel, artificial lighting, fire management, domestic pets, etc.

Mitigation: Residential areas should be fenced to limit access to open space by humans and domestic cats and dogs. Lighting should be shielded and directed away from the open space area.

The open space components of adjacent parcels should be coordinated with open space in this parcel so as to maximize habitat continuity in the area. Buffers should be used for fire management.

A dune scrub restoration plan should be developed to reduce the density of non-native grasses in the eastern portions of the parcel and increase dune scrub shrub diversity. Trash and other debris should be removed from the central drainage portions of the site.

West Orcutt:

Site 22 (Area 8 parcel)

~~This parcel consists of three legal parcels, totaling 693 acres. The southwestern corner of this parcel is located at the intersection of State Highway 1 and Black Road. The parcel is bordered on the west by Black Road, on the south by State Highway 1, on the north by residential development and open space associated with the Santa Maria Airport, and on the east by Solomon Road and residential development (Appendix 1).~~

~~Approximately 60-70% of the site is currently under cultivation. Most of these areas are north of Orcutt Creek. An unpaved road, extending eastward from Black Road allows access to the cultivated areas in the center of the parcel. The remainder of the parcel is grazed, but is otherwise relatively undisturbed.~~

Soils

~~This parcel lies near the west-central portion of the Orcutt Terrace dune sheet (Figure 2). Consequently, it contains the best examples of Phase II (transverse) dune soils of any of the parcels considered in this report. Betteravia and Marina loamy sandy soils, as well as Oceano sands traverse the northern portions of the parcel in a northwest to southeast direction, parallel to the prevailing wind direction. The Oceano sands, especially, retain primary characteristics of the sand dunes from which they formed (e.g., minimal soil horizon development, and hummock and swale topography). The northern portions of the parcel contain an unusual hardpan variant of Narlon soils, which are conducive to vernal pool formation (Olson, 1991, 1992). The surface layer of this soil is sandy however, the subsoil is composed of an impermeable clay. A perched water table often forms after storm events and vernal pools are associated with these areas. Corralitos sandy soils are associated with the Orcutt Creek floodplain. South of Orcutt Creek soil development increases. Soil composition gradually changes from predominately sandy soils near the creek to Elder loamy sand and Botello loams near State Highway 1.~~

~~Vegetation and Wildlife Habitats~~

~~Information from Rindlaub (1994), on the vegetative characteristics of the southern portion of this parcel, south of the unpaved access road that extends eastward from Black Road, is included herein.~~

~~A eucalyptus windrow runs along the eastern boundary of the parcel. About 500 acres in the center of the site are under cultivation. Higher elevations between Black Road and the agricultural areas in the center of the parcel are dominated by grazed introduced annual grassland, with small patches of dune scrub. A few individuals of *Brodiaea jolonensis* were found near Black Road. The large pond adjacent to the agricultural field is strongly dominated by California bulrush, with a few arroyo willows.~~

~~Deeper drainages support freshwater marsh, vegetated by bulrush (*Scirpus* sp.), common and least spikerush, (*Eleocharis macrostachya*, *E. acicularis*), water-cress (*Rorippa anagallis-aquaticum*), heliotrope (*Heliotropium curassavicum*), brass buttons, bird's-foot trefoil (*Lotus corniculatus*), rabbitsfoot grass (*Polypogon monspeliensis*), and dock (*Rumex* spp.). The Black Road berm impounds runoff; two plants associated with vernal pools: *Plagiobothrys undulatus* and *Gnaphalium palustre* were observed there in 1994.~~

~~On the flat extending toward Black Road from the pond, the grass dominance changes to meadow barley (*Hordeum marinum* [*geniculatum*]), with brass buttons and birdsfoot trefoil in and around bare areas. in 1994, this appeared as a vernal flat, with only one small patch of a few *Plagiobothrys* (Rindlaub 1994). In 1995, this flat was a shallow vernal pool with hundreds of *Plagiobothrys* in the center. Rings of bird's-foot trefoil and sheep sorrel surrounded the center. This pool is appeared distinct, both hydrologically and botanically, from the flooded region around the pond.~~

~~Orcutt Creek and its floodplain occupy the southern portion of Site 22. The Orcutt Creek channel is fairly straight-sided, with sparse willow riparian scrub and freshwater marsh. Small stands of cattail (*Typha*) and patches of bulrush and rushes (*Juncus*) develop on small bars. A combination of introduced and native plants dominate the wetland flora along the creek, particularly brass buttons and watercress. There are few willows, primarily near the southwestern corner and along the lower edge of the slope south of the strawberry field.~~

~~Orcutt Creek diverges into channels separated by a broad floodplain of wet meadow dominated Mediterranean barley (*Hordeum marinum*). Pools appear to be fed by water seeping through the sandy soils; seeps also contribute to a marshy zone along the base of the dunes north of the floodplain~~

~~The natural stream channel curving north from Highway 1 at the golf course supports freshwater marsh vegetation. The straight drainage channel that parallels the access road onto the site does not, until it nearly reaches Orcutt Creek, where there are patches of arroyo willow. At the corner of Highway 1 and the access road is a pond with bulrush and cattail.~~

~~Sandhill chaparral, dominated by multi-trunked coast live oak, mock heather, coyote brush, with scattered Purisima manzanita, and sand mesa manzanita, occupies the northeast corner of the parcel. Curly-leaved monardella (*Monardella undulata*), Blochman's leafy daisy, and San Luis Obispo wallflower were found in 1994 (Rindlaub, 1994). Freshwater marsh vegetation, with willows, bulrush, spikerush, rushes, and sedges is intermittent along the shallow drainage that leaves the chaparral area and continues northwestward across the site. Willows also grow on the tops of the dunes. A strip of central dune scrub separates the chaparral from the cultivated fields.~~

~~In 1994, the swales between the higher dune elevations in the northeast corner of the sandhill chaparral area appeared to be vernal wetland dominated by sheep sorrel (Rindlaub, 1994). In 1995, this area was a vernal pond. The water receded considerably between the two site visits (April 8 and May 11), during which time it appeared that the inundated shrubs had died. A few vernal pool species, including *Elatine* and *Gnaphalium palustre* were found on the drying mud flats.~~

~~North of the agricultural fields and the western unpaved access road, the site is a complex of sandy uplands, vegetated by non-native grassland (with a population of linanthus and many individuals of *Dudleya caespitosa* on exposed sandstone bedrock), and vernal ponds, vernal pools, vernal flats, and freshwater marsh swales. One large vernal pond is bisected by this road. This system of uplands, pools and swales continues onto the Santa Maria Airport property north of Site 22.~~

~~Three areas that may be vernal pools in dryer years formed ponds that were flooded well into the month of May in 1995. One is the vernal pool divided by the unpaved access road. Another large pond is located north of the access road, but west of the main pool complex (Pool P_{III}, Olson,~~

1991). Within the main pool complex, two pools just west of the small dunes were connected to form a large, somewhat rectangular pond.

The vernal pools on Site 22 appear to have at least three distinct zones, consisting of an outer ring dominated by brown-headed rush and toad rush, surrounding a muddy flat with sparse cover consisting of toadrush, popcorn flowers (*Plagiobothrys*), least spikerush, water wort (*Elatine*), water starwort (*Callitriche*), flowering quillwort (*Lilaea scilloides*), lythrum (*Lythrum hyssopifolium*), and two species of wooly heads (*Psilocarphus*). The center is often densely covered by common spikerush. Later in the season, wooly everlasting (*Gnaphalium palustre*), prostrate vervain (*Verbena bracteata*) and curve-pod yellow cress (*Rorippa curvisiliqua*) are common on the drying slopes of the larger ponds. Colorful, introduced species in the area, such as brass buttons and birds'-foot trefoil, probably will grow around the edges of some of these pools and ponds as they dry out later in the season. Through most of the growing season, these pools are rather drab, which may account for these rare and irreplaceable wetlands having attracted little attention until recent years.

Vernal flats, dominated by brown-headed rush and toad rush, often including ryegrass, appear to connect most of the pools located in the central section of the site north of the western unpaved access road. This central section is identified in Olson (1991) as the Pool P_{III}, Pool P_{IV} and Pool P_{VII} complexes.

On slightly higher ground, Mediterranean barley predominates, and on still higher ground, wild oat is the most important grass, but native bunchgrass (*Nassella pulchra*) is an important component. Small dunes within the central complex of vernal pools and vernal flats support these grasses, with scattered native and non-native herbs commonly found in the region. Two dense patches of a rush (*Juncus textilis*) grow partway up the windward face of the two largest dunes. The presence of this obligate wetland species indicates a perched water table within the dunes.

A population of large-flower linanthus (*Linanthus grandiflorus*) was found on the sandstone outcroppings among the vernal pools and flats immediately south and slightly southeast of the housing development. It also extends onto the lower slopes of the remnant dunes. This record is a significant addition to the upland flora within the vernal pool complexes. Large-flower linanthus has not been seen in Santa Barbara County, which is its southern range limit, for decades, and was believed extirpated (Skinner and Pavlik, 1994). The only collection did not specify the location within the Santa Maria Valley. The identification of this species has been confirmed by an expert in the genus (Wilken, 1995).

~~These vernal pool complexes, and the vernal flats that weave among them, should be protected from disturbance to the maximum extent possible, particularly while the soils are wet. These regionally rare and irreplaceable habitats are currently grazed by cattle. Selective herbivory may explain why some species, such as the herb, purselane speedwell (*Veronica peregrina* ssp. *xalapensis*), and the grasses, Howell's foxtail (*Allopecurus saccatus* [*A. howellii*]), Lemmon's canary grass (*Phalaris lemmonii*), and meadow barley (*Hordeum brachyantherum*) are considerably less abundant, or even rare, compared to other taxa, such as the tougher rushes and spikerushes, and tiny tufts of prostrate mudflat plants. Impacts from cattle include mechanical damage as well as herbivory, and many plants are probably crushed before they can reproduce. However, the mudflat plants apparently derive some benefit from deep hoofprints in the mud at pool margins, which produce small patches of wetter soil that are frequently densely covered by waterwort and water-starwort.~~

~~Site 22 contains some of the best examples of remnant Orcutt Terrace dune sheet features, including transverse dune topography and sandy hardpan conducive to vernal pool formation. Both of these features are responsible for the occurrence of unusual amphibian and reptile species that formerly were widespread in the Santa Maria Valley but are now largely eliminated from most sites throughout the Orcutt Upland. Field surveys in April and May located larvae of western spadefoot toads and tiger salamanders in vernal pools adjacent to and north of the western unpaved access road. These pools also supported large numbers of Pacific chorus frog larvae and several individuals of the common garter snake were found around these pools. Ephemeral pools formed in dune swales along the northeastern corner of this parcel also supported western spadefoot larvae, as well as one adult southwestern pond turtle. The formerly extensive seasonal and permanent watercourses in the area (e.g. Orcutt Creek and its tributaries, Green Canyon, and numerous vernal wetlands), supported populations of the California red-legged frog (*Rana aurora draytonii*), currently under review for federal endangered status. These more or less contiguous wetlands have largely been eliminated, however, scattered remnant populations of red-legged frogs apparently survive in drainages and stock ponds just north of Site 22 (Thompson, 1995). Several individuals were noted in Green Canyon in April and May, 1995. The recent cluster of sightings in this area suggests that California red-legged frogs may persist in other areas, including wetlands on Site 22. The sand hills surrounding these pools provide excellent habitat for the silvery legless lizard.~~

~~The pools are also used for foraging by a variety of shorebirds and ducks. Wetland associates recorded during the field surveys included the western grebe, great egret, snowy egret, green heron, mallard, northern pintail, cinnamon teal, gadwall, American widgeon, killdeer, black-~~



John Storrer

**SITE 22: Vernal Pond and dunes north of agricultural access road and south of housing development.
Looking northwest.**



John Storrer

SITE 22: Vernal Pond south of housing development; looking NW from agricultural access road.



~~necked stilt, lesser yellowlegs, whimbrel, and long-billed dowitcher. Orcutt Creek and its tributaries support occasional patches of emergent vegetation (e.g. bulrush, rush) that affords nesting habitat for red-winged and Brewer's blackbirds. Three wood ducks were found in flooded eucalyptus woodland in the northeast corner of the site.~~

~~Large tracts of annual grassland on Site 22 constitute prime foraging habitat for a number of birds. Species recorded during the field survey included the turkey vulture, white-tailed kite, red-tailed hawk, golden eagle, American kestrel, Cassin's kingbird, horned lark, cliff swallow, loggerhead shrike, red-winged blackbird, Western meadowlark, and Brewer's blackbird. Horned larks are restricted to sparse grassland communities for nesting. Black-tailed jackrabbits and ground squirrels are common in this area. They in turn provide food resources for predatory birds and mammals. Bobcat, badger, and mountain lion (*Felis concolor*) have been recently sighted on airport property adjacent to the northeastern corner of Site 22. Additionally, badger have been found dead alongside Black Road just north of Site 22 (Thompson, 1995). The biological sensitivity of Site 22 and its position as a key component in the regional network of wetlands and large tracts of open space, is demonstrated by the diversity of both site-specific amphibians and reptiles, as well as widely-foraging birds and large mammals found within and around this parcel. The terrain and its associated vegetation comprise prime habitat for the burrowing owl, a species that has declined dramatically in the Santa Barbara Region.~~

~~A stand of sandhill chaparral in the southeastern portion of Site 22 supports an entirely different avian assemblage. Species more typical of the chaparral scrub community were found here. Examples are the California quail, scrub jay, Bewick's wren, bushtit, golden-crowned sparrow, California towhee, and rufous-sided towhee.~~

Impacts and Mitigation Recommendations

Class I Impacts:

1) ~~Impact: Proposed development plans will result in permanent loss of wetlands south of the unpaved access road and east of Black Road, including a vernal pool, vernal flats, and freshwater marsh habitat. The large pond and associated freshwater marsh habitat, as well as the vernal pool west of this pond provide habitat for vernal pool indicator species. Additionally, these regionally rare wetlands provide important foraging and breeding habitat for a variety of animals, including shorebirds and waterfowl.~~

~~2) Impact: Residential and commercial development of the site will result in the permanent loss of foraging, breeding habitat, and retreat sites for a number of sensitive vertebrates, including western spadefoot toad, California tiger salamander, golden eagle, burrowing owl, white-tailed kite, horned lark, and American badger. The location of retreat sites for breeding amphibians is unknown, but is likely to be in rodent burrows in the low sand hills surrounding such wetlands.~~

Class II Impacts:

~~1) Impact: Residential development and associated vehicular and bicycle/pedestrian roadways, such as the proposed East Valley Parkway extension, will isolate critical breeding habitat from adjacent upland retreat sites for obligate vernal pool breeders, such as western spadefoot toad and California tiger salamander.~~

~~Mitigation: Re-route proposed roadways to coincide with existing roadways, wherever possible, to minimize habitat fragmentation. Locate proposed residential development adjacent to existing roadways. This recommendation also pertains to bikeways and pedestrian walkways, which should be aligned adjacent to existing roadways. Also see Mitigation Recommendation 3 below.~~

~~2) Impact: Proposed residential development will result in the loss of sandhill chaparral habitat in the northeastern portions of the parcel, which currently supports the following sensitive species: coast live oak, sand mesa manzanita, Purisima manzanita, San Luis Obispo wallflower, Blochman's groundsel, Blochman's leafy daisy, California spineflower, curly-leafed monardella, California spineflower, southwestern pond turtle, western spadefoot, California tiger salamander, coast horned lizard, and silvery legless lizard.~~

~~Mitigation: The sandhill chaparral habitat in the northeastern portion of the parcel should be preserved as open space because of the limited local and regional occurrence of this habitat type and the relatively intact indigenous flora and fauna which it currently supports. This open space would tie into existing open space on airport property to the north.~~

~~3) Impact: Development will result in the loss of important vernal wetlands and freshwater marsh habitat, which provides critical foraging and breeding habitat for the western spadefoot and California tiger salamander, as well as a number of shorebirds and waterfowl, such as black-necked stilt, killdeer, and cinnamon teal.~~

~~Mitigation: The northwestern and north-central portions of the parcel, which contain most of the vernal wetlands and freshwater marsh habitat, should be preserved as open space. These areas would be contiguous with adjacent open space containing vernal wetlands on airport property to the north and northeast. The southern edge of the development buffer should be at least 500 south of the northernmost tributary of Orcutt Creek on the site (Appendix 1). In the absence of site-specific information on the location of retreat sites for adult western spadefoots, California tiger salamanders, southwestern pond turtles, and other vertebrates, this buffer will likely preserve the integrity of these wetlands and ensure that critical upland retreat sites are protected.~~

~~A vernal wetland management plan should be prepared prior to development in order to formulate management criteria, and develop a program for public education. A critical component of the plan would be funding for research into site-specific habitat use and seasonal movements of adult spadefoot toads and tiger salamanders, as well as additional field surveys to determine the local and regional distribution of these two species within the Santa Maria Valley. The management plan should also develop a program designed to educate the local residents and schools of the unique attributes of these vernal wetlands and the flora and fauna they support.~~

~~4) Impact: Residential development will directly and indirectly impact vernal wetlands and sandhill chaparral habitat due to urban influences such as increased noise, increased human presence (especially children), feral and domestic cats and dogs, artificial lighting, and surface runoff from streets.~~

~~Mitigation: The preservation area that includes the vernal pool complex in the northwestern and north-central portions of the parcel, and the sandhill chaparral habitat in the northeastern portion of the parcel, should be fenced to limit public access, as well as feral and domestic cats and dogs. Cattle should be removed. Appropriate signage and education programs would inform the public of the unique attributes of these habitats and their sensitivity to disturbance.~~

~~Surface runoff from adjacent residential development should be directed away from the Orcutt Creek drainage area. Lighting should be directed inward, towards the proposed development and away from open space.~~

~~5) Impact: Orcutt Creek and its riparian corridor will be further degraded by adjacent residential and commercial development.~~

~~Mitigation: A structural setback of at least 150 feet, measured from both sides of the top of the bank of Orcutt Creek, should be established to maintain habitat continuity along this riparian corridor. Restoration of willow riparian forest and forested wetland habitats associated with the Orcutt Creek riparian corridor would help to retain and possibly improve wildlife values.~~

Fire Hazard Management Recommendations

Although a hazard for developments, fire is an integral part of the ecology of the plant communities in Southern California. Many plants within the scrub and chaparral communities contain flammable oils and resins, which promote drought tolerance. These shrubs have evolved an assemblage of adaptations that permit regeneration within a few years following fires. Some species are capable of beginning woody growth almost immediately, by sprouting from burls, using food reserves stored in the roots. Others depend on enhanced seed germination, and begin growth with the onset of the rainy season. A subset of the herbaceous and sub-shrub flora is dependent on fire to initiate seed germination (Hanes, 1977). These annual and short-lived species have long-lived seed, but depend on periodic fires for significant seed bank replenishment. According to Odion (1995), the ceanothus species in the sandhill chaparral are examples of relatively short-lived shrubs that depend on periodic fires to regenerate. Without fire, or an alternate mechanism to stimulate seed germination, there is little replacement of senescent shrubs.

A program of controlled burning should be planned for shrub and chaparral habitats preserved in open space within the Orcutt Planning Area. Factors to consider in planning controlled burns include fuel load and consequent soil temperatures. Cool fires do not successfully germinate many seeds. Although the least favorable time of year from the standpoint of weather, controlled burns should only be conducted when the soil is very dry. If the upper several inches of soil are moist, fire will kill roots and seeds.

According to Odion (1995), now that controlled burning is an acceptable (but still relatively new) management tool, there is a tendency to set burn schedules at every twenty years. In Odion's opinion, this is too frequent. The rate of fuel load increase drops after twenty years. Since these plant communities can be harmed by fires at too frequent intervals, and the incidence of accidental and arson-caused fires will increase with increased development, longer planned intervals between burns is recommended.

Another important consideration is that the primary objective of maintaining an open space corridor along Orcutt Creek is to provide habitat and cover for wildlife. If burns are planned for the creek, they should be implemented in small areas to avoid significant adverse effects on wildlife movement and habitat integrity in the corridor.

Oak woodlands along stream corridors usually do not carry fire well (Odion, 1995). Common fire prevention practices include clearing underbrush and downed wood, and trimming away dead limbs. However, these components of the habitat are necessary to maintain a viable corridor for a high diversity of the wildlife species.

The prevailing winds in the Santa Maria Valley are from the northwest, which would tend to carry fires in the open lands south of Orcutt up into the Solomon Hills. The Solomon Hills do not promote strong downcanyon winds that develop during hot weather along the southern face of the Santa Ynez Mountains, and which threaten development in that region. The only other regular wind pattern is a strong offshore flow, that moves across the valley from the northeast when a high pressure cell develops in the interior. Although this pattern can develop at any time of year, it is most common in the dry summer and fall months (Evans, 1995). Both wind patterns could carry fire from the open lands north of Orcutt into developed areas. High winds also would assist fire in the oak woodland and eucalyptus windrows of Orcutt Creek to move upslope to the housing developments located there.

The following recommendations are submitted in order to provide protection for new developments located near sensitive plant communities and wildlife habitat corridors:

- 1) New developments on both public and private lands adjacent to open lands shall be sited, designed and constructed with maximum fire safely precautions including, but not limited to, paved roads on the perimeter between development and open lands. All sites except Key Sites 18 and 30 are located adjacent to open lands.
- 2) Class A roofs shall be required for all new developments.
- 3) The County should adopt a roof retrofit program for existing structures near the perimeter of the urban/wildland interface. Replacement roofing should be Class A.
- 4) Structural setbacks shall be required as recommended in the Key Site descriptions, above, between new developments and the outside edge of chaparral, scrub, and oak woodland

communities. A 150 foot structural setback shall be required for new developments that are adjacent to grasslands.

- 5) Any fencing within these structural setbacks shall be composed of non-flammable material.
- 6) Include planned access points for fire-fighting equipment though developments adjacent to Orcutt Creek on sites that support woody vegetation. As an alternative to gated, rarely used fire lanes, these access ways could also function as a combination of bicycle and foot paths to link to planned bicycle and foot trails.
- 7) A perimeter road would provide a fuel-free strip around the development and provide access for fire-fighting equipment. A planned trail system could maintain access to the native vegetation through the fuelbreak.
- 8) Where open grasslands abut development a 100-foot wide strip within the development area should be mowed, rather than disked, along the perimeter of the development. Mowing should be scheduled for late June to allow sensitive amphibian species to complete dispersal to retreat sites.
- 9) Type A (non-flammable) roofs should be required for buildings adjacent to oak woodland, scrubland, chaparral, eucalyptus woodland and open grassland.

Cumulative Impacts

Despite full adoption of the mitigations recommended above, the following residual and cumulative impacts will accrue. These unavoidable impacts will result in the elimination and/or degradation of plant and animal populations and habitat throughout the project area.

- 1) Increased domestic and feral cat and dog populations around proposed residential and commercial developments will significantly impact native wildlife species.
- 2) Increased human presence around proposed residential and commercial development, including bicycle and pedestrian bikeways and trails, will impact plant and animal

populations, especially where such developments and uses occur adjacent to narrow habitat corridors, such as Orcutt Creek and Pine Creek.

Uncontrolled pedestrian traffic and off-road bicycle and motorized vehicles will seriously degrade highly erosive sandy substrates (e.g., sand hills on Site 30), resulting in the loss of habitat values in designated open space on all parcels.

- 3) Development throughout the project area will result in additional regional habitat loss and fragmentation and extend development impacts further into the north slope of the Solomon Hills.
- 4) Non-native plant intrusion will accompany development throughout the project area, requiring control efforts, especially along riparian corridors.
- 5) Piecemeal loss of small stands or populations of endemic plant species now on watch lists (e.g., local concern and CNPS 4) will eventually result in their qualification for listing.
- 6) Loss of wetlands, including freshwater marsh and a vernal pool.

A number of parcels in the Orcutt Planning Area were not included in this study. The effectiveness of mitigation measures proposed herein to maintain wildlife corridors and contiguous habitats are contingent upon placement of comparable development constraints on those parcels outside the purview of this study.

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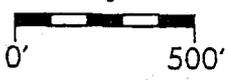
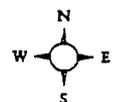
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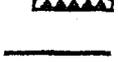
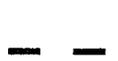
APPENDIX 1

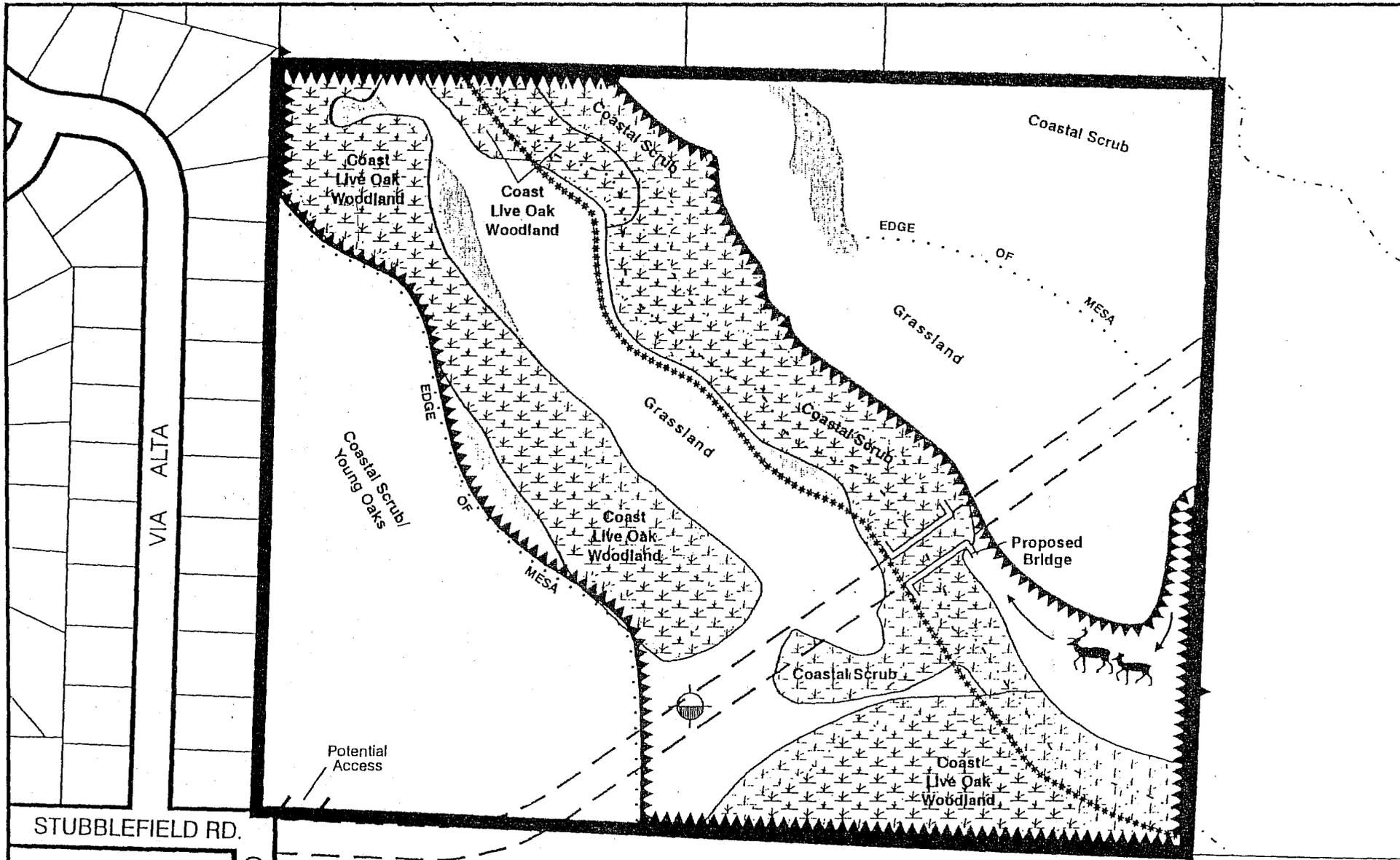
KEY SITE MAPS



SITE #3 Smith



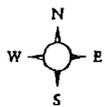
-  BLUFF
-  SIGNIFICANT HABITAT
-  > 30% SLOPE
-  100 YEAR FLOOD HAZARD AREA
-  DRY ABANDONED OIL WELL
-  OPEN SPACE OVERLAY
-  NOISE CONTOUR
-  PROPOSED URBAN BOUNDARY
-  PROPOSED RURAL BOUNDARY
-  PROPOSED TRAIL
-  PROPOSED CLASS I BIKEWAY & TRAIL



STUBBLEFIELD RD.

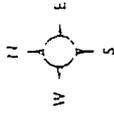
VIA ALTA

COUNTY ROAD



-  > 30% SLOPE
-  SIGNIFICANT HABITAT
-  OPEN SPACE OVERLAY
-  PLUGGED & ABANDONED DRY HOLE
-  PROPOSED TRAIL
-  PROPOSED EXTENSION OF STUBBLEFIELD ROAD

SITE #7
Kelly



AVE

KEN

ROAD

HARP

RD.

BRADLEY

VIA

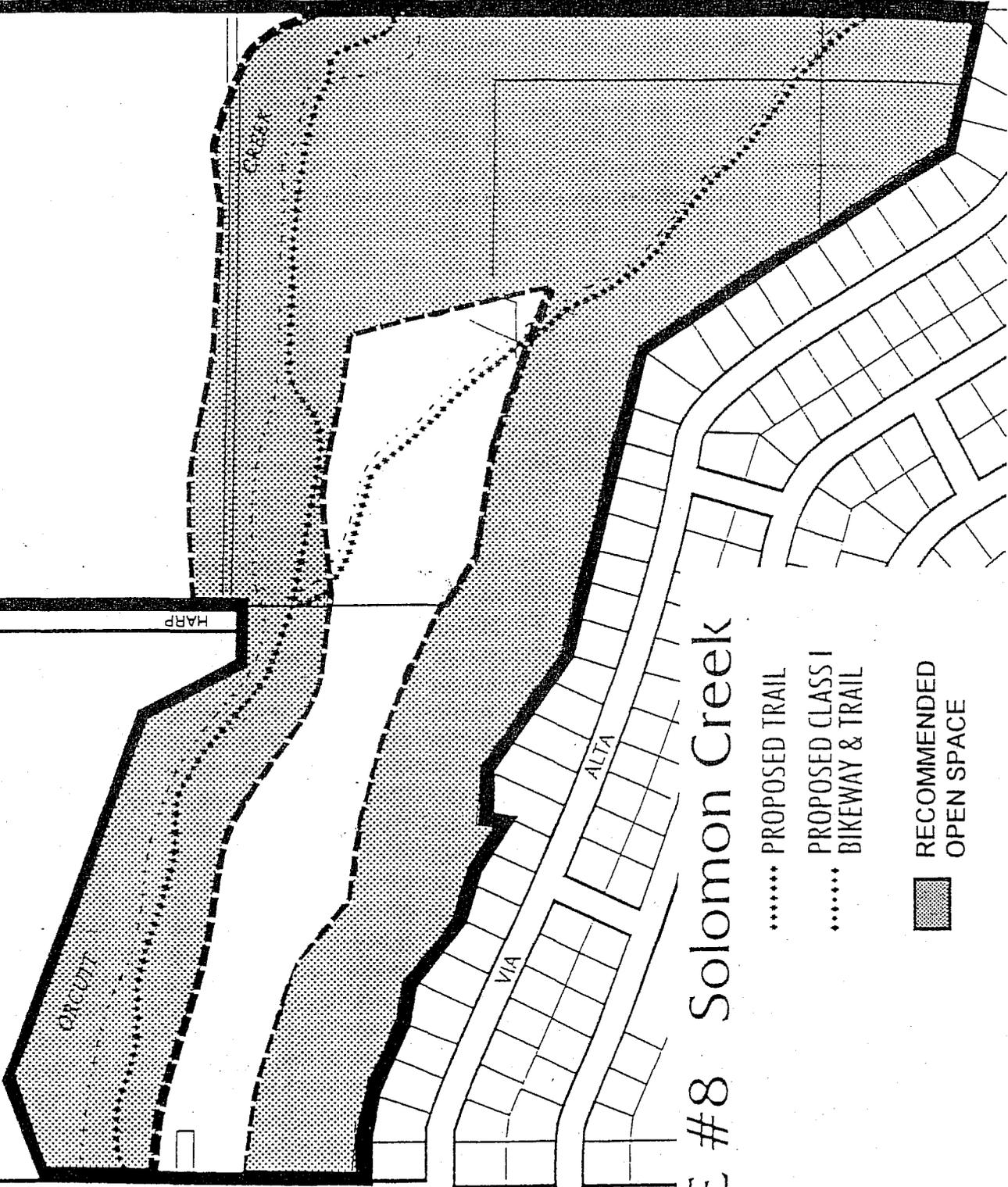
ALTA

SITE #8 Solomon Creek

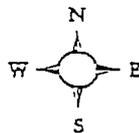
..... PROPOSED TRAIL

..... PROPOSED CLASS I
BIKEWAY & TRAIL

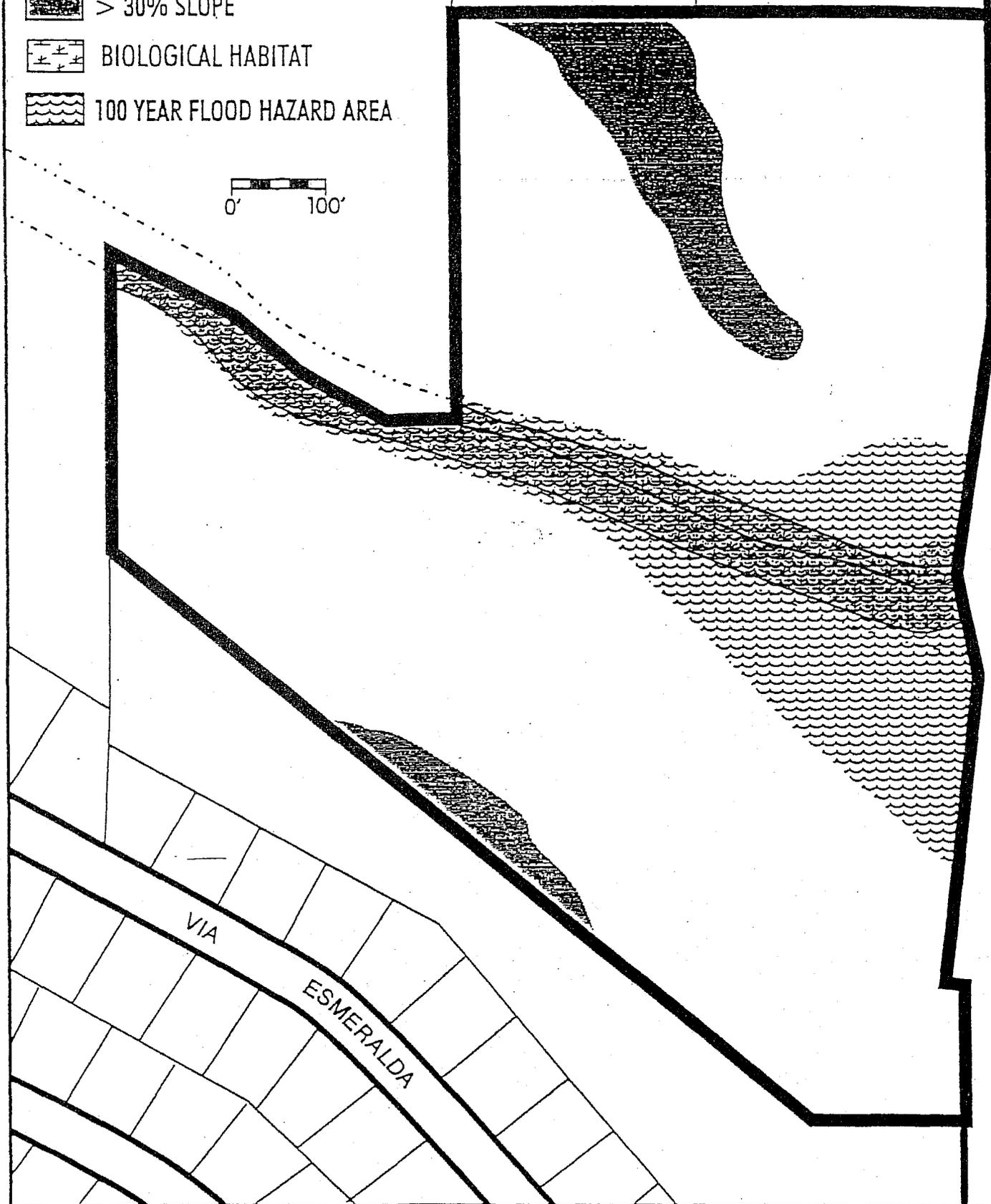
RECOMMENDED
OPEN SPACE



SITE # 10 Bowers/Rees



-  > 30% SLOPE
-  BIOLOGICAL HABITAT
-  100 YEAR FLOOD HAZARD AREA



RD.

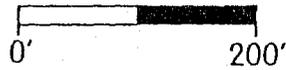
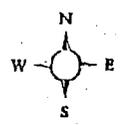
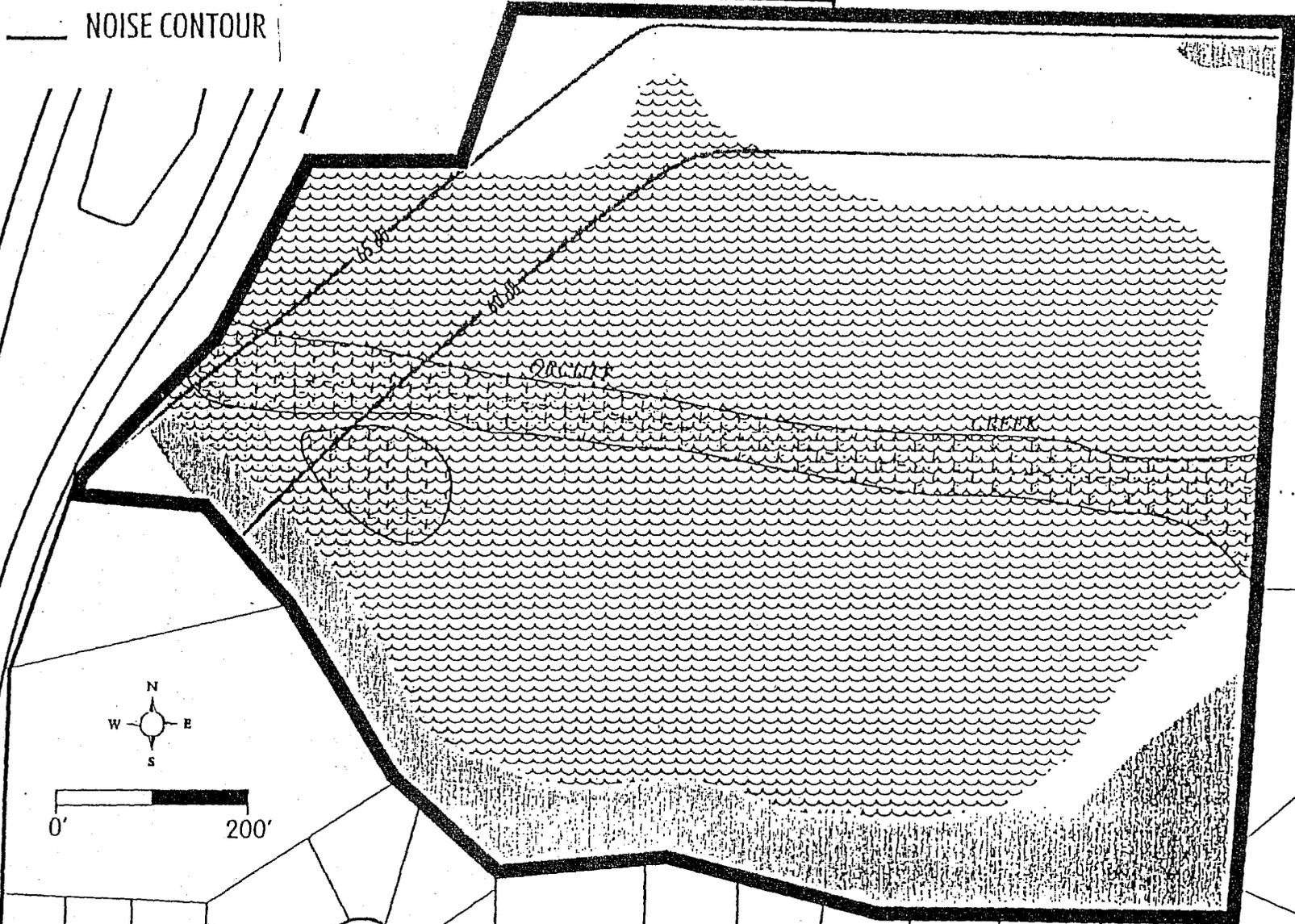
BRADLEY

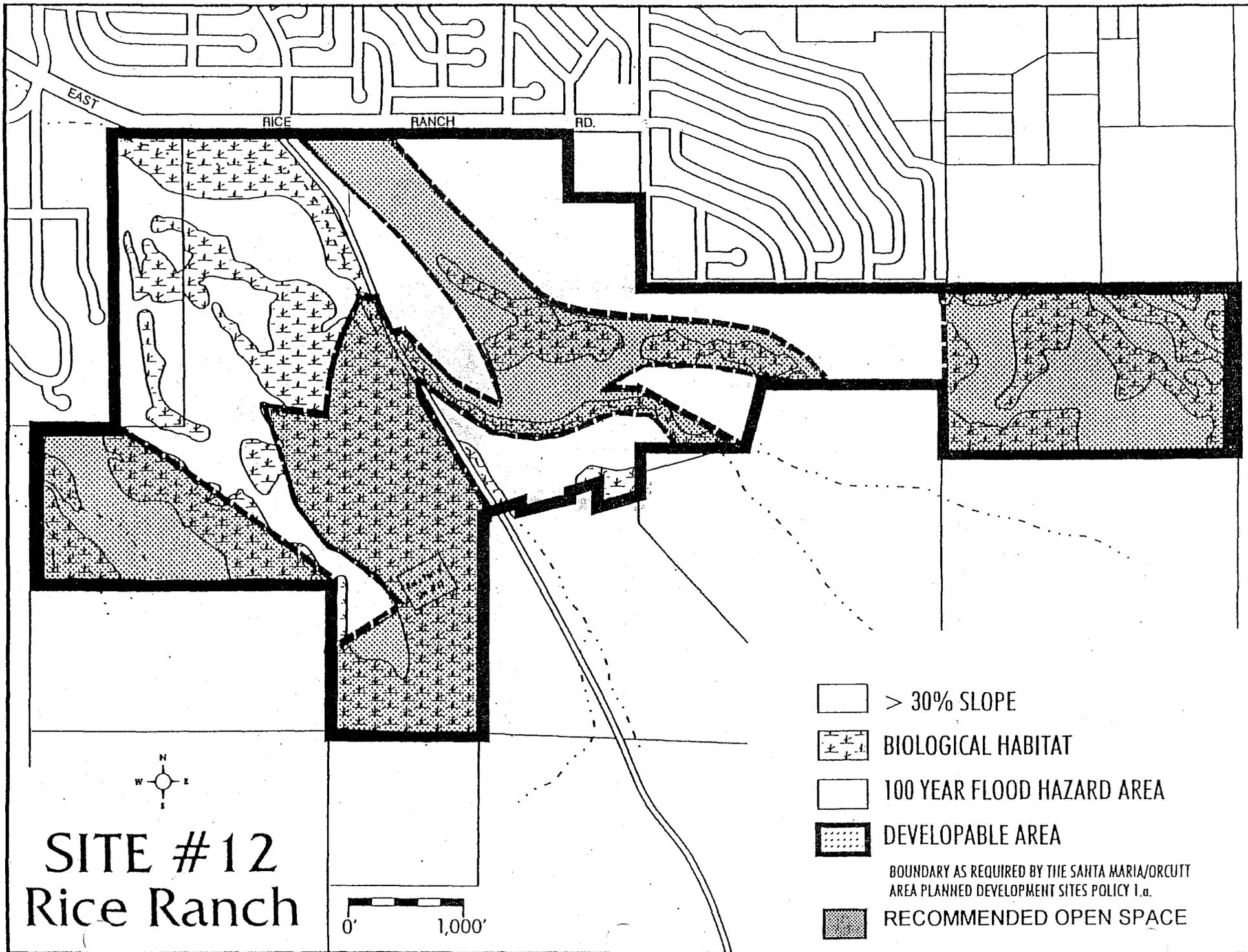
STATE HIGHWAY 135

SITE # 11 George

CLARK AVE.

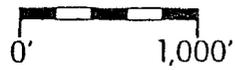
-  > 30% SLOPE
-  BIOLOGICAL HABITAT
-  100 YEAR FLOOD HAZARD AREA
-  NOISE CONTOUR



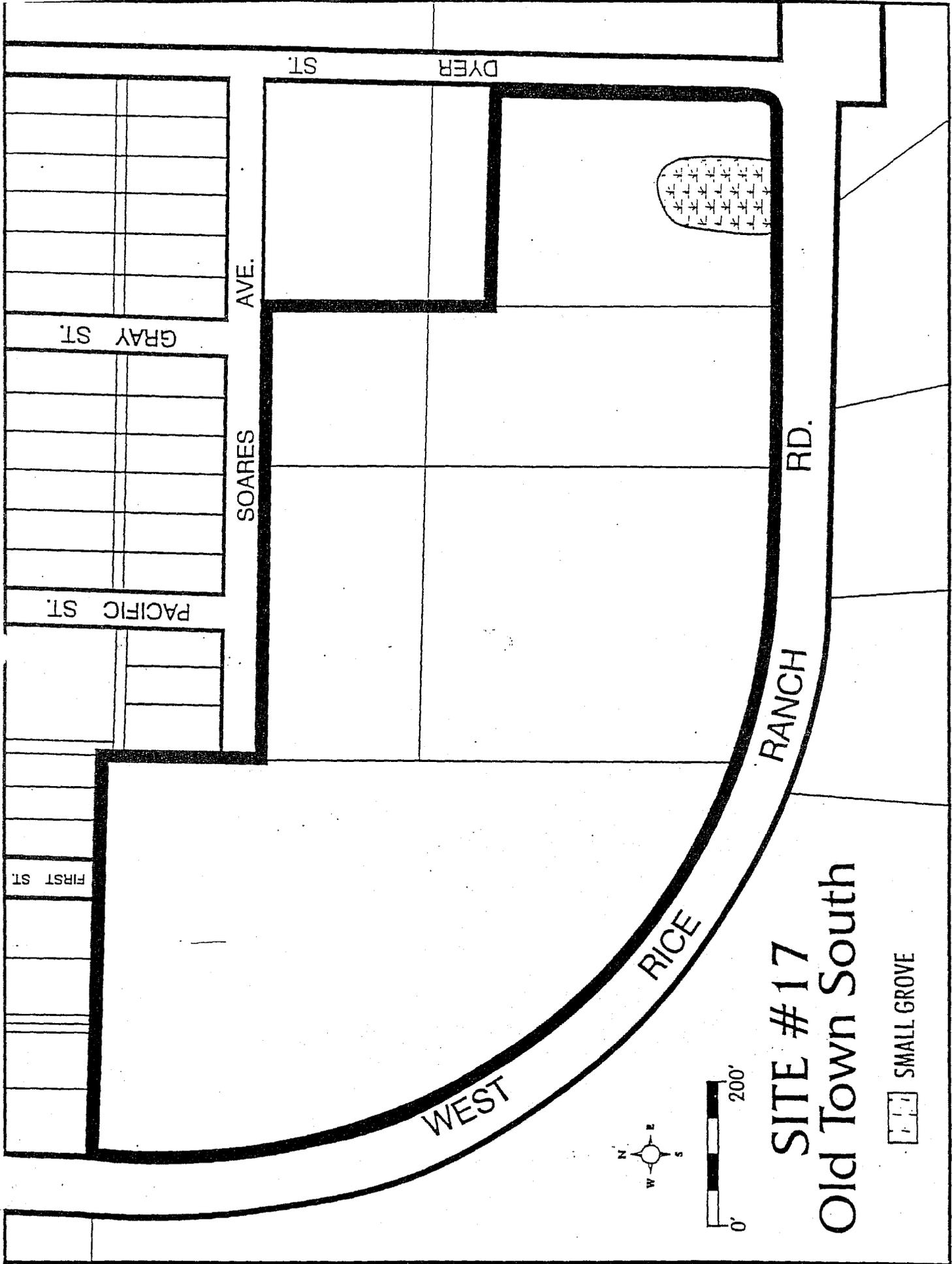


EAST RICE RANCH RD.

SITE #12
Rice Ranch

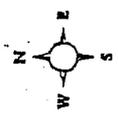


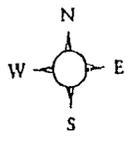
-  > 30% SLOPE
 -  BIOLOGICAL HABITAT
 -  100 YEAR FLOOD HAZARD AREA
 -  DEVELOPABLE AREA
 -  RECOMMENDED OPEN SPACE
- BOUNDARY AS REQUIRED BY THE SANTA MARIA/ORCUTT
AREA PLANNED DEVELOPMENT SITES POLICY 1.a.



SITE #17
Old Town South

 SMALL GROVE





CALIFORNIA BLVD.

STANSBURY DR.

DR.

HARTNELL ST.

ST.

ORCUTT CREEK

CREEK

ST.

CLARK AVE.

AVE.

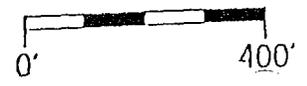
GRAY

ROAD

ORCUTT

SITE #18 Southpoint

-  > 30% SLOPE
-  BIOLOGICAL HABITAT
-  100 YEAR FLOOD HAZARD AREA
-  NOISE CONTOUR



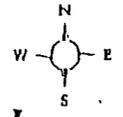
REPLACEMENT PAGE

APPENDIX C SITE #22 MAP

SITE #22 MAP removed by Resolution # _____ of the Board of Supervisors in compliance with court ruling in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452)

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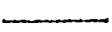
SITE #30 Union Oil/Bradley



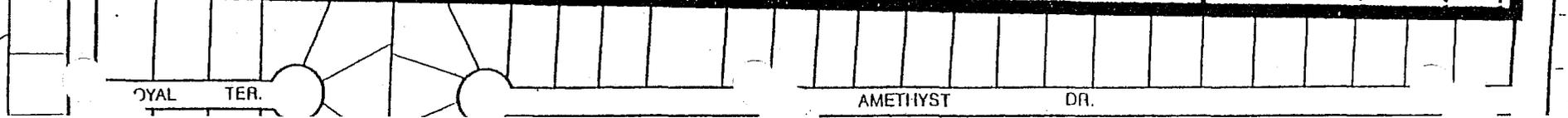
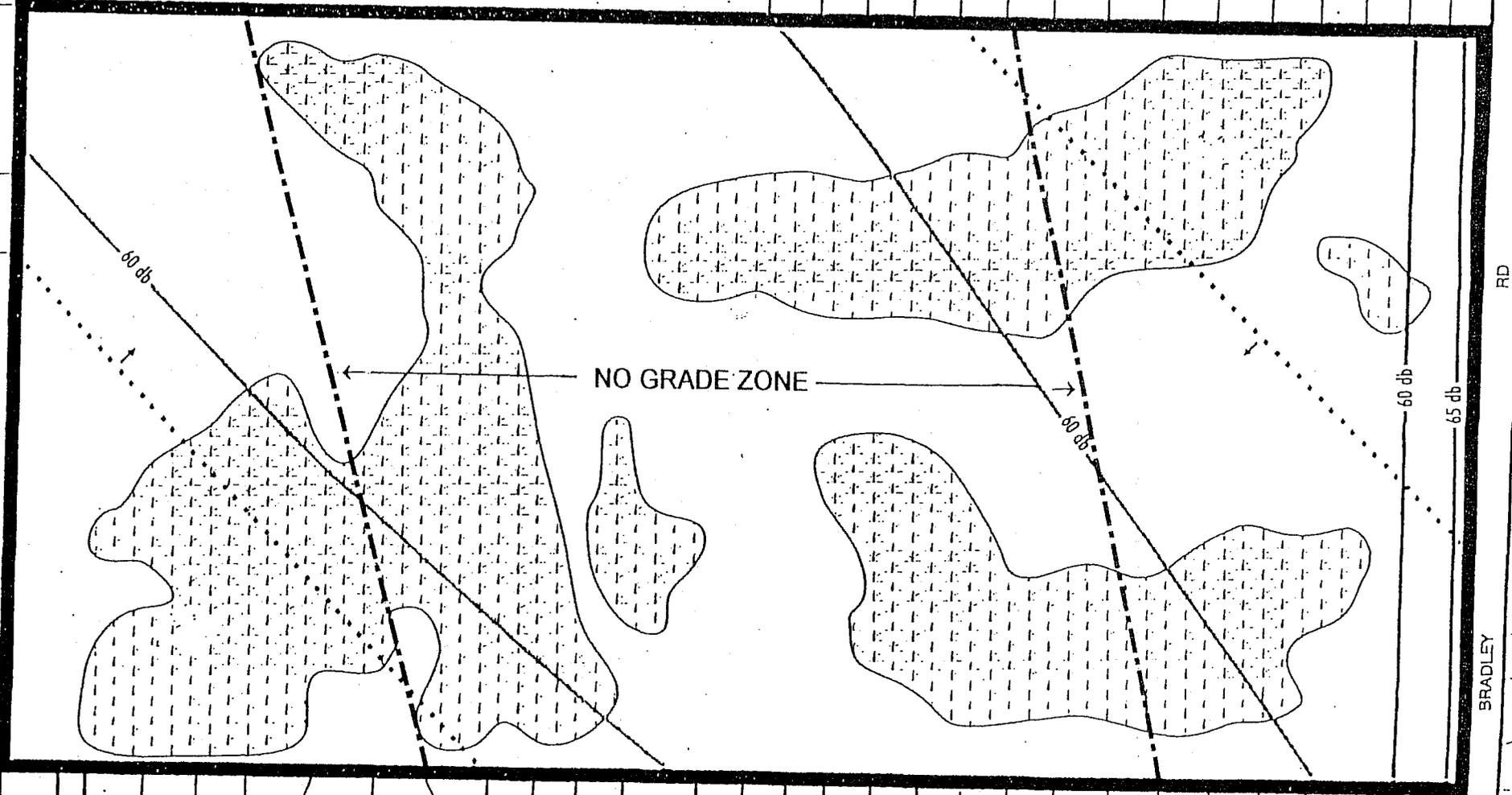
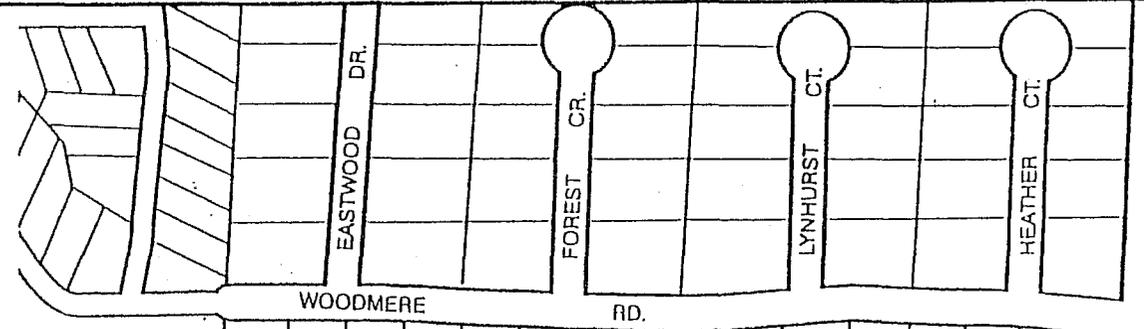
DUNE SCRUB HABITAT



AIRPORT NO BUILD CORRIDOR

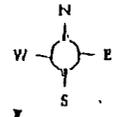


NOISE CONTOUR



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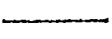
SITE #30 Union Oil/Bradley



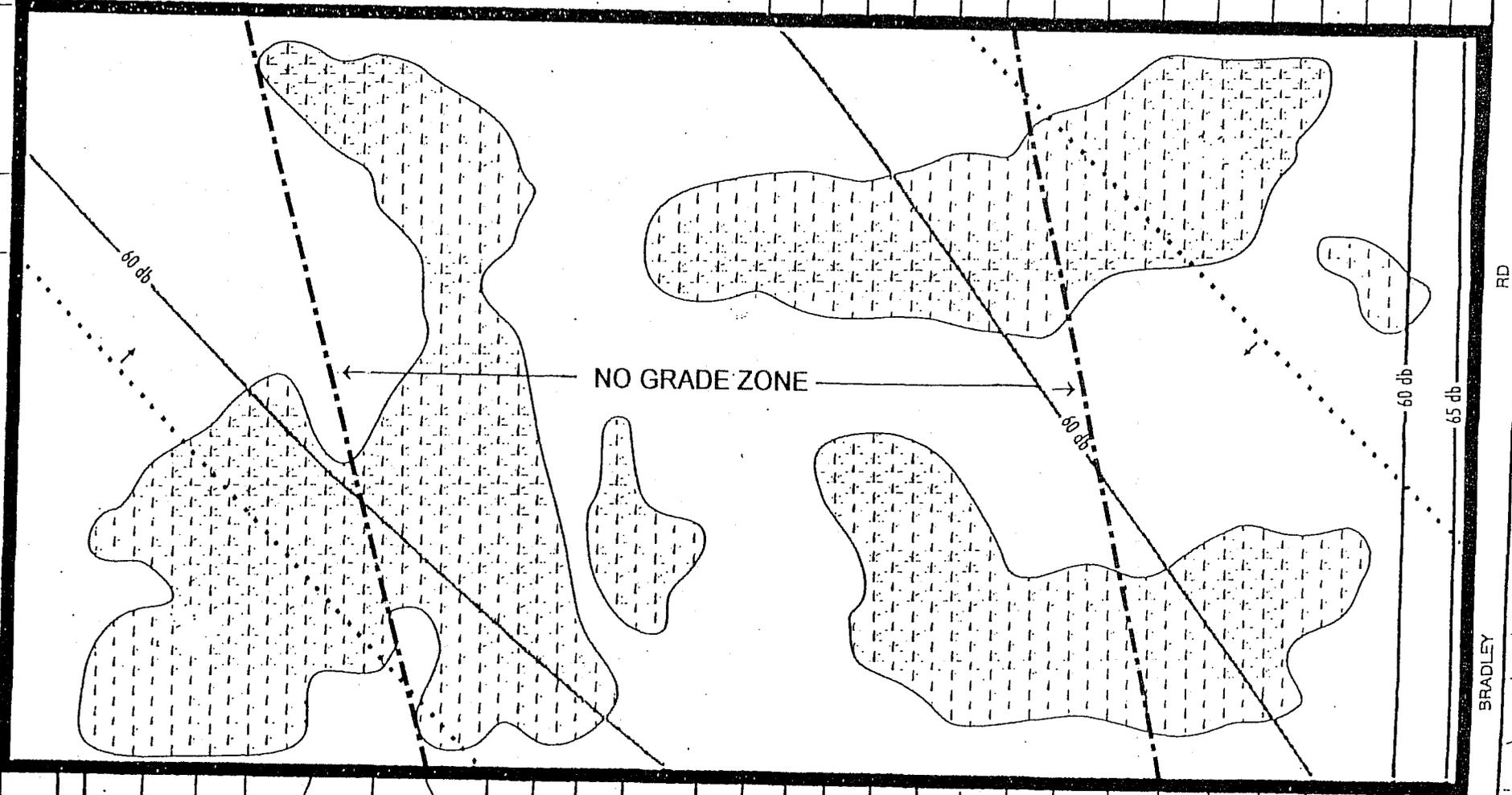
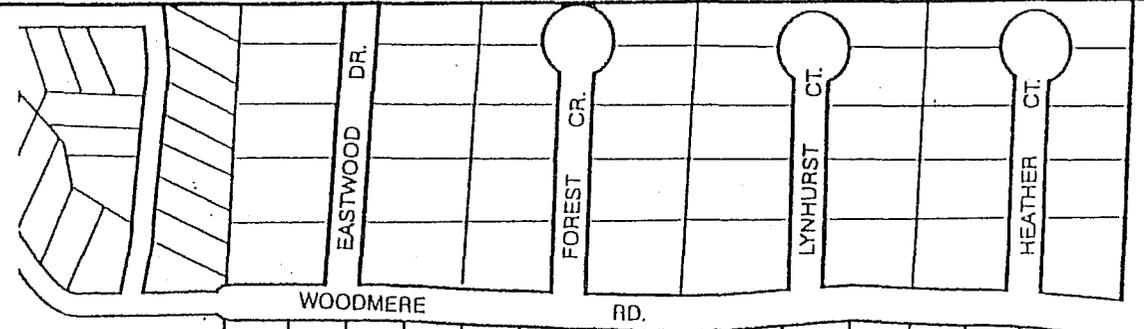
DUNE SCRUB HABITAT



AIRPORT NO BUILD CORRIDOR



NOISE CONTOUR



NO GRADE ZONE

OYAL TER.

AMETHYST DR.

BRADLEY RD.

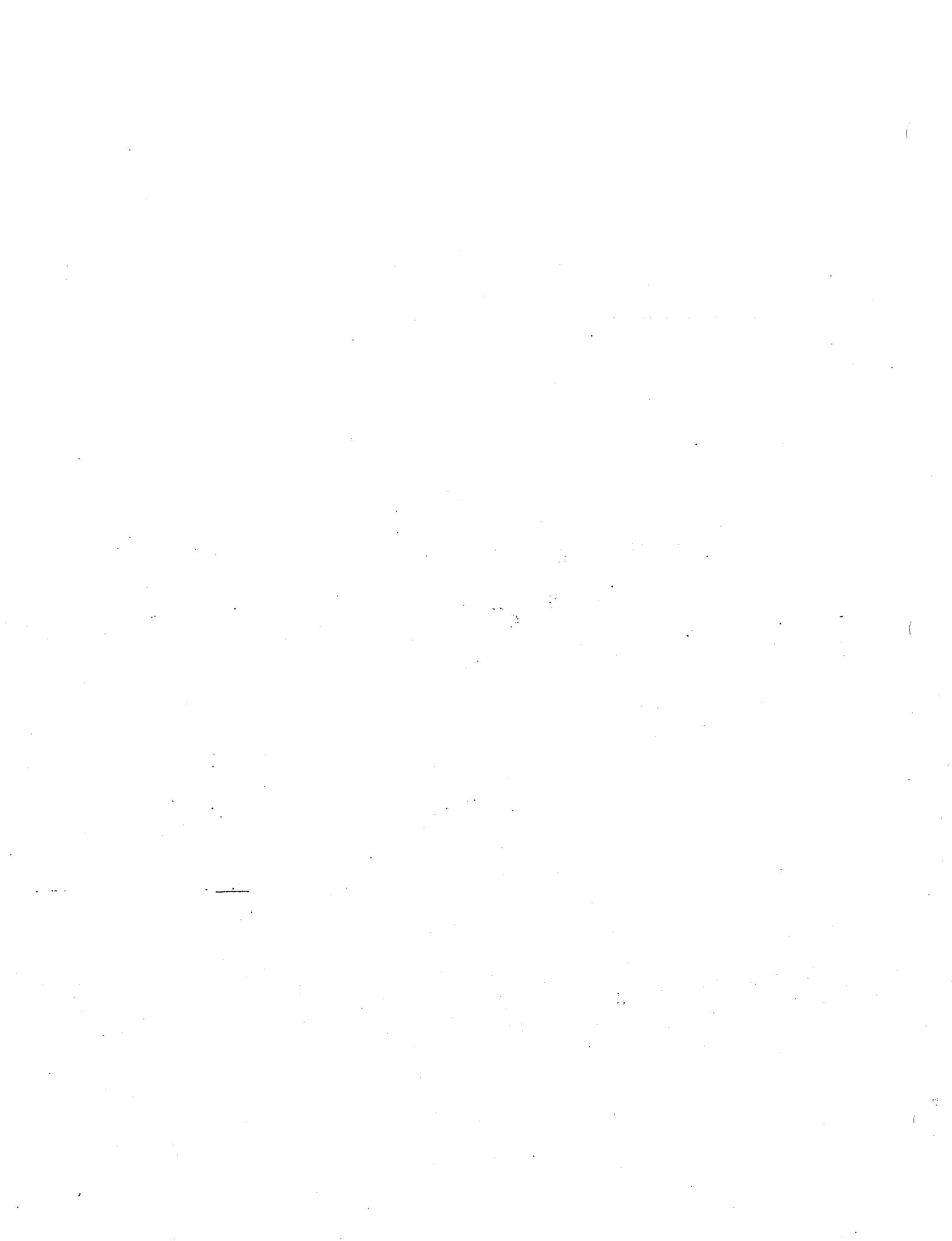
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APPENDIX 2

VERTEBRATE SPECIES WITH DOCUMENTED OCCURRENCE

IN THE ORCUTT PLANNING AREA



Appendix 2

Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
Birds (Aves)												
Grebes (Podicipedidae)												
Western Grebe (<i>Aechmophorus occidentalis</i>)									X		VP, FM	T
Herons and Egrets (Ardeidae)												
Great Egret (<i>Casmerodius albus</i>)									X		G, VP, RW, FM	T
Snowy Egret (<i>Egretta thula</i>)									X		VP, RW, FM	T
Green Heron (<i>Butorides virescens</i>)									X		G, VP, RW, FM	T
Ducks and Geese (Anatidae)												
Wood Duck (<i>Aix sponsa</i>)									X		VP, RW, FM	T
Mallard (<i>Anas platyrhynchos</i>)					X				X		VP, RW, FM	RB
Northern Pintail (<i>Anas acuta</i>)									X		VP, RW, FM	T
Cinnamon Teal (<i>Anas cyanoptera</i>)									X		VP, FM	RB
Gadwall (<i>Anas strepera</i>)									X		VP, FM	RB
American Widgeon (<i>Anas americana</i>)									X		VP, FM	T
American Vultures (Cathartidae)												
Turkey Vulture (<i>Cathartes aura</i>)	X			X		X			X		All Habitats	T
Hawks (Accipitridae)												
White-tailed Kite (<i>Elanus leucurus</i>)	X								X		All Habitats	RB
Cooper's Hawk (<i>Accipiter cooperi</i>)	X										All Habitats	RB
Red-shouldered Hawk (<i>Buteo lineatus</i>)	X			X		X					All Habitats	RB
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	X		X			X			X	X	All Habitats	RB
Golden Eagle (<i>Aquila chrysaetos</i>)									X		All Habitats	T
Falcons (Falconidae)												
American Kestrel (<i>Falco sparverius</i>)	X					X		X	X	X	All Habitats	RB

Appendix 2: Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
Partridges, Grouse, Turkeys, and Quail (Phasianidae)												
California Quail (<i>Callipepla californica</i>)	X		X			X			X		CS, C, OW, RW	RB
Plovers (Charadriidae)												
Killdeer (<i>Charadrius vociferus</i>)					X	X	X	X	X		G, VP, RW, FM	RB
Stilts and Avocets (Recurvirostridae)												
Black-necked Stilt (<i>Himantopus mexicanus</i>)									X		VP, FM	T
Sandpipers (Scolopacidae)												
Greater Yellowlegs (<i>Tringa melanoleuca</i>)									X		VP, FM	T
Lesser Yellowlegs (<i>Tringa flavipes</i>)									X		VP, FM	T
Whimbrel (<i>Numenius phaeopus</i>)									X		G, VP, FM	T
Long-billed Dowitcher (<i>Limnodromus scolopaceus</i>)									X		VP, FM	T
Pigeons and Doves (Columbidae)												
Rock Dove (<i>Columba livia</i>)						X					All Habitats	RB
Mourning Dove (<i>Zenaida macroura</i>)						X		X	X	X	All Habitats	RB
Barn Owls (Tytonidae)												
Barn Owl (<i>Tyto alba</i>)						X					All Habitats	RB
Typical Owls (Strigidae)												
Great Horned Owl (<i>Bubo virginianus</i>)						X					All Habitats	RB
Hummingbirds (Trochilidae)												
Anna's Hummingbird (<i>Calypte anna</i>)	X	X	X	X		X			X		CS, C, OW, RW	RB
Woodpeckers (Picidae)												
Nuttall's Woodpecker (<i>Picoides nuttallii</i>)	X		X	X		X			X		CS, C, OW, RW	RB
Downy Woodpecker (<i>Picoides pubescens</i>)	X							X			OW, RW	RB
Northern Flicker (<i>Colaptes auratus</i>)		X				X					CS, C, OW, RW	RB
Tyrant Flycatchers (Tyrannidae)												
Olive-sided Flycatcher (<i>Contopus borealis</i>)			X								OW, RW	T
Western Wood-pewee (<i>Contopus sordidulus</i>)	X										OW, RW	SV
Pacific-slope Flycatcher (<i>Empidonax difficilis</i>)	X		X	X		X					OW, RW	SV
Black Phoebe (<i>Sayornis nigricans</i>)	X		X			X					VP, FM, OW, RW	RB

Appendix 2: Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>)	X					X					CS, C, OW, RW	SV
Cassin's Kingbird (<i>Tyrannus vociferans</i>)	X					X			X		G, OW, RW	SV
Western Kingbird (<i>Tyrannus verticalis</i>)										X	G, OW, RW	SV
Larks (Alaudidae)												
Horned Lark (<i>Eremophila alpestris</i>)									X	X	G	RB
Swallows (Hirundinidae)												
Barn Swallow (<i>Hirundo rustica</i>)				X		X			X		All Habitats	SV
Cliff Swallow (<i>Hirundo pyrrhonota</i>)					X	X	X	X	X		All Habitats	SV
Violet-green Swallow (<i>Tachycineta thalassina</i>)						X					All Habitats	SV
Jays, Magpies, and Crows (Corvidae)												
Scrub Jay (<i>Aphelocoma coerulescens</i>)	X	X	X			X			X		CS, C, OW, RW	RB
American Crow (<i>Corvus brachyrhynchos</i>)	X		X	X	X	X	X	X	X		All Habitats	RB
Titmice (Paridae)												
Plain Titmouse (<i>Parus inornatus</i>)	X		X			X					OW, RW	RB
Bushtits (Aegithalidae)												
Bushtit (<i>Psaltriparus minimus</i>)	X		X			X		X	X		C, CS, OW, RW	RB
Wrens (Troglodytidae)												
Bewick's Wren (<i>Thryomanes bewickii</i>)	X		X			X			X		C, CS, OW	RB
House Wren (<i>Troglodytes aedon</i>)	X					X					OW, RW	SV
Marsh Wren (<i>Cistothorus palustris</i>)									X		FM	RB
Old World Warblers, Thrushes, and Wrentit (Muscicapidae)												
Blue-gray Gnatcatcher (<i>Poliophtila caerulea</i>)	X	X		X		X					C, CS, OW, RW	RB
Western Bluebird (<i>Sialia mexicana</i>)			X			X					G, OW, RW	RB
American Robin (<i>Turdus migratorius</i>)		X				X					G, OW, RW	RB
Wrentit (<i>Chamaea fasciata</i>)	X	X	X			X					C, CS, OW, RW	RB
Mockingbirds and Thrashers (Mimidae)												
Northern Mockingbird (<i>Mimus polyglottos</i>)			X	X				X		X	G, OW, RW	RB
California Thrasher (<i>Toxostoma redivivum</i>)	X					X					C, CS	RB

Appendix 2: Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
Shrikes (Laniidae)												
Loggerhead Shrike (<i>Lanius ludovicianus</i>)								X	X	X	G, CS, C, OW	RB
Starlings (Sturnidae)												
European Starling (<i>Sturnus vulgaris</i>)	X	X	X			X	X		X	X	All Habitats	
Vireos (Vireonidae)												
Hutton's Vireo (<i>Vireo huttoni</i>)	X	X	X			X					OW, RW	RB
Warbling Vireo (<i>Vireo gilvus</i>)	X		X			X					OW, RW	SV
Wood Warblers, Tanagers, Grosbeaks, Sparrows, and Blackbirds (Emberizidae)												
Orange-crowned Warbler (<i>Vermivora celata</i>)	X					X					CS, C, OW, RW	SV
Yellow-rumped Warbler (<i>Dendroica coronata</i>)						X		X			All Habitats	WV
Wilson's Warbler (<i>Wilsonia pusilla</i>)									X		CS, C, OW, RW	T
Western Tanager (<i>Piranga ludoviciana</i>)	X		X								OW, RW	T
Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>)						X					CS, C, OW, RW	SV
Lazuli Bunting (<i>Passerina amoena</i>)	X										CS, C, OW, RW	SV
Rufous-sided Towhee (<i>Pipilo erythrophthalmus</i>)	X	X	X			X			X		CS, C, OW, RW	RB
California Towhee (<i>Pipilo crissalis</i>)	X	X	X	X		X			X		CS, C, OW, RW	RB
Lark Sparrow (<i>Chondestes grammacus</i>)						X					G, CS, C, OW, RW	RB
Song Sparrow (<i>Melospiza melodia</i>)					X	X		X	X		OW, RW, FM	RB
Golden-crowned Sparrow (<i>Zonotrichia atricapilla</i>)		X				X			X		CS, C, OW, RW	SV
White-crowned Sparrow (<i>Zonotrichia leucophrys</i>)	X			X							CS, C, OW, RW	SV
Dark-eyed Junco (<i>Junco hyemalis</i>)	X					X					CS, C, OW, RW	RB
Red-winged Blackbird (<i>Agelaius phoeniceus</i>)	X				X	X			X		All Habitats	RB
Western Meadowlark (<i>Sturnella neglecta</i>)	X					X	X		X	X	G	RB
Brewer's Blackbird (<i>Euphagus cyanocephalus</i>)				X		X			X	X	All Habitats	RB
Hooded Oriole (<i>Icterus cucullatus</i>)			X								OW, RW	RB
Northern Oriole (<i>Icterus galbula</i>)	X		X			X					OW, RW	SV
Cardueline Finches (Fringillidae)												
House Finch (<i>Carpodacus mexicanus</i>)	X	X	X			X		X	X	X	All Habitats	RB
Lesser Goldfinch (<i>Carduelis psaltria</i>)	X	X	X			X			X		All Habitats	RB

Appendix 2: Vertebrate Species with Documented Occurrence in the Co. cutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
Lawrence's Goldfinch (<i>Carduelis lawrencei</i>)	X											All Habitats	RB
American Goldfinch (<i>Carduelis tristis</i>)									X			All Habitats	RB

Taxa	Occurrence at Key Sites										Habitat ²	
	3	7	8	10	11	12	17	18	22	30		
<u>Mammals (Mammalia)</u>												
Rabbits and Hares (Leporidae)												
Desert Cottontail (<i>Sylvilagus audubonii</i>)	X					X			X			G, CS, C, OW, RW
Brush Rabbit (<i>Sylvilagus bachmani</i>)	X					X			X			G, CS, C, OW, RW
Black-tailed Jackrabbit (<i>Lepus californicus</i>)	X					X			X	X		G, CS, C
Squirrels (Sciuridae)												
California Ground Squirrel (<i>Spermophilus beecheyi</i>)	X	X				X			X	X		G, CS, C, OW
Heteromyid Rodents												
Kangaroo Rat (<i>Dipodomys sp.</i>)	X					X						G, CS, C, OW
Pocket Gophers (Geomyidae)												
Bottae's Pocket Gopher (<i>Thomomys bottae</i>)	X	X	X	X	X	X	X	X	X	X	X	G, CS, C, OW
Mice, Rats, and Voles												
Dusky-footed Woodrat (<i>Neotoma fuscipes</i>)	X											OW, RW
Canids (Canidae)												
Coyote (<i>Canis latrans</i>)	X	X	X			X			X	X		All Habitats
Felids (Felidae)												
Bobcat (<i>Felis rufus</i>)						X			X			All Habitats
Procyonids (Procyonidae)												
Common Raccoon (<i>Procyon lotor</i>)									X			All Habitats
Cervids (Cervidae)												
Mule Deer (<i>Odocoileus hemionus</i>)	X	X	X			X			X			All Habitats
<u>Amphibians (Amphibia)</u>												
Caudata (Salamanders)												

Appendix 2: Vertebrate Species with Documented Occurrence in the Orcutt Planning Area¹

Taxa	Occurrence at Key Sites										Habitat ²
	3	7	8	10	11	12	17	18	22	30	
Caudata (Salamanders)											
California Tiger Salamander (<i>Ambystoma californiense</i>)									X		G, CS, C, OW, RW, VP
Blackbelly Slender Salamander (<i>Batrachoceps nigriventris</i>)						X					G, CS, C, OW, RW
Ensatina (<i>Ensatina eschscholtzii</i>)						X					G, CS, C, OW, RW
Salientia (Frogs and Toads)											
Western Toad (<i>Bufo boreas</i>)					X				X		All Habitats
Pacific Chorus Frog (<i>Pseudacris regilla</i>)					X	X		X	X		All Habitats
Western Spadefoot (<i>Spea hammondi</i>)									X		G, CS, C, OW, RW, VP
Reptiles (Reptilia)											
Testudines (Turtles)											
Southwestern Pond Turtle (<i>Clemmys marmorata pallida</i>)									X		G, CS, C, OW, RW
Lacertilia (Lizards)											
California Whiptail (<i>Cnemidophorus tigris mundus</i>)		X									G, CS, C
Southern Alligator Lizard (<i>Elgaria multicarinata</i>)				X		X					G, CS, C, OW, RW
Western Skink (<i>Eumeces skiltonianus</i>)						X					G, CS, C, OW, RW
Coast Horned Lizard (<i>Phrynosoma coronatum</i>)				X		X				X	G, CS, C, RW
Western Fence Lizard (<i>Sceloporus occidentalis</i>)	X	X	X	X		X			X	X	G, CS, C, OW, RW
Side-blotched Lizard (<i>Uta stansburiana</i>)				X							G, CS, C
Serpentes (Snakes)											
Striped Racer (<i>Masticophis lateralis</i>)						X					G, CS, C, OW, RW
Gopher Snake (<i>Pituophis catenifer</i>)			X			X					G, CS, C, OW, RW
Santa Cruz Garter Snake (<i>Thamnophis atrata</i>)						X			X		G, FM, OW, RW, VP

¹ Based on Field Survey Observations of April 7, 25; May 8; & June 2, 1995.

² Habitats

G: Annual Grassland
 CS: Coastal Sage Scrub
 C: Chaparral Scrub
 OW: Oak Woodland

RW: Riparian Woodland
 VP: Vernal Pond
 FM: Freshwater Marsh

³ Seasonal Status for Birds

RB: Resident (year-round) Breeder
 SV: Summer Visitor (breeder)
 T: Transient

APPENDIX 3

PLANT SPECIES OBSERVED ON THE KEY SITES



Appendix 3

Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
<u>Ferns and Fern Allies</u>												
<u>Dryopteridaceae</u>												
<i>Dryopteris arguta</i> Coastal wood fern	X	X				X					OW	N
<u>Isoetaceae</u>												
<i>Isoetes howellii</i> (?) Howell's quillwort									X		VP	N
<u>Pteridiaceae</u>												
<i>Adiantum jordanii</i> Maidenhair fern						X					OW	N
<i>Pellaea andromedifolia</i> Coffee fern	X					X					CS, OW	N
<i>Pentagramma triangularis</i> Gold-back fern		X	X			X					OW	N
<u>Conifers</u>												
<u>Cupressaceae</u>												
<i>Cupressus macrocarpus</i> Monterey cypress				X		X	X				W	I
<u>Pinaceae</u>												
<i>Pinus radiata</i> Monterey pine			X		X	X					CH, W	I
<u>Flowering Plants</u>												
<u>Dicots</u>												
<u>Aizoaceae</u>												
<i>Carpobrotus</i> spp. Ice plant			X	X				X	X		CS, R	I
<u>Anacardiaceae</u>												
<i>Toxicodendron diversilobum</i> Poison oak	X	X	X	X		X			X		CS, DS, OW, R	N
<i>Schinus molle</i> Peruvian pepper								X	X	X	CS	I
<u>Apiaceae</u>												
<i>Bowlesia incana</i> Bowlesia	X										OW	N
<i>Conium maculatum</i> Hemlock	X	X	X		X	X			X	X	CS, R	I
<i>Foeniculum vulgare</i> Fennel										X	CS, R	I
<i>Sanicula arguta</i> Sanicle						X					OW	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
<i>Sanicula crassifolius</i> Sanicle	X	X				X					OW	N
<i>Yabea microcarpa</i> Caulalis	X			X		X		X			CS	N
Araliaceae												
<i>Hedera helix</i> English ivy			X								CS	I
Asclepiadaceae												
<i>Asclepias eriocarpa</i> Milkweed		X									CS	N
Asteraceae												
<i>Achyraea mollis</i> Blow-wives	X										G	N
<i>Acourtia microcephala</i> Perezia	X					X					CS	N
<i>Ambrosia psilostachya</i> Western ragweed	X		X	X	X	X		X	X		G, CS	N
<i>Artemisia californica</i> California sagebrush	X	X	X	X	X	X		X	X		CH, DS, CS	N
<i>Artemisia douglasiana</i> Mugwort		X		X		X		X			R	N
Asteraceae (Madiinae)	X										G	N
<i>Baccharis douglasii</i> Marsh baccharis	X	X	X		X	X			X		R	N
<i>Baccharis pilularis</i> Coyote brush	X	X	X	X	X	X	X	X	X	X	CH, CS, DS	N
<i>Baccharis salicifolius</i> Mule fat	X		X	X		X		X			R	N
<i>Carduus pycnocephalus</i> Italian thistle	X	X	X			X		X	X		CS, OW, R	I
<i>Centaurea melitensis</i> Tocalote	X		X		X	X					G	I
<i>Chaenactis glabriscula</i> Chaenactis	X					X					DS, G	N
<i>Chamaemelum fuscatum</i> Chamomile									X		DS, G	I
<i>Cirsium occidentale</i> Western thistle	X			X		X			X		CS, DS	N
<i>Cirsium vulgare</i> Bull thistle			X						X		CS, DS, G	I
<i>Cnicus benedictus</i> Blessed thistle			X								G	I
<i>Conyza</i> spp. Horsetweed	X		X	X	X			X	X		G, R	I
<i>Corethrogyne filaginifolia</i> Cudweed-aster	X					X			X		CS, DS	N
<i>Cotula coronopifolia</i> Brass-buttons								X	X		FM, R	I
<i>Erechtites glomerata</i> Australian fireweed									X		G	I, X
<i>Ericameria ericoides</i> Mock heather	X	X	X	X	X	X			X	X	CH, DS, CS	N
<i>Eriophyllum confertiflorum</i> Golden yarrow	X	X				X					CH, CS, OW	N
<i>Eriophyllum multicaule</i> Eriophyllum	X										DS	N
<i>Filago gallica</i> Filago	X		X	X	X	X					CS, DS, G	I
<i>Gazania linearis</i> Gazania			X	X		X		X			CS, DS, G	I
<i>Gnaphalium beneolens</i> Everlasting						X					CH, DS	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
<i>Gnaphalium bicolor</i> Bi-colored everlasting	X		X	X							CS, DS, G	N
<i>Gnaphalium californicum</i> Green everlasting	X	X	X			X					CS, G, OW	N
<i>Gnaphalium luteo-album</i> Everlasting						X			X		CS, G, R	I
<i>Gnaphalium palustre</i> Woolly everlasting	X				X				X		VP	N
<i>Gnaphalium ramosissimum</i> Pink everlasting	X				X						CS, DS, OW	N
<i>Grindelia hirsutula</i> (?) Gumweed									X		G, VP	N
<i>Hazardia squarrosa</i> Saw-tooth goldenbush						X		X	X		CS, DS	N
<i>Hemizonia increscens</i> ssp. <i>increscens</i> Tarweed	X	X	X		X	X		X	X	X	CS, DS, G	N
<i>Heterotheca grandiflora</i> Telegraph weed	X	X	X	X		X	X	X	X	X	CS, DS, G	N
<i>Hypochoeris glabrata</i> Smooth cat's-ear	X		X	X		X	X	X	X	X	CS, DS, G	I
<i>Hypochoeris radicata</i> Hairy cat's-ear			X		X				X	X	CS, G	I
<i>Isocoma menziesii</i> var. <i>menziesii</i> Coast goldenbush									X		CS, DS	N
<i>Iva axillaris</i> Poverty weed	X				X	X					G, R	N
<i>Lactuca serriola</i> Prickly lettuce								X	X		G, R	I
<i>Lasthenia chrysostoma</i> Goldfields	X					X			X		DS, G	N
<i>Layia glandulosa</i> White layia	X		X			X					DS	N
<i>Matricaria matricarioides</i> Pineapple weed			X								R	I
<i>Micropus californica</i> Micropus	X										DS	N
<i>Picris echioides</i> Prickly ox-tongue								X	X		G, R	I
<i>Psilocarphus brevissimus</i> Dwarf wooly-heads									X		VP	N
<i>Psilocarphus tenellus</i> Slender wooly-heads									X		VP	N
<i>Senecio blochmaniae</i> Blochman's groundsel									X	X	CH	N, S
<i>Senecio vulgaris</i> Common groundsel						X			X		G	I
<i>Silybum marianum</i> Milk thistle			X	X		X			X		G, OW	I
<i>Sonchus asper</i> Prickly sow-thistle						X		X	X		G	I
<i>Sonchus oleraceus</i> Sow-thistle			X			X			X		G	I
<i>Stylocline gnaphalioides</i> Stylocline						X					CS, CH, OW	N
<i>Uropappus lindleyi</i> Microseris	X	X	X			X			X		DS, CS, G	N
<i>Xanthium spinosum</i> Spiny clotbur					X			X			R	I, X
<i>Xanthium strumarium</i> Cocklebur					X			X			G, R	N
Boraginaceae												
<i>Amsinckia intermedia</i> Fiddleneck	X	X	X	X	X	X		X	X	X	DS, CS, G	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
<i>Amsinckia spectabilis</i> var. <i>microcarpus</i> Small-seeded fiddleneck	X	X	X			X						DS, G	N, S
<i>Cryptantha</i> spp. Popcorn flower	X	X	X			X			X	X		CH, DS, G	N
<i>Heliotropium curassavicum</i> Heliotrope						X		X	X			FM, R, VP	N
<i>Plagiobothrys undulatus</i> Popcorn flower									X			VP	N
Brassicaceae													
<i>Cardaria pubescens</i> Hoary cress	X		X									G	I, X
<i>Erysimum capitatum</i> ssp. <i>lompocense</i> San Luis Obispo wallflower	X	X				X						CS, OW	N, S
<i>Hirschfeldia incana</i> Summer mustard (<i>Brassica geniculata</i>)	X		X	X	X	X		X	X	X		DS, CS, G, R	I
<i>Lepidium niditum</i> Peppergrass									X			G	N
<i>Raphanus sativus</i> Wild radish			X		X	X		X				G	I
<i>Rorippa curvisiliqua</i> Curve-pod yellow-cress									X			VP	N
<i>Rorippa nasturtium-aquaticum</i> Watercress									X	X		FM, R	N
<i>Thysanocarpus</i> sp. Lacepod						X						CS	N
Callitrichaceae													
<i>Callitriche marginata</i> Winged water-starwort								X				VP	N
Campanulaceae													
<i>Triodanus biflora</i> Venus' looking-glass						X						OW	N
Caprifoliaceae													
<i>Sambucus mexicana</i> Elderberry	X	X	X	X	X	X		X		X		R	N
Caryophyllaceae													
<i>Cerastium glomeratum</i> Mouse-ear chickweed	X		X			X			X			CS, OW	I
<i>Sagina</i> sp. <i>Sagina</i>									X			CH	N
<i>Silene gallica</i> Windmill pink	X		X		X	X		X	X			DS, CS, G	I
<i>Spergula arvensis</i> Corn spurrey	X		X		X	X			X	X		OW, R	I
<i>Spergularia bocconii</i> Spurrey						X			X			DS	I
<i>Spergularia macrotheca</i> <i>Spergularia</i>									X			DS, VP	N
<i>Spergularia rubra</i> Spurrey									X			DS, VP	I
<i>Spergularia villosa</i> Spurrey								X	X	X		DS, VP	I
<i>Stellaria media</i> Chickweed	X		X			X						CS, OW, R	I

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
Grossulariaceae													
<i>Ribes speciosum</i> Fuchsia-flowered gooseberry	X	X				X						OW	N
Hydrophyllaceae													
<i>Eucrypta chrysanthemifolia</i> Eucrypta	X					X						OW	N
<i>Phacelia distans</i> Wild heliotrope	X		X							X		CS, OW	N
<i>Phacelia douglasii</i> Douglas' phacelia	X					X				X		DS	N
<i>Phacelia ramosissima</i> Caterpillar phacelia			X			X		X				CS, DS	N
<i>Pholistoma auritum</i> Fiesta flower	X		X			X		X				OW	N
Lamiaceae													
<i>Marrubium vulgare</i> Horehound		X				X						G	I
<i>Monardella undulata</i> Curly-leaved monardella									X	X		CH, DS	N, S
<i>Salvia mellifera</i> Black sage	X	X	X			X						CS	N
<i>Salvia spathecea</i> Hummingbird sage	X	X	X			X						OW	N
<i>Stachys bullata</i> Hedge nettle	X	X	X			X						OW, R	N
Lythraceae													
<i>Lythrum hyssopifolium</i> Lythrum	X					X						FM, VP	I
Malvaceae													
<i>Lavatera cretica</i> Lavatera			X		X			X				CS	I
<i>Malacothamnus obicularis</i> Bush mallow						X						R	N
<i>Malva parviflora</i> Cheeseweed	X		X		X							G	I
<i>Malvella leprosa</i> Alkali-mallow									X			DS	N
Myoporaceae													
<i>Myoporum laetum</i> Myoporum								X				CS	I
Myrtaceae													
<i>Eucalyptus globulus</i> Tasmanian blue gum	X	X	X	X	X	X		X	X	X		P, R	I
Oleaceae													
<i>Olea europaea</i> Mediterranean olive						X						CS, P	I
Onagraceae													
<i>Camissonia micrantha</i> Evening-primrose	X		X		X	X			X	X		CH, DS	N
<i>Camissonia strigulosa</i> Evening-primrose	X		X		X	X			X			CH, DS	N
<i>Clarkia epilobioides</i> White clarkia						X						G	N
<i>Clarkia purpurea</i> Farewell-to-spring	X		X			X						CS, G	N
<i>Epilobium</i> sp. Willow herb						X						R	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
Orobanchaceae													
<i>Orobanche californica</i> California broom-rape	X											DS	N
Oxalidaceae													
<i>Oxalis pes-caprae</i> Bermuda buttercup			X									R	I
Paeoniaceae													
<i>Paeonia californica</i> California peony	X					X						CS, DS	N
Papaveraceae													
<i>Eschscholzia californica</i> California poppy	X		X		X	X				X		G	N
<i>Platystemon californica</i> Cream cups	X					X						G	N
Plantaginaceae													
<i>Plantago coronopus</i> Cut-leaf plantain										X		VP	I
<i>Plantago elongata</i> Slender plantain										X		VP	N
<i>Plantago erecta</i> Plantain	X					X				X		DS, VP	N
<i>Plantago lanceolata</i> English plantain	X									X		G	I
<i>Plantago major</i> Common plantain										X		FM, R	I
Polemoniaceae													
<i>Leptodactylon californica</i> Prickly phlox						X						CH	N
<i>Linanthus grandiflorus</i> Large-flowered linanthus										X		VP	N, S
<i>Navarettia atractylodes</i> Navarettia	X		X			X						DS, CH, CS, G	N
<i>Phlox gracilis</i> Microsteris			X									OW	N
Polygonaceae													
<i>Chorizanthe angustifolia</i> Spineflower	X	X				X				X	X	DS	N, S
<i>Chorizanthe pungens</i> Spineflower	X											DS	N
<i>Lastarriaea coriacea</i> Spineflower (<i>Chorizanthe coriacea</i>)	X	X				X						DS	N
<i>Mucronea californica</i> California spineflower	X	X				X					X	DS	N, S
<i>Polygonum arenastrum</i> Knotweed	X		X		X	X		X	X			G, R	I
<i>Pterostegia drymarioides</i> Fairy mist	X					X						OW	N
<i>Rumex acetosella</i> Sheep sorrel	X	X	X	X	X	X	X	X	X	X	X	CS, DS, G, R, FW, VP	I
<i>Rumex crispus</i> Curly dock			X	X	X	X	X	X	X	X	X	FM, R, VP	I
<i>Rumex salicifolius</i> Willow dock	X					X		X	X	X		FM, R, VP	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
Portulacaceae													
<i>Calandrinia ciliata</i> Red maids	X		X		X	X		X				G	N
<i>Claytonia perfoliata</i> Miners' lettuce	X	X	X	X		X						OW, R	N
Primulaceae													
<i>Anagallis arvensis</i> Pimpernel	X	X	X		X	X		X	✗			CH, CS, G	I
Ranunculaceae													
<i>Delphinium parryi</i> Parry's larkspur	X					X						OW	N
Rhamnaceae													
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i> Coast ceanothus (<i>C. ramulosus</i> var. <i>fascicularis</i>)	X					X						CH	N
<i>Rhamnus californica</i> Coffeeberry	X	X	X			X	X		✗			CH, CS	N
<i>Rhamnus crocea</i> Redberry	X	X				X						CH, CS	N
Rosaceae													
<i>Adenostoma fasciculatum</i> Chamise	X	X				X						CH	N
<i>Cercocarpus betuloides</i> Mountain mahogany	X											CH	N
<i>Heteromeles arbutifolia</i> Toyon	X	X	X			X		X				CH, OW	N
<i>Horkelia cuneata</i> ssp. <i>cuneata</i> Horkelia	X	X	X			X						CH, OW	N
<i>Prunus fasciculata</i> var. <i>punctata</i> Sand almond	3		X									CH	N
Rubiaceae													
<i>Galium angustifolia</i> Narrow-leaved bedstraw	X					X						CS, OW	N
<i>Galium aparine</i> Goose grass	X		X			X		X	✗			CS, OW, R	N
<i>Galium parisiense</i> Wall bedstraw			X									OW	I
Salicaceae													
<i>Populus fremontii</i> Fremont cottonwood								X	✗			R	I?
<i>Salix exigua</i> Narrow-leaved willow								X				R	N
<i>Salix lasiandra</i> Yellow willow			X					X				R	N
<i>Salix lasiolepis</i> Arroyo willow	X		X	X	X	X		X	✗			R	N
Scrophulariaceae													
<i>Castilleja densiflora</i> (<i>Orthocarpus</i>) Owls clover	X		X		X	X			✗			CS, G	N
<i>Collinsia bartsiiifolia</i> Collinsia	X	X	X			X				X		CS, DS, G	N
<i>Keckiella cordifolia</i> Climbing penstemon	X					X						OW	N
<i>Linaria canadensis</i> Toadflax	X		X			X			✗			CS, VP	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³	
	3	7	8	10	11	12	17	18	22	30			
<i>Mimulus aurantiacus</i> (ssp. <i>lompocensis</i>) Lompoc monkeyflower	X	X	X			X						CH, CS, DS, OW	N
<i>Penstemon centranthifolius</i> Scarlet bugler										X		DS	N
<i>Tryphysaria erianthus</i> (<i>Orthocarpus</i>) Johnny-tuck									X			VP	N
<i>Veronica peregrina</i> ssp. <i>xalapensis</i> Purselane speedwell												VP	N
Solanaceae													
<i>Nicotiana glauca</i> Tree tobacco	X			X	X	X		X	X			R	I
<i>Solanum douglasii</i> Douglas' nightshade	X		X			X						R, OW	N
<i>Solanum xanti</i> Chaparral nightshade	X					X						CS, OW	N
Urticaceae													
<i>Hesperocnide tenella</i> Nettle	X					X						CH, OW	N
<i>Urtica holosericea</i> Giant creek nettle		X	X			X						R	N
Verbenaceae													
<i>Verbena bracteata</i> Prostrate vervrain									X			VP	N
<i>Verbena lasiostachys</i> Verbena	X		X		X	X						CS, DS, G, OW	N
Violaceae													
<i>Viola pedunculata</i> Johnny jump-up	X		X			X						G, OW	N
Monocots													
Cyperaceae													
<i>Carex brevicaulis</i> Sedge						X						R	N
<i>Carex praegracilis</i> (?) Clustered field sedge									X			FM	N
<i>Carex triquetra</i> Sedge						X						OW	N
<i>Cyperus eragrostis</i> Nut-sedge						X						FM	N
<i>Eleocharis acicularis</i> Least spikerush						X			X			FM, VP	N
<i>Eleocharis macrostachya</i> Common spikerush						X			X			FM, R, VP	N
<i>Scirpus californicus</i> California bulrush		X							X			FW	N
<i>Scirpus cernuus</i> Low bulrush									X			FW, R	N
<i>Scirpus pungens</i> Three-square									X			R	N
Juncaceae													
<i>Juncus balticus</i> Baltic rush									X			FW	N
<i>Juncus bufonius</i> Toad rush	X	X	X		X	X		X	X			FW, G, R, VP	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
<i>Juncus effusus</i> Soft rush			X			X			X		FW, R	N
<i>Juncus patens</i> Common rush						X					CS, R	N
<i>Juncus phaeocephalus</i> Brown-headed rush						X			X		FW, G, VP	N
<i>Juncus textilis</i> Basket rush									X		VP	N
Juncaginaceae												
<i>Lilaea scilloides</i> Flowering quillwort									X		VP	N
Lemnaceae												
<i>Lemna gibba</i> Inflated duckweed									X		FM	N
Liliaceae												
<i>Bloomeria crocea</i> Golden stars			X			X					G	N
<i>Brodiaea jolonensis</i> Brodiaea									X		G	N
<i>Calochortus splendens</i> Lilac mariposa lily						X					G	N
<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i> Amole	X					X					CS, G	N
<i>Dichelostemma pulchellum</i> Blue dicks	X					X					G	N
<i>Zygadenus fremontii</i> Chaparral zygadene	X										CS	N
Poaceae												
<i>Agrostis semiverticellata</i> Water bentgrass									X		FM, R	I
<i>Aira caryophyllea</i> Silver hairgrass		X				X			X		CH, DS	I
<i>Allopecurus saccatus</i> (<i>A. howellii</i>) Pacific foxtail									X		VP	N
<i>Avena barbata</i> Slender wild oat	X	X	X	X	X	X	X	X	X	X	G	I
<i>Avena fatua</i> Wild oat	X	X	X	X	X	X	X	X	X	X	G	I
<i>Briza minor</i> Small rattlesnake grass									X		DS	I
<i>Bromus catharticus</i> Rescue grass									X		G	I
<i>Bromus diandrus</i> Ripgut brome	X	X	X	X	X	X	X	X	X	X	G	I
<i>Bromus mollis</i> Soft chess	X	X	X	X		X			X		G	I
<i>Bromus rubens</i> Red brome	X	X				X				X	DS, G	I
<i>Deschampsia danthonioides</i> Annual hairgrass									X		VP	N
<i>Distichlis spicata</i> Saltgrass						X			X		DS, R, VP	N
<i>Ehrharta</i> spp. Veldt grass				X	X			X			CS, DS, G	I
<i>Elymus multisetus</i> Squirreltail			X								CS	N
<i>Festuca rubra</i> Red fescue						X			X		A, R	N
<i>Gastridium ventricosum</i> Nit grass			X			X					CH, CS	I
<i>Hordeum brachyantherum</i> Meadow barley									X		VP	N

Appendix 3: Plant Species Observed on the Key Sites¹

Taxon / Common Name	Key Site Number										Habitat ²	Status ³
	3	7	8	10	11	12	17	18	22	30		
<i>Hordeum marinum</i> Mediterranean barley (<i>H. geniculatum</i> , <i>H. hystris</i>)						X			X		G, R	I
<i>Hordeum murinum</i> Foxtail	X		X		X	X		X	X		G	I
<i>Hordeum vulgare</i> Barley						X					G	I
<i>Kohleria phleoides</i> Kohleria	X	X	X		X			X	X		CH, DS	I
<i>Lamarckia aurea</i> Goldentop				X		X			X	X	R	I
<i>Leymus condensatus</i> Giant wild rye			X								CS	N
<i>Leymus triticoides</i> Alkali rye	X			X		X			X		FM, VP	N
<i>Lolium multiflorum</i> Ryegrass	X		X		X	X		X	X		G	I
<i>Melica imperfecta</i> Coast Range melic	X	X				X					CS	N
<i>Nassella pulchra</i> (<i>Stipa</i>) Purple needlegrass		X			X	X			X		G, OW	N
<i>Parapholis incurva</i> Sickie grass									X		VP	I
<i>Phalaris aquatica</i> Harding grass						X					R	I
<i>Phalaris lemmonii</i> Lemmon's canary grass									X		VP	N
<i>Poa annua</i> Annual blue-grass									X		VP	I
<i>Polypogon interruptus</i> Ditch rabbitsfoot-grass									X		FM	I
<i>Polypogon monspeliensis</i> Rabbitsfoot-grass					X	X		X	X	X	FM, R	I
<i>Vulpia myuros</i> Rattail fescue	X	X	X	X	X	X	X	X	X	X	G	I
<i>Vulpia octoflora</i> Six-weeks fescue		X				X			X		G	N
Typhaceae												
<i>Typha latifolia</i> Narrow-leaved cattail								X	X		FM	N

¹ Taxa observed during field visits in 1994 and 1995.

² A: Agricultural FM: Freshwater Marsh R: Riparian
 CH: Sandhill Chaparral G: Grassland VP: Vernal Wetlands
 CS: Coastal Scrub OW: Oak Woodland W: Windrow
 DS: Dune Scrub P: Planted

³ I: Introduced
 N: Native
 S: Sensitive taxon
 X: Noxious weed

Taxonomy follows Hickman, 1993.

ATTACHMENT 8

To be removed from OCP FEIR Appendix D:
Vernal Wetlands and Orcutt Creek Wetlands Delineation, K. Rindlaub Biological
Consulting, September 1, 1995.

**Document available in *Attachment 5: Planning Commission Action Letter*
and for viewing and download at:**

<http://longrange.sbcountyplanning.org/planareas/orcutt/orcutt.php>)

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REPLACEMENT PAGE

APPENDIX D

Vernal Wetlands and Orcutt Creek Wetlands Delineation, K. Rindlaub Biological Consulting,
September 1, 1995 removed by Resolution # _____ of the Board of Supervisors in
compliance with court ruling in Adam Bros. Farming Inc. v. County of Santa Barbara (Super
Ct. Santa Barbara County, 2004, No. 1007452)

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Attachment C:
Orcutt Community Plan 2012 Amendments FSEIR Revisions

1. Table 3 Summary of OCP 2012 Amendments FSEIR Addendum Revisions
2. FSEIR Revision Document (RV 1) (same edits as Section 4.3 Biology below)
 3. FSEIR Chapter 2.0 Project Description, Page 2-13
 4. FSEIR Section 4.3 Biology

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ATTACHMENT 1

Table 3

Summary of Orcutt Community Plan FSEIR Addendum: Text and Map Revisions					
Plan Chapter	Page Numbers	Actions	Maps/Figures	Page Numbers	Actions
<u>Revision Document RV 01</u> <u>Section 4.3</u> <u>Biology</u>	<u>Page 4.3-1, 4.3-3 through 4.3-8</u>	<u>Text Edits and delete</u> <u>Impact summary table</u>			
<u>2.0 Project Description</u>	<u>Page 2-13</u>		<u>Figure 24</u> <u>Map of Orcutt Significant Vegetation</u> <u>Figure 25</u> <u>Biological Habitat Map West</u> <u>Figure KS22-2</u>	<u>2-16</u> <u>2-21</u> <u>2-25</u>	<u>Additional removal biological resource mapping with potential inferences to wetland delineation.</u>
<u>Section 4.3</u> <u>Biology</u>	<u>Page 4.3-1, 4.3-3 through 4.3-8</u>	<u>Text Edits and delete</u> <u>Impact summary table</u>			

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ATTACHMENT 2

OCP 2012 Amendments FSEIR Revision Document (RV 1) Section 4.3
(Same as OCP FSEIR Section 4.3 Biology below)

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4.3 Biological Resources

This section discusses the potential for the project to create new impacts to biological resources, important species, or habitat, or change the level of impacts previously analyzed in the Orcutt Community Plan Final EIR (95-EIR-1) (OCP EIR).

4.3.1 Setting

The OCP FEIR Section **5.2 Biological Resources** and **Volume II (Key Sites)** evaluate biological resources, describe in detail the biological setting of the plan area, and are incorporated herein by reference.

Biological information from the following surveys and assessments conducted in the project area supplement the biological setting.

The U.S. Fish and Wildlife Service (USFWS) Ventura Office has documented occurrences of special status species and supporting habitat on land in southwest Orcutt, including the federally designated endangered California Tiger Salamander (*Ambystoma californiense*) (USFWS, 2009). USFWS has documented occurrences ~~on Key Site 22~~ of the federally designated threatened California red-legged frog (*Rana draytoni*) in southwest Orcutt (Sadinsky, 1999 2009).

The California Natural Diversity Database (CNDDDB) documents the presence of the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) in a pond in southwest Orcutt. USFWS points to a likelihood that, due to its proximity in the pond, the species also occurs in the vernal pool complex located in southwest Orcutt ~~on the north portion of Key Site 22~~ (CNDDDB, 2010, and USFWS, 2011).

Southern and eastern portions of southwest Orcutt ~~Key Site 22~~ lie within designated critical habitat for the La Graciosa thistle (*Cirsium loncholepis*) (Federal Register, Vol. 74, Page 56978). Orcutt Creek in southwest Orcutt, ~~which flows through Key Site 22~~, and its tributaries provide suitable habitat for two other federally designated plant species, the Gambel's watercress (*Rorippa gambelii*) and the marsh sandwort (*Arinaria paludicola*) (USFWS, 2011).

The federally designated endangered least Bell's vireo (*Vireo bellii pusillus*), is recovering in the region and nests and forages almost exclusively in riparian woodland habitats. The USFWS has identified the Orcutt Creek riparian corridor in southwest Orcutt ~~Key Site 22~~ as potentially suitable habitat for the least Bell's vireo (USFWS, 2011).

Regulatory Setting

Federal and State Requirements for Protection of Biological Resources.

Environmental impact analysis and mitigation needs to take into account Federal and State biological resource regulations. The Federal Endangered Species Act and California Endangered Species Act formally list plant and animal species determined to be rare, threatened or endangered, or candidate species, and establish regulations for protecting these species and their habitats.

Other federal statutes include the National Environmental Policy Act (NEPA), the Clean Water Act Section 404 (for protection of wetlands), Bald Eagle Protection Act, Migratory Bird Treaty Act, Executive Order 11990 (wetlands protection), Rivers and Harbors Act Section 10, Marine

4.3 Biological Resources

Protection, Sanctuary and Research Act, Marine Mammal Protection Act, and Section 1601 and 1603 Stream Alteration Agreements.

Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Game (riparian areas and other waters of the State, state-listed species);
- County of Santa Barbara (Orcutt Community Plan consistency and land use planning/permitting, locally sensitive species and habitats)

U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material or otherwise adversely modify wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources.

Any fill or adverse modification of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving the creation or enhancement of similar habitats.

United States Fish and Wildlife Service. The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 *et seq.*). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at anytime.

California Department of Fish and Game. The CDFG derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 *et. seq.*) prohibits take of state listed threatened, endangered, or fully protected

species. Take under CESA is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFG also prohibits take for species designated as Fully Protected under Fish and Game Code. California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

Species of Special Concern (SSC) is a category used by the CDFG for those species which are considered indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFG for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands. The CDFG also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 *et seq.*). The NPPA requires the CDFG to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant. Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFG. Section 1600 *et seq.* of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFG regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

County Biological Resources Policies

Requirements for the protection of biological resources in the unincorporated area of Santa Barbara County are provided by the Comprehensive Plan Conservation Element, Environmental Resource Management Element (ERME), Land Use Element, and Community Plans. These documents identify sensitive habitats and species, and provide measures to direct project design and policies to protect biological resources. In addition, the County maintains a list of locally important plant species and attempts to minimize development impacts to these species. The County also regulates impacts to wetlands through the discretionary permitting process.

~~*Orcutt Community Plan Policies*~~

~~The OCP EIR identified biological impacts for a variety of properties within Orcutt, including Key Site 22. Mitigation measures prescribed for these impacts were outlined in the OCP EIR (see Table 4.3.1 below), and several of these mitigation measures were incorporated into the Final OCP as policies and development standards.~~

~~4.3.2 Previously Identified Impacts and Mitigation Measures~~

~~The OCP EIR identified mitigation measures for the following general impacts on Key Site 22: BIO-3: associated with the Union Valley Parkway extension in Key Site 22, BIO-4: construction of E Street, BIO-5: Dutard Road, BIO-8: trail construction and use, BIO-9: paved bicycle paths, BIO-11: Dutard/Solomon trunk line, BIO-14: retention basins, BIO-15: creek maintenance and emergency work, BIO-16: construction of new schools, BIO-20 elimination of wetlands, BIO-21~~

4.3 Biological Resources

~~elimination of candidate species, BIO-22: fragmentation of wetland and upland habitat, BIO-23: elimination of grasslands, BIO-24: elimination of ancient sand dunes, BIO-25: elimination of sandhill chaparral, and BIO-33: weed invasion as listed in Section 5.2 and anticipated to result from future development on Key Site 22.~~

~~Mitigation BIO-1 addresses road construction impacts, BIO-2 addresses construction of trails, bike paths and their use, Mitigation BIO-14 addresses BIO-15 which is specific to flood control, but applies to all construction along the floodway on Key Site 22. Impact BIO-14 identifies impacts resulting from the construction of the retention basins identified in the regional basins program. Table 4.3.1 identifies Key Site specific impacts to biology and mitigation measures previously identified in the OCP FEIR. A comprehensive list of all court compliance text and map edits is included in Exhibits B.4 through B.11. Please refer to the OCP FEIR Chapter 5.2 and Volume II, Key Site 22 for the complete impacts discussion.~~

~~Table 4.3.1 OCP EIR Biological Resources Impacts and Mitigation Measures~~

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
Key Site 22			
KS22 BIO-4	Reduction in Habitat: Development of 2,000 units on the site would create potentially significant impacts through elimination of 120 acres of vernal wetland/grassland complex, 37 acres of sandhill chaparral, 90 acres of freshwater marsh, and 451 acres of annual grassland.	Class I	KS22 BIO-1.1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. KS22 BIO-1.2: Development plans shall incorporate the realignment of Dutard Road and E Street as shown in Figure KS22-5.1. KS22 BIO-1.3: the County shall implement a habitat protection and restoration program for the vernal wetland/grassland complex to protect the area from urban encroachment and to enhance the disturbed vernal wetland/grassland complex immediately adjacent to the existing alignment of Dutard Road. Protection measures shall include the installation of fencing, signs, and landscape buffers of appropriate native trees and shrubs. The plan shall be funding by the developer(s) of areas within the Site 22 and subject to review and approval by P&D.
KS22 BIO-2	Disruption of Habitat: The construction of E street would cause potentially significant impacts by disruption the large contiguous vernal wetland/grassland/dune complex which covers the northern portions of the site, and extends onto the Santa Maria Public Airport Property. Construction of the roadway would inhibit wildlife movement between vernal flats and dune upland areas, significantly reducing the ability of these interrelated habitat areas to support a wide variety of species.	Class I	BIO-1.2, BIO-1.3, and BIO-3.1 addresses this impact.
KS22 BIO-3	Contamination of Freshwater Marshes and Vernal Complexes: Runoff from streets and paved surfaces within developed areas could contaminate freshwater marsh areas and vernal complexes on the site. Residual oil, which accumulates on paved surfaces, could be carried to marsh and vernal wetland areas by stormwater runoff. Due to the sandy soils and high infiltration rates, contaminants could build up over time increasing in concentration and reaching harmful levels. This impact is	Class II	KS22 BIO-3.2: The overall drainage improvement plan for the Site 22 shall provide methods to control contaminated run-off from paved surfaces. Parking area design shall incorporate design features such as perimeter drains and catch basins to reduce contaminant levels in runoff before it enters the storm drain system. BIO-1.1 and BIO-3.2 also address this impact

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
	considered potentially significant.		
KS22-BIO-4	Impacts to Wildlife: The project could cause potentially significant impacts to wildlife associated with eventual habitation of the site including disturbance of habitat by domestic animals, nuisances to wildlife from noise and light sources, disruption of wildlife migration route, etc.	Class I	<p>BIO-4: Prior to construction of any roads crossing the vernal pool areas (e.g., E Street), wildlife surveys shall be conducted for sensitive species in the wetland areas within 300 feet of both sides of the outside edges of grading these roads. A habitat restoration plan for the project shall be submitted to P&D, US Fish & Wildlife Service, and California Fish & Game for approval prior to construction, and may include pre-construction relocation of sensitive animals, if appropriate. The habitat restoration plan shall include restoration of all wetland and dune habitats to previous or better conditions. The restoration plan shall be approved by P&D and PW and funded prior to construction. Implementation shall begin within one year of commencement of grading, and completed within 3 years of roadway completion.</p> <p>BIO-5: Union Valley Parkway and E Street shall be designed and constructed to include a bridge or bridges over the greatest amount of wetlands and sand dunes possible, in consultation with the California Department of Fish & Game, U.S. Fish & Wildlife Service and U.S. Army Corps of Engineers. Adequate vertical clearance beneath the bridge(s) for wildlife passage shall be accommodated where feasible. Where a bridge is not feasible, the road(s) shall be realigned as shown in Figures 2-10 and KS22-6A and constructed on berms above the adjacent ground surface, with box culverts beneath the road, suitable for passage by tiger salamanders and spadefoot toads, and maintained a minimum distance of every 500 feet and smaller flat-bottomed culverts at closer intervals. Prior to final roadway design, County and City Public Works Departments shall contract with a County approved biologist to determine the locations and frequency of the undercrossings.</p>
KS22-BIO-5	Impacts to Orcutt Creek Wildlife Corridor: Development of Key Site 22 from a rural into a suburban community could substantially disrupt the utilization by and movement of wildlife populations and diversity. Species which would be particularly vulnerable would be ground nesting species and animals dependent upon concealment and low levels of disturbance for survival.	Class I	<p>KS22 BIO-3.1: Structures and paved surfaces, except paved walkways or bikeways or interpretive displays, shall not be developed within 500 feet of the edge of vernal wetlands.</p> <p>BIO-4 and BIO-5 above also address this issue.</p>
			<p>KS22 BIO-4.0: A habitat protection and enhancement plan shall be prepared and implemented for the Orcutt Creek corridor including planting of grove of appropriate native trees and stands of shrubs along selected portions of the banks and top of bank of Orcutt Creek, the restoration and enhancement of selected wetlands areas within the floodplain, installation of selected areas of fencing around the most significant wildlife areas, installation of signs and walkways to help guide public use of those areas and the Orcutt greenway, biological connectivity between Orcutt Creek and the primary drainage from the Casmlia Hills. The plan shall be funded by the developer(s) of Site 22 and subject to review and approval by P&D.</p>
BIO-22	Fragmentation of Wetland and Upland Habitat. Development between wetland and upland retreat sites of amphibians (or on uplands themselves) would have a potentially significant impact on two federal candidates for the Endangered Species List: California Tiger Salamander and spadefoot toad, and would lead to their elimination from	Class I	<p>BIO-19: A minimum buffer of 100 feet, or fifty feet with installation of major screen planting native riparian vegetation, shall be maintained in natural condition from the edge of the wetland on Key Site 22. No structures shall be permitted with the complex or buffer area except for structures of a minor nature that help implement preservation of the resource (i.e.: fences and interpretive/educational signs). Passive recreational development such as seating areas, bike</p>

4.3 Biological Resources

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
	the Orcutt Planning Area.		<p>paths and a trail shall be permitted a minimum distance of fifty feet of the edge of the wetland. Construction and installation of these facilities shall minimize the ground disturbance area and avoid erosion or sedimentation into the wetland.</p> <p>BIO-20: All new developments shall be sited and designed to preserve and enhance significant wildlife corridors consistent with accepted wildlife management practices, particularly between wetlands and adjacent upland areas.</p>
1995 OCP FEIR Analysis: Biology, Flood Control and Key Site 22			
BIO-14	<p>Retention Basins. Construction of retention basins on Key Sites 2, 8, 12, 18, 22, and 30 could result in the potentially significant impacts associated with removal of approximately 17 acres of riparian scrub, forest, and oak woodland.</p>	Class II	<p>BIO-3: Habitat restoration plans shall be required of all projects that would significantly impact wetlands, riparian woodlands, oak woodlands, and rare plants. The goal of the plan should be to restore a greater number of acres of mature vegetation (including understory if appropriate) that that which was impacted. If restoration on or near the site is not feasible, acquisition and permanent preservation of additional habitat acreage should be considered as long as the mitigation project resulted in a substantial increase in ecological functions. Success criteria should be clearly stated. The habitat restoration plan shall be prepared by a P&D qualified biologist and reviewed and approved by P&D, and bonded for by the applicant, prior to the issuance of a Land Use Permit on the site. The plan should clearly state who will fund and be responsible for long-term maintenance, who will monitor for success, and specific remedial measures.</p> <p>BIO-13: All new retention basins shall be sited and designed in a manner that avoids or minimizes impact to wetlands, riparian habitats and oak woodlands. Excavated fill shall not be place within these habitats and areas adjacent to or within these habitats which are disturbed during construction shall be revegetated with appropriate native species. Basins on Key Sites 3, 8, and 22 shall require implementation of Mitigation BIO-3. The Key Site 12 Basin shall be located on the east side of the existing access road. The retention basin on Key Site 30 shall be located in the area of the site currently lacking sensitive habitat. All sensitive habitat areas adjacent to these basins shall be fenced prior to commencement of grading to prevent disturbance and stockpiling in these areas.</p> <p>BIO-14: Requires that all round disturbance and construction on Key Site 22 shall be located outside of the floodway and due to high habitat value, a minimum of 100 feet from the dripline of riparian vegetation</p> <p>BIO-2: Minimize removal of riparian vegetation for bicycle paths. Requires 50-foot setback (if feasible) from edge of riparian vegetation or top of bank, whichever protects greater area. Restore riparian habitat between path and creek. Direct lighting away from the creek.</p> <p>BIO-3. Provides for preparation of habitat restoration plans for projects that significantly impact wetlands, oak woodland, and rare plant impacts.</p> <p>BIO-3.1. Recommendation to P&D to establish a regional mitigation bank to offset habitat loss in cooperation with other agencies as funding becomes available.</p> <p>BIO-3.2. Suggests locations for purchase and preservation as offsite mitigation in the event that on-site preservation and restoration options are</p>

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
			exhausted. BIO-6: Road lighting shall be designed to minimize spill into native habitat areas.
BIO-15	Creek Maintenance and Emergency Work. Although changes in the Flood Control District's maintenance practices are proposed, level of effort of maintenance (desilting, channel shaping, vegetation removal and herbicide spraying in the channel) may increase in Orcutt, Solomon and Pine Canyon Creeks in order to protect future development within the floodplain or floodway. These new maintenance areas could cause potentially significant impacts by: 1) alteration of the physical features of the creek channel, 2) removal of riparian scrub, forest, and live oak communities, and 3) temporary but reoccurring disturbances to wildlife on Key Sites 3, 5-8, 10-13, 15, 19, 22, A, F, and D. Responses to emergency flooding could also significantly impact these riparian communities as a result of the use of heavy equipment in and around the creek to remove fallen logs and other debris blocking the channel.		BIO-14: Ground disturbance and construction on Key Sites 3, 5-8, 10-13, 15, 19, 22, A, F, and D, except hiking/ biking trails and other recreational facilities, shall be located outside of the floodway and a minimum distance of 50 feet from the dripline of riparian vegetation. Due to particularly high habitat values on Key Sites 3 and 22, the minimum distance shall be increased on these two sites to 100 feet.

4.3.34.3.2 OCP ~~2012~~ 2011 Amendments Impact Analysis

The OCP Key Site 22 Wetlands Delineation Removal Amendment incorporates revisions into the *Orcutt Community Plan (OCP)* and the OCP FEIR (95-EIR-1) necessary for compliance with the court order issued in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452). The court found,

“...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the “OCP”) titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP area hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation.”

~~The wetlands delineation, West Orcutt Planning Area 8 Vernal Wetland and Orcutt Creek Wetland Delineation, Katherine Rindlaub Biological Consulting September 1, 1995, in Appendix D of the OCP EIR and prepared for Key Site 22 (formerly Planning Area 8) was deemed by the court (*Adam Brothers Farming v. County of Santa Barbara* 2008 Cal. App. Unpub. LEXIS 1831604 F.3d~~

4.3 Biological Resources

~~1142 (2010)) to have been prepared improperly, and for all references to the document be removed from the OCP and OCP EIR.~~

The court's order did not affect the status of the wetlands delineation prepared for the wetland/sand dune complex that occurs in the north portion of Key Site 22 and Airport property (Olsen, 1992).

Removal of the wetland delineation references and mapping from the OCP and Final EIR does not remove legal requirements for property owners to comply with wetland regulations in the federal Clean Water Act or federal and state regulations protecting special status species (See Section 4.3.1 Regulatory Setting above). Future development proposals or grading on Key Site 22 will be required to demonstrate compliance with all applicable federal, state, and county regulatory requirements, including the California Environmental Quality Act (CEQA) and the federal and state Endangered Species Acts (ESA) prior to permit approval. The Santa Barbara County Planning and Development Department requires a field assessment of properties in this area for the potential for special status species, including the following federally designated endangered species: such as the California Tiger Salamander, California red-legged frog, the vernal pool fairy shrimp, La Graciosa thistle, Gambel's watercress, marsh sandwort, and Least Bell's vireo, all of which which was listed by the U.S. Fish and Wildlife Service (USFWS) as an Endangered Species on August 4, 2004, and has have been documented on Key Site 22 or in proximity to southwest Orcutt to the site(USFWS, 2011). As detailed in the project description above, the text and map ~~revisions required by the~~ stricken by the court are listed in **Chapter 2, Project Description**, Tables 2.2 and 2.3. USFWS Ventura Office recommends surveys be conducted following USFWS protocols available at their website:

http://www.fws.gov/ventura/species_information/protocols_guidelines/ (USFWS, 2011).

4.3.44.3.3 Mitigation Measures

No new impacts to biological resources associated with implementation of the OCP Amendments have been identified; therefore, no new mitigation is required.

4.3.54.3.4 Changes in Environmental Effects and Residual Impacts

The amendment removing the wetland delineation from the map of Key Site 22 would not result in any new significant environmental impacts that were not analyzed in the OCP EIR, and therefore, no changes to the Level of Significance would occur. Any future development proposals in southwest Orcutt on Key Site 22 are subject to compliance with Section 404 of the federal Clean Water Act, and applicable state and County regulations.

ATTACHMENT 3

OCP 2012 Amendments FSEIR
Chapter 2.0 Project Description, Page 2-13

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2.4.2 Amendment 2: Key Site 22 Court Compliance

The purpose of this amendment is to comply with the court's direction in *Adam Brothers Farming, Inc. v. County of Santa Barbara, et al.* that a wetlands delineation be removed from the OCP for properties identified as Key Site 22. The court found,

"...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the "OCP") titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP are hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation."¹

~~In 2000, Adam Brothers Farming Inc. filed a lawsuit in Santa Barbara Superior Court against the County and individuals involved in preparing the wetlands delineation as a part of the OCP. In 2004, the court issued an order that the County remove all references to the Key Site 22 wetlands delineation² from the OCP and OCP FEIR and the jury awarded damages to the plaintiff. The County appealed to the California Superior Court, who let stand the decision to strike the wetland delineation but dismissed the damage award. The plaintiff appealed the dismissal of the damage award and on January 26, 2009, the United States District Court dismissed the appeal.⁷~~

The wetlands delineation for Key Site 22 is depicted on three figures in the OCP, with the same three figures represented in the Final EIR. These maps are the *Map of Orcutt Significant Vegetation* (Figure 2-5 and 2-6 below), *Biological Habitat Map West* (Figure 2-7 and 2-8 below), and the *Site # 22 Map* (Figure 2-9 and 2-10 below). Text edits striking references to the wetland delineation; along with a list of the court-required map changes are summarized in Table 2-2 and Table 2-3 below.

¹ *Adam Bros. Farming, Inc. v. County of Santa Barbara* (Super Ct. Santa Barbara County, 2004, No. 1007452).

² *Vernal Wetlands and Orcutt Creek Wetlands Delineation, K. Rindlaub Biological Consulting, September 1, 1995*

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ATTACHMENT 4

OCP 2012 Amendments FSEIR
Section 4.3 Biology

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4.3 Biological Resources

This section discusses the potential for the project to create new impacts to biological resources, important species, or habitat, or change the level of impacts previously analyzed in the Orcutt Community Plan Final EIR (95-EIR-1) (OCP EIR).

4.3.1 Setting

The OCP FEIR Section **5.2 Biological Resources** and **Volume II (Key Sites)** evaluate biological resources, describe in detail the biological setting of the plan area, and are incorporated herein by reference.

Biological information from the following surveys and assessments conducted in the project area supplement the biological setting.

The U.S. Fish and Wildlife Service (USFWS) Ventura Office has documented occurrences of special status species and supporting habitat on land in southwest Orcutt, including the federally designated endangered California Tiger Salamander (*Ambystoma californiense*) (USFWS, 2009). USFWS has documented occurrences ~~on Key Site 22~~ of the federally designated threatened California red-legged frog (*Rana draytoni*) in southwest Orcutt (Sadinsky, 1999 2009).

The California Natural Diversity Database (CNDDDB) documents the presence of the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) in a pond in southwest Orcutt. USFWS points to a likelihood that, due to its proximity in the pond, the species also occurs in the vernal pool complex located in southwest Orcutt ~~on the north portion of Key Site 22~~ (CNDDDB, 2010, and USFWS, 2011).

Southern and eastern portions of southwest Orcutt ~~Key Site 22~~ lie within designated critical habitat for the La Graciosa thistle (*Cirsium loncholepis*) (Federal Register, Vol. 74, Page 56978). Orcutt Creek in southwest Orcutt, ~~which flows through Key Site 22~~, and its tributaries provide suitable habitat for two other federally designated plant species, the Gambel's watercress (*Rorippa gambelii*) and the marsh sandwort (*Arinaria paludicola*) (USFWS, 2011).

The federally designated endangered least Bell's vireo (*Vireo bellii pusillus*), is recovering in the region and nests and forages almost exclusively in riparian woodland habitats. The USFWS has identified the Orcutt Creek riparian corridor in southwest Orcutt ~~Key Site 22~~ as potentially suitable habitat for the least Bell's vireo (USFWS, 2011).

Regulatory Setting

Federal and State Requirements for Protection of Biological Resources.

Environmental impact analysis and mitigation needs to take into account Federal and State biological resource regulations. The Federal Endangered Species Act and California Endangered Species Act formally list plant and animal species determined to be rare, threatened or endangered, or candidate species, and establish regulations for protecting these species and their habitats.

Other federal statutes include the National Environmental Policy Act (NEPA), the Clean Water Act Section 404 (for protection of wetlands), Bald Eagle Protection Act, Migratory Bird Treaty Act, Executive Order 11990 (wetlands protection), Rivers and Harbors Act Section 10, Marine

4.3 Biological Resources

Protection, Sanctuary and Research Act, Marine Mammal Protection Act, and Section 1601 and 1603 Stream Alteration Agreements.

Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Game (riparian areas and other waters of the State, state-listed species);
- County of Santa Barbara (Orcutt Community Plan consistency and land use planning/permitting, locally sensitive species and habitats)

U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material or otherwise adversely modify wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources.

Any fill or adverse modification of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving the creation or enhancement of similar habitats.

United States Fish and Wildlife Service. The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 *et seq.*). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at anytime.

California Department of Fish and Game. The CDFG derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 *et. seq.*) prohibits take of state listed threatened, endangered, or fully protected

species. Take under CESA is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFG also prohibits take for species designated as Fully Protected under Fish and Game Code. California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

Species of Special Concern (SSC) is a category used by the CDFG for those species which are considered indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFG for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands. The CDFG also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 *et seq.*). The NPPA requires the CDFG to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant. Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFG. Section 1600 *et seq.* of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFG regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

County Biological Resources Policies

Requirements for the protection of biological resources in the unincorporated area of Santa Barbara County are provided by the Comprehensive Plan Conservation Element, Environmental Resource Management Element (ERME), Land Use Element, and Community Plans. These documents identify sensitive habitats and species, and provide measures to direct project design and policies to protect biological resources. In addition, the County maintains a list of locally important plant species and attempts to minimize development impacts to these species. The County also regulates impacts to wetlands through the discretionary permitting process.

Orcutt Community Plan Policies

~~The OCP EIR identified biological impacts for a variety of properties within Orcutt, including Key Site 22. Mitigation measures prescribed for these impacts were outlined in the OCP EIR (see Table 4.3.1 below), and several of these mitigation measures were incorporated into the Final OCP as policies and development standards.~~

4.3.2 Previously Identified Impacts and Mitigation Measures

~~The OCP EIR identified mitigation measures for the following general impacts on Key Site 22: BIO-3: associated with the Union Valley Parkway extension in Key Site 22, BIO-4: construction of E Street, BIO-5: Dutard Road, BIO-8: trail construction and use, BIO-9: paved bicycle paths, BIO-11: Dutard/Solomon trunk line, BIO-14: retention basins, BIO-15: creek maintenance and emergency work, BIO-16: construction of new schools, BIO-20 elimination of wetlands, BIO-21~~

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~~elimination of candidate species, BIO-22: fragmentation of wetland and upland habitat, BIO-23: elimination of grasslands, BIO-24: elimination of ancient sand dunes, BIO-25: elimination of sandhill chaparral, and BIO-33: weed invasion as listed in Section 5.2 and anticipated to result from future development on Key Site 22.~~

~~Mitigation BIO-1 addresses road construction impacts, BIO-2 addresses construction of trails, bike paths and their use, Mitigation BIO-14 addresses BIO-15 which is specific to flood control, but applies to all construction along the floodway on Key Site 22. Impact BIO-14 identifies impacts resulting from the construction of the retention basins identified in the regional basins program. Table 4.3.1 identifies Key Site specific impacts to biology and mitigation measures previously identified in the OCP FEIR. A comprehensive list of all court compliance text and map edits is included in Exhibits B.4 through B.11. Please refer to the OCP FEIR Chapter 5.2 and Volume II, Key Site 22 for the complete impacts discussion.~~

~~Table 4.3.1 OCP EIR Biological Resources Impacts and Mitigation Measures~~

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
Key Site 22			
KS22 BIO-4	Reduction in Habitat: Development of 2,000 units on the site would create potentially significant impacts through elimination of 120 acres of vernal wetland/grassland complex, 37 acres of sandhill chaparral, 90 acres of freshwater marsh, and 451 acres of annual grassland.	Class I	KS22 BIO-1.1: The Open Space Overlay shall be applied to Key Site 22 as depicted in Figure KS22-4. KS22 BIO-1.2: Development plans shall incorporate the realignment of Dutard Road and E Street as shown in Figure KS22-5.1. KS22 BIO-1.3: the County shall implement a habitat protection and restoration program for the vernal wetland/grassland complex to protect the area from urban encroachment and to enhance the disturbed vernal wetland/grassland complex immediately adjacent to the existing alignment of Dutard Road. Protection measures shall include the installation of fencing, signs, and landscape buffers of appropriate native trees and shrubs. The plan shall be funding by the developer(s) of areas within the Site 22 and subject to review and approval by P&D.
KS22 BIO-2	Disruption of Habitat: The construction of E street would cause potentially significant impacts by disruption the large contiguous vernal wetland/grassland/dune complex which covers the northern portions of the site, and extends onto the Santa Maria Public Airport Property. Construction of the roadway would inhibit wildlife movement between vernal flats and dune upland areas, significantly reducing the ability of these interrelated habitat areas to support a wide variety of species.	Class I	BIO-1.2, BIO-1.3, and BIO-3.1 addresses this impact.
KS22 BIO-3	Contamination of Freshwater Marshes and Vernal Complexes: Runoff from streets and paved surfaces within developed areas could contaminate freshwater marsh areas and vernal complexes on the site. Residual oil, which accumulates on paved surfaces, could be carried to marsh and vernal wetland areas by stormwater runoff. Due to the sandy soils and high infiltration rates, contaminants could build up over time increasing in concentration and reaching harmful levels. This impact is	Class II	KS22 BIO-3.2: The overall drainage improvement plan for the Site 22 shall provide methods to control contaminated run-off from paved surfaces. Parking area design shall incorporate design features such as perimeter drains and catch basins to reduce contaminant levels in runoff before it enters the storm drain system. BIO-1.1 and BIO-3.2 also address this impact

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
	considered potentially significant.		
KS22-BIO-4	Impacts to Wildlife: The project could cause potentially significant impacts to wildlife associated with eventual habitation of the site including disturbance of habitat by domestic animals, nuisances to wildlife from noise and light sources, disruption of wildlife migration route, etc.	Class I	<p>BIO-4: Prior to construction of any roads crossing the vernal pool areas (e.g., E Street), wildlife surveys shall be conducted for sensitive species in the wetland areas within 300 feet of both sides of the outside edges of grading these roads. A habitat restoration plan for the project shall be submitted to P&D, US Fish & Wildlife Service, and California Fish & Game for approval prior to construction, and may include pre-construction relocation of sensitive animals, if appropriate. The habitat restoration plan shall include restoration of all wetland and dune habitats to previous or better conditions. The restoration plan shall be approved by P&D and PW and funded prior to construction. Implementation shall begin within one year of commencement of grading, and completed within 3 years of roadway completion.</p> <p>BIO-5: Union Valley Parkway and E Street shall be designed and constructed to include a bridge or bridges over the greatest amount of wetlands and sand dunes possible, in consultation with the California Department of Fish & Game, U.S. Fish & Wildlife Service and U.S. Army Corps of Engineers. Adequate vertical clearance beneath the bridge(s) for wildlife passage shall be accommodated where feasible. Where a bridge is not feasible, the road(s) shall be realigned as shown in Figures 2-10 and KS22-6A and constructed on berms above the adjacent ground surface, with box culverts beneath the road, suitable for passage by tiger salamanders and spadefoot toads, and maintained a minimum distance of every 500 feet and smaller flat-bottomed culverts at closer intervals. Prior to final roadway design, County and City Public Works Departments shall contract with a County approved biologist to determine the locations and frequency of the undercrossings.</p>
KS22-BIO-5	Impacts to Orcutt Creek Wildlife Corridor: Development of Key Site 22 from a rural into a suburban community could substantially disrupt the utilization by and movement of wildlife populations and diversity. Species which would be particularly vulnerable would be ground nesting species and animals dependent upon concealment and low levels of disturbance for survival.	Class I	<p>KS22 BIO-3.1: Structures and paved surfaces, except paved walkways or bikeways or interpretive displays, shall not be developed within 500 feet of the edge of vernal wetlands.</p> <p>BIO-4 and BIO-5 above also address this issue.</p>
			<p>KS22 BIO-4.0: A habitat protection and enhancement plan shall be prepared and implemented for the Orcutt Creek corridor including planting of grove of appropriate native trees and stands of shrubs along selected portions of the banks and top of bank of Orcutt Creek, the restoration and enhancement of selected wetlands areas within the floodplain, installation of selected areas of fencing around the most significant wildlife areas, installation of signs and walkways to help guide public use of those areas and the Orcutt greenway, biological connectivity between Orcutt Creek and the primary drainage from the Casmlia Hills. The plan shall be funded by the developer(s) of Site 22 and subject to review and approval by P&D.</p>
BIO-22	Fragmentation of Wetland and Upland Habitat. Development between wetland and upland retreat sites of amphibians (or on uplands themselves) would have a potentially significant impact on two federal candidates for the Endangered Species List: California Tiger Salamander and spadefoot toad, and would lead to their elimination from	Class I	<p>BIO-19: A minimum buffer of 100 feet, or fifty feet with installation of major screen planting native riparian vegetation, shall be maintained in natural condition from the edge of the wetland on Key Site 22. No structures shall be permitted with the complex or buffer area except for structures of a minor nature that help implement preservation of the resource (i.e.: fences and interpretive/educational signs). Passive recreational development such as seating areas, bike</p>

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Impact	Impact Summary	Impact Type	OCP EIR Mitigation
	the Orcutt Planning Area.		<p>paths and a trail shall be permitted a minimum distance of fifty feet of the edge of the wetland. Construction and installation of these facilities shall minimize the ground disturbance area and avoid erosion or sedimentation into the wetland.</p> <p>BIO-20: All new developments shall be sited and designed to preserve and enhance significant wildlife corridors consistent with accepted wildlife management practices, particularly between wetlands and adjacent upland areas.</p>
1995 OCP FEIR Analysis: Biology, Flood Control and Key Site 22			
BIO-14	<p>Retention Basins. Construction of retention basins on Key Sites 2, 8, 12, 18, 22, and 30 could result in the potentially significant impacts associated with removal of approximately 17 acres of riparian scrub, forest, and oak woodland.</p>	Class II	<p>BIO-3: Habitat restoration plans shall be required of all projects that would significantly impact wetlands, riparian woodlands, oak woodlands, and rare plants. The goal of the plan should be to restore a greater number of acres of mature vegetation (including understory if appropriate) that that which was impacted. If restoration on or near the site is not feasible, acquisition and permanent preservation of additional habitat acreage should be considered as long as the mitigation project resulted in a substantial increase in ecological functions. Success criteria should be clearly stated. The habitat restoration plan shall be prepared by a P&D qualified biologist and reviewed and approved by P&D, and bonded for by the applicant, prior to the issuance of a Land Use Permit on the site. The plan should clearly state who will fund and be responsible for long-term maintenance, who will monitor for success, and specific remedial measures.</p> <p>BIO-13: All new retention basins shall be sited and designed in a manner that avoids or minimizes impact to wetlands, riparian habitats and oak woodlands. Excavated fill shall not be place within these habitats and areas adjacent to or within these habitats which are disturbed during construction shall be revegetated with appropriate native species. Basins on Key Sites 3, 8, and 22 shall require implementation of Mitigation BIO-3. The Key Site 12 Basin shall be located on the east side of the existing access road. The retention basin on Key Site 30 shall be located in the area of the site currently lacking sensitive habitat. All sensitive habitat areas adjacent to these basins shall be fenced prior to commencement of grading to prevent disturbance and stockpiling in these areas.</p> <p>BIO-14: Requires that all round disturbance and construction on Key Site 22 shall be located outside of the floodway and due to high habitat value, a minimum of 100 feet from the dripline of riparian vegetation</p> <p>BIO-2: Minimize removal of riparian vegetation for bicycle paths. Requires 50-foot setback (if feasible) from edge of riparian vegetation or top of bank, whichever protects greater area. Restore riparian habitat between path and creek. Direct lighting away from the creek.</p> <p>BIO-3: Provides for preparation of habitat restoration plans for projects that significantly impact wetlands, oak woodland, and rare plant impacts.</p> <p>BIO-3.1: Recommendation to P&D to establish a regional mitigation bank to offset habitat loss in cooperation with other agencies as funding becomes available.</p> <p>BIO-3.2: Suggests locations for purchase and preservation as offsite mitigation in the event that on-site preservation and restoration options are</p>

Impact	Impact Summary	Impact Type	OCP EIR Mitigation
			exhausted. BIO-6: Road lighting shall be designed to minimize spill into native habitat areas.
BIO-15	Creek Maintenance and Emergency Work. Although changes in the Flood Control District's maintenance practices are proposed, level of effort of maintenance (desilting, channel shaping, vegetation removal and herbicide spraying in the channel) may increase in Orcutt, Solomon and Pine Canyon Creeks in order to protect future development within the floodplain or floodway. These new maintenance areas could cause potentially significant impacts by: 1) alteration of the physical features of the creek channel, 2) removal of riparian scrub, forest, and live oak communities, and 3) temporary but reoccurring disturbances to wildlife on Key Sites 3, 5-8, 10-13, 15, 19, 22, A, F, and D. Responses to emergency flooding could also significantly impact these riparian communities as a result of the use of heavy equipment in and around the creek to remove fallen logs and other debris blocking the channel.		BIO-14: Ground disturbance and construction on Key Sites 3, 5-8, 10-13, 15, 19, 22, A, F, and D, except hiking/ biking trails and other recreational facilities, shall be located outside of the floodway and a minimum distance of 50 feet from the dripline of riparian vegetation. Due to particularly high habitat values on Key Sites 3 and 22, the minimum distance shall be increased on these two sites to 100 feet.

4.3.34.3.2 OCP ~~2012~~ 2011 Amendments Impact Analysis

The OCP Key Site 22 Wetlands Delineation Removal Amendment incorporates revisions into the *Orcutt Community Plan (OCP)* and the OCP FEIR (95-EIR-1) necessary for compliance with the court order issued in *Adam Bros. Farming Inc. v. County of Santa Barbara* (Super. Ct. Santa Barbara County, 2004, No. 1007452). The court found,

“...that the Orcutt Creek wetlands delineation prepared by Katherine Rindlaub in 1995 was not accomplished according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and contains factual inaccuracies. Consequently, that portion of the appendices to the Environmental Impact Report of the Orcutt Community Plan (the “OCP”) titled Vernal Wetlands and Orcutt Creek Wetland Delineation prepared by Katherine Rindlaub Biological Consulting and bearing the date of September 1, 1995, is ordered stricken from the Environmental Impact Report. Furthermore, any conclusions based in whole or in part on said delineation in any document including but not limited in the OCP area hereby stricken.

The Court further orders that all references to said delineation be removed from the OCP, and all maps contained within the plan which incorporate any part of the delineation be stricken, or in the case of any mapping containing the delineation, or portraying other features of the OCP that they be modified to delete any and all references to the delineation.”

~~The wetlands delineation, *West Orcutt Planning Area 8 Vernal Wetland and Orcutt Creek Wetland Delineation*, Katherine Rindlaub Biological Consulting September 1, 1995, in Appendix D of the OCP EIR and prepared for Key Site 22 (formerly Planning Area 8) was deemed by the court (*Adam Brothers Farming v. County of Santa Barbara* 2008 Cal. App. Unpub. LEXIS 1831604 F.3d~~

4.3 Biological Resources

~~1142 (2010)) to have been prepared improperly, and for all references to the document be removed from the OCP and OCP-EIR.~~

The court's order did not affect the status of the wetlands delineation prepared for the wetland/sand dune complex that occurs in the north portion of Key Site 22 and Airport property (Olsen, 1992).

Removal of the wetland delineation references and mapping from the OCP and Final EIR does not remove legal requirements for property owners to comply with wetland regulations in the federal Clean Water Act or federal and state regulations protecting special status species (See Section 4.3.1 Regulatory Setting above). Future development proposals or grading on Key Site 22 will be required to demonstrate compliance with all applicable federal, state, and county regulatory requirements, including the California Environmental Quality Act (CEQA) and the federal and state Endangered Species Acts (ESA) prior to permit approval. The Santa Barbara County Planning and Development Department requires a field assessment of properties in this area for the potential for special status species, including the following federally designated endangered species: such as the California Tiger Salamander, California red-legged frog, the vernal pool fairy shrimp, La Graciosa thistle, Gambel's watercress, marsh sandwort, and Least Bell's vireo, all of which which was listed by the U.S. Fish and Wildlife Service (USFWS) as an Endangered Species on August 4, 2004, and has have been documented on Key Site 22 or in proximity to southwest Orcutt to the site(USFWS, 2011). As detailed in the project description above, the text and map ~~revisions required by the~~ stricken by the court are listed in **Chapter 2, Project Description**, Tables 2.2 and 2.3. USFWS Ventura Office recommends surveys be conducted following USFWS protocols available at their website:

http://www.fws.gov/ventura/species_information/protocols_guidelines/ (USFWS, 2011).

4.3.44.3.3 Mitigation Measures

No new impacts to biological resources associated with implementation of the OCP Amendments have been identified; therefore, no new mitigation is required.

4.3.54.3.4 Changes in Environmental Effects and Residual Impacts

The amendment removing the wetland delineation from the map of Key Site 22 would not result in any new significant environmental impacts that were not analyzed in the OCP EIR, and therefore, no changes to the Level of Significance would occur. Any future development proposals in southwest Orcutt on Key Site 22 are subject to compliance with Section 404 of the federal Clean Water Act, and applicable state and County regulations.