

Revised Draft Environmental Impact Report
for
Santa Margarita Ranch
Agricultural Residential Cluster Subdivision Project
and
Future Development Program

State Clearinghouse No. 2004111112

Case number:
VTTM 2586

Prepared for:
County of San Luis Obispo
Department of Planning and Building
County Government Center
San Luis Obispo, California 93408

Contact:
Martha Miller, Project Manager
(805) 781-4576

Prepared by:
Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

February 7, 2008





San Luis Obispo County

Department of Planning and Building Environmental Division

TO: Interested Party
DATE: February 7, 2008
FROM: Martha Miller, EIR Manager
SUBJECT: Santa Margarita Ranch Agricultural Cluster Subdivision Project and Future Development Program -- Notice of Availability of Revised Draft EIR (Tract 2586)

The Revised Draft Environmental Impact Report (RDEIR) for the Santa Margarita Ranch Agricultural Cluster Subdivision Project and Future Development Program is complete and available for public review and comment. The RDEIR is a revision to the Draft Environmental Impact Report (DEIR) prepared for the Santa Margarita Ranch Agricultural Cluster Subdivision Project and Future Development Program. It is intended to address several issues that have arisen since the time the DEIR was originally prepared for the project and program.

The proposed project is within the Agriculture land use category and is located south of the community of Santa Margarita southwest of West Pozo Road.

Copies of the RDEIR are available at the following locations: Santa Margarita Library, Cal Poly Library and City/ County Library of San Luis Obispo. Copies are also available on loan and for review at the Environmental Division of the Planning Department, located at the 976 Osos St., Room 300, San Luis Obispo, 93408-2040. The EIR is on the Planning Department's web site at: www.sloplanning.org under "Environmental Information and Natural Resources", then "Environmental Notices, Proposed Negative Declarations, EIRs and other Documents".

ENVIRONMENTAL IMPACTS:

The RDEIR is a revision to the Draft EIR prepared for the project. It is intended to address several issues that have arisen since the time the Draft EIR was originally prepared for the project. The RDEIR updated analysis includes agricultural resources, air quality, biological resources, drainage, erosion and sedimentation, public safety, public services, transportation and circulation, water and wastewater, alternatives, and Appendix H. The RDEIR also considers three additional project alternatives.

HOW TO COMMENT OR GET MORE INFORMATION:

Anyone interested in commenting on the RDEIR should **submit a written statement by 5:00 p.m. on March 28, 2008**, to:

Martha Miller, Project Manager
County Planning & Building Dept.
976 Osos St., Rm. 300
San Luis Obispo, CA 93408-2040

If you need more information about this project, please contact Martha Miller at (805)781-4576 (or e-mail: mllmiller@co.slo.ca.us).

PUBLIC HEARING:

The public hearing before the Planning Commission to certify the EIR and consider the project for approval has been tentatively scheduled for **July 2008**, in the Board of Supervisors Chambers, County Government Center, San Luis Obispo. If you plan to attend, please call two weeks before this date to verify.

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TABLE OF CONTENTS

	Page
1.0 Introduction	
1.1 Environmental Review History	1-1
1.2 Legal Authority and Public Review	1-2
1.3 Contents of the Revised Draft EIR.....	1-2
2.0 Updated Environmental Analysis	
2.1 Agricultural Resources.....	2-1
2.2 Air Quality	2-17
2.3 Biological Resources	2-41
2.4 Drainage, Erosion and Sedimentation	2-82
2.5 Public Safety	2-83
2.6 Public Services.....	2-87
2.7 Transportation and Circulation	2-90
2.8 Water and Wastewater.....	2-110
2.9 Alternatives.....	2-118
2.10 Appendix H	2-125
3.0 Analysis of New Alternatives	
3.1 Alternative 12: Amended Project.....	3-1
3.2 Alternative 13: Smart Growth/ Affordable Housing	3-21
3.3 Alternative 14: Reduced Project.....	3-29
3.4 Environmentally Superior Alternative	3-37
List of Figures	
Figure 2-1 Proposed Agricultural Residential Cluster Subdivision Prime Agricultural Soils	2-9
Figure 2-2 Future Development Program Prime Agricultural Soils.....	2-11
Figure 2-3 Habitat Map	2-53
Figure 2-4 Proposed Agricultural Residential Cluster Subdivision Biological Impact Map	2-55
Figure 2-5 Future Development Program Biological Constraints Map	2-57
Figure 3-1 Alternative 12: Amended Project: Comparison to Agricultural Residential Cluster Subdivision.....	3-3
Figure 3-2 Alternative 12: Amended Project Prime Agricultural Soils	3-5
Figure 3-3 Alternative 12: Amended Project Biological Impact Map	3-9
Figure 3-4 Alternative 12: Amended Project Landslide Hazards	3-15
Figure 3-5 Alternative 12: Amended Project Liquefaction Hazards.....	3-17
Figure 3-6 Alternative 13: Smart Growth/ Affordable Housing.....	3-23
Figure 3-7 Alternative 14: Reduced Project	3-31
List of Tables	
Table 4.1-1 Santa Margarita Ranch Soil Map Units and Agricultural Classifications...	2-3
Table 4.2-1 Air Quality Standards.....	2-18



Table 4.2-5	Operational Emissions Associated with Proposed Agricultural Residential Cluster Subdivision (lbs/day).....	2-22
Table 4.2-6	Emissions During Agricultural Residential Cluster Subdivision Development.....	2-27
Table 4.2-7	Agricultural Residential Cluster Subdivision and Future Development Program Consistency with California Climate Action Team Strategies ...	2-37
Table 4.3-2	Agricultural Residential Cluster Subdivision Site Habitat Summary Table.....	2-42
Table 4.3-5	Impacts to Habitat Types Resulting from Development of the Proposed Agricultural Residential Cluster Subdivision.....	2-51
Table 4.12-14(a)	Cumulative Two-Lane Highway Levels of Service.....	2-100
Table 4.12-14(b)	Cumulative Local Roadway Levels of Service.....	2-101
Table 4.12-14(c)	Cumulative U.S. 101 Mainline Levels of Service.....	2-101
Table 4.12-15	Cumulative + Future Development Program U.S. 101 at SR 58 Ramp Junction Levels of Service.....	2-102
Table 4.12-16	Cumulative + Future Development Program Intersection Levels Of Service.....	2-104
Table 4.14-1	Existing Ranch Water Demands.....	2-111
Table 6-7	Agricultural Residential Cluster Subdivision Alternative Impact Comparison.....	2-125
Table 3-1	New Alternatives Impact Comparison.....	3-38

Appendix

Appendix A: Revised Air Emission Calculations



1.0 INTRODUCTION

This document is a revision to the Draft Environmental Impact Report (EIR) prepared for the Santa Margarita Ranch Agricultural Residential Cluster Subdivision and Future Development Program in the County of San Luis Obispo. It is intended to address several issues that have arisen since the time the Draft EIR was originally prepared for the project and program. These issues include:

- *New information related to certain aspects to the environmental impact analysis*
- *Three new alternatives that revise the proposed Agricultural Residential Cluster Subdivision*

Although the revisions to the Draft EIR may address concerns expressed by commentors during public review of the Draft EIR, this document does not directly respond to such comments. Comprehensive, direct responses to comments on the Draft EIR, and additional revisions and clarifications, will be provided in a forthcoming Final EIR that includes responses to all comments received during the public review periods for both the Draft EIR and this Revised Draft EIR.

1.1 ENVIRONMENTAL REVIEW HISTORY

The Draft EIR (January 2007) examined the Santa Margarita Ranch Agricultural Residential Cluster Subdivision Project and Future Development Program, which includes two components: 1) an Agricultural Residential Cluster Subdivision (Tentative Tract 2586), for which an application has been filed with the County, and 2) a Future Development Program, for which no application has been filed. The proposed agricultural residential cluster development includes 111 clustered homesites and one ranch headquarters unit (located on Parcel 42), with development area totaling 163.1 acres, with the remaining 3,633 acres placed in agricultural conservation easements (ACEs). The agricultural cluster subdivision includes transportation infrastructure, water service improvements, underground wire utilities, and on-site septic systems. The proposed residential units would be located throughout a 676.7 acre area in the north-central portion of the site, west of West Pozo Road, to be constructed in three phases, each with independent services, infrastructure, and respective agricultural/conservation dedications. The Future Development Program includes the balance of the 550 single-family residential units allowable pursuant to the Salinas River Area Plan (i.e., 402 residences) and the additional following uses: private golf course, club house and pro shop; guest ranch, lodge, and restaurant; 12-room bed and breakfast; cafe; amphitheater; crafts studios, galleries and shops; interpretive center and gift shops; nine wineries with tasting rooms and permitted special events; neighborhood park and swimming pool; five ranch/farm headquarters; one livestock sales yard and café; three places of worship; and a retreat center.

The Draft EIR was circulated for an extended 90-day public review period, beginning January 6, 2007 and concluding April 12, 2007. In addition, a public workshop was held on January 11, 2007 to discuss issues and concerns related to the project and program.

The project has not yet been approved, nor has the EIR been certified. Instead, since January 2007, numerous public comments have been received, as well as substantial new technical information related to certain issues (including agriculture, air quality, and water), and a new



agricultural residential cluster subdivision project alternative submitted by the applicant. Some of this new information affects the environmental impact analysis contained in the Draft EIR.

This Revised Draft EIR is being prepared to address the issues that have surfaced since the preparation of the Draft EIR in January 2007. This revision to the existing EIR will be circulated for public review, then a Final EIR will be prepared that addresses public input. The Revised Draft EIR, along with the original Draft EIR and a Final EIR Responses to Comments document, will then collectively be considered for certification. The original Draft EIR and Revised document are considered as a single EIR.

1.2 LEGAL AUTHORITY and PUBLIC REVIEW

This document has been prepared in accordance with the California Environmental Quality Act (CEQA), and the *State CEQA Guidelines*. In accordance with Section 15121(a) of the *State CEQA Guidelines*, this report is to serve as an informational document for the public and County of San Luis Obispo decision-makers.

In accordance with *State CEQA Guidelines* Section 15088.5, a lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified. In such cases, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. Accordingly, this Revised Draft EIR is limited to revisions and amendments to certain sections of the Draft EIR. Reviewers of the Revised Draft EIR should limit the scope of their comments to only the revised portions of the Draft EIR, as contained in this document.

Because the EIR prepared for this project has not yet been certified, this Revised Draft EIR will be attached to the existing Draft EIR and Final EIR Responses to Comments document, and collectively will be considered for certification upon its completion. The process will culminate with Planning Commission and potential Board of Supervisors hearings to consider certification of a Final EIR and a decision whether to approve the proposed project, possibly with conditions of approval.

1.3 CONTENTS OF THE REVISED DRAFT EIR

The Revised Draft EIR to be circulated will include only the following contents, and does not revisit the January 2007 Draft EIR document in its entirety. Interested readers can review the original Draft EIR at the County of San Luis Obispo Department of Planning and Building offices located at the County Government Center on the corner of Osos Street and Monterey Street, San Luis Obispo, California 93408. This Revised Draft EIR includes the following sections:



- ***Introduction (Section 1.0)***, explaining the relationship of this document to previous analysis. It also includes information regarding legal authority and public review of the Revised Draft EIR.
- ***Updated Evaluation Based on Revised or New Technical Data (Section 2.0)***, including information about agricultural resources, air quality (including a new global climate change analysis), biological resources, drainage, erosion and sedimentation, public safety (valley fever), public services (libraries), transportation/circulation, and water. This information is presented in a manner to update information already included in the present Draft EIR. This section includes only information that differs substantively from what is included in the Draft EIR from January 2007 and does not directly respond to concerns expressed by commentors during public review of the Draft EIR.
- ***Environmental Evaluation of New Alternatives (Section 3.0)***, including one alternative based on a revised project map and information submitted by the applicant and two alternatives which address comments received during circulation of the Draft EIR. The new alternatives are referred to in this document as Alternative 12: Amended Project; Alternative 13: Smart Growth/ Affordable Housing; and Alternative 14: Reduced Project. Alternative 12 was designed to address key questions related to oak trees and other biological resources, views of the project from off-site public viewpoints, conversion of prime soils, and impacts to cultural resources.

This information will be circulated for public review in accordance with CEQA requirements. Following this, a Final EIR will be prepared. It will include the following information:

- ***Responses to Comments.*** The Final EIR will include responses to written comments on the Revised Draft EIR content arising during the public review period. Any changes to the text of the Revised Draft EIR will be noted in the text.
- ***Responses to Previously Submitted Comments.*** During the public review period for the Draft EIR in January to April 2007, the County received many written and oral comments from the public, agencies, and applicant team. The responses to these comments have not appeared in any official CEQA documents to date. Responses to these comments will also be included in the Final EIR.

2.0 UPDATED ENVIRONMENTAL ANALYSIS

This section updates information already included in the present Draft EIR, based on new or revised technical data that has become available since preparation of this document. The intent is to update the environmental evaluation of the proposed Agricultural Residential Cluster Subdivision and Future Development Program already studied in the Draft EIR. Three new alternatives are evaluated separately in Section 3.0 of this document.

This section includes only information that differs substantively from what is included in the Draft EIR from January 2007. This section does not directly respond to comments received during public review of the Draft EIR. Updated issue areas include: agricultural resources; air quality (including a new global climate change analysis); biological resources; drainage, erosion and sedimentation; public safety (valley fever); public services (libraries); transportation/circulation; and water. Attachments to the Appendix H Drainage and Wastewater technical analysis which were excluded from the Draft EIR are also provided herein.

Changes to the Draft EIR text are noted with **bold** (for added text) or ~~strikeout~~ type (for deleted text). If text is added where the font is already bold, additions are noted using **underlined bold font**.

2.1 AGRICULTURAL RESOURCES

Summary of Draft EIR Analysis. The Draft EIR identified *significant and unavoidable* (Class I) impacts related to agricultural conversion for both the Agricultural Residential Cluster Subdivision and Future Development Program. The Draft EIR concluded that the Agricultural Residential Cluster Subdivision would permanently compromise the sustainability of a 676.7-acre grazing unit and would permanently convert 5 acres of prime soil to non-agricultural uses, while the Future Development Program would permanently convert existing grazing lands and 573 acres containing prime soils to non-agricultural use. Both the Agricultural Residential Cluster Subdivision and Future Development Program were also found to result in Class I, *significant and unavoidable*, land use compatibility impacts. These compatibility impacts related primarily to conflicts between proposed urban uses and existing and future agricultural uses (including vineyards and grazing).

Updated Analysis. Since the preparation of the Draft EIR, the San Luis Obispo County Agricultural Commissioner's Office has provided additional guidance regarding the definition of prime soils. The Draft EIR defined prime soils as those with a Land Capability Class of I or II or a Storie Index of 80 to 100. This is based on the State definition of prime agricultural land, per Government Code § 51201:

- (c) "Prime agricultural land" means any of the following:
 - (1) All land that qualifies for rating as Class I or Class II in the Natural Resource Conservation service land use capability classification.
 - (2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.
 - (3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United State Department of Agriculture.



However, this definition does not take into account the federal definition of prime farmland, per Code of Federal Regulations (CFR) Title 7 (Agriculture) § 657.5(a) (1):

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses.

Soils are designated as prime farmland by the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). Although this is a federal definition, the NRCS is an accepted source of soils data in San Luis Obispo County for land use planning [as outlined in San Luis Obispo County's Agriculture and Open Space Element, Appendix C (Agricultural Mapping Criteria)]. In addition, NRCS soils data provides an objective, accurate determination of soil classifications Countywide. As a result, and based on guidance from the San Luis Obispo County Agricultural Commissioner, a soil with an NRCS farmland classification of "prime farmland if irrigated" is also considered prime in the revised analysis.

Additionally, the NRCS Soil Survey for the Santa Margarita Ranch area was updated on January 4, 2007 (the Draft EIR was circulated in December 2006). Maps were digitized and/or modified to improve compatibility with adjacent soil survey areas. This latest data is available on-line through the NRCS Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>). In addition to general mapping updates, the Web Soil Survey also uses Arabic rather than Roman numerals for Land Capability Class ratings (primarily because Roman numerals conflict with digital databases) and uses the California Revised Storie Index (which is computer generated for the sake a greater consistency between authors). The California Revised Storie Index lists soils by their grade rather than their total point score. Grades and points correspond as follows: grade 1 (excellent, 80 to 100 points); grade 2 (good, 60 to 79 points); grade 3 (fair, 40 to 59 points); grade 4 (poor, 20 to 39 points); grade 5 (very poor, 10 to 19 points); and grade 6 (nonagricultural, less than 10 points).

The analysis in Section 4.1, *Agricultural Resources*, has therefore been revised to utilize a more accurate definition of prime soils as well as the most up-to-date soils data available. Methodologies used in the on-line soils database were also incorporated into the analysis to ensure consistency. Changes to the section are indicated below.

Sections 4.1.1(c) (Santa Margarita Ranch Soil Characteristics) and 4.1.1(d) (Santa Margarita Ranch Farmland Characteristics) have been revised as follows:

c. Santa Margarita Ranch Soil Characteristics. ~~The individual characteristics~~ **Agricultural classifications** of each soil type found within the Santa Margarita Ranch property were analyzed based on their Capability Class, ~~and California Revised Storie Index grade~~ **and NRCS farmland designation**. Capability Classes provide insight into the suitability of a soil for field crop uses based on factors that include texture, erosion, wetness, permeability, and fertility. ~~By USDA definition~~ **As defined in Government Code Section 51201 (California Land Conservation Act of 1965),** Capability Class ~~I 1~~ and Class ~~II 2~~ soils qualify as prime soils, ~~depending on irrigation.~~ **The Storie Index ratings evaluate the agricultural suitability of a soil for intensive farming based on the soil depth, texture, density, drainage, alkali content and relief is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California. The Storie Index assesses the productivity of a soil from the following four characteristics: factor A, degree of soil**



profile development; factor B, texture of the surface layer; factor C, slope; and factor X, manageable features, including drainage, micro relief, fertility, acidity, erosion, and salt content. ~~By USDA definition~~ As defined in Government Code Section 51201 (California Land Conservation Act of 1965), soils with a Storie Index from 80 to 100 qualify as prime soils. **Under the California Revised Storie Index, this translates to Grade 1 (excellent) index rating.** Together the Capability Class and Storie Index can be used to help evaluate the soil suitability for agriculture. **The NRCS farmland classification identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. It identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland.**

Santa Margarita Ranch soils and their Capability Class, **California Revised** Storie Index Rating, and **NRCS Prime Soil farmland** classification are shown in Table 4.1-1. Prime soils are defined as those with a Land Capability Class of ~~I 1~~ or ~~II 2~~, or a **California Revised Storie Index of 80 to 100 Grade One (Excellent), or an NRCS farmland classification of “prime farmland if irrigated.”**

Table 4.1-1 Santa Margarita Ranch Soil Characteristics Map Units and Agricultural Classifications

Map Unit	Name	Capability Class		CA Revised Storie Index	NRCS Prime Soil Farmland Classification	Prime Soil?
		Irrigated	Non-Irrigated			
101	Arbuckle fine- sandy loam (2 – 9% slopes)	III 3	IV 4	85 Grade One – Excellent	Prime Farmland if Irrigated	Yes
102	Arbuckle-Positas complex (9 – 15% slopes)	III 4	IV 4	59 Grade One – Excellent	Non-t Prime Farmland	Yes
103	Arbuckle-Positas complex (15 – 30% slopes)	IV 6	IV 6	45 Grade Two – Good	Non-t Prime Farmland	No
104	Arbuckle-Positas complex (30 – 50% slopes)	NA 7	V 7	28 Grade Three - Fair	Non-t Prime Farmland	No
106	Arbuckle-San Ysidro complex (2 – 9% slopes)	III 3	IV 4	72 Grade One – Excellent	Non-Prime Farmland of Statewide Importance	Yes
108	Arnold-San Andreas complex (30 – 75% slopes)	NA 7	V 7	43 Grade Four – Poor	Non-t Prime Farmland	No
109	Ayar and Diablo soils (9 – 15% slopes)	III 3	IV 4	43 Not Rated	Non-t Prime Farmland	No
110	Ayar and Diablo soils (15 – 30% slopes)	IV 4	IV 4	36 Not Rated	Non-t Prime Farmland	No
114	Balcom-Nacimiento association, moderately steep	NA 4	IV 4	28 to 25 Grade Three – Fair	Non-t Prime Farmland	No
116	Botella sandy loam (2 – 9% slopes)	II 2	IV 4	77 Grade One – Excellent	Prime Farmland if Irrigated	Yes
126	Cieneba coarse sandy loam (30 – 75% slopes)	NA 7	V 7	6 Grade Six – Nonagricultural	Non-t Prime Farmland	No



Table 4.1-1 Santa Margarita Ranch Soil Characteristics Map Units and Agricultural Classifications

Map Unit	Name	Capability Class		CA Revised Storie Index	NRCS Prime Soil Farmland Classification	Prime Soil?
		Irrigated	Non- Irrigated			
127	coarse sandy loams Cieneba-Andregg complex (30 – 75% slopes)	NA 7	∇H 7	40 Grade Five – Very Poor	Non-t Prime Farmland	No
129	Clear Lake clay	NA 3	∇ 4	24 Grade Five – Very Poor	Non-t Prime Farmland	No
130	Clear Lake clay, drained	# 2	∇ 4	38 Grade Three – Fair	Prime Farmland if Irrigated	Yes
133	Cropley Cropley clay (2 – 9% slopes)	# 2	∇ 4	38 Grade Three – Fair	Prime Farmland if Irrigated	Yes
134	Dibble clay loam (9 – 15% slopes)	## 3	∇ 4	35 Grade Three – Fair	Non-t Prime Farmland	No
138	Elder loam (0 – 2% slopes)	† 1	∇ 4	400 Grade One – Excellent	Prime Farmland if Irrigated	Yes
139	Elder loam (2 – 9% slopes)	# 2	∇ 4	90 Grade One – Excellent	Prime Farmland if Irrigated	Yes
140	Elder loam, flooded (0 – 5% slopes)	# 2	∇ 4	85 Grade Two – Good	Prime Farmland if Irrigated and Drained	Yes
143	Gaviota-San Andreas association, very steep	NA 7	∇H 7	7 to 12 Not Rated	Non-t Prime Farmland	No
144	Gazos shaly clay loam (9 – 30% slopes)	∇ 4	∇ 4	28 Grade Four – Poor	Non-t Prime Farmland	No
145	Gazos shaly clay loam (30 – 50% slopes)	NA 6	∇ 6	46 Grade Five – Very Poor	Non-t Prime Farmland	No
147	fine sandy loams soils (0 – 2% slopes)	† 1	∇ 4	400 Grade One – Excellent	Prime Farmland if Irrigated	Yes
148	fine sandy loams soils (2 – 9% slopes)	# 2	∇ 4	85 Grade One – Excellent	Prime Farmland of Statewide Importance	Yes
149	Hanford and Greenfield gravelly sandy loams (0 – 2% slopes)	# 2	∇ 4	70 Grade Three – Fair	Prime Farmland if Irrigated	Yes
150	Hanford and Greenfield gravelly sandy loams (2 – 9% slopes)	# 2	∇ 4	63 Grade Three – Fair	Non-Prime Prime Farmland if Irrigated	Yes
152	Linne-Calodo complex (9 – 30% slopes)	∇ 4	∇ 4	39 Grade Four – Poor	Non-t Prime Farmland	No
153	Linne-Calodo complex (30 – 50% slopes)	NA	∇ NA	22 Grade Four – Poor	Non-t Prime Farmland	No
162	Lompico-McMullin complex (50 – 75% slopes)	NA 7	∇H 7	9 Grade Four – Poor	Non-t Prime Farmland	No



Table 4.1-1 Santa Margarita Ranch Soil Characteristics Map Units and Agricultural Classifications

Map Unit	Name	Capability Class		CA Revised Storie Index	NRCS Prime Soil Farmland Classification	Prime Soil?
		Irrigated	Non- Irrigated			
166	Metz loamy sand (0 – 5% slopes)	III 3	IV 4	64 Grade Two – Good	Non-Prime Farmland of Statewide Importance	No
167	Metz-Tujung complex, occasionally flooded (0 – 5% slopes)	NA 3	IV 4	55 Grade Two – Good	Non-t Prime Farmland	No
169	Millsholm-Dibble clay loams (15 – 30% slopes)	NA	VI NA	20 Not Rated	Non-t Prime Farmland	No
170	Millsholm-Dibble clay loams (30 – 50% slopes)	NA 6	VII 6	45 Not Rated	Non-t Prime Farmland	No
177	Nacimiento-Ayar complex (9 – 30% slopes)	IV 4	IV 4	49 Grade Three – Fair	Non-t Prime Farmland	No
179	Nacimiento-Los Osos complex (9 – 30% slopes)	IV 4	IV 4	33 Not Rated	Non-t Prime Farmland	No
182	Oceano loamy sand (2 – 9% slopes)	III 3	VI 6	68 Grade Two – Good	Non-Prime Prime Farmland if Irrigated	Yes
183	Pico fine sandy loam (0 – 2% slopes)	I 1	IV 4	100 Grade One – Excellent	Prime Farmland if Irrigated	Yes
185	Pits	Not Assigned 8	Not Assigned 8	Not Assigned Rated	Not Assigned Not Prime Farmland	No
188	Rincon clay loam (2 – 9% slopes)	II 2	IV 4	58 Grade One – Excellent	Prime Farmland if Irrigated	Yes
190	Rock outcrop-Gaviota complex (30 – 75% slopes)	NA 8	VIII 8	4 Not Rated	Non-t Prime Farmland	No
191	Ryer clay loam (2 – 9% slopes)	II 2	IV 4	58 Grade One – Excellent	Prime Farmland if Irrigated	Yes
192	San Andreas sandy loam (15 – 30% slopes)	IV 4	IV 4	35 Grade Three – Fair	Non-t Prime Farmland	No
193	San Andreas-Arujo sandy loams complex (9 – 15% slopes)	III 3	IV 4	50 Not Rated	Non-Prime Farmland of Statewide Importance	No
198	Santa Lucia-Lopez complex (15 – 30 50% slopes)	NA 6	VI 6	50 Not Rated	Non-t Prime Farmland	No
199	Santa Lucia-Gazos complex (50 – 75% slopes)	NA 7	VII 7	7 Not Rated	Non-t Prime Farmland	No
202	Shimmon loam (30 – 50% slopes)	NA 6	VI 6	23 Grade Four – Poor	Non-t Prime Farmland	No



Table 4.1-1 Santa Margarita Ranch Soil Characteristics Map Units and Agricultural Classifications

Map Unit	Name	Capability Class		CA Revised Storie Index	NRCS Prime Soil Farmland Classification	Prime Soil?
		Irrigated	Non- Irrigated			
203	Shimmon-Dibble association, steep	NA 6	VII 6	18 Grade Four – Poor	Non-t Prime Farmland	No
204	Shimmon-Dibble association, very steep	NA 7	VIII 7	11 Grade Four – Poor	Non-t Prime Farmland	No
207	Still clay gravelly loam (0 – 2% slopes)	I 2	IV 4	85 Grade Three – Fair	Prime Farmland if Irrigated	Yes
208	Still clay loam (2 – 9 – 2% slopes)	II 1	IV 4	76 Grade One – Excellent	Prime Farmland if Irrigated	Yes
209	Still gravelly clay loam (0 – 2 – 9% slopes)	II 2	IV 4	80 Grade One – Excellent	Prime Farmland if Irrigated	Yes
210	Vista coarse sandy loam (9 – 15% slopes)	NA 4	IV 4	36 Grade Three – Fair	Non-t Prime Farmland	No
211	Vista-Cieneba coarse sandy loams complex (15 – 30% slopes)	NA 4	VI 6	22 Grade Three – Fair	Non-t Prime Farmland	No
212	Xerofluvents-Riverwash association	NA 6	VIII 8	17 Not Rated	Non-t Prime Farmland	No

Sources: U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), Soil Survey of San Luis Obispo County, California, Paso Robles Area, May 1983. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 8/3/2007.

A total of 54 soil types map units occur on the Santa Margarita Ranch. Of these soils, nine (9) 13 are considered prime regardless of irrigation (i.e. have a California Revised Storie Index of Grade One), while 46 20 (total) are considered prime if irrigated.¹

d. Santa Margarita Ranch Farmland Characteristics. The California Department of Conservation (DOC) identifies and designates important farmlands throughout the State (2004) (refer to Figure 4.1-3). **DOC important farmlands differ from the NRCS farmland classification because the NRCS farmland classification is based solely on soil quality, while the DOC important farmland designation is based on both soil quality and current land use. According to the DOC important farmland mapping, the Santa Margarita Ranch contains approximately 416 acres of Prime Farmland. The Ranch also contains approximately 389 acres of Farmland of Statewide Importance and 105 acres of Unique Farmland. In addition, the Ranch contains approximately 443 acres of Farmland of Local Importance and 3,788 acres of Farmland of Local Potential. Examples of Farmland of Local Importance include dry farmed areas of the ranch, while examples of Farmland of Local Potential includes some of the ranch that is currently used for grazing that has soils that are suitable for farming but are not cultivated at this time. Some areas of the ranch that have**

¹ This distinction is made because the Land Capability Class and NRCS farmland classification may change depending on irrigation, while the California Revised Storie Index does not. Irrigation is available in the project area.



been previously mapped as Prime Farmland or as Farmland of Statewide Importance may be included in this category if the land has not been in agricultural irrigation for the last four years. The Santa Margarita Ranch contains approximately 5,868 acres of land designated as Grazing Land. These ranch lands are currently used primarily for cattle grazing.

Approximately 2,340 acres in the southern portion of the Ranch property have not been mapped by the Department of Conservation. Therefore, important farmlands data is not available for this area (refer to Figure 4.1-3). Approximately 258 acres of the Ranch are designated as Other Land.

Refer to Section 4.6, *Geologic Stability*, for a detailed discussion of soil characteristics as they impact Agricultural Residential Cluster Subdivision and Future Development Program development.

Figures 4.1-1 and 4.1-2 have also been revised to reflect the revisions to Table 4.1-1 outlined above. These figures are included herein as Figures 2-1 and 2-2, respectively.

Section 4.1.2(a) (Methodology and Significance Thresholds) and portions of Sections 4.1.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures) and 4.1.2(c) (Future Development Program Impacts and Mitigation Measures) have been revised as follows:

4.1.2 Impact Analysis

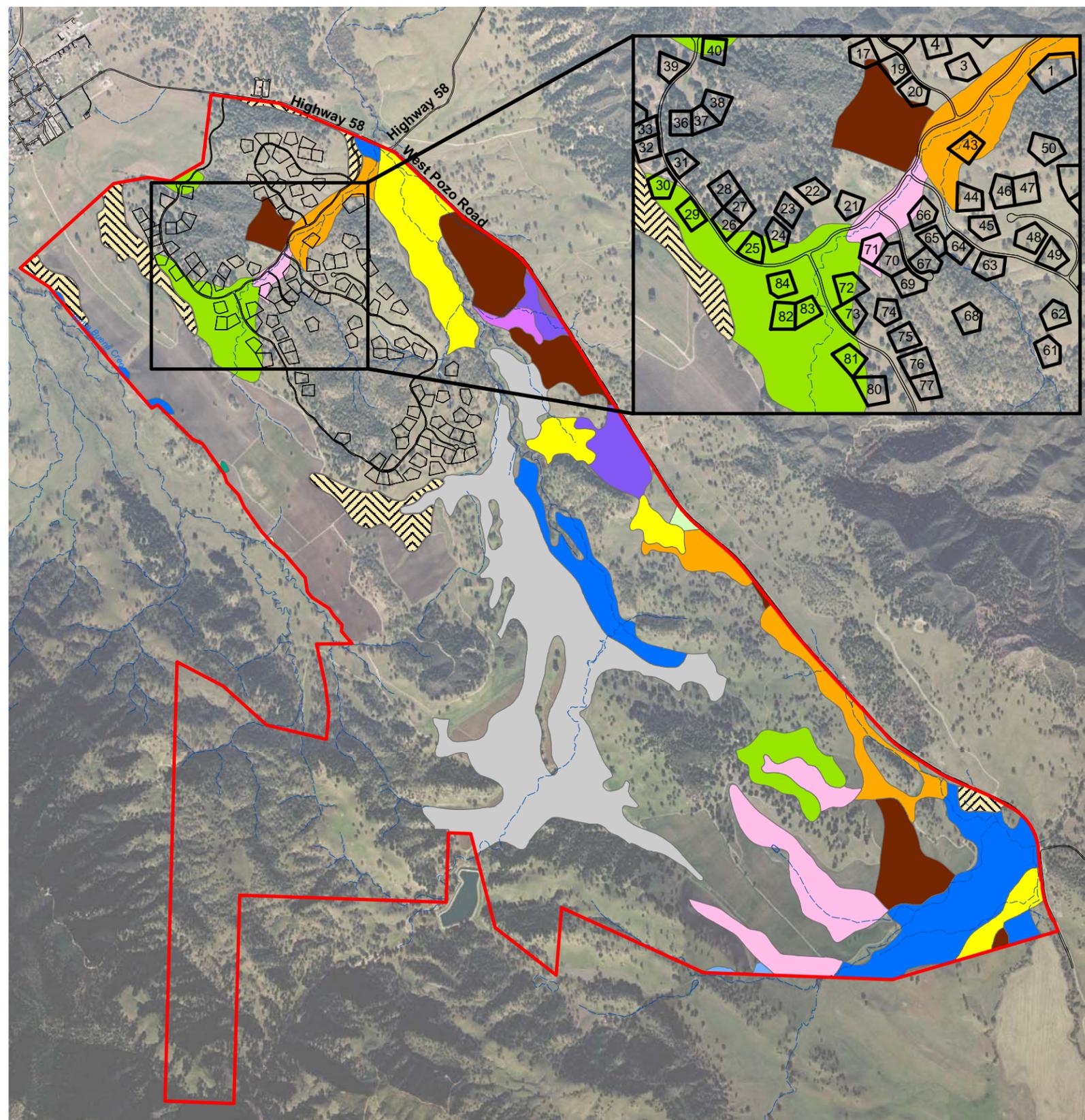
a. Methodology and Significance Thresholds. The conversion of prime agricultural land to non-agricultural use or impairment of the productivity of prime agricultural land is a significant unavoidable impact. The conversion of ~~Capability Class I and II~~ prime soils to urban uses constitutes such an impact. **As a reasonable worst case scenario, the EIR considers soils prime if they meet either State or federal definitions of prime agricultural land or prime farmland, respectively. The State defines prime agricultural land as follows (Government Code § 51201):**

- (c) **“Prime agricultural land” means any of the following:**
- (1) **All land that qualifies for rating as Class I or Class II in the Natural Resource Conservation service land use capability classification [now referred to in the Arabic numerals 1 and 2].**
 - (2) **Land which qualifies for rating 80 through 100 in the Storie Index Rating [Under the California Revised Storie Index, this translates to Grade 1 (excellent) index rating].**
 - (3) **Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United State Department of Agriculture.**



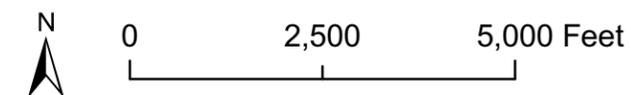
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Note: this figure revises Figure 4.1-1 in the Draft EIR to utilize a more accurate definition of prime soils as well as the most up-to-date soils information and methodology available.

- TENTATIVE TRACT 2586 BOUNDARY
- PROPOSED LOT LINES FOR TENTATIVE TRACT 2586 RESIDENTIAL CLUSTER SUBDIVISION
- PRIME AGRICULTURAL SOILS REGARDLESS OF IRRIGATION:**
- 101, ARBUCKLE FINE SANDY LOAM, 2-9
- 102, ARBUCKLE-POSITAS COMPLEX, 9-15
- 116, BOTELLA SANDY LOAM, 2-9
- 139, ELDER LOAM, 2-9
- 148, HANFORD AND GREENFIELD FINE SANDY LOAMS, 2-9
- 191, RYER CLAY LOAM, 2-9
- 208, STILL CLAY LOAM, 0-2
- 209, STILL CLAY LOAM, 2-9
- PRIME AGRICULTURAL SOILS IF IRRIGATED:**
- 130, CLEAR LAKE CLAY, DRAINED
- 133, CROPLEY CLAY, 2-9
- 149, HANFORD AND GREENFIELD GRAVELLY SANDY LOAMS, 0-2
- 150, HANFORD AND GREENFIELD GRAVELLY SANDY LOAMS, 2-9
- 182, OCEANO LOAMY SAND, 2-9
- 207, STILL GRAVELLY LOAM, 0-2



Proposed Agricultural
 Residential Cluster Subdivision
 Prime Agricultural Soils

As defined in the Code of Federal Regulations (CFR) Title 7 (Agriculture) § 657.5(a) (1), prime farmland is defined as follows:

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses.

Soils are designated as prime farmland by the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), in accordance with 7 CFR § 657.5. As a matter of federal law and County policy [refer to San Luis Obispo County's Agriculture and Open Space Element Appendix C (Agricultural Mapping Criteria)], NRCS farmland classifications of "prime farmland if irrigated" are also considered prime.

Based on the State and federal definitions of prime agricultural land and prime farmland outlined above, for the purposes of this EIR, prime soils are defined as those with a Land Capability Class of 1 or 2, a California Revised Storie Index of Grade One (Excellent), or an NRCS farmland classification of "prime farmland if irrigated." In accordance with Appendix G of the State CEQA Guidelines impacts would be significant if development under the Agricultural Residential Cluster Subdivision or the Future Development Program would result in any of the following:

- Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract; and/or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

For the purposes of this analysis, "Farmland" includes land which is currently under agricultural production (including grazing).

b. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.

Agricultural Residential Cluster Subdivision Impact AG-1

The proposed Agricultural Residential Cluster Subdivision would permanently compromise the sustainability of a 676.7-acre grazing unit and would permanently convert 5 21.2 acres containing prime soils to non-agricultural uses. Impacts related to agricultural conversion would be Class I, *significant and unavoidable*.

As illustrated in Figure 4.1-3, the Agricultural Residential Cluster Subdivision area is primarily composed of Grazing Land (as defined by the California Department of Conservation, Farmland Mapping and Monitoring Program). The proposed Agricultural Residential Cluster Subdivision includes 111 clustered residential parcels, one ranch headquarters unit (located on Parcel 42), and related infrastructure, which would directly convert approximately 163 acres from existing grazing use to residential use. In addition,



based on the non-contiguous layout of the proposed lots, approximately 513 acres of the grazing unit (including areas between and around lots) would not be suitable for grazing after development of proposed residential lots because of inherent incompatibilities between residential uses and cattle grazing (refer to Agricultural Residential Cluster Subdivision Impact AG-2 for a discussion of potential land use conflicts). As a result, the 676.7-acre grazing unit would no longer meet the California Department of Conservation Farmland Mapping criteria for Grazing Land (**defined as land on which the existing vegetation is suited to the grazing of livestock, based on technical soil ratings and current land use**) and would instead be classified as Other Land/~~Rural~~ Residential (**defined as land not included in any other mapping category, including low density rural development**). In addition, using a ratio of 1 animal unit per 8 acres based on the rangeland productivity of soil types within the Agricultural Residential Cluster Subdivision area [U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), *Soil Survey of San Luis Obispo County, California, Paso Robles Area, May 1983*], conversion of the 676.7-acre grazing unit would result in a reduction in the overall carrying capacity of the Ranch by 85 animal units per year.

In addition to permanently compromising the sustainability of a 676.7-acre grazing unit, the proposed Agricultural Residential Cluster Subdivision would permanently convert prime agricultural soils. Prime soils are defined as those with a Land Capability Class of ~~1~~ 1 or ~~2~~ 2, ~~or~~ a California Revised Storie Index of ~~80 to 100~~ **Grade One (Excellent), or an NRCS farmland classification of “prime farmland if irrigated.”** Of the 32 soil types map units that are found on the Agricultural Residential Cluster Subdivision site, ~~four~~ **eight** are considered prime regardless of irrigation (i.e. **have a California Revised Storie Index of Grade One**), while ~~10~~ **14** (total) are considered prime if irrigated.

Of the 163 acres that would be directly converted by Agricultural Residential Cluster Subdivision development, ~~one~~ **four** soil types occurs that ~~is~~ **are** considered a prime soil regardless of irrigation status [**Arbuckle-Positas complex (9 - 15% slopes), Botella sandy loam (2 - 9% slopes), Elder loam (2 - 9% slopes), and Still clay loam (0 - 2% slopes)**]. However, ~~two~~ **two** additional soil types occur that are considered prime if irrigated: [~~Botella sandy loam (2 - 9% slopes) and Cropley clay (2 - 9% slopes) and Oceano loamy sand (0 - 2% slopes)~~]. In total, these soils comprise approximately ~~5~~ **21.2** acres near the center of the Agricultural Residential Cluster Subdivision area (~~refer to inset in DEIR Figure 4.1-1 (Figure 2-1 herein)~~). Therefore, the Agricultural Residential Cluster Subdivision could result in the direct conversion of ~~5~~ **21.2** acres of prime agricultural soils. **In addition, although prime soils located outside of direct development areas but within the 676.7 acre grazing unit would not be directly converted by the proposed development, these areas would nonetheless be impacted because they would no longer be viable for commercial agriculture due to the adjacency of residential development. These areas would therefore be secondarily converted by the Agricultural Residential Cluster Subdivision.**

Refer to Appendix C, *Policy Consistency*, for an analysis of the Agricultural Residential Cluster Subdivision’s potential inconsistency with the County’s Agricultural Lands Clustering Ordinance (Section 22.22.150 of the Land Use Ordinance). **It should also be noted that Section 22.22.152(D) of the Land Use Ordinance requires that the open space area of an agricultural residential cluster subdivision be at least 95% of the gross site area, with clustered development allowed on the remaining 5%. The proposed Agricultural**



Residential Cluster Subdivision would convert approximately 17.9% of the gross site area, placing only 82.1% of the site in open space.

Mitigation Measures. No feasible measures are available that would mitigate impacts to the grazing unit and prime soils located on the Agricultural Residential Cluster Subdivision site without substantial redesign of the proposed Agricultural Residential Cluster Subdivision.

Residual Impacts. Impacts would remain Class I, *significant and unavoidable*.

Current plans for irrigated agricultural expansion include approximately 2,000 acres of vineyards, for an additional 1,026.1 acres above existing plantings, and approximately 500 acres of orchards throughout the Ranch. The discussion under Agricultural Residential Cluster Subdivision Impact AG-2 has therefore been revised as follows:

Active grazing lands and vineyards are located on the Agricultural Residential Cluster Subdivision site, within and adjacent to proposed development areas. **In addition, approximately 1,026 acres of additional vineyards, as well as approximately 500 acres of orchards, are planned throughout the Ranch property.** Since the proposed residential development would remove existing grazing uses from the site, the majority of development would be located at least 500 feet from adjacent grazing land uses. However, Lots 1, 53, 54, 56, 78, 79, 80, 82, 87, 99, 100, 101, 108 and 115 would be located within 500 feet of adjacent existing on-site vineyards (the Cuesta Ridge Vineyard) **while Lots 39 and 40 would be located within 500 feet of potential vineyards.** According to the San Luis Obispo County Agricultural Commissioners' Office, based on a lot-specific review of site conditions relative to adjacent **existing and potential** agricultural uses, the locations of proposed residential parcels are considered compatible with the adjacent agricultural production areas, and additional buffer distances are not required with the exception of Lots 1, **39, 40, 99 and 100.** **It should be noted, however, that the Agricultural Commissioner recommends that Lots 39 and 40 be relocated at least 500 feet from the northwestern project boundary. Because the relocation areas have not been identified, and because such relocations would fundamentally alter the proposed project evaluated in this EIR, this cannot be required as mitigation.** Nevertheless,† The proposed residential uses would be expected to result in potential conflicts between the existing on-site agricultural operations and new non-agricultural uses. Potential land use conflicts are described below.

The remaining discussion under Agricultural Residential Cluster Subdivision Impact AG-2 has not changed, with the exception of the last two sentences, which have been revised as follows:

In addition, although **with mitigation** the location of proposed residential lots satisfies buffer distances recommended by the County Agricultural Commissioners Office, **with the exception of Lots 39 and 40,** ongoing agricultural operations could result in nuisances experienced by future homeowners. **This may include agricultural burning of materials in close proximity to or upwind of Agricultural Residential Cluster Subdivision residences, which may create nuisances and negative health effects.** These would be potentially significant land use compatibility impacts.



Agricultural Residential Cluster Subdivision measure AG-2(b) has also been revised accordingly:

Agricultural Residential Cluster Subdivision AG-2(b)

Agricultural Buffers. The applicant shall maintain buffered lot locations as approved by the Agricultural Commissioner. Additionally, a building limit line shall be established for habitable structures on Lots 1, **99 and 100** ~~and 101~~.

Plan Requirements and Timing. This provision shall be noted on the applicant's site plan. **Monitoring.** Planning and Building staff shall approve a site plan that conforms to this requirement.

It should be noted that although the above measure previously identified Lots 1, 100 and 101 as requiring a building limit line, the analysis under Agricultural Residential Cluster Subdivision Impact AG-2 correctly identifies Lots 1, 99 and 100 as those requiring mitigation. As a result, the typo has been corrected and no other alterations to Agricultural Residential Cluster Subdivision Impact AG-2 are required.

c. Future Development Program Impacts and Mitigation Measures. The Future Development Program represents potential future buildout of the Santa Margarita Ranch, including the proposed Agricultural Residential Cluster Subdivision. Refer to Section 4.1.2(b) for a discussion of agricultural resource impacts resulting from the Agricultural Residential Cluster Subdivision independently.

Future Development Program Impact AG-1

Development in accordance with the Future Development Program could permanently convert existing grazing lands and ~~573~~ 758 acres containing prime soils to non-agricultural uses. Impacts related to agricultural conversion would be Class I, significant and unavoidable.

As illustrated in Figure 4.1-3, areas envisioned for future development subsequent to the Agricultural Residential Cluster Subdivision are primarily composed of Farmland of Local Potential and Grazing Land (as defined by the California Department of Conservation, Farmland Mapping and Monitoring Program). The Future Development Program conceptual land use locations comprise approximately 1,836 acres. Assuming a reasonable worst case scenario with respect to the location and amount of disturbance within anticipated future development areas, a large portion of these 1,836 acres would be converted to non-agricultural land uses. Of the acres that may be converted, approximately ~~568~~ 736.8 acres are considered prime if irrigated (~~573~~ 758 including the proposed Agricultural Residential Cluster Subdivision) (refer to Figure 4.1-2).

Land uses envisioned for location in areas containing prime soils (if irrigated) include: a 12-room Bed and Breakfast, 6,000 square foot café, 600 seat amphitheater and 40,000 square foot winery near the existing Ranch headquarters location; a residential village, 250-unit guest ranch and lodge with a 24,000 square foot restaurant, 40,000 square foot winery, and 36-hole golf course on 280 acres, including a 25,000 square foot clubhouse and shop southwest of the community of Santa Margarita; a livestock sales yard; ~~a retreat center~~; a 5-



acre park and community pool, three worship centers, and 50 units of work force housing located east of the community of Santa Margarita; nine wineries and five ranch headquarters located along the eastern portion of the Ranch property (refer to Figure 4.1-2). Because no application has been filed for the Future Development Program subsequent to the Agricultural Residential Cluster Subdivision, as a worst case scenario, any of these uses could be located directly atop prime soils within their anticipated development areas. Permanent conversion of prime soils would result.

Because the Future Development Program subsequent to the Agricultural Residential Cluster Subdivision is conceptual, it does not provide specific locations or sizes of potential future development. However, ~~573~~ 758 acres of prime soil (including ~~5~~ 21.2 acres on the Agricultural Residential Cluster Subdivision site) may be directly converted to non-agricultural use. In addition, future development would fragment existing grazing units on the Ranch. This is a potentially significant impact and mitigation is required.

No alterations to Future Development Program Impact AG-1 mitigation measures, Future Development Program Impact AG-2 or Section 4.1.2(d) (Cumulative Impacts) are required.

2.2 AIR QUALITY

This section updates ambient air quality standards and revises the construction and operational emissions analysis in the Draft EIR with additional technical information provided by the San Luis Obispo Air Pollution Control District (APCD). This updated analysis utilizes a new version of the URBEMIS air quality model that has become available since circulation of the Draft EIR. This section additionally includes an analysis of impacts related to global climate change.

Updated Ambient Air Quality Standards

Summary of Draft EIR Analysis. Section 4.2.1 (Setting) in Section 4.2, *Air Quality*, included a discussion of federal and state ambient air quality standards. Table 4.2-1 listed these standards, which were current at the time the Draft EIR was circulated (January 2007). However, the state standard for Nitrogen Dioxide (NO₂) was revised on February 22, 2007, approximately six weeks after the Draft EIR was circulated, to include an annual standard of 0.030 PPM and revise the hourly standard from 0.25 PPM to 0.18 PPM.

Updated Analysis. Table 4.2-1 has been revised to reflect the most up-to-date ambient air quality standards. These revisions are outlined below:



Table 4.2-1 Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone	1-Hour	---	0.09 PPM
	8-Hour	0.08 PPM	0.070 PPM
Carbon Monoxide	8-Hour	9.0 PPM	9.0 PPM
	1-Hour	35.0 PPM	20.0 PPM
Nitrogen Dioxide	Annual	0.053 PPM	--- 0.030 PPM
	1-Hour	---	0.25 0.18 PPM
Sulfur Dioxide	Annual	0.030 PPM	---
	24-Hour	0.14 PPM	0.04 PPM
	1-Hour	---	0.25 PPM
PM ₁₀	Annual	50 50 $\mu\text{g}/\text{m}^3$ ---	20 $\mu\text{g}/\text{m}^3$
	24-Hour	150 $\mu\text{g}/\text{m}^3$	50 $\mu\text{g}/\text{m}^3$
PM _{2.5}	Annual	15 $\mu\text{g}/\text{m}^3$	12 $\mu\text{g}/\text{m}^3$
	24-Hour	65 30 $\mu\text{g}/\text{m}^3$	*
Lead	30-Day Average	---	1.5 $\mu\text{g}/\text{m}^3$
	3-Month Average	1.5 $\mu\text{g}/\text{m}^3$	---

* No separate State standard
 ppm = parts per million
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
 Source: ARB, ~~May 17, 2006~~ **February 22, 2007**

Page 8-2 in Section 8.0, *References*, has also been revised as follows:

“California EPA, Air Resources Board. *Ambient Air Quality Standards*. Updated ~~August 1, 2005~~ **February 22, 2007.**”

The above changes do not alter the Draft EIR analysis. No additional alterations are therefore required.

Operational Emissions

Summary of Draft EIR Analysis. The Draft EIR identified significant and unavoidable impacts from the Agricultural Residential Cluster Subdivision related to operational emissions and Clean Air Plan (CAP) consistency. Operational emissions were estimated to exceed APCD Tier 1 thresholds. The San Luis Obispo County APCD *CEQA Air Quality Handbook* (April 2003) requires that all projects exceeding Tier 1 thresholds implement standard site design and energy efficiency measures, as well as additional discretionary mitigation measures. However, because many of these measures apply primarily to urban residential development (such as linking cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel; and speed platforms, bulb-outs and intersection modifications designed to reduce vehicle speeds), they would not feasibly reduce impacts associated with the Agricultural Residential Cluster Subdivision. Impacts would therefore remain Class I, *significant and unavoidable*.

The San Luis Obispo Air Pollution Control District (APCD) does not require quantified analysis of construction or operational air contaminant emissions for program-level evaluations, but rather requires program-level impacts to be based on an evaluation of program consistency with the CAP. The Draft EIR identified one significant and unavoidable impact related to CAP consistency and one significant but mitigable impact related to odor nuisances associated with the Future Development Program.



Updated Analysis. In the Draft EIR, operational emissions associated with the Agricultural Residential Cluster Subdivision were estimated using the URBEMIS 2002 version 8.7 for Windows computer modeling program. During review of the Draft EIR, the San Luis Obispo APCD recommended several changes to the assumptions (default settings) used in the model, including average summertime temperature, trip speeds and trip distances. With these modifications, the operational emissions of nitrogen oxide (NO_x), reactive organic gasses (ROG) and particulate matter less than ten microns in size (PM₁₀) increased relative to the DEIR analysis. The results demonstrate that the Agricultural Residential Cluster Subdivision's operational phase emissions would exceed APCD Tier 2 thresholds of significance for all three of these criteria pollutants. In addition, an updated version of URBEMIS (2007 version 9.2) became available since circulation of the Draft EIR that includes state-approved updates to vehicle emissions factors. The analysis has been revised using the latest version available.

It should be noted that the URBEMIS 2007 version 9.2 includes default settings for average summertime temperature and trip speeds which match those recommended by the APCD. As a result, only trip distances were changed from the default settings in accordance with APCD recommendations. In addition, the modeling was conducted with the actual area that would be disturbed, which is greater than the modeling default. This more accurately estimates construction emissions from the Agricultural Residential Cluster Subdivision. Revised air emissions calculations are provided in Appendix A to this Revised Draft EIR.

The revised URBEMIS 2007 calculations resulted in increases in the estimated operational NO_x, ROG and PM₁₀ emissions for the Agricultural Residential Cluster Subdivision relative to the URBEMIS 2002 estimation. These higher emissions estimates result in exceedances of APCD Tier 2 thresholds for all three of these criteria pollutants. As a result, the Agricultural Residential Cluster Subdivision would be required to implement all feasible discretionary mitigation measures, in addition to the standard site design and energy efficiency measures that were identified as being required in the DEIR.

The last paragraph under Section 4.2.1(a) (Air Pollution Regulation) has been revised as follows:

The local air quality management agency is required to monitor air pollutant levels to assure that air quality standards are met, and if they are not met, to develop strategies to meet these standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or as in "nonattainment." The proposed Agricultural Residential Cluster Subdivision and Future Development Program falls within the jurisdiction of the County of San Luis Obispo APCD. Federal air quality standards within the jurisdiction of the San Luis Obispo APCD have been attained, while the County is in non-attainment for the state standards for **both PM₁₀ and ozone**. In addition, the San Luis Obispo Air Basin is in attainment for the state and federal carbon monoxide standards.

The last two paragraphs under Section 4.2.1(b) (Current Ambient Air Quality) have been revised as follows:

~~Since 1989, San Luis Obispo County had been designated as non-attainment with the state health based standard for ozone. However, ozone forming pollutants throughout San Luis Obispo County have been significantly reduced since that time. For the years 2002 through 2004, no violations of the State hourly ozone standard (0.09 ppm) were measured at any of~~



~~the six community-based monitoring stations in San Luis Obispo County. Accordingly, the State Air Resources Board re-designated the County as attainment with the state health based ozone standard in January 2004 (<http://www.slocleanair.org/air/attainment.asp>; February 22, 2006). However, one violation of the State ozone standard was measured at the Atascadero Monitoring Station in 2005.~~ **On April 28, 2005, the California Air Resources Board (CARB) approved the nation's most health protective ozone standard with special consideration for children's health. The new 8-hour-average standard at 0.070 parts per million (ppm) will further protect California's most vulnerable population from the adverse health effects associated with ground-level ozone. Based on monitoring data, San Luis Obispo County has once again been deemed non-attainment for the new ozone standard.**

As noted above, San Luis Obispo County is in nonattainment for **State ozone and PM₁₀** levels. ~~but has recently achieved attainment status regarding the state standard for ozone. As measured at In 2005, the Atascadero Monitoring Station, the PM₁₀ State threshold was exceeded once in 2003 and was not exceeded in 2004 or 2005 had one violation of the State 1-hour ozone standard and would have had at least three violations of the current 8-hour standard. The station also had one exceedance of the State PM₁₀ standard between 2003 and 2005.~~

Ground level ambient ozone is primarily generated by combustion byproducts reacting with sunlight and ambient conditions. San Luis Obispo County's primary areas where ozone violations occur are in the northern and eastern portions of the County where the summer temperatures are high. In addition, ozone is transported to San Luis Obispo County from upwind regions of the state.

Ambient PM₁₀ concentrations have been primarily a localized issue of concern in the southern portion of San Luis Obispo County, providing the major impetus for the County's non-attainment designation for the State PM₁₀ standard. The major sources for PM₁₀ are mineral quarries, grading, demolition, agricultural tilling, road dust, and vehicle exhaust. PM₁₀ levels in the Santa Margarita Ranch area are primarily due to agriculture tilling, road dust, motor vehicle emissions, and the sand and gravel quarry located northeast of the Ranch property.

Section 4.2.2(a) (Methodology and Significance Thresholds) has been revised as follows:

a. Methodology and Significance Thresholds. This analysis of air quality issues follows the guidance and methodologies recommended in the APCD's *CEQA Air Quality Handbook* (April, 2003). The ~~URBEMIS 2002 version 8.7~~ **2007 version 9.2** for Windows computer modeling program, which was developed by the California Air Resources Board, was utilized in estimating composite mobile emission factors for the Agricultural Residential Cluster Subdivision and is based on the number and length of vehicle trips to and from the proposed development. A program-level analysis was performed for the Future Development Program. According to the APCD, a program-level environmental review does not require a quantitative air emissions analysis at the project scale. Rather, a qualitative analysis of the air quality impacts was conducted, based upon criteria such as prevention of urban sprawl and reduced dependence on automobiles. A finding of significant impacts can be determined qualitatively by comparing consistency of the project



with the Transportation and Land Use Planning Strategies outlined in the District's Clean Air Plan.

The remainder of Section 4.2.2(a) (Methodology and Significance Thresholds) has not changed, with the exception of the last sentence under *Short Term Construction Impacts*, which has been revised as follows:

In addition, since the County is in nonattainment for **both PM₁₀ and ozone**, construction mitigation measures are required for all projects involving earthmoving activities regardless of size or duration.

Section 4.2.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures) has been revised as follows:

b. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.

Agricultural Residential Cluster Subdivision Impact AQ-1

The proposed Agricultural Residential Cluster Subdivision will result in operational air pollutant emissions, primarily from vehicular traffic. This would result in an exceedance of the APCD thresholds, and would be a Class II, *significant but mitigable*, impact.

Based on APCD criteria, a project that generates more than 10 pounds per day (lbs/day) of ROG, NO_x or PM₁₀ would exceed ~~the County's~~ **Tier 1** significance thresholds, **while a project that generates more than 25 lbs/day of ROG, NO_x or PM₁₀ would exceed Tier 2 significance thresholds (refer to Table 4.2-3)**. Agricultural Residential Cluster Subdivision-related vehicle emissions were calculated using the URBEMIS ~~2002 version 8.7~~ **2007 version 9.2** air quality model. The model assumed a buildout year of ~~2007~~ **2008**, which is a reasonable worst case scenario.

Table 4.2-5 summarizes the emissions from area sources and vehicular traffic associated with the proposed Agricultural Residential Cluster Subdivision. Assumptions used in the mobile emissions analysis included a project fleet mix of ~~55.2~~ **41.7%** light-duty automobiles; ~~31.2~~ **38.6%** light-duty trucks; ~~7.1~~ **8%** medium-duty trucks; ~~3.4~~ **4.7%** heavy-duty trucks; ~~1.7~~ **5.1%** motorcycles; ~~1.2~~ **1.7%** motor home; and 0.2% urban, ~~and school~~ **and other** buses. Average trip type, length, and speed and cold/hot start default percentages provided with the model were used. **Average trip length was based on the remote nature of the Agricultural Residential Cluster Subdivision, per guidance from the San Luis Obispo APCD.**



Table 4.2-5 Operational Emissions Associated with Proposed Agricultural Residential Cluster Subdivision (lbs/day)*

Emission Source	ROG	NO _x	CO	PM ₁₀
Area Source	9.96 13.47	1.42 3.18	4.5 63.4	0.02 10.25
Operational (Vehicle)	10.47 25.38	13.46 38.34	131.13 291.4	12.59 27.17
Totals	20.43 38.85	14.88 41.52	135.63 354.8	12.61 37.42
<i>Significance Tier 1 Threshold</i>	10	10	550	10
Tier 2 Threshold	25	25	550	25
<i>Threshold Exceeded?</i>	Yes, Tier 2	Yes, Tier 2	No	Yes, Tier 2

* Although winter emissions were used as a worst case scenario, summer emissions would similarly exceed Tier 2 thresholds for ROG, NO_x and PM₁₀.

Note: See Appendix D (**Appendix A herein**) for Calculations

The proposed Agricultural Residential Cluster Subdivision is projected to generate ~~20.45~~ **38.85** lbs/day of ROG, ~~14.88~~ **41.52** lbs/day of NO_x, and ~~12.61~~ **37.42** lbs/day of PM₁₀ as a result of operational emissions associated with project vehicular traffic and electrical and natural gas usage. When compared to the County’s thresholds of significance, the Agricultural Residential Cluster Subdivision would exceed the ~~Tier 1 threshold for ROG, NO_x, or PM₁₀~~ **the Tier 2 threshold for ROG, NO_x and PM₁₀**. This is a potentially significant impact.

Mitigation Measures. The San Luis Obispo County APCD CEQA Air Quality Handbook (April 2003) requires that all projects generating ~~20 to 24~~ **25 or more** pounds per day of any individual pollutant implement standard site design and energy efficiency measures, as well as ~~additional~~ **all feasible discretionary site design and energy efficiency** mitigation measures. **Standard and discretionary measures are described in greater detail below. In addition, in certain cases further mitigation measures are required for projects generating 25 or more pounds per day, including off-site measures, which are designed to offset emissions from large projects that cannot be fully mitigated with on-site measures.**

APCD requires standard site-design measures for urban uses, such as: linking cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel; providing traffic calming modifications to project roads, such as narrower streets, speed platforms, bulb-outs and intersection modifications designed to reduce vehicle speeds; easements or land dedications for bikeways and pedestrian walkways; and, providing continuous sidewalks separated from the roadway by landscaping and on-street parking. These measures apply primarily to urban residential development and would not ~~feasibly reduce impacts associated with~~ **be applicable to** the Agricultural Residential Cluster Subdivision. **Similarly, not all discretionary site-design measures would be feasible due to the rural location of the Agricultural Residential Cluster Subdivision, including providing transit turnouts and pedestrian signalization and signage. Due to the infeasibility of standard and discretionary site-design measures, as well as the remote nature and size of the Agricultural Residential Cluster Subdivision, off-site mitigation would be required.**

It should be noted, however, that several Agricultural Residential Cluster Subdivision measures in Section 4.12, *Transportation and Circulation*, improve pedestrian and bicyclist infrastructure. These measures include Agricultural Residential Cluster Subdivision measures T-1(a) (SR 58 South of J Street), T-1(e) (Estrada Avenue/H Street Warning Beacon), T-4(a) (El Camino Real/Encina Avenue In-Pavement Flashing Lights)



and T-4(b) (Pedestrian Pathway). Although these measures would not reduce the transportation-related air quality impacts to a less than significant level, they would partially reduce vehicle trips in the vicinity.

However, the following standard energy efficiency mitigation measures and discretionary measures are required, which incorporate all applicable and feasible standard and discretionary measures, as well as off-site measures in accordance with APCD guidance:

**Agricultural
Residential Cluster
Subdivision
AQ-1(a)**

Energy Efficiency. The applicant shall increase building energy efficiency ratings by at least 10% above what is required by Title 24 requirements. Potential energy consumption reduction measures include, but are not limited to:

- Using roof material with a solar reflectance value meeting the EPA/DOE Energy Star® rating to reduce summer cooling needs and/or installing photovoltaic roof tiles;
- Using high efficiency gas or solar water heaters;
- Using built-in energy efficient appliances;
- Installing double-paned windows;
- **Installing door sweeps and weather stripping if more efficient doors and windows are not available;**
- Installing low energy interior lighting;
- Using low energy street lights (i.e. sodium); and
- Installing high efficiency or gas space heating.

Plan Requirements and Timing. The applicant shall incorporate the listed provisions into ~~building and improvement~~ **development** plans or shall submit proof of infeasibility prior to issuance of grading permits. **Monitoring.** Planning and Building shall site inspect to ensure development is in accordance with approved plans prior to occupancy clearance.

**Agricultural
Residential Cluster
Subdivision
AQ-1(b)**

Shade Trees. Shade trees **native to the Santa Margarita Ranch** shall be planted to shade **the southern exposure of on-site homes and** structures, decreasing indoor temperatures and reducing energy demand for air conditioning. The landscape plan shall be submitted to the San Luis Obispo APCD for review and comment. County Planning and Building shall review project landscaping plans for consistency with this mitigation measure.

Plan Requirements and Timing. The applicant shall incorporate the listed provision into development plans.



**Agricultural
Residential Cluster
Subdivision AQ-1(c)**

Monitoring. Planning and Building shall conduct a site inspection to ensure development is in accordance with approved plans prior to occupancy clearance. Planning and Building staff shall verify installation in accordance with approved building plans.

Outdoor Electrical Outlets. All new homes shall be constructed with outdoor electrical outlets to encourage the use of electric appliances and tools.

Plan Requirements and Timing. The applicant shall incorporate the listed provision into development plans.

Monitoring. Planning and Building shall conduct a site inspection to ensure development is in accordance with approved plans prior to occupancy clearance. Planning and Building staff shall verify installation in accordance with approved building plans.

**Agricultural
Residential Cluster
Subdivision
AQ-1(d)**

Telecommuting. All new homes shall be constructed with internal wiring/cabling that allows telecommuting, teleconferencing, and telelearning to occur simultaneously in at least three locations in each home. This control measure seeks to reduce emissions by promoting telecommuting for any employee whose job can accommodate working from home.

Plan Requirements and Timing. The applicant shall incorporate the listed provision into development plans.

Monitoring. Planning and Building shall conduct a site inspection to ensure development is in accordance with approved plans prior to occupancy clearance. Planning and Building staff shall verify installation in accordance with approved building plans.

**Agricultural
Residential Cluster
Subdivision
AQ-1(e)**

Residential Wood Combustion. All new homes shall only be permitted to install APCD-approved wood burning devices, as applicable. Approved devices include:

- All EPA-certified phase II wood burning devices;
- Catalytic wood burning devices which emit less than or equal to 4.1 grams per hour of particulate matter which are not EPA-certified but have been verified by a nationally-recognized testing lab;
- Non-catalytic wood burning devices which emit less than or equal to 7.5 grams per hour of particulate matter which are not EPA-certified but have been verified by a nationally-recognized testing lab;



- Pellet-fueled wood heaters; and
- Dedicated gas-fired fireplaces.

“Backyard” green waste burning shall be prohibited due to nuisance and negative health effects.

Plan Requirements and Timing. Wood burning devices shall be shown on **development** plans submitted to Planning and Building for review and approval prior to issuance of building permits, as applicable. **Monitoring.** Planning and Building shall review site plans for compliance prior to issuance of building permits. County inspector shall inspect site for installation of APCD-approved wood burning devices prior to occupancy of the structures.

Agricultural
Residential Cluster
Subdivision
AQ-1(f)

Off-Site Mitigation. Prior to issuance of grading permits, the applicant shall work with APCD to define and implement off-site emission reduction measures to reduce emissions to below Tier 2 levels. In accordance with APCD methodology, the excess emissions shall be multiplied by the cost effectiveness of mitigation as defined in the State’s current Carl Moyer Incentive Program Guidelines to determine the annual off-site mitigation amount. This amount shall then be extrapolated over the life of the project to determine total off-site mitigation. Off-site emission reduction measures may include, but would not be limited to:

- Developing or improving park-and-ride lots;
- Retrofitting existing homes in the project area with APCD-approved wood combustion devices;
- Retrofitting existing homes in the project area with energy-efficient devices;
- Constructing satellite worksites;
- Funding a program to buy and scrap older, higher emission passenger and heavy-duty vehicles;
- Replacing/re-powering transit buses;
- Replacing/re-powering heavy-duty diesel school vehicles (i.e. bus, passenger or maintenance vehicles);
- Funding an electric lawn and garden equipment exchange program;
- Retrofitting or re-powering heavy-duty construction equipment, or on-road vehicles;
- Re-powering marine vessels;
- Re-powering or contributing to funding clean diesel locomotive main or auxiliary engines;
- Installing bicycle racks on transit buses;
- Purchasing particulate filters or oxidation catalysts for local school buses, transit buses or construction



- fleets;
- **Installing or contributing to funding alternative fueling infrastructure (i.e. fueling stations for CNG, LPG, conductive and inductive electric vehicle charging, etc.);**
 - **Funding expansion of existing transit services;**
 - **Funding public transit bus shelters;**
 - **Subsidizing vanpool programs;**
 - **Subsidizing transportation alternative incentive programs;**
 - **Contributing to funding of new bike lanes;**
 - **Installing bicycle storage facilities; and**
 - **Providing assistance in the implementation of projects that are identified in City or County Bicycle Master Plans.**

Plan Requirements and Timing. The applicant shall coordinate with APCD and implement off-site emissions reduction measures prior to issuance of grading permits. Monitoring. Planning and Building shall verify compliance prior to issuance of grading permits.

Residual Impacts. Because sStandard site-design mitigation measures required by the APCD would not be applicable to the proposed Agricultural Residential Cluster Subdivision, and discretionary site design measures would be largely infeasible. However, off-site measures would reduce emissions to below Tier 2 thresholds, which would reduce impacts to a less than significant level. Impacts would be Class II, significant but mitigable.

Construction Emissions

Summary of Draft EIR Analysis. The Draft EIR identified significant but mitigable impacts related to construction emissions associated with the Agricultural Residential Cluster Subdivision. This analysis was based on the pounds per day (lbs/day) output from the URBEMIS computer modeling program (refer to *Operational Emissions* discussion above).

Updated Analysis. The Draft EIR quantified construction emissions in pounds per day (lbs/day) rather than tons per quarter (tons/qtr), as required by the San Luis Obispo Air Pollution Control District. Based on the revision to provide a comparison to tons/qtr thresholds, Agricultural Residential Cluster Subdivision emissions would no longer exceed ozone precursor (NOx) thresholds. The analysis has also been revised to utilize an updated version of the URBEMIS air emissions model (2007 version 9.2).

Agricultural Residential Cluster Subdivision Impact AQ-2 in Section 4.4.2(b) (Agricultural Residential Cluster Subdivision Impact and Mitigation Measures) has been revised as follows:



Agricultural Residential Cluster Subdivision Impact AQ-2

The Agricultural Residential Cluster Subdivision will generate construction-related emissions as the site develops. These emissions would exceed ~~recommended ozone precursor and~~ PM₁₀ significance thresholds. Construction activities could also expose people to naturally-occurring asbestos. Construction related air quality impacts are Class II, significant but mitigable.

Construction activities are expected to result in temporary short-term air quality impacts. These impacts are associated with dust generated by on-site grading activities and as a result of heavy construction vehicle emissions. No import or export of material is anticipated. Agricultural Residential Cluster Subdivision grading includes earthwork for construction of roads (including off-site circulation improvements), driveways, tank sites, and residential building pads.

Table 4.2-6 summarizes the dust generation from construction activities. ~~Fugitive dust emissions associated with grading activities assume that grading occurs on up to 32 acres per day.~~ As identified in Table 4.2-6, Agricultural Residential Cluster Subdivision construction emissions of NO_x and PM₁₀ are potentially significant.

Table 4.2-6 Emissions During Agricultural Residential Cluster Subdivision Development (lbs/day)

Emission Source	ROG	NO _x	PM ₁₀
Construction	176.22	207.41	328.96
Totals	176.22	207.41 93.58	328.96
APCD Thresholds for Short term Emissions	185	185	*
Threshold Exceeded?	No	Yes	Yes**

* Any project with a grading area greater than 4.0 acres of continuously worked area will exceed the 2.5 ton PM10 quarterly threshold.

** The project is anticipated to result in grading of up to 32 acres of continuously worked area.

Table 4.2-6 Emissions During Agricultural Residential Cluster Subdivision Development

Pollutant of Concern	Tons per Quarter (Tons/Qtr)		
	Emissions	Threshold	Threshold Exceeded?
ROG	1.92	2.5	No
NO _x	1.61	2.5	No
PM ₁₀	2.98	2.5	Yes

The proposed Agricultural Residential Cluster Subdivision is projected to generate 1.92 tons/qtr of ROG, 1.61 tons/qtr of NO_x, and 2.98 tons/qtr of PM₁₀ as a result of construction emissions. When compared to the County's thresholds of significance, the Agricultural Residential Cluster Subdivision would exceed the tons per quarter threshold for PM₁₀. This is a potentially significant impact.



The Agricultural Residential Cluster Subdivision would be required to comply with standard APCD permitting and requirements, including the prohibition of developmental burning of vegetative material within San Luis Obispo County.

Given that San Luis Obispo County violates the state standards for PM₁₀, any amount of dust generated from construction activities is potentially significant and mitigation measures are required. Additionally, grading activities may uncover naturally occurring asbestos. Human contact with asbestos would result in significant adverse health effects. Measures must be taken to assure proper handling if asbestos is present.

Mitigation Measures. Portable equipment 50 horsepower or greater will require California statewide portable equipment registration (issued by the California Air Resources Board) or an APCD permit. In addition, the following mitigation measures are recommended to minimize emissions and to reduce the amount of dust that drifts onto adjacent properties. These measures would apply to both tract grading and development of individual lots:

**Agricultural
Residential Cluster
Subdivision
AQ-2(a)**

Construction Equipment Controls. Upon application for grading permits, the applicant shall submit grading plans, **the proposed rate of material movement** and a construction **equipment** schedule ~~demonstrating the rate of material movement~~ to the APCD. ~~If the rate of grading will be more than 53,500 cubic yards (cy) in a quarter or 2,000 cy in a day, then~~ **In addition**, the applicant shall implement the following measures to mitigate equipment emissions:

- All construction equipment and portable engines shall be properly maintained and tuned according to manufacturer's specifications;
- All off-road and portable diesel powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, shall be fueled exclusively with CARB-certified motor vehicle diesel fuel;
- The applicant shall maximize to the extent feasible, the use of diesel construction equipment meeting the California Air Resources Board's 1996 (or newer) certification standard for off-road heavy-duty diesel engines.
- All on and off-road diesel equipment shall not be allowed to idle for more than 5 minutes. Signs shall be posted in the designated queuing areas to remind drivers and operators of the 5 minute idling limit;
- The applicant shall electrify equipment where feasible;
- The applicant shall substitute gasoline-powered for



- diesel-powered equipment where feasible;
- The applicant shall use alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, where feasible; and
- The applicant shall apply Best Available Control Technology (CBACT) as determined by the APCD.

Plan Requirements and Timing. The applicant shall provide the grading amounts and schedule to the APCD Planning Division at least 3 months prior to the start of construction, at which time the APCD will define the appropriate level of BACT for the Agricultural Residential Cluster Subdivision. The application of all BACT features shall occur prior to Agricultural Residential Cluster Subdivision construction. These measures shall be shown on all grading and construction plans prior to issuance of construction permits. Compliance with these measures shall be included as bid specifications submitted to contractors. **Monitoring.** The applicant shall provide the APCD with proof that the above listed measures, as well as those required by the APCD upon review of grading plans, have been implemented prior to the start of the Agricultural Residential Cluster Subdivision's construction activity. The grading inspector shall perform periodic site inspections.

**Agricultural
Residential Cluster
Subdivision
AQ-2(b)**

Dust Control. The following measures shall be implemented to reduce PM₁₀ emissions during Agricultural Residential Cluster Subdivision construction:

- Reduce the amount of the disturbed area where possible;
- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Water shall be applied as soon as possible whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible;
- All dirt-stock-pile areas shall be sprayed daily as needed;
- Permanent dust control measures shall be identified in the approved project revegetation and landscape plans and implemented as soon as possible following completion of any soil disturbing activities;
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating native grass seed



- and watered until vegetation is established;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- All roadways, driveways, sidewalks, etc., to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- All trucks hauling dirt, sand, soil or other loose materials shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; and
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.

The above measures shall be shown on development plans.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. Prior to issuance of grading permits, the applicant shall include, as a note on a separate informational sheet to be recorded with any map, the aforementioned dust control requirements. All requirements shall be shown on grading and building plans. **Monitoring.** Planning and Building inspectors shall perform periodic spot checks during grading and construction. APCD inspectors shall respond to nuisance complaints.

**Agricultural
Residential Cluster
Subdivision
AQ-2(c)**

Cover Stockpiled Soils. If importation, exportation, or stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting material shall be tarped from the point of origin.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. **Monitoring.** Planning and Building



inspectors shall perform periodic spot checks during grading and construction. APCD inspectors shall respond to nuisance complaints.

**Agricultural
Residential Cluster
Subdivision
AQ-2(d)**

Dust Control Monitor. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering as necessary to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress.

Plan Requirements and Timing. The name and telephone number of such persons shall be provided to the APCD **prior to land use clearance for map recordation and finished grading of the area.** The dust monitor shall be designated prior to approval of a Land Use Permit. **Monitoring.** Planning and Building shall contact the designated monitor as necessary to ensure compliance with dust control measures.

**Agricultural
Residential Cluster
Subdivision
AQ-2(e)**

Active Grading Areas. Prior to commencement of tract improvements, a Construction Management Plan shall be submitted for county approval that shows how the project will not exceed continuous working of more than four acres at any given time (according to the APCD, any project with a grading area greater than 4 acres of continuously worked area will exceed the 2.5 ton PM₁₀ quarterly threshold). The Dust Control Monitor shall verify in the field during tract improvements that the Construction Management Plan is being followed.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. **Monitoring.** Planning and Building inspectors shall perform periodic spot checks during grading and construction.

**Agricultural
Residential Cluster
Subdivision
AQ-2(f)**

Naturally Occurring Asbestos. Prior to grading on the Agricultural Residential Cluster Subdivision site, the applicant shall ensure that a geologic evaluation is conducted to determine if naturally occurring asbestos is present within the areas that will be disturbed. At a minimum, the geologic evaluation must include:

1. A general description of the property and the proposed use;
2. A detailed site characterization which may include:
 - a. A physical site inspection;
 - b. Offsite geologic evaluation of adjacent property;
 - c. Evaluation of existing geological maps and studies



- of the site and surrounding area;
 - d. Development of geologic maps of the site and vicinity;
 - e. Identification and description of geologic units, rock and soil types, and features that could be related to the presence of ultramafic rocks, serpentine, or asbestos mineralization; and
 - f. A subsurface investigation to evaluate the nature and extent of geologic materials in the subsurface where vertical excavation is planned; methods of subsurface investigation may include, but are not limited to borings, test pits, trenching, and geophysical surveys;
3. A classification of rock types found must conform to the nomenclature based on the International Union of Geological Science system;
 4. A description of the sampling procedures used;
 5. A description of the analytical procedures used, which may include mineralogical analyses, petrographic analyses, chemical analyses, or analyses for asbestos content;
 6. An archive of collected rock samples for third party examination; and
 7. A geologic evaluation report documenting observations, methods, data, and findings; the format and content of the report should follow the Guidelines for Engineering Geologic Reports issued by the State Board of Registration for Geologists and Geophysicists.

If naturally occurring asbestos is not present, an exemption request must be filed with the APCD. If naturally occurring asbestos is found, the applicant must comply with all requirements outlined in the State ARB's Asbestos Air Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. These requirements may include but are not limited to: 1) an Asbestos Dust Mitigation Plan which must be approved by APCD before construction begins, and 2) an Asbestos Health and Safety Program.

The Asbestos Dust Mitigation Plan must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, and must include one or more provisions addressing: track-out prevention and control measures; adequately watering or covering with tarps active storage piles; and controlling for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days.



An Asbestos Health and Safety Program would be required if ~~substantial~~ grading were to occur in serpentine or ultramafic rock deposits with ~~high~~ **such** concentrations of asbestos **present that there is potential to exceed the Cal OSHA asbestos permissible exposure limit (PEL: 0.1 fiber/cc)**. If required, the Asbestos Health and Safety Program shall be designed by a certified asbestos consultant to ensure the personal protection of workers. The Asbestos Health and Safety Program will include, but will not be limited to, **an air monitoring plan approved by the APCD to include: air monitoring** in the worker breathing zone, the use of respirators, and/or decontamination.

Plan Requirements and Timing. Prior to grading activities, a geologic evaluation shall be conducted by a registered geologist in all areas of disturbance. If naturally occurring asbestos is not present, the applicant shall file an exemption request with the APCD. If naturally occurring asbestos is found, the applicant shall comply with the State ARB's Asbestos Air Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. **Monitoring.** The APCD shall ensure compliance with applicable requirements.

Residual Impacts. With implementation of the above mitigation measures, construction air quality impacts would be reduced to a less than significant level.

The remainder of Section 4.2.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures), including Agricultural Residential Cluster Subdivision Impact AQ-3, has not changed.

Global Climate Change

Summary of Draft EIR Analysis. The Draft EIR did not contain an evaluation of Global Climate Change (GCC). The California Air Resources Board (CARB), the California Environmental Protection Agency (Cal EPA), and other governmental agencies with jurisdiction have not yet developed guidelines on how to prepare a CEQA impact assessment for a project's greenhouse gas (GHG) contribution to (GCC). However, in September 2006 the California State Legislature adopted Assembly Bill (AB) 32 (the California Global Warming Solutions Act of 2006), which charged CARB with developing regulations on how the state would address GCC. The adoption of AB 32 unofficially marks the beginning of such an analysis in CEQA documents.

At the time the Draft EIR was circulated (January 2007), guidance related to assessing a project's impacts related to GCC, in accordance with AB 32, was not yet available. In fact, as of November 2007, state or County-adopted methodology does not exist to address this issue. Nevertheless, an analysis of project and program effects related to GHG is included below.



It should be noted that the analysis below discusses GCC qualitatively, and does not attempt to speculatively quantify GHG emissions from the Agricultural Residential Cluster Subdivision or Future Development Program. Nor does the analysis attempt to speculatively establish a threshold for determining impact significance. Rather, the analysis discusses the potential ways in which the Agricultural Residential Cluster Subdivision and Future Development Program would contribute to the generation of GHG emissions and identifies methods of reducing GHG emissions.

Updated Analysis. The following text has been added to the end of Section 4.2, *Air Quality*:

4.2.3 Global Climate Change

a. **Greenhouse Effect and Greenhouse Gases (GHGs).** The greenhouse effect is a natural process by which some of the radiant heat from the sun is captured in the lower atmosphere of the earth. The gases that help capture the heat are called greenhouse gases (GHGs). While GHGs are not normally considered air pollutants, all have been identified as forcing the earth's atmosphere and oceans to warm above naturally occurring temperatures. Some GHGs occur naturally in the atmosphere, while others result from human activities. Naturally occurring GHGs include water vapor, carbon dioxide, methane, nitrous oxide and ozone. Certain human activities add to the levels of most of these naturally occurring gases.

Of all the greenhouse gases in the atmosphere, water vapor is the most abundant and variable. The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from ice and snow, and transpiration from plant leaves. The primary human-related source of water vapor comes from fuel combustion in motor vehicles. However, this is believed to contribute a negligible amount (less than 1%) to atmospheric concentrations of water vapor. As a result, the control and reduction of water vapor emissions is not within reach of human actions, and is therefore excluded from regulation under AB 32.

The second most prevalent GHG is carbon dioxide (CO₂). Natural sources of CO₂ include: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. However, in contrast to water vapor, CO₂ is primarily generated by anthropogenic (human caused) sources, including burning coal, oil, natural gas and wood.

In addition to CO₂, the GHGs humans have the greatest control over include methane (CH₄) and nitrous oxide (N₂O). CH₄ is a flammable gas and is the main component of natural gas. Natural sources of CH₄ include anaerobic decay of organic matter and natural gas fields; anthropogenic sources include landfills, fermentation of manure, and cattle. N₂O is produced by microbial processes in soils and water, including those reactions which occur in fertilizer containing nitrogen. Anthropogenic sources of N₂O include agricultural soil management, animal manure management, sewage treatment, and mobile and stationary combustion of fossil fuel. Reducing emissions from CO₂, CH₄ and N₂O is the focus of AB 32.



b. **Global Climate Change Impacts.** Global climate change (GCC) refers to a change in the average weather of the earth which can be measured by wind patterns, storms, precipitation, and temperature. The impact of anthropogenic activities on GCC is evident in the scientific correlation between rising global temperatures, atmospheric concentrations of CO₂ and other GHGs, and the industrial revolution².

The United States is the top producer of GHG in the world. California's GHG emissions rank second in the United States (behind Texas) and rank internationally just below Australia.³ The primary contributors to anthropogenic GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources; industry; agriculture and forestry; and other sources, which include commercial and residential activities.

According to the 2006 California Climate Action Team Report (CCAT, 2006) the following climate change effects are predicted in California over the course of the next century:

- Diminishing Sierra snow pack by 70 to 90%, threatening the state's water supply.
- Increasing temperatures from 8 to 10.4 degrees Fahrenheit under the higher emission scenarios, leading to a 25 to 35% increase in the number of days ozone pollution levels are exceeded in most urban areas.
- Rising sea level (from 4 to 33 inches), causing coastal erosion along the length of California and sea water intrusion into the Delta. This would also exacerbate flooding in already vulnerable regions.
- Increased vulnerability of forests due to pest infestation and increased temperatures.
- Increased challenges for the State's agriculture industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta.
- Increased electricity demand, particularly in the hot summer months.

c. **Regulatory Setting.** In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established that GHG emissions should be reduced to 2000 levels by 2010; to 1990 levels by 2020; and to 80 percent below 1990 levels by 2050. In furtherance of the goals established in Executive Order S-3-05, the Legislature enacted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries with penalties for noncompliance. The California Air Resources Board (CARB) has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. By January 2008, a statewide cap for 2020 emissions based on 1990 levels must be adopted. The following year (January 2009), CARB must adopt mandatory reporting rules for major sources of GHGs and also a plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions.

² Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2001: The Scientific Basis*. Cambridge University Press, 2001.

³ United Nations Framework Convention on Climate Change (UNFCCC). *GHG Emissions Data, National Inventory*. Available on-line at <http://unfccc.int/2860.php>. Accessed 29 August 2007.



d. **Methodology and Significance Thresholds.** No air district in California, including the San Luis Obispo Air Pollution Control District (APCD), has identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to GHGs. Even though the GHG emissions associated with an individual development project could be estimated, there is no emissions threshold that can be used to evaluate the California Environmental Quality Act (CEQA) significance of these emissions. In addition, GCC models are not sensitive enough to be able to predict the effect of individual projects on global temperatures and the resultant effect on climate. Therefore, they cannot be used to evaluate the significance of a project's impact. Thus, insufficient information and predictive tools exist to assess whether an individual project would result in a significant impact on global climate. For these reasons, determining the CEQA significance of the impact of the Agricultural Residential Cluster Subdivision and Future Development Program at a project- or program-level is speculative.

In the absence of quantitative emissions thresholds, consistency with adopted programs and policies is used by many jurisdictions to evaluate the significance of cumulative impacts. A project's consistency with the implementing programs and regulations to achieve the statewide GHG emission reduction goals established under Executive Order S-3-05 and AB 32 cannot yet be evaluated because they are still under development. Nonetheless, the Climate Action Team, established by Executive Order S-3-05, has recommended strategies for implementation at the statewide level to meet the goals of the Executive Order. In the absence of an adopted plan or program, the Climate Action Team's strategies serve as current statewide approaches to reducing the State's GHG emissions. As no other plan or program for GHG emissions that would apply to the Agricultural Residential Cluster Subdivision or Future Development Program has been adopted, consistency with these strategies is assessed to determine if the contribution of the Agricultural Residential Cluster Subdivision and/or Future Development Program to cumulative GHG emissions is considerable.

e. **Agricultural Residential Cluster Subdivision and Future Development Program Impacts.** The primary source of GHGs in California is fossil fuel combustion. The primary GHG associated with fuel combustion is carbon dioxide (CO₂), with lesser amounts of methane (CH₄) and nitrous oxide (N₂O). The Agricultural Residential Cluster Subdivision and Future Development Program would result in emissions of these GHGs due to fuel combustion in motor vehicles, which would contribute to potential cumulative impacts of GHG emissions on global climate. The URBEMIS 2007 version 9.2 computer modeling program, which was used to quantify emissions from the Agricultural Residential Cluster Subdivision, also estimates CO₂ emissions. In accordance with this model, the proposed Agricultural Residential Cluster Subdivision would generate and estimated 15,219.14 pounds per day (lbs/day) of CO₂ during construction and 17,645.93 lbs/day of CO₂ during operation (refer to Appendix A for calculations). As noted in Section 4.2.2(a), a program-level analysis does not require a quantitative air emissions analysis in accordance with APCD standards. As a result, no such analysis was conducted for the Future Development Program and no CO₂ emissions estimates are available.

In its report to the Governor and the Legislature, the Climate Action Team recommended strategies that could be implemented by various state boards, departments, commissions, and other agencies to reduce GHG emissions. The proposed Agricultural Residential



Cluster Subdivision and Future Development Program contain design features and mitigation measures that would result in lower fuel combustion emissions, water conservation, increased energy efficiency, reduced energy usage and other collateral benefits with respect to GHG emissions. The Climate Action Team strategies that are relevant to the proposed Agricultural Residential Cluster Subdivision and Future Development Program and applicable design features or mitigation measures that would be consistent with these strategies are listed in Table 4.2-7 below.

Table 4.2-7 Agricultural Residential Cluster Subdivision and Future Development Program Consistency with California Climate Action Team Strategies

CCAT Strategy	Implementing Design Features/Mitigation Measures
Vehicle Climate Change Standards	The Agricultural Residential Cluster Subdivision and Future Development Program would be consistent with this strategy to the extent that new passenger vehicle and light trucks purchased by Agricultural Residential Cluster Subdivision residents and Future Development Program residents and patrons starting in the 2009 model year would be required to comply with said standards.
Achieve 50% Statewide Recycling Goal	Agricultural Residential Cluster Subdivision measure PS-5(b) (Recycling Plan) in Section 4.10, <i>Public Services</i> , requires that a long term plan for recycling be developed with a goal of 50% waste stream diversion. This measure would also apply to the Future Development Program.
Water Use Efficiency	Agricultural Residential Cluster Subdivision measure W-1(b) (Water Conservation Measures) in Section 4.14, <i>Water and Wastewater</i> , would help facilitate compliance with this strategy. This measure would also apply to the Future Development Program. In addition, Future Development Program measure W-1(a) (Reclaimed Water) would further implement this strategy.
Building Energy Efficiency Standards in Place	Agricultural Residential Cluster Subdivision measure AQ-1(a) (Energy Efficiency) in Section 4.2, <i>Air Quality</i> , requires that building energy efficiency ratings be increased by at least 10% above what is required by Title 24 requirements. Agricultural Residential Cluster Subdivision measure AQ-1(b) (Shade Trees) would also help reduce energy demands for air conditioning. Similar mitigation would apply to individual Future Development Program land uses once building permit applications are received and project-level CEQA analysis is completed.
Appliance Energy Efficiency Standards in Place	Agricultural Residential Cluster Subdivision measure AQ-1(a) (Energy Efficiency) in Section 4.2, <i>Air Quality</i> , includes the use of energy efficient appliances as a possible measure to increase energy efficiency ratings. Similar mitigation would apply to individual Future Development Program land uses once building permit applications are received and project-level CEQA analysis is completed.

Source: *California Climate Action Team. Final 2006 Climate Action Team Report to the Governor and Legislature, March 2006.*

Based on the analysis in Table 4.2-7, the contributions of the proposed Agricultural Residential Cluster Subdivision and Future Development Program to GHG emissions and GCC would be partially reduced due to consistency with the above strategies. However, the design of both the Agricultural Residential Cluster Subdivision and Future Development Program would result in inconsistencies with the Climate Action Team Strategy “Smart Land Use and Intelligent Transportation,” which promotes jobs/housing proximity, transit-oriented development, and high density residential/commercial



development along transit corridors. Inconsistencies with this strategy from both the Agricultural Residential Cluster Subdivision and Future Development Program are outlined below.

Agricultural Residential Cluster Subdivision:

- The Agricultural Residential Cluster Subdivision would not be located in close proximity to any commercial or job center (approximately 8 miles to Atascadero and approximately 10 miles to San Luis Obispo). As a result, it would reduce job/housing proximity and increase vehicle trips and travel distances.
- The Agricultural Residential Cluster Subdivision would not be located along an established transit route and would be unlikely to create demand for transit facilities due to the relatively low density of the proposed development.
- The Agricultural Residential Cluster Subdivision would be developed at a relatively low density in a rural area.

Future Development Program:

- The Future Development Program would not be located in close proximity to any commercial or job center. As a result, it would reduce job/housing proximity and increase vehicle trips and travel distances.
- The Future Development Program would be located in a rural area and would provide land uses that may be considered destinations for substantial vehicles, particularly the nine wineries and associated special events (with an estimated 120,000 visitors annually), golf course, and lodge.
- The Future Development Program would also include residential development outside of an urban area.

Despite being consistent with several Climate Action Team strategies, both the Agricultural Residential Cluster Subdivision and Future Development Program would be inconsistent with the “Smart Land Use and Intelligent Transportation” strategy. The Agricultural Residential Cluster Subdivision and Future Development Program would result in an incremental contribution to cumulative quantities of GCC.

f. **Mitigation Measures.** The San Luis Obispo County APCD has identified mitigation measures which are required to reduce impacts related to GCC. These measures include the following construction equipment controls: maintaining equipment according to manufacturer’s specifications; maximizing the use of diesel construction equipment; idling limitations; and using electric or alternatively fueled construction equipment. These controls are included in Agricultural Residential Cluster Subdivision measure AQ-2(a) (Construction Equipment Controls). In addition, the following mitigation measures are required:



AQ-GCC(a)

Construction Phase Mitigation to Reduce Fuel Usage and thus Greenhouse Gases. In addition to construction equipment controls required by Agricultural Residential Cluster Subdivision measure AQ-2(a), the following construction equipment measures shall be implemented to improve fuel efficiency and reduce greenhouse gas (GHG) emissions such as CO₂:

- 1) Maximize, to the extent feasible, the use of on-road heavy-duty equipment and trucks that meet the CARB's 1998 or newer certification standard for on-road heavy-duty diesel engines.
- 2) Add a section to the Construction Management Plan identified in Agricultural Residential Cluster Subdivision measure AQ-2(e) (Active Grading Areas) that schedules construction-related trips during non-peak hours to reduce peak hour and congestion-related emissions.

Plan Requirements and Timing. These measures shall be shown on all grading and construction plans prior to issuance of construction permits. Compliance with these measures shall be included as bid specifications submitted to contractors. **Monitoring.** The applicant shall provide the APCD with proof that the above listed measures have been implemented prior to the start of the Agricultural Residential Cluster Subdivision's construction activity. The grading inspector shall perform periodic site inspections.

AQ-GCC(b)

Operational Phase Mitigation to Reduce Fuel Usage and thus Greenhouse Gases. In addition to energy efficiency measures listed in Agricultural Residential Cluster Subdivision measure AQ-1(a) (Energy Efficiency), the following green building techniques shall be implemented where feasible:

- 1) Engineer and position buildings to eliminate or minimize the development's active heating and cooling needs (e.g., solar orientation).
- 2) Install solar systems to reduce energy needs (e.g., solar panels).
- 3) Install solar water heaters.
- 4) Plant native, drought resistant landscaping.
- 5) Use locally-produced building materials.
- 6) Use renewable or reclaimed building materials.
- 7) Increase building energy efficiency ratings by at least 20% above what is required by Title 24 requirements, rather than 10% as required by Agricultural Residential Cluster Subdivision measure AQ-1(a) (Energy Efficiency).



Plan Requirements and Timing. The applicant shall incorporate the listed provisions into building and improvement plans or shall submit proof of infeasibility prior to issuance of grading permits. **Monitoring.** Planning and Building shall site inspect to ensure development is in accordance with approved plans prior to occupancy clearance.

AQ-GCC(c)

Alternative Transportation. The Agricultural Residential Cluster Subdivision shall further offset greenhouse gas (GHG) emissions by improving nearby transit amenities to help expand the interest and use of transit, thus reducing vehicle trips, fossil fuel consumption, and related GHG impacts:

- 1) Provide Regional Transit Authority (RTA) approved transit shelters for the three unsheltered RTA bus stops in the community of Santa Margarita.
- 2) Provide the funding needed by the RTA to implement real-time Smart Signage for the four RTA bus stops in the community of Santa Margarita.
- 3) Work with RTA to include bus stops at the two Agricultural Residential Cluster Subdivision entrances for the Santa Margarita Lake Shuttle.

Plan Requirements and Timing. The applicant shall coordinate with APCD and implement above transit-related measures prior to issuance of grading permits. **Monitoring.** Planning and Building shall verify compliance prior to issuance of grading permits.

In addition to the above measures, several Climate Action Team strategies could be implemented by the Agricultural Residential Cluster Subdivision and Future Development Program. Voluntary implementation of these strategies would further reduce the Agricultural Residential Cluster Subdivision and Future Development Program's contributions to GHG emissions and GCC:

- **High Recycling.** Additional recovery of recyclable materials beyond the 50% goal (refer to Table 4.2-7).
- **Green Buildings Initiative.** Reducing energy use in public and private buildings by 20% by the year 2015, as compared with 2003 levels.
- **California Solar Initiative.** Installation of solar roofs on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, and use of advanced metering in solar applications.



2.3 BIOLOGICAL RESOURCES

Updated Habitat Classifications, Impacts, and Mitigation

Summary of Draft EIR Analysis. The Draft EIR identified ten habitat types occurring within the proposed Agricultural Residential Cluster Subdivision: 1) California annual grassland, 2) valley needlegrass grassland, 3) central (Lucian) scrub, 4) chamise chaparral, 5) blue oak woodland, 6) coast live oak woodland, 7) valley oak woodland, 8) riparian/riverine, 9) emergent wetland/seasonal pool, and 10) agriculture. The on-site valley needlegrass grassland was defined as being dominated by purple needlegrass (*Nassella pulchra*), and also contains other native and non-native annual grasses and annual and perennial forbs also found in California annual grassland habitat. Deergrass (*Muhlenbergia rigens*) was mentioned only as occurring in drier areas of riparian habitats, and was not listed as occurring in any of the grassland habitats. Blue oak woodland was defined as containing blue oaks (*Quercus douglasii*), foothill pine (*Pinus sabiniana*), valley oak (*Quercus lobata*), and coast live oak (*Quercus agrifolia*).

Updated Analysis. Following site visits conducted in October 2007, two of the habitat type classifications have been updated to better reflect the characteristics of the site, and the mapped boundaries of the habitat types have been revised. The revised classifications follow those used in the *Inventory of Wildlife and Plant Species on the Six Rancho Parcels of the Santa Margarita Ranch* (Althouse and Meade, Inc. 2005).

In accordance with these updates, Section 4.3.1(b) (Habitat Types) has been revised as follows:

b. Habitat Types. ~~Ten~~ **Thirteen** habitat types were identified within the Agricultural Residential Cluster Subdivision site, and include: 1) California annual grassland, 2) ~~valley needlegrass grassland~~ **native perennial grassland**, 3) central (Lucian) scrub, 4) chamise chaparral, 5) blue oak woodland, 6) coast live oak woodland, 7) valley oak woodland, 8) riparian/riverine, 9) emergent wetland/~~seasonal pool~~, and, 10) ~~agriculture~~ **seasonal pools, 11) mixed oak woodland, 12) ruderal, and 13) agriculture (vineyard)**. Classification of the on-site habitat types or plant communities was based generally on Holland's *Preliminary Description of the Terrestrial Natural Communities of California* (1986), and was compared to more recent habitat classification systems ~~for accuracy~~ (Sawyer and Keeler-Wolf, 1995, and Holland and Keil, 1995). Cowardin's *Classification of Wetlands and Deepwater Habitats of the United States* (1979) was used to classify the wetland habitat. In addition, two creeks and several ephemeral drainage features are located within the Agricultural Residential Cluster Subdivision boundaries that are "waters" of the United States under the jurisdiction of the ACOE, and streambeds and associated riparian habitat potentially under CDFG jurisdiction under Fish and Game Code Section 1600 *et. seq.* A description of habitat types identified on the Agricultural Residential Cluster Subdivision site is provided below. The discussion of habitat types includes a brief description of common plant and wildlife species that were observed or that can be expected to occur within each on-site habitat type. A detailed discussion of special-status species is provided in Section 4.3.1(e): *Special-Status Species*. Several habitat descriptions for the Agricultural Residential Cluster Subdivision also apply to areas within the Ranch property designated as Future Development Program conceptual land use areas; however, specific community



elements may vary. The location and extent of each habitat type is depicted on Figure 4.3-1 (herein Figure 2-3) and quantified in Table 4.3-2.

**Table 4.3-2 Agricultural Residential Cluster Subdivision
 Site Habitat Summary Table**

Habitat Type	Approximate Acres
California annual grassland	4103.6 1151.3
Valley needlegrass grassland Native perennial grassland	66.8 79.8
Central (Lucian) coastal scrub	20.7 20.5
Chamise chaparral	30.8 33.9
Blue oak woodland	943.0 890.0
Coast live oak woodland	235.5 104.3
Valley oak woodland	224.7 215.7
Mixed oak woodland	190.4
Riparian/riverine	400.3 41.6
Emergent wetlands/ Seasonal Pools	482.4 191.7
Seasonal pools	4.8
Ruderal	0.5
Agriculture (vineyards and stock ponds)	870.6 853.6
Total Acres	3,778.0

California Annual Grassland. The California Annual Grassland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Non-Native Grassland plant community as described by Holland (1986) and the California Annual Grassland series (i.e., plant community) as described by Sawyer and Keeler-Wolf (1995). This habitat type is typically found on seasonally dry hillsides and valleys in the Central Valley, interior valleys of the Coast Ranges, and along the coast of central and southern California as well as some of the off-shore islands. Although annual grasses form the dominant plant species composition, often native annual forbs offer the greatest diversity in select areas. This mix of grasses and forbs are often found on gravelly to deep fine-grained soils **that are** well suited for annual growth. California annual grassland occurs throughout the Agricultural Residential Cluster Subdivision site in valleys, swales, and on ridges between oak woodlands, riparian, and wetlands habitats. ~~It and~~ also forms the understory of many of the **open** oak woodland habitats ~~and open valley oak woodland~~ (savanna) in several locations. California annual grassland comprises ~~4103.6~~ **1151.3** acres or ~~29.2~~ **30.5**% of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is composed primarily of non-native short to tall annual grasses and native and non-native broad-leafed forbs. Noxious weeds are also present in disturbed areas adjacent to this habitat type. Dominant grasses include soft chess (*Bromus hordeaceus*), ripgut grass (*Bromus diandrus*), slender wild oats (*Avena barbata*), Italian ryegrass (*Lolium multiflorum*), rat-tail fescue (*Vulpia myuros*), red-stem filaree (*Erodium cicutarium*), Italian thistle (*Carduus pycnocephalus*), and tocalote (*Centaurea melitensis*), while native flowering herbs include the Paso Robles navarretia (*Navarretia jaredii*), Jolon brodiaea (*Brodiaea jolonensis*), California milkweed (*Asclepias californica*), turkey mullein (*Eremocarpus*



setigerus), California poppy (*Eschscholzia californica*), hayfield tarweed (~~*Hemizonia*~~ *Deinandra congesta* ssp. *luzulifolia*), and yarrow (*Achillea millefolium*). A few scattered coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*) trees can also be found within this habitat type.

California annual grasslands provide foraging and/or breeding habitat and movement corridors for wildlife species in the area. Mammals including mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), Botta's pocket gopher (*Thomomys bottae*), American badger (*Taxidea taxus*), and California ground squirrel (*Spermophilus beecheyi*) have been observed within the California annual grassland habitat. Several of these species, such as the American badger, California ground squirrel, Botta's pocket gopher, and deer mice (*Peromyscus* spp.), are known to breed within this habitat type.

Currently, the California annual grassland habitat within the Agricultural Residential Cluster Subdivision site is a vital migratory or dispersal corridor used by mammals and other vertebrate taxa. Birds including raptors ("birds of prey") such as golden eagle (*Aquila chrysaetos*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*), along with other common bird species such as western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), lark sparrow (*Chondestes grammacus*), yellow-billed magpie (*Pica nuttalli*), black phoebe (*Sayornis nigricans*), Brewer's blackbird (*Euphagus cyanocephalus*), and goldfinches (*Carduelis* spp.) rely on open expanses of grasslands for foraging habitat and are common in the Santa Margarita area. Grasslands that are bordered by habitats containing trees are particularly important for raptors because the birds can use the large trees as nesting, roosting, and as observation points to locate potential prey within nearby grassland habitats. Reptiles and amphibians common to grasslands have been observed on-site and include coast range fence lizard (*Sceloporus occidentalis bocourtii*), California alligator lizard (*Elgaria multicarinatus multicarinatus*), San Diego gophersnake (*Pituophis catenifer annectens*), California kingsnake (*Lampropeltis getula californica*), Pacific ring-necked snake (*Diadophis punctatus* ssp. ~~*vandenburghi*~~), and coast gartersnake (*Thamnophis elegans* ssp. *terrestris*). In addition, in areas on the Agricultural Residential Cluster Subdivision site where California annual grassland surrounds creeks, wetlands, and seasonal pools amphibians including bullfrog (*Rana catesbeiana*), California red-legged frog (*Rana ~~aurora~~ draytonii*), California (western)-toad (*Bufo boreas halophilus*), Pacific chorus treefrog (~~*Pseudacris*~~ *Hyla regilla*) and reptiles including the southwestern pond turtle (*Actinemys marmorata pallida*) and California kingsnake are also seasonally evident.

Valley Needlegrass Grassland. The Valley Needlegrass Grassland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Valley Needlegrass Grassland plant communities as described by Holland and the Purple Needlegrass series described by Sawyer and Keeler Wolf. Historically, valley needlegrass grassland and other native grasslands covered approximately 25% of California and were browsed and maintained in part by mule deer, tule elk (*Cervus elaphus nannodes*), and pronghorn (*Antilocapra americana*). With the onset of Spanish settlers in the 1700's, heavy cattle grazing and conversion to dry land farming modified native grassland habitats. Today, the California annual grassland habitat has replaced most of the native grassland cover with the exception of patches of valley needlegrass grassland in less disturbed areas



~~and on serpentinite soils. Vegetation within this habitat on-site is dominated by purple needlegrass (*Nassella pulchra*), but also contains other native and non-native annual grasses and annual and perennial forbs also found in the California annual grassland. Slender wild oats is a co-dominant plant species in the on-site valley needlegrass grassland habitat. In addition, valley needlegrass grassland habitat also provides similar to greater habitat value for wildlife species found in the California annual grassland. Refer to the description of California annual grassland habitat above for other plants and wildlife observed or expected to occur in the valley needlegrass grassland habitat. Valley needlegrass grassland is found in open areas on moderately sloping hillsides in the northern portion of the Agricultural Residential Cluster Subdivision site and comprises 66.8 acres or 1.8% of the vegetation cover.~~

Native Perennial Grassland. The three most common native perennial grasses found on-site are purple needlegrass (*Nassella pulchra*), deergrass (*Muhlenbergia rigens*), and California oatgrass (*Danthonia californica*). Valley needlegrass grassland (as designated by Holland 1986) occurs within this habitat type, and is described by Sawyer and Keeler-Wolf (1995) as Purple Needlegrass. Purple needlegrass is present with at least 10% cover in this habitat type. Areas with stands of deergrass are common on the Agricultural Residential Subdivision site along intermittent drainages and the margins of wetlands. Patches of deergrass exceeding 10% cover are intermingled within California annual grassland and valley needlegrass grassland, and as an understory in oak woodlands. Additional plant species and the animals species expected to be found in native perennial grassland include most species that are described under California annual grassland. Valley needlegrass grassland is listed by the California Department of Fish and Game as a special status Natural Community. Native perennial grassland comprises 79.8 acres or 2.1% of the vegetative cover within the Agricultural Residential Subdivision site.

Central (Lucian) Coastal Scrub. The Central (Lucian) Coastal Scrub habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Central (Lucian) Coastal Scrub plant community described by Holland (1986) and the California sagebrush series described by Sawyer and Keeler-Wolf (1995). Coastal scrub communities ~~consist of a dense canopy of shrubs~~ are adapted to drier south-facing slopes and terraces along the coastal zone of California and northern Baja California. In southern California, coastal scrub also occurs within the interior valleys and foothills of the Transverse and Peninsular Mountain Ranges. In Central California, from Monterey to Point Conception, coastal scrub occurs primarily below 2,000 feet on the ocean side of the Santa Lucia range. Within the Agricultural Residential Cluster Subdivision site, central (Lucian) coastal scrub occurs on hilltops in openings within oak woodland habitats and south-facing slopes in the northern portion of the site. Central (Lucian) coastal scrub comprises ~~20.7~~ **20.5** acres or ~~0.6~~ **0.5%** of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is composed primarily of soft-leaved deciduous shrubs three to six feet tall ~~that form a dense canopy over~~ **that occur on** rocky or sandy nutrient poor soils. Evergreen shrubs are also often present within this habitat type. The dominant shrub observed on-site is California sagebrush (*Artemisia californica*), while native sub-shrubs and herbaceous plant species such as deerweed (*Lotus scoparius*), rock rose (*Helianthemum scoparium*), lilac mariposa lily (*Calochortus splendens*), California peony (*Paeonia californica*),



and holly-leaved navarretia (*Navarretia atractyloides*) are also present within this understory of this community.

Central **(Lucian)** Coastal Scrub provides foraging or breeding habitat and movement corridors for several wildlife species in the area. Mammals including bobcat, coyote, mule deer, and big-eared woodrat (*Neotoma macrotis*), California mouse (*Peromyscus californica*), and brush rabbit (*Sylvilagus bachmani*) have been observed foraging within this habitat. It is likely that the big-eared woodrat, brush rabbit, and deer mice also breed within this habitat. Common birds including California thrasher (*Toxostoma redivivum*), blue-gray gnatcatcher (*Poliophtila caerulea*), and Bewick's wren (*Thryomanes bewickii*) rely on the dense foliage for foraging and breeding habitat and are common on-site. Other bird species observed in neighboring habitats such as oak woodland may use this habitat for foraging, but not for breeding. Reptiles common to coastal scrub that have been observed on-site include coast range fence lizard, California alligator lizard, San Diego gophersnake, common king snake, and southern Pacific rattlesnake (*Crotalus viridus helleri*). The small areas of on-site Central **(Lucian)** Coastal Scrub are considered to be of high habitat quality due to their relatively undisturbed nature and connectivity with several other **native** habitat types.

Chamise Chaparral. The Chamise Chaparral habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Chamise Chaparral (Chamisal) plant community as described by Holland (1986) and the Chamise series as described by Sawyer and Keeler-Wolf (1995). Chamise is ~~very~~ widespread in California, ~~covering flatter areas occurring~~ on sandy soils near the coast ~~to~~ and steep, rocky south-facing slopes of the Coast Ranges and the inland Sierra Nevada Mountain Range. The on-site **Chamise** Chaparral is located in the more xeric areas on gently to steeply sloping hills and in the understory of the coast live oak woodland and is characterized primarily by the ~~evergreen, sclerophyllous (hard-leaved) shrub~~. Chamise Chaparral comprises ~~30.8~~ **33.9** acres or ~~0.8~~ **0.9%** of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is ~~composed primarily of~~ **characterized primarily by evergreen, sclerophyllous (hard-leaved) shrubs. The dominant species is chamise (*Adenostoma fasciculatum*), and** other shrub species include big berry manzanita (*Arctostaphylos glauca*), ~~and~~ buckbrush (*Ceanothus cuneata*), **and buckwheat (*Eriogonum* spp.)**. Native herbaceous plant species such as deerweed, rock rose (*Helianthemum scoparium*), ~~buckwheat (*Eriogonum* spp.)~~, winecup clarkia (*Clarkia purpurea*), red-spot clarkia (*Clarkia speciosa* ssp. *speciosa*), holly-leaved navarretia, and Michael's rein orchid (*Piperia michaelii*) are also present within this community.

On-site **chamise** chaparral provides cover and nesting **habitat** for a variety of animals such as coast range fence lizard, southern Pacific rattlesnake, California whipsnake (*Masticophis lateralis*), blue-gray gnatcatcher, wrentit (*Chamae fasciata*), greater roadrunner (*Geococcyx californianus*), deer mouse, and gray fox (*Urocyon cinereoargenteus*). The Chamise Chaparral located on the Agricultural Residential Cluster Subdivision site is considered to be of high habitat quality due to its relatively undisturbed nature and contiguous connection with major expanses of open space.



Oak Woodland. This habitat comprises approximately ~~1,403~~ **1,400.4** of the 3,778 acre Agricultural Residential Cluster Subdivision area (37%). ~~and is dominated by~~ **On-site oak woodland varies from** open (savanna) **habitats with a grassland understory** to closed canopies **woodlands dominated by** blue oak and coast live oak. Valley oak (*Quercus lobata*) occurs adjacent to ~~intermittent and~~ ephemeral drainages, as a component of the ~~blue~~ **mixed** oak woodland, and as a ~~the dominant oak tree in open woodlands~~ **species in some savanna habitats**. ~~Occasionally, oak trees of all three species that occur on-site scattered within the on-site grassland habitats as oak savanna, but do not occur at a frequency that warrants designating additional oak woodland habitat in these locations generally were mapped as grassland habitat, depending on the density of oak trees.~~

The understory species composition in oak woodland habitat types varies depending upon local conditions such as moisture availability and soil type in addition to the historical use of the land for agricultural practices such as grazing. The majority of the oak woodland understory on the Agricultural Residential Cluster Subdivision site is composed of native and non-native perennial and annual grasses and forbs characteristic of on-site ~~valley needlegrass~~ **native perennial** grasslands and California annual grassland habitats. In the northern portion of the Agricultural Residential Cluster Subdivision site, chamise chaparral species can also be found in the understory. ~~The on-site oak woodlands provide~~ **Other species present in the** understory ~~habitat for a diversity of plant species, including~~ poison oak (*Toxicodendron diversilobum*), sticky monkey flower (*Mimulus aurantiacus*), mugwort (*Artemisia douglasiana*), ~~as well as species described above in the California annual grassland and valley needlegrass grassland habitat types. A few widely scattered shrub species were also observed in the understory and along the fringe of oak woodland and included~~ toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), and blue elderberry (*Sambucus mexicanus*).

Oak woodlands, in general, provide good habitat for a large variety of ~~wildlife~~ **animal** species. Oaks provide nesting/roosting sites and cover for birds, bats, and many other mammals. Dead and decaying oak trees ~~with few branches or no leaves~~ provide perches from which to search for prey and resting spots for ~~other~~ **many** bird species. They also contribute woody debris to the duff in the woodland understory which provides foraging areas for small mammals and microclimates suitable for amphibians and reptiles in addition to fungi. Acorns are a valuable food source for many animal species, including acorn woodpecker (*Melanerpes formicivorus*), scrub jay (*Aphelocoma corulescens*), western gray squirrel (*Sciurus griseus*), and mule deer. Bird species observed within on-site oak woodland include American kestrel, red-shouldered hawk (*Buteo lineatus*), spotted towhee (*Pipilo maculatus*), Bewick's wren, western bluebird (*Sialia mexicana*), bushtit (*Psaltirparus minimus*), California towhee (*Pipilo crissalis*), dark-eyed junco (*Junco hyemalis*), oak titmouse (*Baeolophus inornatus*), wrentit, black phoebe (*Sayornis nigricans*), western wood pewee (*Contopus sordidulus*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), California quail (*Callipepla californica*), and Brewer's blackbird (*Euphagus cyanocephalus*). Mammals observed within the Agricultural Residential Cluster Subdivision site oak woodland habitat include mule deer, coyote, California ground squirrel, desert cottontail (*Sylvilagus auduboni*), pocket gopher, woodrat, North American raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginianus*) and deer mice. Mountain lion and bobcat also utilize on-site oak woodland for foraging and movement opportunities. Other



representative animal species of oak woodlands that occur on-site include arboreal salamander (*Aneides lugubris*), southern alligator lizard, and common king snake. ~~Animal species expected to occupy the valley oak woodland habitat include those discussed for the grassland habitats mentioned above.~~ Descriptions of the oak woodland habitat types within the Agricultural Residential Cluster Subdivision site are listed below.

Blue Oak Woodland. The Blue Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Blue Oak Woodland as described by Holland (1986) and the Blue Oak Series described by Sawyer and Keeler-Wolf (1995). This habitat type is the most widespread of California oak woodlands. It is located on well-drained soils in foothills of Coast Ranges, Transverse Ranges, Sierra Nevada, Cascades, and Klamath-Siskiyou mountain ranges. Locally, blue oak woodland occurs on hillsides and valleys of the La Panza Range in the central portion of the county. ~~Foothill pine (*Pinus sabiniana*) and valley oak are important components of the blue oak canopy and also occur on-site. Typically, the foothill pines co-dominate with blue oaks in the drier portions of the habitat, while valley oaks are found in the more mesic areas, usually associated with drainages.~~ **Blue oak woodland on-site is dominated by blue oaks remains the dominant tree and can be found on-site in open (savanna like) to dense monoculture stands. Coast live oak trees are also found interspersed within the on-site blue oak woodland. Hybrids of blue oaks and valley oaks called *Quercus jolonensis* may occur on-site but have not been genetically confirmed (Althouse and Meade, Inc. 2005). California annual grassland and native perennial grassland form the understory of the blue oak woodland. In some areas, chamise chaparral is mixed within blue oak woodland.** Blue oak woodland occurs on hills and within valleys throughout the Agricultural Residential Cluster Subdivision site and comprises ~~943.0~~ **890.0** acres or ~~25~~ **23.6%** of the ~~vegetation~~ **vegetative** cover.

Coast Live Oak Woodland. The Coast Live Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Coast Live Oak Woodland as described by Holland (1986) and the Coast Live Oak Series described by Sawyer and Keeler-Wolf (1995). This habitat type is restricted to coastal areas from Sonoma County to Baja California. **This habitat type is dominated by coast live oak, and it intergrades with mixed oak and blue oak woodland. California annual grassland or native perennial grassland form the understory in more open, savanna-like settings.** ~~In mesic areas, including~~ **Along** drainages and north-facing slopes, coast live oak woodland forms a very dense canopy with extensive understory shading, while in drier, more exposed areas coast live oak woodland forms an open canopy often with a shrubby understory. Within the Agricultural Residential Cluster Subdivision site, coast live oak woodland occurs ~~on moderate to steep sloping hillsides and in the northern portion of the site it forms an open savanna~~ **on relatively low slopes to level terrain adjacent to the upper portions of Tostada Creek.** Coast live oak woodland comprises ~~235.5~~ **104.3** acres or ~~6.23~~ **2.8%** of the on-site ~~vegetation~~ **vegetative** cover.

Mixed Oak Woodland. Mixed Oak Woodland most closely corresponds to Open Digger Pine Woodland or Blue Oak-Digger Pine as described by Holland (1986) and Mixed Oak Series by Sawyer and Keeler-Wolf (1995). **On-site, this habitat contains all three oak species (blue, valley, and coast live) as well as foothill pine (*Pinus sabiniana*). This relatively diverse woodland habitat often has a complex understory of shrubby species, such as those described as chamise chaparral and central (Lucian) coastal scrub.**



It may form dense stands with a nearly closed canopy adjacent to riparian areas. Mixed oak woodland occurs in large stands throughout the Agricultural Residential Cluster Subdivision site. Mixed oak woodland comprises 190.4 acres or 5% of the on-site vegetative cover.

Valley Oak Woodland. The Valley Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision most closely corresponds to Valley Oak Woodland as described by Holland (1986) and the Valley Oak Series described by Sawyer and Keeler-Wolf (1995). This habitat type is **usually** located on deep, well drained alluvial soils in valley bottoms and as a component of riparian communities. Within the Agricultural Residential Cluster Subdivision site, valley oak woodland occurs as an open canopy (savanna) on the floor of the Santa Margarita Valley adjacent to West Pozo Road **and on hilltops within several proposed lots**. Remnants of valley oak woodland occur throughout vineyards on Moore Ridge. Many of these trees are senescent and many were recently removed. Valley oak woodland comprises ~~224.7~~ **215.7** acres or ~~5.95~~ **5.7%** of the on-site ~~vegetation~~ **vegetative** cover.

Riparian. The Riparian habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Central Coast Cottonwood-Sycamore Riparian Forest Central Coast, Arroyo Willow Riparian Forest, and Central Coast Riparian Scrub as described by Holland (1986) and the Fremont Cottonwood Series, Red Willow Series, and Arroyo Willow Series as described by Sawyer and Keeler-Wolf (1995). The riparian habitat is located in the middle to northern portion of the Agricultural Residential Cluster Subdivision site associated with Trout and Tostada Creeks. The majority of riparian habitat is characterized by Fremont cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), coast live oak, valley oak, and foothill pine depending on topography, aspect, and, adjacent habitats. In open areas with less ~~hydrology~~ **water**, arroyo willow and deergrass (*Muhlenbergia rigens*) are the dominant species. Understory in this habitat type is an herbaceous cover of forbs, broadleaved, and emergent wetland plant species. Riparian habitat comprises ~~100.3~~ **41.6** acres or ~~2.65~~ **1.1%** of the on-site ~~vegetation~~ **vegetative** cover.

Riparian communities are important for many ~~wildlife~~ **animal** species since the abundance of moisture and associated vegetation provide structure, materials, ~~and~~ food sources **and habitat** for nesting and roosting ~~animals~~. ~~Many species forage within the understory and use riparian habitat as cover and as a corridor for movement along the edges of open areas.~~ Common inhabitants of riparian woodland habitats include amphibians and reptiles such as the Pacific ~~chorus frog~~ **treefrog** and western fence lizard, and mammals such as raccoon, opossum, striped skunk (*Mephitis mephitis*), big-eared woodrat, desert cottontail, and shrews (*Sorex* spp.) Riparian woodland habitat also supports a diverse number of resident and migratory bird species including raptors. Species observed in on-site riparian habitat include house wren (*Troglodytes aedon*), ruby-crowned kinglet (*Regulus calendula*), warbling vireo (*Vireo gilvus*), Wilson's warbler (*Wilsonia pusilla*), common yellowthroat (*Geothlypis trichas*), black phoebe, goldfinches, and turkey vulture (*Cathartes aura*). Natural drainage features supporting the riparian habitat are discussed below in Section 4.3.1(b), *Natural Drainages*.



~~Emergent Wetland/Seasonal Pool.~~ The Emergent Wetland/Seasonal Pool habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Freshwater Palustrine Persistent Emergent Wetland as described by Cowardin (1979) and the Sedge Series described by Sawyer and Keeler-Wolf (1995). Wetlands occur in nutrient-rich mineral soils that are saturated throughout part or all of the year. These habitats are best developed in locations with slow-moving or stagnant shallow water such as drainage corridors ~~in association with intermittent and perennial drainages, but and they~~ also occur as in seeps or in areas with adequate hydrology that result in water sources. **These areas are characterized by a dominance of hydrophytic (water-loving) vegetation plant species.** It is estimated that up to 91% of the wetland acreage formerly present in California has been eliminated primarily by agricultural uses and urbanization (*National Water Summary on Wetland Resources*, U.S. Geological Survey, 1996, Water Supply Paper 2425, <http://water.usgs.gov/nwsum/WSP2425/index.html>). Emergent wetland habitats occur within the Agricultural Residential Cluster Subdivision site in seasonally wet areas within oak woodland and grassland habitats and are dominated by herbaceous hydrophytic plant species typical of seasonal and emergent wetland habitats. ~~Emergent Wetland habitat is typically characterized as lacking substantial current, and being flooded over a long term to permanently with fresh water.~~ This habitat type can be found on-site within seasonal pools, ephemeral drainages, and along and adjacent to creeks. **Seasonal pools are discussed below in Section 4.3.1(d), Seasonal Pools.** Additional Agricultural ponds that do not contain emergent wetland vegetation are discussed below under the Vineyard habitat type. Emergent wetland comprises ~~182.4~~ **191.7** acres or ~~4.83~~ **5.1**% of the on-site ~~vegetation~~ **vegetative** cover.

Emergent Wetland habitat is characterized by erect, rooted herbaceous hydrophytes. These areas are either perennially flooded, or are flooded frequently enough so that the roots of the vegetation prosper in an anaerobic (i.e., oxygen-lacking) environment. Vegetation includes Mexican rush (*Juncus mexicanus*), common spikerush (*Eleocharis macrostachya*), and curly dock (*Rumex crispus*). Other species present include toad rush (*Juncus bufonius*), rabbitfoot grass (*Polypogon monspeliensis*), and hyssop loosestrife (*Lythrum hyssopifolium*). Due to the seasonal inundation with water and well-developed vegetative stratum, the on-site emergent wetland habitat provides habitat to several aquatic wildlife species including aquatic invertebrates such as seed shrimp (Class Ostracoda), freshwater snails, (Class Gastropoda) and water boatmen (Family Corixidae), amphibians such as the Pacific chorus frog, bullfrog, and California toad, and reptiles such as the southwestern pond turtle. Aquatic birds such as the mallard duck (*Ana platyrhynchos*) and American coot (*Fulica Americana*) were also observed in association with open water habitat in these areas. Emergent vegetation associated with this habitat type provides breeding habitat for the red-winged blackbird (*Agelaius phoeniceus*) and common snipe (*Gallinago gallinago*). ~~Seasonal pools are discussed below in Section 4.3.1(d), Seasonal Pools.~~

Seasonal Pools. Seasonal pools are wetland habitats that contain standing water on an ephemeral basis. In some cases, seasonal pools contain emergent wetland vegetation or may be classified as vernal pools. However, seasonal pools with shorter hydroperiods may contain few emergent wetland plant species. Vegetation in these pools may be sparse and consist mainly of upland plant species. Puddles that form in road ruts or other anthropogenic areas can be considered seasonal pools. These areas are important biologically because they can contain threatened and endangered species, such



as vernal pool fairy shrimp, and provide habitat for a variety of aquatic invertebrates. Pacific treefrogs, California toads, and western spadefoot can breed in seasonal pools. Bird and mammal species can use these areas as a water source. Seasonal pools comprise 4.8 acres or less than 1% of the on-site cover.

Ruderal. Ruderal habitats are disturbed areas that are typically sparsely vegetated by invasive non-native plants. This habitat type is not identified by Holland (1986) or Sawyer and Keeler-Wolf (1995). On-site, this habitat type is restricted to a cattle feeding area that is mostly devoid of vegetation due to trampling, grazing and vehicular impacts. It comprises 0.5 acres or less than 1% of the area within the Agricultural Residential Cluster Subdivision.

Agriculture (Vineyard/Stock Ponds). Vineyard Agriculture is a human-created habitat, and vineyards are the type of agriculture that has been planted over the majority of the Agricultural Residential Cluster Subdivision site. The vineyard habitat Agriculture is not described by Holland (1986) or Sawyer and Keeler-Wolf (1995) as it is not a native plant community, though it is considered a wildlife habitat under the California Wildlife Habitat Relationships (CDFG, California Interagency Wildlife Task Group, CHWR ver. 8.1). The on-site vineyard consists of intensively maintained wine-grape vines that are actively managed, regularly irrigated, and has few native plant species. Vineyard maintenance eliminates the ability for many native plants to survive in the area and provides suitable areas for plants highly, and the plant species present in these areas are adapted to frequent disturbance, and primarily consisting of ruderal species. Such species Common Ruderal species occurring in vineyard habitats include bromes, wild radish (*Raphanus sativus*), and mustard (*Brassica* sp.). In addition, two concrete-lined irrigation ponds are located in the southern portion of the site and are considered part of this habitat type. Vineyard comprises 870.6 853.6 acres or 23.0 22.6% of the on-site vegetation vegetative cover.

Vineyards often support a low to moderate diversity of small mammal and bird species adapted to frequent disturbance and open coverage. Species commonly observed vineyards include mourning doves (*Zenaida macroura*), European starlings (*Sturnus vulgaris*), northern mockingbirds (*Mimus polyglottos*), desert cottontails, and California ground squirrels. In areas within the vineyard where remnant valley oaks remain or where vineyards are adjacent to oak woodlands, avian species diversity was found to be greater than in areas without trees (Jason Dart, pers. comm.). It should be noted that vineyard habitats are typically managed to minimize crop depredation by such species as starlings, blackbirds, ground squirrels, gophers, and any other opportunistic wildlife species.

The remainder of Section 4.3.1 (Setting) has not changed as a result of updated habitat type classifications and associated mapping revisions. However, Table 4.3-5 under Section 4.3.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures) has been revised for consistency:

b. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.

Table 4.3-5 provides a summary of habitat impacts discussed in the Impacts B-1 through B-3. Impacts and Mitigation Measures are discussed below:



Table 4.3-5 Impacts to Habitat Types Resulting from Development of the Proposed Agricultural Residential Cluster Subdivision

Habitat Type	Total Acreage	Impacted Area (Acres)	% of Habitat Area Impacted per habitat type
California Annual Grassland	1103.6 1151.3	39.6 32.7	3.6 3%
Valley needlegrass-grassland Native perennial grassland	66.8 79.8	24.0 34.3	35.9 43%
Central (Lucian) Coastal Scrub	20.7 20.5	0.7 0.2	3.4 1%
Chamise Chaparral	30.8 33.9	2.4 0.0	6.8 0%
Blue Oak Woodland	943.0 890.0	43.2 26.0	4.6 3%
Coast Live Oak Woodland	235.5 104.3	20.2 4.3	8.6 4%
Valley Oak Woodland	224.7 215.7	12.1 2.4	0.5 1%
Mixed oak woodland	190.4	27.4	14%
Riparian/Riverine	100.3 41.6	0.8 0.0	0.8 0%
Emergent Wetlands/Seasonal Pools	182.4 191.7	0.0	0.0%
Seasonal Pools	4.8	0.0	0%
Ruderal	0.5	0.0	0%
Agriculture (Vineyards and stock ponds)	870.6 853.6	0.0	0.0%
TOTAL	3,778	142.7 127.2	3.8 3%

Habitat type acreages are approximate and are based on aerial photography.

Figures 4.3-1, 4.3-2 and 4.3-3 have also been revised to reflect the updated habitat type classifications. These figures are included herein as Figures 2-3, 2-4 and 2-5, respectively.

Agricultural Residential Cluster Subdivision Impact B-2 in Section 4.3, *Biological Resources*, has been revised as follows:

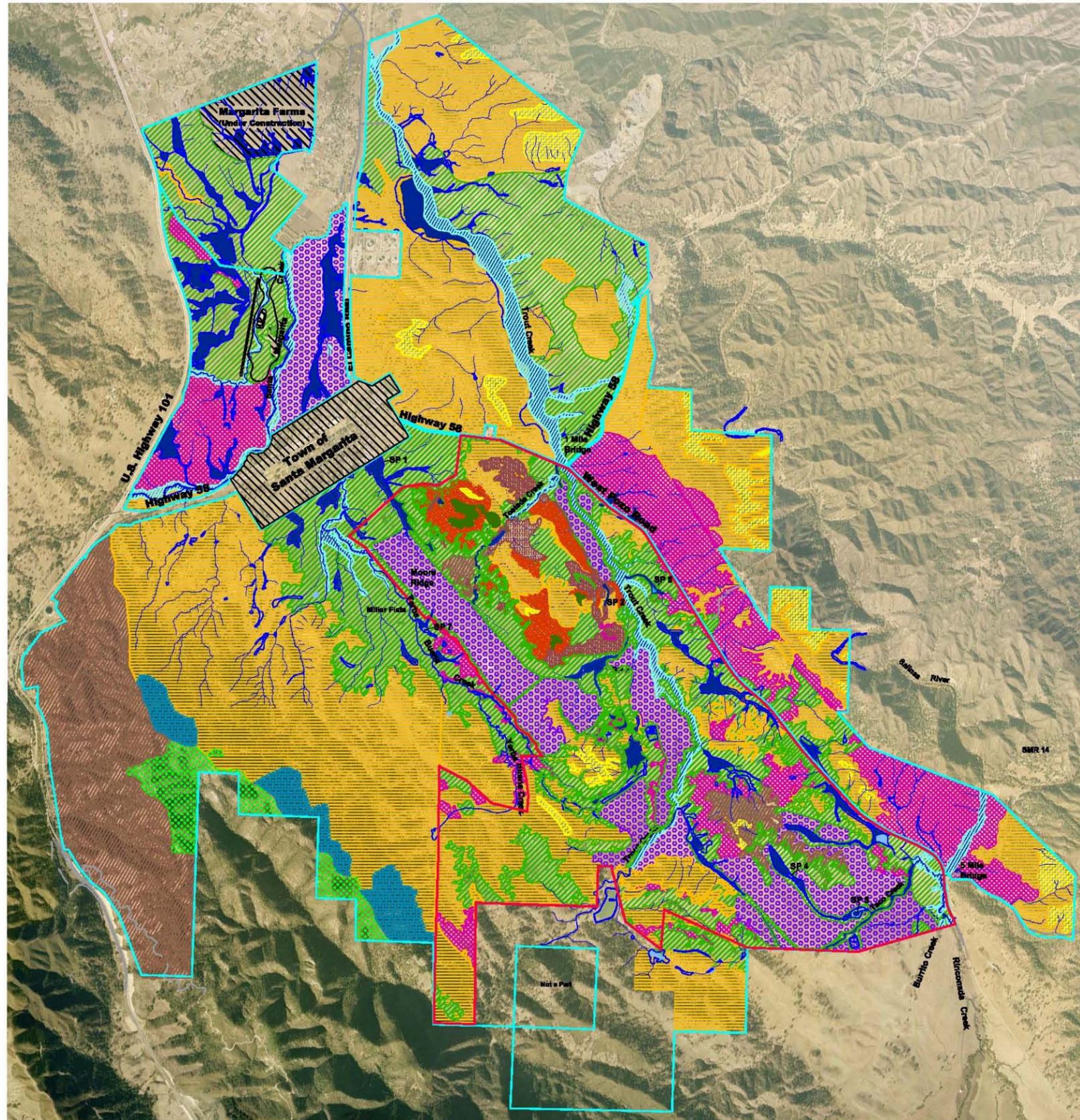
Agricultural Residential Cluster Subdivision Impact B-2 **The proposed Agricultural Residential Cluster Subdivision would result in direct impacts to Native Perennial Grassland, which is a rare plant community and includes Valley Needlegrass Grassland, which is a CDFG Plant Community of Special Concern. This would be a Class II, *significant but mitigable* impact.**

As illustrated in Figure 4.3-2 (**herein Figure 2-4**), residential lots and associated roads within the Agricultural Residential Cluster Subdivision would occur in areas of the ~~Valley Needlegrass~~ **Native Perennial Grassland** habitat. Development of the following proposed lots would convert ~~valley needlegrass-grassland~~ **Native Perennial Grassland** habitat to residential uses: ~~The residential development would impact on-site valley needlegrass grassland habitat occurring within~~ **Lots 2-14, 16, 18, 46-57, 60-62, and 87-1-13, 29, 39, 43-46, 50, 56-57, 63-66, 71, 87-88, 90, 99-102, 107-108, 111 and 114.** Impacts to this habitat would occur as a result of soil and surface disturbance or fragmentation of habitat through grading and other ground disturbance, and the placement of permanent residential structures and anticipated landscaping within the lots. **Additional impacts include typical residential activities, rural residential uses such as livestock grazing, creation of horse paddocks or other fenced areas for pets, and vehicle storage.** About ~~24.0~~ **34.3** acres of ~~valley needlegrass grassland~~ **Native Perennial Grassland**, which is a ~~CDFG Plant Community of Special Concern~~ **or rare plant community and includes Valley Needlegrass Grassland, which is a CDFG Plant Community of Special Concern**, would be impacted by grading and



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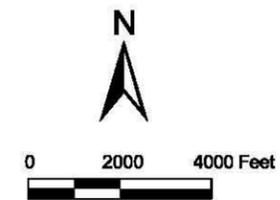




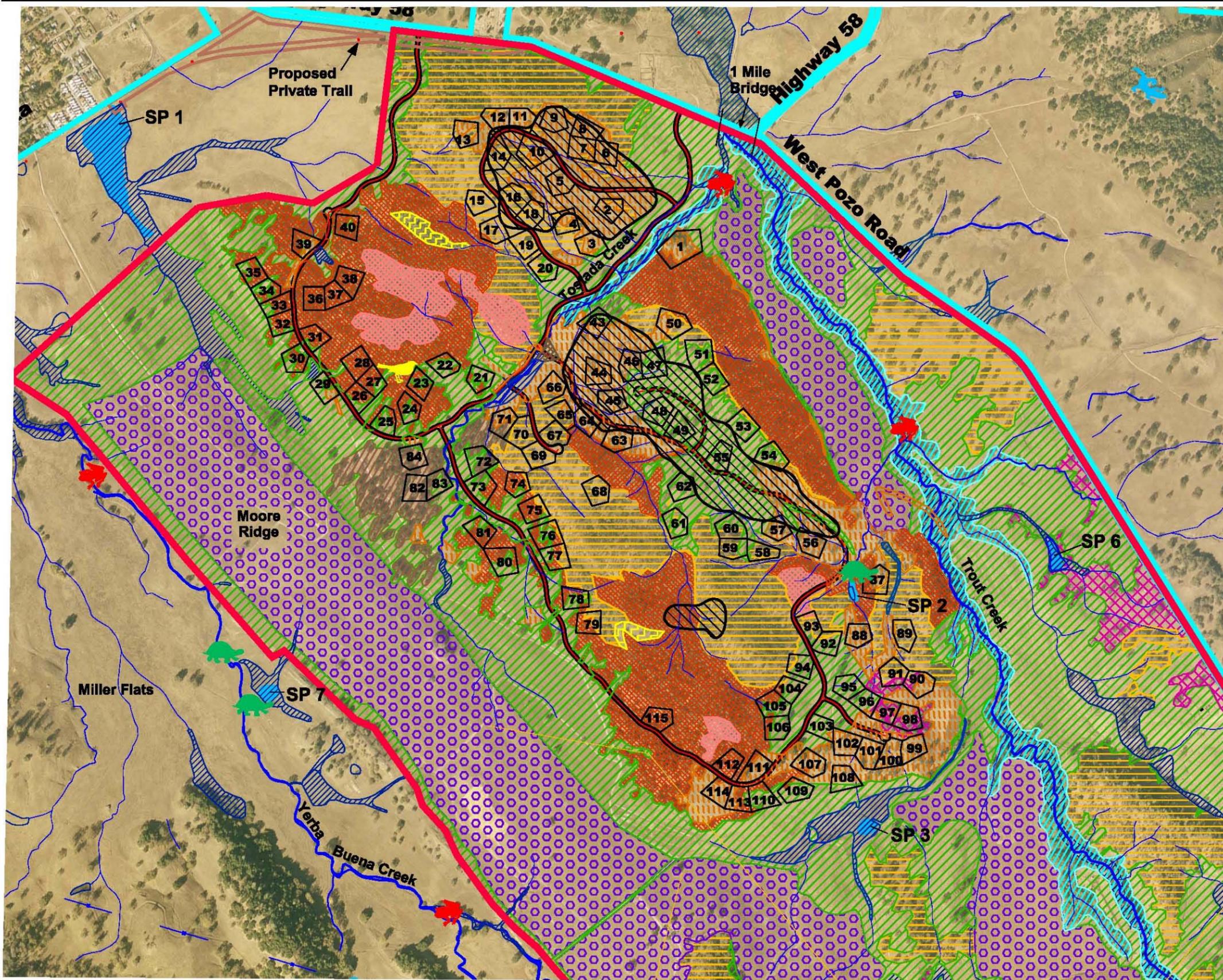
Note: This figure revises Figure 4.3-1 in the Draft EIR to utilize more accurate descriptions of habitat types and to reflect additional fieldwork conducted after circulation of the Draft EIR.

LEGEND

-  Native Perennial Grassland
-  CA Annual Grassland
-  Central (Lucian) Coastal Scrub
-  Chamise Chaparral
-  Santa Lucia Manzanita-Eastwood Manzanita Chaparral
-  Blue Oak Woodland
-  Coast Live Oak Woodland
-  Valley Oak Woodland
-  Mixed Oak Woodland
-  Ruderal
-  Emergent Wetland
-  Waters of the U.S.
-  Seasonal Pools
-  California Bay Forest
-  Riparian
-  Urban/Residential
-  Agricultural (Vineyard/Dry Farm)
-  Agricultural Residential Cluster Subdivision
-  Ranch Property Boundary



Habitat Map



Note: This figure revises Figure 4.3-2 in the Draft EIR to utilize more accurate descriptions of habitat types and to reflect additional fieldwork conducted after circulation of the Draft EIR.

LEGEND

Habitats

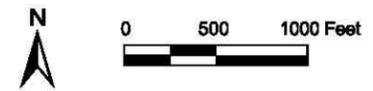
- Native Perennial Grassland
- CA Annual Grassland
- Central (Lucian) Coastal Scrub
- Chamise Chaparral
- Blue Oak Woodland
- Coast Live Oak Woodland
- Valley Oak Woodland
- Mixed Oak Woodland
- Ruderal
- Emergent Wetland
- Waters of the U.S.
- Seasonal Pools
- Riparian
- Agriculture (Vineyard/Dry Farm)

PROPOSED PROJECT

- Agricultural Residential Cluster Subdivision Boundary
- Ranch Property Boundary
- Proposed Lots
- Proposed Roads

SPECIAL-STATUS SPECIES

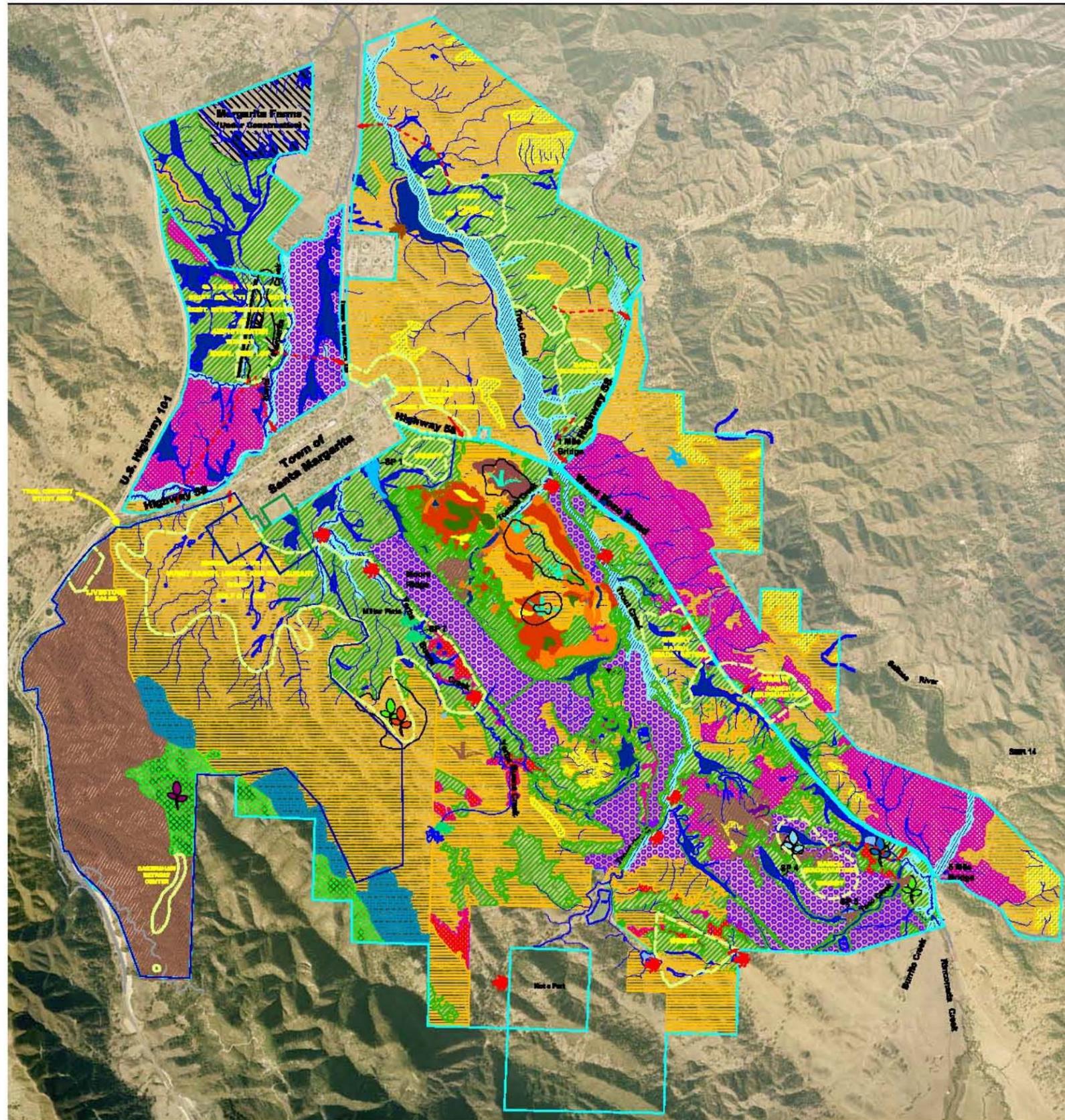
- = California Red-legged Frog
- = Coast Horned Lizard
- = Southwestern Pond Turtle
- = White Tailed Kite
- = San Luis Obispo Mariposa Lily



Proposed Agricultural Residential Cluster Subdivision Biological Impact Map

Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006, and October 2007.

Figure 2-4
 County of San Luis Obispo



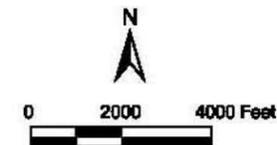
Note: This figure revises Figure 4.3-3 in the Draft EIR to utilize more accurate descriptions of habitat types and to reflect additional fieldwork conducted after circulation of the Draft EIR.

LEGEND

- | | | | |
|--|--|--|---|
| | Native Perennial Grassland | | Ruderal |
| | CA Annual Grassland | | Emergent Wetland |
| | Central (Lucian) Coastal Scrub | | Waters of the U.S. |
| | Chamise Chaparral | | Seasonal Pools |
| | Santa Lucia Manzanita-Eastwood Manzanita Chaparral | | California Bay Forest |
| | Blue Oak Woodland | | Riparian |
| | Coast Live Oak Woodland | | Urban/Residential |
| | Valley Oak Woodland | | Agriculture (Vineyard/Dry Farm) |
| | Mixed Oak Woodland | | Ranch Property Boundary |
| | | | Future Development Program Land Use Locations |

SPECIAL-STATUS SPECIES

- | | | | |
|--|------------------------------|--|--|
| | = Silvery Legless Lizard | | = Catalina Mariposa Lily |
| | = California Red-legged Frog | | = San Luis Obispo Mariposa Lily |
| | = Western Spadefoot | | = Michael's Rein Orchid |
| | = Southwestern Pond Turtle | | = Caper-fruited Tropicocarpum |
| | = Loggerhead Shrike | | = San Luis Obispo County Morning Glory |
| | = Purple Martin | | = San Luis Obispo Owl's Clover |
| | = White Tailed Kite | | = San Luis Obispo County Lupine |
| | = Coast Horned Lizard | | = Santa Lucia Manzanita |
| | = Coast Range Newt | | |



Future Development Program
 Biological Constraints Map

Figure 2-5

development activities, based on field observations of contiguous grassland areas with more than 50 ~~10~~ % cover of purple needlegrass **or deergrass**. This habitat type is included in the California Natural Diversity Database (CNDDDB) by the CDFG as a rare plant community, because its extent in the state of California has been greatly reduced. In California, the valley needlegrass grassland occupies approximately 67,000 acres or 0.07% of vegetation (California Department of Forestry and Fire Protection, 2002). Therefore, the loss of this rare plant community is considered a Class II, *significant but mitigable* impact.

Mitigation Measures. The following mitigation measure would reduce impacts related to ~~valley needlegrass grassland~~ **Native Perennial Grassland** habitat:

**Agricultural
Residential Cluster
Subdivision
B-2(a)**

~~Valley Needlegrass Grassland~~ **Native Perennial Grassland Restoration Plan.** The applicant shall contract with a qualified biologist to develop a ~~Valley Needlegrass~~ **Native Perennial Grassland Restoration Plan**. The Plan would consist of ~~restoring~~ **enhancing** the remaining ~~valley needlegrass~~ **Native Perennial grassland** habitat found on-site and/or ~~enhancing (restoring)~~ **valley needlegrass grassland within the California annual grassland habitat or creating Native Perennial Grassland habitat within areas presently vegetated by California annual grassland**. Specifically, the area of restoration should include at least ~~48.0~~ **69** acres (2:1 ratio) with at least ~~50-10~~ % cover by purple needlegrass, **deergrass, or California oatgrass**, and should include open areas within blue oak woodland and coast live oak woodland. Other areas consisting of California annual grassland such as between Lots 88 and 108 are also suitable for enhancement ~~with purple needlegrass~~. In such areas, grassland management strategies such as seasonal mowing or grazing shall be employed, which will allow for a higher likelihood that perennial grasses could compete with the annual grasses found within these areas. The following measures shall be implemented.

1. A county approved botanist/biologist shall develop a Plan that provides specific measures to enhance and maintain the remaining on-site occurrences of ~~the valley needlegrass grassland habitat type~~ **Native Perennial grassland**. This Plan shall be focused on adaptive management principles, and shall identify detailed enhancement areas and strategies based on the parameters outlined below, with timing and monitoring long-term requirements. The Plan shall:
 - a. Provide an up-to-date inventory of on-site occurrences of ~~valley needlegrass~~ **Native Perennial** grassland habitat;
 - b. Define attainable and measurable goals and objectives to achieve through implementation of the Plan;
 - c. Provide site selection and justification;
 - d. Detail restoration work plan including methodologies,



- restoration schedule, plant materials (seed), and implementation strategies.
- e. Provide a detailed maintenance plan to include seasonally-timed low-intensity grazing and/or mowing to provide a sufficient disturbance regime to keep non-native plant species from further reducing the extent of this habitat type on the property over time. This approach would also have the residual benefit of providing wildland fire protection. Enhancement and maintenance options shall employ recent techniques and effective strategies for increasing the overall area of ~~valley needlegrass~~ **native perennial** grassland on-site and shall include but not be limited to reseeding disturbed areas with an appropriate native plant palette;
 - f. Define performance standards. Within the agriculture residential cluster subdivision project area, the restored area should include at least ~~48.0~~ **69** acres (2:1 ratio) with at least ~~50~~ **10**% cover by ~~purple needlegrass~~ **native perennial grasses**; and,
 - g. Provide a monitoring plan to include methods and analysis of results. Also, include goal success or failure and an adaptive management plan and suggestions for failed restoration efforts.

Plan Requirements and Timing. The ~~Valley Needlegrass-Native Perennial~~ Grassland Restoration Plan shall be prepared by a County approved biologist/botanist. Prior to ~~approval~~ **issuance** of Grading Permits, the applicant shall submit a copy of the Plan to Planning and Building for review **and approval**. **Monitoring.** Planning and Building staff, in consultation with a County assigned biologist/botanist, shall verify that the open space mitigation and monitoring plan for the ~~valley needlegrass~~ **native perennial** grassland habitat is adequate. A monitor approved and hired by the County at the applicant's expense shall be required to monitor all phases of the mitigation plan.

Residual Impacts. The implementation of the above mitigation measure would reduce impacts to ~~valley needlegrass~~ **native perennial** grassland habitat to a less than significant level. Seasonal mowing or low-impact grazing practices could have beneficial secondary impacts with respect to wildland fire protection.

No other impact discussions would be affected by the updated habitat type classifications and associated mapping revisions.



Updated Oak Tree Impacts and Mitigation

Summary of Draft EIR Analysis. The Draft EIR estimated that the Agricultural Residential Cluster Subdivision would result in the removal of or impacts to an estimated 200 to 400 blue oak, coast live oak, and valley oak trees. In addition, the Future Development Program and improvements to roadways for the Agricultural Residential Cluster Subdivision would result in the removal of or impacts to oak woodland habitat and an unknown number of native oak trees. Therefore, impacts from both the Agricultural Residential Cluster Subdivision and Future Development Program were considered Class I, *significant and unavoidable*. State Law, as per the SB 1334 Kuehl bill, requires counties to require a project that will significantly affect oak woodlands to offset the loss of any oaks destroyed. The County requires a 4:1 replacement ratio (trees replaced to trees lost) for oak trees greater than five inches diameter at Diameter Breast Height (DBH) or 4.5 feet above mean natural grade, and a 2:1 replacement ratio for oak trees impacted as a result of construction activities. Despite mitigation, impacts would remain a Class I impact in the interim period prior to establishment of mature replacement habitat because of the length of time required for replacement trees to reach maturity and have a similar habitat values as those that are replaced.

Updated Analysis. Senate Bill 1334, the Kuehl Bill, specifies procedures for mitigating effects of oak woodland conversions. Under SB 1334, mitigation may include: (1) conservation of oak woodlands through the use of conservation easements; (2) planting and maintaining replacement trees for a period of seven years; (3) contribution of funds to the Oak Woodlands Conservation Funds; and/or (4) other mitigation measures developed by the County. It should be noted that replacement plantings may only fulfill up to 50% of a particular project's mitigation requirement under this bill. The County of San Luis Obispo is currently drafting thresholds for determining impact levels in accordance with the Kuehl Bill. These draft thresholds include defining "oak woodland" as greater than 10% canopy cover by native oak trees and defining an "impact" as the removal of 10% of the canopy cover or ten oak trees.

An independent count was made of the number of oak trees that would be removed by the project using aerial photography supported by site visits conducted in October and November 2007. This analysis was consistent with the prior findings in that an estimated 200 to 400 oak trees would be removed or impacted by the development of the Agricultural Residential Cluster Subdivision. Even if the number of trees removed during the construction of residential units and road improvements was minimized to the maximum extent possible, hundreds of oak trees would be impacted due to the proximity of the subdivision roads, CalFire clearance and limbing requirements, septic tanks and leach fields, potential conversion of parts of the lots into paddocks for horses or other livestock, and other appurtenant residential uses. CalFire requirements will apply to areas outside of building footprints, and it is probable that other suburban land uses such as livestock or pet use will occur throughout the entire boundaries of the lots since they will be privately owned. Many lots are so densely wooded that removal of at least 30 percent of the canopy would be required for residential construction. The additional land uses on the lots are likely to result in the failure of oak reproduction, which means that the converted acreage will not sustain oak species functioning as a biological unit in the future.

Agricultural Residential Cluster Subdivision Impact B-3 in Section 4.3, *Biological Resources*, has been revised as follows:



**Agricultural
Residential Cluster
Subdivision
Impact B-3**

The proposed Agricultural Residential Cluster Subdivision would result in the removal of and/or impacts to an estimated 200 to 400 blue oak, coast live oak, and valley oak trees within the Blue Oak Woodland, Coast live Oak Woodland, Valley Oak Woodland, Valley Needlegrass Grassland, and California Annual Grassland habitats on the site as well as the conversion of 60.1 acres of native oak woodland habitat. In the short term accordance with Kuehl Bill mitigation techniques, half of the oak trees that are removed or impacted can be replaced, but the quality of their due to the long time-period required for the planted trees to possess equivalent oak woodland habitat values will not be the same until the new trees mature, the timeframe of which cannot be accurately determined, and the fact that there is no assurance that oak trees designated to remain on the lots will be protected in the future, impacts to oak trees and ~~Thus, impacts to oak woodlands are Class I, significant and unavoidable.~~

The proposed development of residential lots and associated roadways within the Agricultural Residential Cluster Subdivision would result in the direct removal, ~~trimming, and grading within the root drip zone of~~ **and indirect impacts to blue oak, coast live oak, and valley oak trees, as well as the conversion of native oak woodland habitats located in the Blue Oak Woodland, Coast Live Oak Woodland, and Valley Oak Woodland.** Development of several of the proposed lots within the Agricultural Residential Cluster Subdivision would directly impact a substantial portion of oak woodland habitats. Development impacts would disturb or fragment approximately ~~43.2~~ **26.0** acres of blue oak, approximately ~~20.2~~ **4.3** acres of coast live oak, **27.4** acres of mixed oak, and ~~12.1~~ **2.4** acres of valley oak woodland habitat, ~~and blue oak, coast live oak, and valley oak trees within these habitats and within the valley needlegrass grassland and California annual grassland habitats.~~ Because many lots are situated in oak woodland habitats with a high density of oak trees, residential construction would require the removal of a substantial number of trees, as discussed below. Additional impacts to oak woodland resources would be through direct removal and impacts to individual trees as a result of road improvements for the development. An unknown number of trees would be impacted within the lots due to grading or compaction within the root zone; limbing or thinning per CalFire requirements; changes to water regime due to landscape irrigation, leach fields, or creation of impervious surfaces; decreased reproduction due to browsing by livestock, mowing, and other ground disturbance; and other types of residential activities that would affect the soil fungi upon which oak trees are associated.

Removal of large areas of Blue Oak Woodland, Coast Live Oak Woodland, **Mixed Oak Woodland**, and Valley Oak Woodland habitat types is considered a significant impact due to the long time period necessary for these habitats to establish, and the relatively high amount and quality of wildlife habitat that ~~they~~ **these areas** provide. **Re-establishment rates can vary widely between project sites and over time.** For example, valley oaks planted in a favorable site can develop to sizable trees with adequate canopies in 25 to 30 years. In contrast, blue oaks, which are a slower growing species, may require 100 years



for trees to develop moderate-sized canopies. Establishment rates would be shorter in riparian floodplains that lack agricultural uses (Bernhardt and Swiecki 2001).

In the short-term, these impacts **to oak woodland habitats** are significant and unavoidable because ~~of direct impacts to wildlife habitat due to the removal of a large quantity of oak trees and indirect impacts residential structures will have on the existing oak tree habitat as a result of lighting and landscaping between oak tree clusters. The development of residential lots will also directly affect the movement and/or dispersal ability of special-status and common wildlife species through these habitats~~ **a substantial amount of native oak woodland habitat will be converted to other land uses, and there will be a long delay before replanted trees will possess equivalent wildlife habitat values.**

~~State Law, as per the SB 1334 Kuehl bill, requires counties to require a project that will significantly affect oak woodlands to offset the loss of any oaks destroyed. Senate Bill 1334, the Kuehl Bill, specifies procedures for mitigating effects of oak woodland conversions. Under SB 1334, mitigation may include: (1) conservation of oak woodlands through the use of conservation easements; (2) planting and maintaining replacement trees for a period of seven years; (3) contribution of funds to the Oak Woodlands Conservation Funds; and/or (4) other mitigation measures developed by the County. It should be noted that replacement plantings may only fulfill up to 50% of a particular project's mitigation requirement under this bill. As noted previously, the County of San Luis Obispo currently defines "oak woodlands" as those areas with greater than 10% canopy cover by native oak trees, and defines an impact to oak woodlands as the removal of 10% of the canopy cover or ten oak trees. Under these definitions, the Agricultural Residential Cluster Subdivision would have a significant impact to oak woodlands.~~

The County **currently** requires a 4:1 replacement ratio (trees replaced to trees lost) for oak trees greater than five inches diameter at Diameter Breast Height (DBH) ~~or at 4.0 feet above mean natural grade, and a 2:1 replacement ratio for oak trees impacted but not removed as a result of construction activities.~~ Development of residential lots and road infrastructure within the Agricultural Residential Cluster Subdivision would directly or indirectly impact oak trees during construction activities, **road improvements, and through residential use of the lots** (proposed Lots 1-7, 10-40, 43-84, 87-102, and 103-115 and Road A). Although a few lots contain scattered oaks and avoidance measures may limit impacts to individual oak trees, ~~most 50~~ **most 50** of the proposed **112** lots contain relatively dense stands of oak trees (proposed Lots 14-19, 23-24, 26-28, 30-40, 65-72, 74-84, 87, 89, 91, 93, 97-98, 112, 113 and 115) and as such, the proposed Agricultural Residential Cluster Subdivision would result in direct and indirect impacts to hundreds of blue oak, coast live oak, and valley oak trees. ~~In addition, several Heritage or State Oak trees occur on-site and could potentially be impacted.~~

~~The Agricultural Residential Cluster Subdivision development area contains coast live oak, blue oak, and valley oak trees.~~ Based on an aerial map assessment of the proposed lot and associated road locations, it is estimated that more than 200 and as many as 400 oak trees have potential to be directly impacted as a result of the residential development. This is a Class I, *significant and unavoidable*, impact. These trees are a biological resource that provide habitat for several species of resident and migratory birds including the raptors listed in Table 4.3-4. Impacts and analysis regarding wildlife species associated with these trees are included in Impact B-9.



Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation*, could also potentially impact individual oak trees, depending on final design.

In accordance with the above revisions, mitigation measures B-3(a) through B-3(c) have been restructured to streamline the mitigation process. Although the intent of the measures is largely the same, their structure and organization have changed substantially. In order to present the revised measures comprehensibly, the original measures have been deleted and the new measures inserted in full.

Mitigation Measures. Individual oak trees are considered to be a special-status biological resource by the County of San Luis Obispo and mitigation measures are required. The following measures are designed to ~~mitigate~~ **reduce** development-related impacts to oak trees to a less than significant level per County requirements. Agricultural Residential Cluster Subdivision measure B-9(c) (Pre-Construction Bird Survey) contains requirements for avoiding impacts to potential nesting raptors or other migratory birds.

**Agricultural
Residential Cluster
Subdivision
B-3(a)**

~~**Tree Identification.** The development plan shall be reviewed by the County approved arborist or botanist and must include the following information:~~

- ~~1. *The species, diameter at breast height, location, and condition of all existing trees;*~~
- ~~2. *Which trees will be retained, removed, or relocated;*~~
- ~~3. *The location of proposed utilities, driveways, street tree locations, and the size and species of proposed street trees; and*~~
- ~~4. *A landscaping plan that shows the size and species of all trees proposed to be planted in the project.*~~

~~**Plan Requirements and Timing.** The tree identification review shall be prepared by a County approved arborist. Prior to approval of Grading Permits, the applicant shall submit a copy of the arborist reviewed landscape plan to Planning and Building for review and approval. **Monitoring.** Planning and Building staff or a County approved arborist or botanist shall verify the landscape plan.~~

**Agricultural
Residential Cluster
Subdivision
B-3(b)**

~~**Heritage Oak Tree Avoidance.** Grading and development within proposed lots shall avoid the removal of oak trees to the maximum extent possible. Such activities must minimize potential disturbance to oaks and their associated root zones to the maximum extent possible, with final site plans requiring concurrence from County staff to ensure compliance with this provision. Heritage oak trees or other oak trees with an equal to or greater than 36 inch DBH~~



shall be avoided, or if avoidance is not feasible (with feasibility to be determined by the applicant in consultation with County staff), then such oak tree(s) shall be transplanted to a determined receptor site. Refer to Agricultural Residential Cluster Subdivision measure B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan) for planting details.

Plan Requirements and Timing. Prior to approval of Grading Permits, the applicant shall submit a copy of the grading plans detailing the location of all Heritage Oak Trees. If avoidance is not feasible, then the relocation sites for the heritage oak tree(s) shall be identified on the Landscape plans and submitted to Planning and Building for review and approval.

Monitoring. Planning and Building staff or a County approved arborist or botanist shall verify the landscape plan. Planning and Building approved arborist or botanist shall monitor relocation of heritage oak tree relocation.

**Agricultural
Residential Cluster
Subdivision
B-3(c)**

Oak Tree Protection and Mitigation and Monitoring Plan. A qualified arborist/botanist shall inventory all oak trees within 200 feet of the limits of grading and provide measures to ensure the required replacement ratios per County standards are achieved, and that remaining oak trees are adequately protected during construction activities. In addition, the project arborist/botanist shall monitor construction activities and enforce an approved tree protection plan. Tree protection guidelines and a root protection zone shall be established and implemented for each tree to be preserved. On average, the outer edge of the tree root zone is 1.5 times the distance from the trunk to the dripline of the tree. For Valley Oak trees, the protection/setback zone shall be 100 feet from the base of the trunk. The project arborist/botanist must approve work within the root protection zone.

Construction Requirements. Development of the proposed Agricultural Residential Cluster Subdivision shall abide by the requirements of the County approved arborist/botanist for construction. Requirements shall include but not be limited to: the protection of trees with construction setbacks; construction fencing around trees; grading limits around the base of trees as required; and a replacement plan for trees removed including



replacement at a minimum 4:1 ratio for oak trees 5-inches DBH or greater.

~~Replacement plantings shall be from regionally or locally collected seed stock grown in vertical tubes or deep one-gallon tree pots. Cages shall be placed over each oak tree to protect it from deer and other herbivores. All oak trees should be planted between October to January. If planting occurs outside this time period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented after approved by the County. Average tree densities shall be no greater than one tree every twenty feet and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. Replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g. lawns, leach lines, etc). A seasonally timed maintenance program, which includes appropriate browse protection, will be developed for all oak tree planting areas on the Agricultural Residential Cluster Subdivision. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced within the Agricultural Residential Cluster Subdivision. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County's Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. Annual monitoring reports will include specifics discussed below.~~

~~All trees planted as mitigation shall have an 80% survival rate after five years. If any trees planted as mitigation do not survive at five years from the time of planting, they will be replaced as soon as possible as determined by the arborist/botanist. The replacement mitigation trees shall also have an overall survival rate of 80% after five years from date of planting.~~

~~While the oak tree mitigation and monitoring plan would reduce impacts to oak trees and oak woodland, in some areas, oak trees and oak woodland habitat that are lost would take at least 50 years to restore because they take at least that long to establish. The loss of habitat values will also take a long period of time to mitigate by replacement plantings in recently developed or natural settings for the same reason. The lost mass can be mitigated in the long term by implementing the above mitigation measures, the oak tree mitigation and monitoring plan, but in the short term the lost mass cannot be replaced.~~

~~**Plan Requirements and Timing.** The final oak tree report and protection plan shall be prepared by a County approved arborist/botanist and reviewed by Planning and Building prior to issuance of grading permits. This report shall also identify the final number of replacement trees utilizing the County's replacement ratio identified above. Prior to issuance of grading permits, the applicant shall file a receipt of evidence of posting a performance security that is acceptable to the County. Prior to occupancy clearance, trees shall be planted, fenced, and appropriately irrigated. **Monitoring.** Planning and Building staff or a County approved biologist shall verify oak tree report and protection plan compliance. Planning and Building shall conduct site inspections throughout all phases of development to ensure compliance with the plan and evaluate all tree protection and replacement measures. Release of performance security requires Planning and Building staff signature.~~

Agricultural
Residential Cluster
Subdivision
B-3(a)

Oak Tree Inventory, Avoidance, and Protection Plan.

The applicant shall prepare an Oak Tree Inventory, Avoidance and Protection Plan as outlined herein. The plan shall be reviewed by the County approved arborist prior to approval of grading permits, and shall include the following items:

- 1. Comprehensive Oak Tree Inventory. This shall include the following information:**
 - a) An inventory of all trees at least 5 inches in diameter at breast height within 50 feet of all proposed Agriculture Residential Cluster Subdivision impact areas. All inventoried**



trees shall be shown on maps. The species, diameter at breast height, location, and condition of these trees shall be documented in data tables.

- b) Identification of trees which will be retained, removed, or impacted. This information shall be shown on maps and cross-referenced to data tables described in Item (a).
 - c) The location of proposed structures, utilities, driveways, septic tanks, leach fields, grading, retaining walls, outbuildings, and impervious surfaces shall be shown on maps. The applicant shall clearly delineate the building sites/building control lines containing these features on the project plans. In addition, the plans shall include any fenced areas for livestock or pets and clearance areas prescribed by CalFire.
 - d) A landscaping plan that shows describes the size and species of all trees, shrubs, and lawns proposed to be planted in the project area, including the limits of irrigated areas.
 - e) Revised drainage patterns that are within 100 feet upslope of any existing oak trees to remain. All reasonable efforts shall be made to maintain historic drainage patterns and flow volumes to these trees. If not feasible, the drainage plan shall clearly show which trees would be receiving more or less drainage.
2. **Oak Tree Avoidance Measures.** Grading and development within proposed lots shall avoid the removal of oak trees to the maximum extent possible. Such activities must minimize potential disturbance to oaks and their associated root zones to the maximum extent possible, with final site plans requiring concurrence from County staff to ensure compliance with this provision.
3. **Oak Tree Protection Guidelines.** Tree protection guidelines and a root protection zone shall be established and implemented for each tree to be retained that occurs within 50 feet of impact areas. The following guidelines shall be



included:

- a) A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, based upon tree species, age, and size. This area will vary from 1.0 to 1.5 times its diameter at breast height [as specified in Harris, Clark and Matheny (2004) Arboriculture]. At a minimum, the critical root zone shall be the distance from the trunk to the drip line of the tree.**
- b) All oak trees to remain within 50 feet of impact areas (construction or grading) shall be marked for protection and the root zone fenced prior to any grading. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. The project arborist must approve any work within the root protection zone.**
- c) Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above ground surface.**
- d) Unless previously approved by the County, the following activities shall be prohibited within the root zone of remaining oak trees: year-round irrigation (no summer watering, unless “establishing” a new tree or native compatible plant for up to 3 years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); or disturbance of soil that impacts roots (e.g., tilling).**
- e) Trimming oak branches shall be minimized, especially for larger lower branches, and the amount done in one season shall be limited to 10 to 30% of the canopy to reduce stress/shock. If trimming is necessary, the applicant shall either use a qualified arborist or utilize accepted arborist’s techniques.**



Plan Requirements and Timing. The Oak Tree Inventory, Avoidance, and Protection Plan shall be prepared by a County approved arborist. Prior to approval of Grading Permits, the applicant shall submit a copy of the Plan to Planning and Building for review and approval. **Monitoring.** Planning and Building staff or a County approved arborist or botanist shall approve the Oak Tree Inventory, Avoidance, and Protection Plan.

**Agricultural
Residential Cluster
Subdivision
B-3(b)**

Oak Tree Replacement, Monitoring, and Conservation.- Of those trees identified under Agricultural Residential Cluster Subdivision measure B-3(a) as being removed or impacted, 50% shall be replaced per County and Kuehl Bill standards. A conservation easement or monetary contribution to the Oak Woodlands Conservation Fund shall be used for the remaining mitigation.

1. **Replacement.** The County approved arborist shall provide or approve an oak tree replacement plan at a minimum 4:1 ratio for oak trees removed and a minimum replacement ratio of 2:1 for oak trees impacted (i.e., disturbance within the root zone area).
 - a) Replacement plantings shall be from regionally- or locally-collected seed stock grown in vertical tubes or deep one-gallon tree pots. Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54" tall welded wire cattle panels (or equivalent material) and be staked using T-posts. Wire mesh baskets, at least two-foot diameter and 2-feet deep, shall be used below ground. Planting during the warmest, driest months (June through September) shall be avoided. The plan shall provide a species-specific planting schedule. If planting occurs outside this time period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented after approved by the County. Average tree densities shall be no greater than one tree every twenty feet and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered



patterns to create a natural appearance. Replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g. lawns, leach lines, etc). Replanting areas shall be either in native topsoil or areas where native topsoil has been reapplied. A seasonally timed maintenance program, which includes regular weeding (hand removal at a minimum of once early fall and once early spring within at least a three-foot radius from the tree or installation of a staked “weed mat” or weed-free mulch) and a temporary watering program, shall be developed for all oak tree planting areas on the Agricultural Residential Cluster Subdivision. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced within the Agricultural Residential Cluster Subdivision. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County’s Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. Annual monitoring reports will include specifics discussed below.

- b) An approved arborist shall submit to the County an initial post-planting letter report, and thereafter annual monitoring reports shall be submitted. All trees planted as mitigation shall have an 80% survival rate after seven years. If any trees planted as mitigation do not survive at seven years from the time of planting, they will be replaced as soon as possible as determined by the arborist/botanist.
- c) A cost estimate for the planting plan, installation of new trees, and maintenance of new trees for a period of seven years shall be



prepared by a qualified individual and approved by the County. Prior to site grading/issuance of construction permits, a performance bond, equal to the cost of the estimate, shall be posted by the applicant. The replacement mitigation trees shall also have an overall survival rate of 80% after seven years from date of planting.

2. **Maintenance.** Unless previously approved by the County, the following activities are not allowed within the root zone of newly planted oak trees:
 - a) Year-round irrigation (no summer watering, unless 'establishing' a new tree or native compatible plant for up to 3 years);
 - b) Grading (includes cutting and filling of material);
 - c) Compaction (e.g., regular use of vehicles);
 - d) Placement of impermeable surfaces (e.g., pavement); or
 - e) Disturbance of soil that impacts roots (e.g., tilling).

Trimming oak branches shall be minimized, especially for larger lower branches, and the amount done in one season shall be limited to 10 to 30% of the canopy to reduce stress/shock. If trimming is necessary, the applicant shall either use a qualified arborist or utilize accepted arborist's techniques.

3. **Conservation Easements and/or Contribution to the Oak Woodlands Conservation Fund.** Replanting detailed above can account for up to 50% of the mitigation requirement. The remaining mitigation shall be in accordance with the County's Oak Woodland Mitigation Plan. Per the County's draft Plan, the mitigation shall be a minimum of a 2,000 square foot conservation easement per tree removed (based upon an average 50 foot diameter canopy). The oak conservation area shall be designated on-site and be managed by a third party.

Plan Requirements and Timing. The oak tree replacement plan shall be prepared by a County approved arborist and reviewed by Planning and Building prior to issuance of grading permits. This



report shall also identify the final number of replacement trees utilizing the County's replacement ratio identified above. Prior to issuance of grading permits, the applicant shall file a receipt of evidence of posting a performance security that is acceptable to the County. Prior to occupancy clearance, trees shall be planted, fenced, and appropriately irrigated. The conservation easement shall be established and/or contribution to the Oak Woodlands Conservation Fund shall be paid prior to issuance of grading permits. **Monitoring.** Planning and Building staff shall verify that the oak tree replacement plan and conservation easements and/or contribution to the Oak Woodlands Conservation Fund meet County mitigation ratios and other requirements. Planning and Building shall conduct site inspections throughout all phases of development to ensure compliance with the plan and evaluate all oak tree replacement measures. Release of performance security requires Planning and Building staff approval.

Residual Impacts. Implementation of the above mitigation measures would reduce impacts to oak trees and oak woodland habitat to the extent feasible. The effectiveness of the long-term provisions of the oak tree replacement would be a function of the financial capabilities of the applicant and the willingness of that entity to enforce the recommendations of the County-approved biologist arborist conducting the monitoring program.

In the short-term, impacts to oak trees and oak woodland habitats cannot be mitigated, because of the length of time required for replacement trees to reach maturity and **for the conservation areas to have a similar habitat values as these the oak woodland areas that are replaced removed and/or impacted.** Therefore, impacts remain a Class I, *significant and unavoidable impact.*

The remainder of Section 4.3.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures) has not changed as a result of updated oak tree analysis.

The following citation has also been added to Section 8.0, *References*:

Bernhardt, E and T. J. Swiecki. 2001. *Restoring Oak Woodlands in California: Theory and Practice.* Phytosphere Research, Vacaville, California. Accessed on January 29, 2008 at <http://phytosphere.com/restoringoakwoodlands/oakrestoration.htm>



Updated Steelhead Mitigation

Summary of Draft EIR Analysis. The Draft EIR concluded that the proposed Agricultural Residential Cluster Subdivision could result in a direct take of the Federally Threatened steelhead and/or the loss of Federally designated steelhead Critical Habitat through grading activities for the proposed development, and sedimentation of occupied creeks. This was identified as a Class II, *significant but mitigable*, impact.

Updated Analysis. Throughout the Draft EIR, the common name given for steelhead was inconsistent. In some cases, the term “southern steelhead” (abbreviated as “SS”) was used. This terminology is incorrect and Agricultural Residential Cluster Subdivision Impact B-7 and associated mitigation measures have been revised accordingly.

The Agricultural Residential Cluster Subdivision Impact B-7 impact statement has been revised as follows:

Agricultural Residential Cluster Subdivision Impact B-7	The proposed Agricultural Residential Cluster Subdivision could result in a direct take of the Federally Threatened southern steelhead <u>South/Central California Coast Steelhead</u> and/or the loss of Federally designated SS Steelhead <u>Steelhead</u> Critical Habitat through grading activities for the proposed development, and sedimentation of occupied creeks. This potential impact is Class II, <i>significant but mitigable</i>.
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Agricultural Residential Cluster Subdivision measures B-7(a) and B-7(b) have also been revised as follows:

Agricultural Residential Cluster Subdivision B-7(a)	SS Protection Plan <u>South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and Protection Plan.</u> SS has Steelhead have been identified on-site and setbacks from their identified critical habitat shall be implemented to avoid take of a this federally listed species. Prior to development, a NOAA Fisheries approved SS Steelhead Protection Plan shall be prepared by a qualified steelhead biologist to protect SS steelhead steelhead within all on-site tributaries to the Salinas River including Trout and Tostada Creeks. The plan shall include, but not be limited to the following:
	<ul style="list-style-type: none">• A 100 foot permanent buffer from the top of bank of Trout and Tostada Creeks and 50 foot buffer or minimum setback determined by NOAA from ephemeral drainages that are tributaries to Trout Creek, and wetlands shall be established and protected to maintained in perpetuity. In the short term, this buffer will ensure construction activities do not increase the erosion potential in the area or facilitate construction related sediment from entering the creek. The buffer shall be demarcated with highly visible construction fencing for the benefit of contractors and equipment



operators. **In the long term, this buffer will minimize impacts to riparian habitats that are critical for steelhead, and reduce the amount of sediment and pollutant runoff that would enter these waterways. Roadways, grading, landscaping, structures and other types of disturbance shall be prohibited within these buffer areas. Road crossings of these streams is allowable (if permitted by the appropriate agencies) following the measures listed below. Areas of temporary disturbance resulting from the construction or improvements to road crossings shall be restored using native vegetation at a minimum of 2:1 (area restored:area temporarily impacted). However, agency permitting for impacts to riparian and/or wetland resources may require a higher ratio. Additional details required for the riparian restoration plan are contained within measure B-4(a).**

- The applicant shall prepare and submit for approval to the County a sediment and erosion control plan that specifically seeks to protect waters and riparian woodland resources adjacent to construction site. Erosion control measures shall be implemented to prevent runoff into Trout and Tostada Creeks, ephemeral drainages, and wetlands. Silt fencing, straw bales, and/or sand bags shall be used in conjunction with other methods to prevent erosion and sedimentation of the stream channel. The plan shall specify locations and types of erosion and sediment control structures and materials that would be used on-site during construction activities. The plan shall also describe how any and all pollutants originating from construction equipment would be collected and disposed.
- During construction activities, washing of concrete, paint, or equipment shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Washing will not be allowed in locations where the tainted water could affect sensitive biological resources.

Plan Requirements and Timing. Prior to issuance of Grading Permits, the **SS Steelhead pProtection pPlan** shall be prepared by a qualified biologist and submitted to NOAA Fisheries and Planning and Building for review. The plan shall be implemented prior to issuance of grading permits. **Monitoring.** Planning and Building shall review plans in consultation with NOAA Fisheries, and site inspect during construction for compliance.



**Agricultural
Residential Cluster
Subdivision
B-7(b)**

FESA Consultation and Mitigation Regarding ~~SS~~ Steelhead.

This measure shall only apply if avoidance of ~~SS~~ steelhead streams, as described in Agricultural Residential Cluster Subdivision measure B-7(a) (~~SS Protection Plan South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and Protection Plan~~) is not feasible.

The applicant shall coordinate with the NOAA and ACOE, and shall ~~undertake consultation pursuant to~~ **demonstrate compliance with** Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the Federal Endangered Species Act (FESA), as applicable. This consultation may necessitate the issuance of a NOAA Biological Opinion and/or the preparation of a Habitat Conservation Plan for ~~SS~~ steelhead and their habitat. The applicant shall **also** coordinate with NOAA Fisheries, CDFG, and other resource agencies as applicable. The applicant shall implement measures that minimize the Agricultural Residential Cluster Subdivision adverse effects on ~~SS~~ steelhead. Subject to concurrence by and coordination with USFWS, required measures may include ~~the following:~~ permanent development and disturbance buffers from ~~SS~~ steelhead streams. ~~7 compensatory mitigation at a ratio determined by USFWS, implementation of replacement habitat, and/or enhancement of existing habitat.~~

Plan Requirements and Timing. Prior to approval of Grading Permits, the applicant shall coordinate with NOAA Fisheries, and ACOE and CDFG as applicable. The applicant shall present written confirmation from ~~USFWS~~ NOAA Fisheries that the project complies with the applicable requirements of FESA prior to issuance of Grading Permits. **Monitoring.** Planning and Building staff shall verify that ~~NOAA has granted Section 7 and/or Section 10 permits for the project~~ **the project is in compliance with the FESA for steelhead impacts.**

Residual Impacts. Implementation of the above mitigation measures in concert with Agricultural Residential Cluster Subdivision measures B-4(a) (Wetland and Riparian Protection) and ~~B-8(a) (FESA Consultation)~~ **those resulting from compliance with the FESA** would reduce impacts to ~~SS-Steelhead~~ to a less than significant level. **FESA compliance requires the implementation of conservation strategies to avoid and minimize take of listed species.** A requirement of FESA is that any such take shall not jeopardize the continued existence of the listed species. ~~Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project,~~ **Therefore,** the impact to ~~SS-Steelhead~~ is Class II, *significant but mitigable*.



Updated California Red-legged Frog Mitigation

Summary of Draft EIR Analysis. The Draft EIR concluded that the proposed Agricultural Residential Cluster Subdivision would result in take of the Federally Threatened California red-legged frog through grading activities for the proposed development, and would fragment the amount of available habitat potentially used for movement and dispersal. This was identified as a Class II, *significant but mitigable*, impact. Impacts to the federally threatened species would require compliance with the FESA and mitigation measures under CEQA. The Draft EIR details methods for compliance with the federal Endangered Species Act (FESA), and lists several mitigation measures.

Updated Analysis. Within an EIR, compliance with the FESA can be required and minimum mitigation measures can be required, but the specific options for compliance with FESA compliance (i.e., Section 7 or Section 10) will be determined solely through consultation with the permitting agency. In addition, a federal consultation would not result in compensatory mitigation as stated in the Draft EIR. Mitigation measures for the CRLF must be prescribed within the EIR and not deferred to come from the wildlife agencies. The County of San Luis Obispo has designated standard mitigation measures for projects that may impact the CRLF, and the text has been modified to include these measures.

Agricultural Residential Cluster Subdivision Mitigation measure B-8(a) has been revised as follows:

**Agricultural
Residential Cluster
Subdivision
B-8(a)**

FESA Consultation California Red-Legged Frog Avoidance, Minimization, and Mitigation Measures. ~~The applicant shall coordinate with the USFWS/NOAA and ACOE and shall undertake consultation pursuant to Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the Federal Endangered Species Act (FESA), as applicable. Please see Agricultural Residential Cluster Subdivision measure B-7(a) for NOAA consultation requirements regarding the SS. This consultation may necessitate the issuance of a USFWS Biological Opinion and/or the preparation of a Habitat Conservation Plan for CRLF and their habitat. The applicant shall provide a copy of any Incidental Take authorization to the County and implement measures required by the USFWS that minimize the Agricultural Residential Cluster Subdivision project's adverse effects on CRLF. Subject to concurrence by and coordination with the USFWS, required measures may~~ **shall** include the following:

- At least 45 days prior to the onset of activities, the applicant shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until proponents have received written approval from the USFWS that the biologist(s) is qualified to conduct the work.



- A USFWS-approved biologist shall survey the work site two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, ~~the approved biologist shall contact USFWS to determine if moving any of these life-stages is appropriate or proceed according to the Biological Opinion for this species~~ **relocations shall be conducted only if authorized by the USFWS. In making this determination, USFWS shall consider if an appropriate relocation site exists.** If USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of CRLF. All conditions ~~of the Biological Opinion~~ **specified by the USFWS exemption or authorization** shall be implemented regarding relocation of this species.
- **If CRLF are found during the preconstruction surveys within 330 feet of any work area, and for any areas already known to be occupied by CRLF, work within 330 foot of these habitats must be limited to the period between April 30 to July 30 or the work area must be surrounded by exclusionary fencing to reduce impacts to frogs that are in upland areas during the rainy season or juvenile dispersal. The exclusionary fencing shall be at least three feet high and keyed into the ground, made of solid mesh (such as silt fence; orange construction fence is not suitable) and shall be maintained throughout the construction period. This fencing can also function for erosion and sedimentation control. An approved biologist must survey the project limits for CRLF each morning prior to the start of work. Any CRLF found within the work area shall be relocated, if authorized by the USFWS. If relocations are not authorized by the USFWS, the fence shall be modified to allow the frog to pass through to suitable habitat, and work shall not commence until it has left.**
- Before any construction activities begin on the Agricultural Residential Cluster Subdivision, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries



within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- A USFWS-approved biologist shall be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee shall designate a person to monitor the on-site compliance with all minimization measures. The USFWS approved biologist shall ensure that this individual receives training outlined above and in the identification of CRLF. The monitor and the USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by USFWS during review of the proposed action. If work is stopped, USFWS, and the ACOE as applicable, shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.
- During project activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from the work areas.
- All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 100 feet from any riparian habitat or water body. The permittee, and ACOE as applicable, shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the permittee shall prepare and comply with a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- A USFWS-approved biologist shall ensure that the spread or introduction of invasive non-native plant and animal species, especially bullfrogs shall be avoided to the maximum extent possible. Invasive exotic plants and animals in the development shall be removed and destroyed.
- Agricultural Residential Cluster Subdivision riparian and wetland areas shall be revegetated with an



appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan shall be included with the project proposal for review and approval by USFWS, and the ACOE as applicable. Such a plan must include, but not be limited to: location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

- Stream contours shall be returned to their original condition at the end of project activities, unless consultation with USFWS has determined that it is not beneficial to the species or feasible.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary for development. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas. Where impacts occur in these staging areas and access routes, restoration shall occur as identified in the above measures.
- ~~• To minimize the potential for direct impacts to dispersing individuals, work activities shall be completed in the dry season, between April 1 and November 1.~~
- ~~Establishment of permanent disturbance buffers, including landscaping prohibitions,~~ **A 100 foot permanent buffer (from the edge of the high water line for ponds, or from the top of bank on either side of creeks) shall be established and maintained in perpetuity** around water bodies with confirmed occurrences of CRLF. **This includes the length of Trout, Tostada, and Yerba Buena Creeks and an upstream pool in Taco Creek. In the short term, this buffer will ensure construction activities do not increase the erosion potential in the area or facilitate construction related sediment from entering the creeks. The buffer shall be demarcated with highly visible construction fencing for the benefit of contractors and equipment operators. In the long term, this buffer will minimize impacts to riparian and emergent wetland habitats that are critical for upland habitat use by CRLF, and reduce the amount of sediment and pollutant runoff that would enter these waterways.**



Roadways, grading, landscaping, structures and other types of disturbance shall be prohibited within these buffer areas. Road crossings of these streams are allowable (if permitted by the appropriate agencies) following the measures listed above. Permanent buffer areas shall be demarcated with a type of fencing that would prohibit vehicular and livestock access, discourage use by humans, but allow access by wildlife. An example of fencing that could meet these requirements is welded pipe fence such as the type that exists at the entrance of the Agricultural Residential Cluster Subdivision.

- Areas of temporary disturbance resulting from the construction or improvements to road crossings shall be restored using native vegetation at a minimum of 2:1 (area restored:area temporarily impacted). However, agency permitting for impacts to riparian and/or wetland resources may require a higher ratio. Additional details required for the riparian restoration plan are contained within measure B-4(a).
- Restrictions on the use of pesticides near water bodies with confirmed occurrences of CRLF.
- ~~Inadvertent Take procedures, including USFWS notification requirements.~~

Plan Requirements and Timing. Prior to approval of Grading Permits for the Agricultural Residential Cluster Subdivision, the applicant shall coordinate with USFWS, and the ACOE if necessary. The applicant shall present written confirmation from USFWS that the project complies with the applicable requirements of FESA. During construction, the biologist shall submit a report to the County detailing the results of the monitoring. **Monitoring.** ~~Planning and Building staff shall verify that USFWS has granted Section 7 and/or Section 10 permits for the Agricultural Residential Cluster Subdivision.~~ Planning and Building shall **confirm compliance with FESA**, review monitoring reports, and inspect site during construction for compliance.

~~Residual Impacts. A Biological Opinion and/or preparation of an approved Habitat Conservation Plan is required to authorize the potential incidental take of the CRLF pursuant to FESA. A requirement of FESA is that any such take shall not jeopardize the continued existence of CRLF. Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project, Implementation of the above mitigation~~



measure and those required as a result of FESA compliance would reduce impacts to the CRLF to a less than significant level. Therefore, the impact to CRLF is Class II, *significant but mitigable*.

2.4 DRAINAGE, EROSION AND SEDIMENTATION

Summary of Draft EIR Analysis. As identified in the Draft EIR, the Agricultural Residential Cluster Subdivision would increase the area covered by impervious surfaces, resulting in potential increases in surface runoff and accelerated erosion. Although the Agricultural Residential Cluster Subdivision proposes a detention structure for the portion of the site draining to Yerba Buena Creek, runoff may overflow the proposed detention structure during a 100-year storm event. In addition, the Agricultural Residential Cluster Subdivision does not propose a detention structure for the portions of the site draining to Trout Creek and the unnamed tributary to Trout Creek. The Draft EIR identified this as a potentially significant (Class II) impact. Mitigation measures identified in the Draft EIR included the use of detention basins with adequate capacity to reduce the 24-hour 100-year post-development runoff to 100-year pre-development conditions as mitigation.

Updated Analysis. Agricultural Residential Cluster Subdivision measures D-2(a) (Yerba Buena Drainage System) and D-2(b) (Trout Creek Drainage System) have been revised as follows:

**Agricultural
Residential Cluster
Subdivision
D-2(a)**

Yerba Buena Drainage System. The proposed detention structure for the portion of the Agricultural Residential Cluster Subdivision site draining to Yerba Buena creek shall have capacity to reduce the 24-hour 100-year post-development runoff to 100-year pre-development conditions, at a minimum. A Drainage Study shall be prepared by a qualified hydrologist to identify detention volumes and release rates for the proposed facilities. The study shall also address flow routing and relative times of concentration in the watershed at the detention facility compared with the existing channel. **The detention facility shall be located within an Agricultural Conservation Easement, in an area that does not contain oak trees, special status species or habitat, identified cultural resources, or prime agricultural soils.**

**Agricultural
Residential Cluster
Subdivision
D-2(b)**

Trout Creek Drainage System. Prior to approval of a Land Use Permit, the applicant shall design a detention structure for the portion of the Agricultural Residential Cluster Subdivision site that drains to the unnamed tributary to Trout Creek. A Drainage Study shall be prepared to identify detention volumes and release rates for the required facilities. The study should also address flow routing and relative times of concentration in the watershed at the detention facility compared with existing channels. This system shall have capacity to reduce the 24-hour 100-year post-development runoff to 100-year pre-development conditions, at a minimum.



The detention facility shall be located within an Agricultural Conservation Easement, in an area that does not contain oak trees, special status species or habitat, identified cultural resources, or prime agricultural soils.

The *Plan Requirements and Timing* and *Monitoring* portions of the above mitigation measures have not changed.

2.5 PUBLIC SAFETY

Summary of Draft EIR Analysis. The DEIR identified Class III, *less than significant*, impacts related to hazardous material exposure (including residual agricultural chemicals), risk of upset, and air safety for the Agricultural Residential Cluster Subdivision. Impacts with respect to water tank failure and exposure to water treatment chemicals used for Agricultural Residential Cluster Subdivision water storage would be Class II, *significant but mitigable*. Due to the extent of development envisioned in the Future Development Program, buildout of the program would result in Class II, *significant but mitigable*, impacts related to hazardous material exposure (including residual agricultural chemicals), risk of upset, water treatment chemicals, land use conflicts, and errant golf balls. Impacts related to air safety would be Class III, *less than significant*, for the Future Development Program.

Updated Analysis. Although Appendix G of the State CEQA Guidelines does not directly identify valley fever as a potential hazard to be analyzed, it does require evaluation of “significant hazard[s] to the public,” which may include exposure to valley fever. Therefore, Section 4.9, *Public Safety*, has been revised to include analysis of valley fever.

Section 4.9.1 (Setting) has been revised as follows:

g. Naturally Occurring Asbestos. Serpentine rock is a source of naturally-occurring asbestos. Asbestos is a known carcinogen and inhalation of asbestos may result in the development of lung cancer or mesothelioma. Serpentine rock is known to occur in the southwest corner of the Santa Margarita Ranch property, adjacent to U.S. Highway 101. In addition, undocumented serpentine rock may occur in other portions of the Ranch property where development is proposed and/or envisioned. Refer to Section 4.2, *Air Quality*, for a discussion of potential impacts related to naturally occurring asbestos.

h. Valley Fever. Valley fever (*Coccidioidomycosis*) is an infectious disease caused by the fungus *Coccidioides immitis*. Infection is caused by inhalation of spores that have become airborne when dry, dusty soil or dirt is disturbed by wind, construction, farming, or other activities. The valley fever fungus is typically found at the base of hillsides in undisturbed soil, especially around rodent burrows, Native American ruins, and burial grounds. It usually grows in the top few inches of soil, but can grow down to 12 inches. The fungus does not survive well in highly populated areas because there is usually not enough undisturbed soil for the fungus to grow. In addition, the fungus is not likely to be found in soil that has been or is being cultivated and fertilized because human-made fertilizers, such as ammonium sulfate, enhance the growth of the natural microbial competitors of the valley fever fungus. Infection is most frequent during summers that follow a rainy winter or spring, especially after wind and dust storms. Valley fever



infection is common only in arid and semiarid areas of the Western Hemisphere. In the United States, it is mostly found from southern California to southern Texas.

Valley fever is spread through the air, particularly when soil containing the valley fever fungus is disturbed by construction, natural disasters, or wind. People can breathe in the spores and get valley fever; it is not spread from person to person. Approximately 60 percent of infected persons have no symptoms and do not seek medical attention. The remaining 40 percent develop a spectrum of illness ranging from mild to moderate flu-like symptoms to pneumonia. About 0.5 percent of valley fever-infected persons may develop disseminated disease, where the infection spreads to other areas of the body. For example, meningitis is a rare but particularly serious manifestation of disseminated valley fever.

Individuals most vulnerable to valley fever are agricultural workers, construction and road workers, and archaeologists because they are exposed to the soil where the fungus might be just below the surface. Exposure to wind storms or recently disrupted soils (i.e., resulting from major earthquakes or construction) may increase the chances of infection. Infections can occur in persons without occupational exposure. Of those without an occupational risk of contracting the disease, the most susceptible are those with suppressed immune systems. Domestic animals are also susceptible to valley fever. Dogs are especially susceptible due to their proximity to the ground and often need long-term therapy with antifungal medication.

An estimated 50,000 to 100,000 persons develop symptoms of valley fever each year in the United States, with 35,000 new infections per year in California alone (<http://www.dhpe.org/infect/valley.html>). According to the San Luis Obispo County Public Health Department, there were over 90 cases of valley fever reported between October 2006 and January 2007 in San Luis Obispo County, compared to 113 for all of 2005 (San Luis Obispo County Public Health Department, Public Health Department Notice, January 9, 2007). This is a statistically significant increase (Public Health Department Notice, January 9, 2007).

h i. Hazardous Materials Records Review. Rincon conducted a search of available hazardous materials records using Environmental Data Resources, Inc.

The remainder of Section 4.9.1 (Setting) has not changed. Section 4.9.2(a) (Methodology and Significance Thresholds) has been revised as follows:

4.9.2 Impact Analysis

a. Methodology and Significance Thresholds. Assessment of impacts is based on: 1) review of site information and conditions; 2) review of technical studies prepared for the project site; and 3) review of the County of San Luis Obispo Safety Element, and other County information regarding safety issues.

In accordance with State CEQA Guidelines, the proposed Agricultural Residential Cluster Subdivision and Future Development Program would result in a potentially significant impact related to hazards and hazardous materials if it would:



- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*
- *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*
- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school;*
- *Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;*
- *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;*
- *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or*
- *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

The San Luis Obispo County APCD does not have specific formal thresholds of significance for valley fever. However, the following factors may indicate a project's potential to create valley fever effects, which may create a significant hazard to the public:

- *Where the top 12 inches of soil would be disturbed;*
- *In areas with dry, alkaline, sandy soils;*
- *In virgin, undisturbed, non-urban areas;*
- *In windy areas;*
- *Where archaeological resources probably or known to exist in the area (Native American midden sites);*
- *When special events (i.e., fairs or concerts) and motorized activities (motocross track, All Terrain Vehicle activities) occur on unvegetated soil;*
- *Non-native populations are working (i.e., out-of-area construction workers).*

The likelihood that the valley fever fungus may be present increases with the number of the above factors applicable to the project or project site.

Hazards related to wildland fires are discussed in Section 4.10, *Public Services*. Hazards related to pesticide use near residential land uses are discussed in Section 4.1, *Agricultural Resources*. Hazards related to railroad crossings and pedestrian and bicycle conflicts with automobiles are addressed in Section 4.12, *Transportation and Circulation*.

The following impact has been added to the end of Section 4.9.2(b) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures):



Agricultural Residential Cluster Subdivision Impact S-6	Large-scale grading and excavation operations during Agricultural Residential Cluster Subdivision development could expose construction workers and other individuals to valley fever. Impacts are Class II, <i>significant but mitigable</i>.
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The Agricultural Residential Cluster Subdivision site contains dry soils, is relatively undisturbed and in a non-urban area, and contains known archaeological resources [refer to Section 4.9.2(a)]. In addition, the San Luis Obispo County Public Health Department has identified a statistically significant increase in valley fever cases in San Luis Obispo County (Public Health Department Notice, January 9, 2007). As a result, valley fever spores have the potential to occur on the site.

Impacts would occur during large-scale grading and excavation operations, particularly during summers that follow a rainy winter or spring, or during and immediately after wind and dust storms. These activities could expose construction workers and others to valley fever spores, if present in soil within the Agricultural Residential Cluster Subdivision area. Construction of the proposed Agricultural Residential Cluster Subdivision would result in a potentially significant health impact related to valley fever.

Mitigation Measures Agricultural Residential Cluster Subdivision measures AQ-2(b) (Dust Control), AQ-2(d) (Dust Control Monitor), and D-2(e) (Active Grading Areas) would minimize dust generation, thereby minimizing exposure to valley fever, should it be present.

Residual Impacts. With implementation of the above measures, impacts related to valley fever would be less than significant.

The following impact has been added to the end of Section 4.9.2(c) (Future Development Program Impacts and Mitigation Measures):

Future Development Program Impact S-7	Large-scale grading and excavation operations during construction of Future Development Program land uses could expose construction workers and other individuals to valley fever. Impacts are Class II, <i>significant but mitigable</i>.
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As noted under Agricultural Residential Cluster Subdivision Impact S-6, the San Luis Obispo County Public Health Department has identified a statistically significant increase in valley fever cases in San Luis Obispo County (Public Health Department Notice, January 9, 2007). In addition, the Santa Margarita Ranch contains dry soils, is relatively undisturbed and non-urban, and contains known archaeological resources. As a result, valley fever spores have the potential to occur on the Ranch [refer to Section 4.9.2(a)].

Impacts would occur during large-scale grading and excavation operations, particularly during summers that follow a rainy winter or spring, or during and immediately after wind and dust storms. These activities could expose construction workers and others to valley fever spores, if present in soil within Future Development Program conceptual land use locations. Impacts are potentially significant.



Mitigation Measures. Agricultural Residential Cluster Subdivision measures AQ-2(b) (Dust Control), AQ-2(d) (Dust Control Monitor), and D-2(e) (Active Grading Areas) would apply to all Future Development Program land uses. These measures would minimize dust generation, thereby minimizing exposure to valley fever, should it be present.

Residual Impacts. With implementation of the above measures, impacts related to valley fever would be less than significant.

2.6 PUBLIC SERVICES

Summary of Draft EIR Analysis. The Draft EIR identified less than significant impacts related to law enforcement, and significant but mitigable impacts related to defensible space (safety), fire protection, and solid waste for both the Agricultural Residential Cluster Subdivision and Future Development Program. Although impacts related to schools were found to be less than significant for the Agricultural Residential Cluster Subdivision, students generated by the Future Development Program would necessitate the installation of one additional classroom at Santa Margarita Elementary School. Impacts would be reduced through payment of statutory fees and mitigation requiring buildout date notification, to assist in the district's long-range planning efforts.

Updated Analysis. Although Appendix G of the State CEQA Guidelines does not directly identify library services as an impact area to be analyzed, it does require evaluation of impacts to "other" public facilities, which may include libraries. Therefore, the following text has been added to the end of Section 4.10, *Public Services*:

4.10.5 Libraries

a. **Setting.** The community of Santa Margarita is served by the Santa Margarita Library, a branch of the San Luis Obispo City-County Library. The library is located at 9630 Murphy Avenue in Santa Margarita and is open from 12:00 noon to 6:00 pm Tuesday through Thursday. The Santa Margarita Library has been serving the community since 1923 in various locations, and moved to its current location in 1996.

The Santa Margarita Library primarily serves residents within the community of Santa Margarita, although library staff indicate that residents from surrounding areas, including Atascadero and Templeton, also utilize the library (Debra Jurey, Branch Manager, Personal Communication, August 23, 2007). Approximately 1,325 people reside in the primary service area. The library structure is 900 square feet and houses approximately 10,300 items (Melody Mullis, San Luis Obispo City-County Library Administration, Personal Communication, August 23, 2007). Library staffing includes two part time employees equaling 0.875 full-time positions, five volunteers, and 14 members of the Friends of the Library organization (Debra Jurey, August 23, 2007).

The San Luis Obispo City-County Library uses a planning ratio of 0.7 square feet of library space per capita for communities with less than 10,000 residents (Melody Mullis, August 23, 2007). This ratio is used to evaluate the library's ability to accommodate the library service area's current and projected population. Using this ratio, the 900 square



foot library is presently designed to accommodate a service area that would include approximately 1,286 persons. This indicates that the library is not large enough to accommodate the existing service area population of approximately 1,325, requiring an additional 28 square feet to accommodate the existing service area population. However, it should be noted that this standard does not address changing technologies that allow for a wide dispersal of information through other means, including the Internet. As personal computers become less expensive and more powerful, access to information will continue to improve.

b. Impact Analysis

1. Methodology and Significance Thresholds. The Agricultural Residential Cluster Subdivision and Future Development Program would have a significant impact on public library facilities and services if it would substantially interfere with the operations of an existing public library facility, or would put additional demands on a public library facility that is currently overcrowded, such that additional facility construction may be required.

2. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.

Agricultural Residential Cluster Subdivision Impact PS-6

The Santa Margarita Library is undersized to serve the increase in population associated with Agricultural Residential Cluster Subdivision buildout. Payment of required library fees as a condition of approval would ensure Class III, less than significant, impacts to the community library.

The 900 square foot library is presently designed to accommodate a service area that would include approximately 1,286 persons. The current population of the existing service area is approximately 1,325 people. Using the San Luis Obispo City-County Library's planning ratio of 0.7 square feet of library space per capita, a 928 square foot library would be required to serve the existing population of the Santa Margarita Library service area.

Implementation of the proposed Agricultural Residential Cluster Subdivision would result in a total of 112 dwelling units and an associated population increase of 302 persons (based upon a population generation factor of 2.7 persons per unit). This population increase would bring the total population of Santa Margarita (and the library service area) to approximately 1,627 persons. Based on the San Luis Obispo City-County Library's planning ratio of 0.7 square feet of library per capita, the Santa Margarita Library would require an additional 239 square feet of space to serve this increased population.

According to the San Luis Obispo County *Public Facilities and Financing Plan for Unincorporated Area Facilities* (Revised June 24, 2006), the cost of providing additional library facilities necessary to maintain established standards is currently \$172 per resident. As a condition of project approval, the applicant will be required to pay this fee at the time each building permit is issued.



Mitigation Measures. Beyond the required fees described in the impact statement, no additional mitigation measures are required.

Residual Impacts. Impacts would be less than significant.

3. Future Development Program Impacts and Mitigation Measures. The Future Development Program represents potential future buildout of the Santa Margarita Ranch, including the proposed Agricultural Residential Cluster Subdivision. Refer to Section 4.10.5(b)(2) for a discussion of library impacts resulting from the Agricultural Residential Cluster Subdivision independently.

Future Development Program Impact PS-6

The Santa Margarita Community Library is undersized to serve the increase in population associated with Future Development Program buildout. Payment of required library fees as a condition of approval would ensure Class III, less than significant, impacts to the community library..

As discussed in Section 4.10.5(b)(2) above, the existing 900 square foot library is undersized to serve the current service area population.

Buildout in accordance with the Future Development Program would result in a total of 514 dwelling units (402 units in addition to the Agricultural Residential Cluster Subdivision) and an associated population increase of 1,388 persons. This population increase would bring the total population of Santa Margarita (and the library service area) to approximately 2,713 persons. Based on the San Luis Obispo City-County Library's planning ratio of 0.7 square feet of library per capita, the Santa Margarita Library would require an additional 999 square feet of space to serve this increased population.

According to the San Luis Obispo County *Public Facilities and Financing Plan for Unincorporated Area Facilities* (Revised June 24, 2006), the cost of providing additional library facilities necessary to maintain established standards is \$172 per resident and \$67 per employee. As a condition of project approval, the applicant will be required to pay this fee at the time each building permit is issued.

Mitigation Measures. Beyond the required fees described in the impact statement, no additional mitigation measures are required.

Residual Impacts. Impacts would be less than significant.

4. Cumulative Impacts. The evaluation of the Future Development Program, which includes the Agricultural Residential Cluster Subdivision, in this EIR accounts for all of the expected growth in the Santa Margarita area, as it represents buildout of the major landholding that surrounds the existing community, consistent with the Salinas River Area Plan. Therefore, library impacts from buildout of the Agricultural Residential Cluster Subdivision in combination with buildout of the Future Development Program were addressed in the Future Development Program impact analysis above. As future



applications for individual Future Development Program projects are submitted at a project level of detail, the precise evaluation of future project cumulative impacts would be coordinated through the required Specific Plan and associated environmental review, or through individual project-level environmental review, as applicable.

2.7 TRANSPORTATION/CIRCULATION

This section updates Agricultural Residential Cluster Subdivision Impact T-1 and Future Development Program T-1 to clarify significance thresholds, clarify traffic and circulation mitigation required for the proposed Agricultural Residential Cluster Subdivision, revise the cumulative impacts analysis to compare project and program impacts to baseline cumulative conditions rather than existing conditions, and update traffic conditions on U.S. Highway 101.

Thresholds and Mitigation

Summary of Draft EIR Analysis. The Draft EIR identified potentially significant traffic impacts from the Agricultural Residential Cluster Subdivision related to site access, parking supply and conflicts between automobiles and bicycles and between automobiles and pedestrians. Mitigation requiring relocation of the proposed west driveway, provision of two off-street spaces per residential unit and installation of pedestrian improvements, respectively, would ensure less than significant impacts. Development of the Agricultural Residential Cluster Subdivision would result in the addition of 1,154 ADT and 119 P.M. peak hour vehicle trips to the study-area street network. Although this would not result in exceedances of roadway or intersection level of service (LOS) standards, with the exception of the US 101/SR 58 interchange northbound off-ramp, the Agricultural Residential Cluster Subdivision will add traffic to locations with existing hazards and operational problems, including the SR 58 90-degree curve, US 101/SR 58 interchange, and limited sight distance along Estrada Avenue. Implementation of proposed mitigation measures would improve hazards and deficiencies. However, due to uncertainty regarding Caltrans approval of facilities within State jurisdiction and uncertainty regarding the timing of required improvements, Class I, *significant and unavoidable*, impacts would result.

Updated Analysis. The transportation and circulation analysis was revised to clarify Caltrans significance thresholds as follows:

Caltrans. For Caltrans' facilities (intersections, roadway segment, freeway segments, and freeway ramp junctions), a degradation in the level of service from an acceptable level (LOS C/D threshold or better) to an unacceptable level (LOS D, E, or F) is a significant impact. For Caltrans facilities already operating at unacceptable levels (LOS D, E, or F) without the project, the addition of any project traffic to that location is a significant impact.

The Section 4.12.2(c) discussion of Agricultural Residential Cluster Subdivision Impact T-1 has been revised as follows to clarify impacts related to operational deficiencies at the SR 58 transition into a 90-degree curve south of J Street under forecasted Existing + Agricultural Residential Cluster Subdivision traffic volumes:

As shown in Tables 4.12-10(a) through 4.12-10(c), all roadway segments are projected to operate at acceptable LOS with the addition of traffic generated by the Agricultural



Residential Cluster Subdivision. However, the addition of Agricultural Residential Cluster Subdivision traffic will contribute to existing operational problems on SR 58 near J Street. As discussed in Section 4.12.1(e), SR 58 transitions into a 90-degree curve south of J Street. Except for a 15 mile per hour (mph) warning sign, no additional warning signs or physical barriers are in place. As indicated in the Existing Conditions section, a total of six (6) collisions were reported over a three-year period. These collisions include the following types and number of incidents: head-on collision (2), side-swipe collision (2), broad-side collision (1), and hitting a fixed object (1). **As shown on Figure 4.12-6, the addition of traffic by the Agricultural Residential Cluster Subdivision is projected to significantly increase the daily volumes (43 percent) on SR 58, east of the 90-degree curve, from 3,000 to 4,130 vehicles.** Therefore, impacts are potentially significant and mitigation is required.

The Section 4.12.2(c) discussion of Agricultural Residential Cluster Subdivision Impact T-1 has been revised as follows to clarify impacts at the intersection of Estrada Avenue/H Street due to traffic generated by weekday Santa Margarita Elementary School operations:

As indicated on Figure 4.12-4, approximately 10 percent of traffic generated from the residential development would have local destinations within Santa Margarita. Of these trips, a small percentage was assigned to travel to the elementary school. Even if 100 trips (50 inbound & 50 outbound) from the Agricultural Residential Cluster Subdivision were assigned to the school during the AM peak-hour, the level of service rating would not degrade to an unacceptable level. The mitigation measure at the Estrada Street/H Street intersection is not anticipated to change since the mitigation measure [ARCS Measure T-1(e)] addresses existing roadway design deficiencies (limited sight distance at the intersection). The school traffic that is associated with dismissal of classes occurs in the early afternoon before the evening commute period (4:00 to 6:00 PM).

The Section 4.12.2(c) discussion of Agricultural Residential Cluster Subdivision Impact T-1 has been revised as follows to clarify impacts related to “cut-through” on I Street to avoid congestion on El Camino Real:

The forecast traffic volumes at the intersection of El Camino Real/Wilhelmina Avenue will capture traffic that uses I Street as a shortcut to bypass El Camino Real. The existing El Camino Real/Wilhelmina Avenue intersection volumes do not suggest that a substantial amount of traffic uses I Street as a shortcut. Fewer than 60 vehicles, in each direction, currently turn to/from Wilhelmina Avenue to El Camino Real during each peak hour. Therefore, even with additional congestion on El Camino Real as a result of traffic generated by the Agricultural Residential Cluster Subdivision, “cut-through” traffic on I Street would not result in unacceptable levels of service at I Street intersections.

The Section 4.12.2(c) discussion of Agricultural Residential Cluster Subdivision Impact T-1 has been revised as follows to clarify impacts on freeway ramp operations under forecasted Existing + Agricultural Residential Cluster Subdivision traffic volumes:

As shown in Table 4.12-11, the merge and diverge ramp operations at the U.S. 101/SR 58 interchange are projected to operate at acceptable levels of service with the addition of Agricultural Residential Cluster Subdivision traffic to existing roadway volumes, with the exception of the northbound off-ramp, which is projected to continue to operate below the



Caltrans LOS D standard. **The Agricultural Residential Cluster Subdivision development will increase the existing AM and PM peak-hour volumes on the US 101 northbound off-ramp by 15 percent.**

The Section 4.12.2(c) discussion of Agricultural Residential Cluster Subdivision Impact T-1 has been revised as follows to clarify impacts on Estrada Avenue/H Street intersection operations under forecasted Existing + Agricultural Residential Cluster Subdivision traffic volumes:

The intersection of Estrada Avenue and H Street experiences limited sight distance due to an existing crest on Estrada Avenue, in the vicinity of Santa Margarita Elementary School. Northbound vehicles travel over the crest and immediately arrive at H Street. Field measurements indicate that the stopping sight distance for northbound Estrada Avenue vehicles is approximately 225 feet which corresponds to a design speed of 30 mph. Vehicles are currently exceeding the 30 mph speed limit and may not have sufficient time and pavement to come to a complete stop if pedestrians are crossing Estrada Avenue at H Street to travel to Santa Margarita Elementary School or to Santa Margarita Park. The Flashing Beacon at School Crossings warrant (Section 4K.103 from MUTCD 2003 CA Supplement) is satisfied under Project Conditions. The vehicular volume exceeds 140 vehicles and the school age pedestrians exceed 40 pedestrians for each of 2 hours and the critical approach speed exceeds 35 mph with no other controlled crossing nearby. **The majority of Agricultural Residential Cluster Subdivision project traffic will travel through this intersection, thus increasing the number of drivers experiencing the existing sight distance deficiency.**

Draft EIR mitigation for Impact T-1 (post-project traffic operational deficiencies) focused on payment of fair share fees to offset Agricultural Residential Cluster Subdivision impacts. The Draft EIR concluded that such impacts would remain Class I, significant and unavoidable, for several reasons, one of which was the uncertainty in the timing of resulting physical transportation improvements. County Public Works staff determined that fair share fees collected to offset Agricultural Residential Cluster Subdivision traffic impacts may not be adequate to implement identified transportation improvements that would reduce the impact to a less than significant level. The Section 4.12.2(c) mitigation measures for Agricultural Residential Cluster Subdivision Impact T-1 have been revised as follows to clarify physical improvements that would be required to address post-project traffic operational deficiencies in the study area:

Mitigation Measures. The following mitigation measures are required:

**Agricultural
Residential
Cluster
Subdivision
T-1(a)**

SR 58 South of J Street. ~~Both sides of SR 58 (from El Camino Real to the Agricultural Residential Cluster Subdivision site access) shall be widened to provide shoulders and/or bike lanes in accordance with County standards. In addition, the following improvement shall be implemented to reduce impacts related to the contribution of the Agricultural Residential Cluster Subdivision to existing operational problems:~~ **To mitigate the project's impacts to the two 90-degree curves on SR 58 near J Street, the following improvements are required:**



- ~~1. Realign SR 58 along a tangent south of J Street to the Agricultural Residential Cluster Subdivision development. The realignment would make the SR 58/J Street intersection into more of a typical intersection layout.~~
- 1. Widen both sides of SR 58 (from El Camino Real to the Agricultural Residential Cluster Subdivision eastern site access) to provide four foot shoulders and/or bike lanes in accordance with County standards.**
- 2. Install radar feedback signs and advisory speeds on each approach to the 90-degree on SR 58 near J Street.**

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and associated approval from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance. The applicant shall ~~contribute fair share fees toward the installation of the improvements~~ **construct and implement the alternate improvements under a Caltrans encroachment permit or Project Study Report. Monitoring.** Caltrans and the County of San Luis Obispo ~~Public Works~~ shall site inspect to ensure installation of improvements prior to occupancy clearance.

**Agricultural
Residential
Cluster
Subdivision
T-1(b)**

U.S. 101 Northbound Off-Ramp to SR 58. The applicant shall ~~pay fair share fees toward applicable Caltrans project development, including a Project Study Report (PSR), and~~ **lengthen the deceleration length from 140 feet to 250 feet from the US 101 mainline to the northbound off-ramp to mitigate the Agricultural Residential Cluster Subdivision's impact to the ramp junction.**

In addition, the applicant shall reconstruction of the area where the northbound U.S. 101 off-ramp merges with eastbound SR 58 to provide 400 feet of merging distance to meet Caltrans' current design standards. It should be noted that if the costs of the improvements can be completed for one million dollars or less, the work can be completed under an encroachment permit from Caltrans and a PSR would not be required. Since the park-and-ride facility is located adjacent to the northbound off-ramp, reconfiguration of the parking lot and access to a nearby frontage road is required. **The applicant shall include designs for the revised park and ride and frontage road access in the permit with Caltrans.** A field assessment indicates that the merge area could be lengthened by physically separating the park and ride lot from the roadway, which would improve the existing condition and reduce the impact. ~~The~~



~~applicant shall contribute towards reconfiguration of the northbound off-ramp and/or park and ride facilities to provide additional merge distance. A Project Study Report (PSR) is required to select an appropriate design and to identify all potential environmental impacts. The PSR shall address upgrades to the entire interchange to current design standards.~~

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

~~Plan Requirements and Timing. A PSR shall be prepared by a qualified traffic consultant. The County of San Luis Obispo and Caltrans shall review the PSR prior to approval of Land Use Permits. The applicant shall contribute fair share fees toward the preparation of applicable studies and reconstruction of the U.S. 101/SR 58 interchange.~~ **Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the improvements under a Caltrans encroachment permit. Monitoring. Caltrans and County Public Works shall site inspect during construction of the new interchange modifications to ensure compliance with approved plans, as outlined in the PSR. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.**

**Agricultural
Residential
Cluster
Subdivision
T-1(c)**

U.S. 101 Southbound Off-Ramp to SR 58. The applicant shall pay fair share fees toward applicable Caltrans project development, including a PSR, and lengthening of the U.S. 101 Southbound Off-ramp deceleration length to meet current Caltrans standards. Redesign of the southbound off-ramp to accommodate a larger loop radius and higher design speed can be accomplished by relocating the ramp further north and west. A PSR is required to select an appropriate design. The PSR will also address the LOS deficiency for the northbound off-ramp. The project applicant shall extend the deceleration length from 250 to 550 feet for the southbound off-ramp to provide acceptable freeway ramp diverge operations under Cumulative Plus Agricultural Residential Cluster Subdivision conditions.

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.



**Agricultural
Residential
Cluster
Subdivision
T-1(d)**

Plan Requirements and Timing. A PSR shall be prepared by a qualified traffic consultant. The County of San Luis Obispo and Caltrans shall review the PSR prior to approval of Land Use Permits. The applicant shall contribute fair share fees toward the preparation of applicable studies and reconstruction of the US 101/SR 58 interchange. Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the improvements under a Caltrans encroachment permit. Monitoring. Caltrans and County Public Works shall site inspect during construction of the new interchange modifications to ensure compliance with approved plans, as outlined in the PSR. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation improvements prior to occupancy clearance.

El Camino Real/Estrada Avenue Redesign. The applicant shall pay fair share fees toward the redesign of the El Camino Real/Estrada Avenue intersection so that both roadways are at the same grade. Consideration should be given to the railroad tracks, which are located 60 feet from the intersection. The redesign of the intersection should not preclude construction of the westbound left turn and eastbound right turn pockets. With the addition of Agricultural Residential Cluster Subdivision traffic, the project applicant shall construct the following improvements:

1. Widen Estrada Avenue, between El Camino Real and the railroad tracks, to provide a dedicated northbound right-turn lane.
2. Widen El Camino Real to provide a separate left-turn lane for westbound El Camino Real traffic to turn onto southbound Estrada Avenue.
3. Reduce the superelevation of the El Camino Real curve at Estrada Avenue
4. Prior to implementation of Future Development Program measure T-1(d), traffic signal installation and rail pre-emption, advance limit lines for northbound Estrada traffic shall be provided immediately south of the rail tracks, and a Manual on Uniform Traffic Control Devices (2003 Edition) R8-10 sign which states "Stop Here When Flashing" shall be provided to minimize the potential for vehicles to stop directly on the railroad tracks.

According to San Luis Obispo County Public Works staff, extension of an existing culvert is required as part of this improvement. The applicant shall secure any regulatory permits for the necessary construction of intersection improvements to meet Caltrans standards.



As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. ~~Plans for redesign of the El Camino Real/Estrada Avenue intersection shall be submitted for review by Planning and Building prior to approval of Land Use Permits. The improvements shall be constructed prior to occupancy clearance. The applicant shall pay fair share fees to fund the redesign of this intersection to eliminate the grade differential. Because the intersection is within State jurisdiction (El Camino Real/SR 58), this measure would require Caltrans approval~~ **implement the improvements under a Caltrans encroachment permit. Monitoring.** ~~Caltrans and County Public Works shall site inspect during construction to ensure compliance with approved plans~~ **the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.**

**Agricultural
Residential
Cluster
Subdivision
T-1(e)**

Estrada Avenue/H Street Warning Beacon. A pedestrian-activated advanced warning beacon shall be installed on the northbound approach to the intersection of Estrada Avenue and H Street, before the crest on Estrada Avenue, to warn drivers of the presence of pedestrians crossing at the intersection. A pedestrian-activated beacon shall also be installed ~~to face~~ **for** southbound Estrada Avenue traffic. **The precise location for beacon installation shall be determined in consultation with Caltrans under the encroachment permit process, and shall include any required ramps or other Americans with Disabilities Act (ADA) upgrades.** The applicant shall ~~pay fair share fees to fund and install the required~~ **both advanced warning beacons on Estrada Avenue.**

The *Santa Margarita Design Plan*, adopted October 9, 2001, recommended the following long-term improvements to Estrada Avenue between H Street and I Street:

- Improve sight distance by eliminating the hill/crest
- Add curbs and textured crossings at Estrada Avenue/H Street
- Provide bike lanes on Estrada Avenue

These improvements represent alternative mitigation measures for this intersection. However, eliminating the crest would require extensive earthwork and roadbed re-construction. Depending on the final design of the long-term improvements, the flashing beacons could be integrated into the plan.



As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. The pedestrian-activated warning beacons shall be installed prior to occupancy clearance. The applicant shall ~~pay fair share fees to~~ fund and install the required advance warning beacons on Estrada Avenue **under a Caltrans encroachment permit prior to occupancy clearance.** **Monitoring.** ~~Caltrans and County Public Works~~ **the County of San Luis Obispo** shall site inspect to ensure installation of the pedestrian-activated warning beacons prior to occupancy clearance.

Residual Impacts. If the construction and occupation of residences occurs prior to completion of the above improvements, existing deficiencies and associated impacts would remain. Although P proposed mitigation would reduce impacts to the extent possible, **due to the.** ~~However, because of the uncertainty of timing of the proposed improvements,~~ uncertainty regarding Caltrans approval of improvements within their jurisdiction, and uncertainty regarding right-of-way acquisition, **it cannot be assured that all improvements would be feasibly constructed prior to occupation of the proposed residences. As a result,** impacts would remain significant and unavoidable.

The remainder of Section 4.12.2(c) has not changed; with the exception of Agricultural Residential Cluster Subdivision measure T-4(a) (El Camino Real/Encina Avenue In-Pavement Flashing Lights), which is required to mitigate Agricultural Residential Cluster Subdivision impacts on pedestrian movement. This mitigation measure has been revised as follows:

**Agricultural
Residential
Cluster
Subdivision
T-4(a)**

El Camino Real/Encina Avenue In-Pavement Flashing Lights. Pedestrian in-pavement flashing lights shall be installed on the eastbound and westbound approaches to the intersection of El Camino Real and Encina Avenue to warn drivers of the presence of pedestrians crossing at the intersection. **The precise location for beacon installation shall be determined in consultation with Caltrans under the encroachment permit process, and shall include any required ramps or other Americans with Disabilities Act (ADA) upgrades.** The applicant shall ~~pay fair share fees to~~ fund and install the in-pavement flashing lights on El Camino Real.

The design of the pedestrian in-pavement flashing lights shall be consistent with the *Santa Margarita Design Plan*, adopted October 9, 2001, which recommended pedestrian improvements along El Camino Real in downtown Santa Margarita. Because El Camino Real (SR 58) is a state-maintained roadway, this measure would require Caltrans approval **and an encroachment permit.**



Plan Requirements and Timing. The pedestrian in-pavement flashing lights shall be installed prior to occupancy clearance. The applicant shall ~~pay fair share fees to~~ fund and install the required pedestrian in-pavement flashing lights on El Camino Real **under a Caltrans encroachment permit prior to occupancy clearance.**
Monitoring. Caltrans and County Public Works shall inspect this location to ensure installation of the pedestrian warning beacons prior to occupancy clearance.

Cumulative Impacts

Summary of Draft EIR Analysis. The Draft EIR also identified significant and unavoidable traffic impacts from the Future Development Program related to levels of service (LOS) in several locations and site access/internal circulation. The Future Development Program would result in the addition of 8,137 ADT and 818 P.M. peak-hour vehicle trips to the study-area roadways and intersections. This would cause two local roadway segments, four U.S. 101 mainline segments, all four U.S. 101/SR 58 interchange ramps, and four intersections to operate at unacceptable levels of service during peak hours. Implementation of proposed mitigation measures would partially reduce impacts. However, due to uncertainty regarding Caltrans approval of facilities within State jurisdiction, impacts would be Class I, *significant and unavoidable*. The Future Development Program may also result in inadequate site access and/or internal circulation conflicts. This would generate a Class I, *significant and unavoidable*, impact. Although the Future Development Program may generate parking demands in excess of future parking supply, compliance with County parking standards would ensure Class III, *less than significant* impacts. Lastly, the addition of traffic generated by the Future Development Program may result in conflicts with pedestrians and bicyclists, as well as increase demand for transit services. Impacts are Class II, *significant but mitigable*.

Updated Analysis. The Draft EIR inadvertently compared the Cumulative + Future Development Program scenario to Existing conditions, rather than Cumulative No Project conditions. Although the outcome of the analysis would not change based on a comparison to Cumulative No Project conditions, the corrected analysis is presented herein. In addition, the Draft EIR listed average daily traffic (ADT) volumes for U.S. 101 which were lower than Caltrans data for 2005. Although the incorrect volumes were not used in any of the operational analyses, the volumes are also corrected herein.

The following sections have been added after Section 4.12.2(c) (Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures):

d. Cumulative No Project Traffic Volumes. Cumulative No Project volumes reflect 20 years of growth in the study area plus traffic from pending projects. According to County staff, no pending projects are proposed in the immediate Santa Margarita area. Two pending projects were identified in south Atascadero that would add some trips through Santa Margarita.

In addition to traffic from the pending projects, an annual growth factor of 1.4% was applied to the existing volumes for a 20-year period. The growth factor is based upon a



comparison of existing (Year 2006) roadway volumes to Year 2001 volumes. Pending project trips were added to the growth-factored volumes to represent Cumulative No Project Conditions. Cumulative No Project roadway segment volumes were developed by applying the growth factor and including traffic from the pending projects.

e. Cumulative Plus Agricultural Residential Cluster Subdivision Traffic Volumes. The Agricultural Residential Cluster Subdivision-generated trips were added to the Cumulative No Project volumes to represent Cumulative Plus Agricultural Residential Cluster Subdivision Conditions.

d-f. Cumulative Plus Agricultural Residential Cluster Subdivision Plus Future Development Program-Generated Traffic Volumes. The Future Development Program would consist of 514 residences (including the Agricultural Residential Cluster Subdivision) and the additional following uses: private golf course, club house and pro shop; guest ranch, lodge, and restaurant; 12-room bed and breakfast; cafe; amphitheater; crafts studios, galleries and shops; interpretive center and gift shops; nine wineries with tasting rooms and permitted special events; neighborhood park and swimming pool; five ranch/farm headquarters; one livestock sales yard and café; three places of worship; and a retreat center. Table 4.12-13 shows that the Future Development Program would generate 8,137 average daily weekday trips, 655 AM peak-hour trips, and 818 PM peak-hour trips. The amount of traffic added to the surrounding roadway system by most Future Development Program uses was estimated by applying trip generation rates appropriate for the AM and PM peak hours as published in *Trip Generation (7th Edition)* by the Institute of Transportation Engineers (ITE). Trip generation estimates for the wineries are based on surveys presented in the *Santa Margarita Ranch Project Draft Traffic and Circulation Study* (ATE, 2004). Several land uses are assumed to generate traffic outside of the weekday morning and evening peak-hours. These uses include the farm support quarters, amphitheater, churches, livestock sales, and special events for wineries. These uses are estimated to generate a majority of their trips during early weekday evenings (after 6 p.m.) or during the weekend. The swimming pool/neighborhood park is assumed to serve Santa Margarita residents. As a result, trips would be internal to the community, rather than new trips to the area. The retreat center was assumed to generate trips at the same rate as single-family homes, as a reasonable worst-case estimate. **The Future Development Program trips were added to Cumulative Plus Agricultural Residential Cluster Subdivision traffic volumes to establish volumes for Cumulative Plus Agricultural Residential Cluster Subdivision Plus Future Development Program Conditions.**

The remainder of Section 4.12.2(d) has not changed. Section 4.12.2(e) (Future Development Program Impacts and Mitigation Measures) has been revised as follows:

e-g. Future Development Program Cumulative Impacts and Mitigation Measures. The Future Development Program represents potential future buildout of the Santa Margarita Ranch, including the proposed Agricultural Residential Cluster Subdivision. Refer to Section 4.12.2(c) for a discussion of transportation and circulation impacts resulting from the Agricultural Residential Cluster Subdivision independently.

The following section reviews the **cumulative** impacts of the **Agricultural Residential Cluster Subdivision and** Future Development Program ~~assuming the forecasted Cumulative~~



~~+Agricultural Residential Cluster Subdivision + Future Development Program~~ volumes shown in Figures 4.12-9 and 4.12-10. The *Cumulative +Agricultural Residential Cluster Subdivision + Future Development Program* (hereafter the *Cumulative + Future Development Program*) forecast scenario reflects traffic generated by the Future Development Program in addition to 20 years of growth in the study area (the *Cumulative No Project* scenario) and traffic from the proposed Agricultural Residential Cluster Subdivision (the *Cumulative + Agricultural Residential Cluster Subdivision* scenario) as shown in Figures 4.12-9 and 4.12-10.

Future Development Program Impact T-1

The Future Development Program would result in the addition of 8,137 average daily weekday trips (655 AM peak-hour and 818 PM peak-hour trips) to the study-area roadways and intersections. This would cause two local roadway segments, four U.S. 101 mainline segments, all four U.S. 101/SR 58 interchange ramps, and four intersections to operate at unacceptable levels of service during peak hours. Implementation of proposed mitigation measures would partially reduce impacts. However, due to uncertainty regarding Caltrans approval of facilities within State jurisdiction and uncertainty regarding the timing of the improvements, impacts would be Class I, *significant and unavoidable*.

~~Cumulative + Future Development Program~~ **Cumulative + Future Development Program Roadway Operations.** *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* daily roadway segment traffic operations have been quantified utilizing roadway ADT-based LOS thresholds presented in Tables 4.12-2 through 4.12-4 and the projected daily weekday traffic volumes with implementation of the Agricultural Residential Cluster Subdivision, full buildout of the Future Development Program, and cumulative growth. Tables 4.12-14(a) through 4.12-14(c) present the projected daily traffic volumes and a summary of the *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* roadway segment LOS conditions.

Table 4.12-14(a) Cumulative + Future Development Program Two-Lane Highway Levels of Service

Roadway Segment	Class Designation	Peak Hour	Existing Cumulative No Project		Cumulative + Agricultural Residential Cluster Subdivision		Cumulative + ARCS + Future Development Program			
			PTSF ¹	LOS	PTSF ¹	LOS	PTSF ¹	LOS		
El Camino Real North of Estrada Avenue	I	AM	37.4	46.0	B	C	47.5	C	54.4	C
		PM	34.7	39.4	B	C	41.2	C	48.8	C
West Pozo Road (SR 58) between J Street and West Driveway	II	AM	45.5	50.2	B	B	54.6	B	57.4	C
		PM	45.9	52.0	B	B	58.2	C	60.1	C
West Pozo Road southeast of Calf Canyon Highway (SR 58)	II	AM	30.2	32.6	A	A	32.7	A	36.3	A
		PM	28.5	31.7	A	A	31.8	A	35.7	A
Calf Canyon Highway (SR 58) northeast of West Pozo Road	II	AM	51.0	55.3	B	C	55.6	C	57.0	C
		PM	46.3	51.4	B	B	51.5	B	53.7	B

1 PTSF = Percent time-spent-following.



**Table 4.12-14(b) Cumulative + Future Development Program
 Local Roadway Levels of Service**

Roadway Segment	Roadway Type	Existing Cumulative No Project		Cumulative + Agricultural Residential Cluster Subdivision		Cumulative + ARCS + Future Development Program	
		Volume ¹	LOS	Volume	LOS	Volume	LOS
El Camino Real (SR 58) between Wilhelmina Avenue and Maud Avenue	2-Lane Arterial (no left-turn lane)	5,490 7,250	B C	7,978	D	11,816	F
El Camino Real (SR 58) between Pinal Avenue and Estrada Avenue	2-Lane Arterial (no left-turn lane)	5,300 7,000	B C	7,820	D	10,332	E
Estrada Avenue (SR 58) south of El Camino Real	2-Lane Arterial (no left-turn lane)	3,900 5,100	A B	6,258	C	7,712	C
Wilhelmina Avenue between El Camino Real and I Street	2-Lane Collector/Local Street	740 980	A	980	A	5,932	C

¹ Average daily traffic.

**Table 4.12-14(c) Cumulative + Future Development Program
 U.S. 101 Mainline Levels of Service**

Travel Direction	Segment	Peak Hour	Existing Cumulative No Project		Cumulative + Agricultural Residential Cluster Subdivision		Cumulative + ARCS + Future Development Program	
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
Northbound	South of SR 58	AM	16.5 12.0	B	12.1	B	16.6 13.3	B
		PM	36.5 31.2	D E	31.7	D	36.8 34.8	D E
Southbound	North of SR 58	AM	14.8 12.1	B	12.1	B	14.9 12.9	B
		PM	30.8 28.3	D	28.4	D	30.9 29.6	D
Southbound	South of SR 58	AM	30.6 25.7	C D	25.7	C	30.6 26.6	D
		PM	20.2 16.3	B C	16.4	B	20.3 17.4	B C
Southbound	South of SR 58	AM	31.3 29.3	D	29.7	D	31.6 31.8	D
		PM	19.4 16.7	B	16.9	B	19.6 18.3	C B

¹ Measured in vehicles per mile per lane.

As shown in Tables 4.12-14(a) through 4.12-14(c), several area roadways are forecast to operate at unacceptable LOS D, LOS E or LOS F under the *Cumulative No Project*, *Cumulative + Agricultural Residential Cluster Subdivision*, and *Cumulative + Future Development Program* traffic volumes. The following paragraphs outline the deficiencies:

El Camino Real (SR 58) between Wilhelmina Avenue and Maud Avenue. El Camino Real (SR 58) between Wilhelmina Avenue and Maud Avenue is projected to operate at **LOS D during Cumulative + Agricultural Residential Cluster Subdivision** and **LOS F during Cumulative + Future Development Program** conditions.

El Camino Real (SR 58) between Pinal Avenue and Estrada Avenue. El Camino Real (SR 58) between Pinal Avenue and Estrada Avenue is projected to operate at **LOS D during Cumulative + Agricultural Residential Cluster Subdivision** and **LOS E during Cumulative + Future Development Program** conditions.



U.S. 101 northbound south of SR 58. U.S. 101 northbound south of SR 58 is projected to operate at LOS D during *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* conditions.

U.S. 101 northbound north of SR 58. U.S. 101 northbound north of SR 58 is projected to operate at LOS D during *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* conditions.

U.S. 101 southbound south of SR 58. U.S. 101 southbound south of SR 58 is projected to operate at LOS D during *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* conditions.

U.S. 101 southbound north of SR 58. U.S. 101 southbound north of SR 58 is projected to operate at LOS D during *Cumulative + Future Development Program* conditions.

U.S. 101 Ramps. Table 4.12-15 presents the projected daily weekday traffic volumes and a summary of the *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* freeway ramp segment LOS conditions.

**Table 4.12-15 Cumulative + Future Development Program
 U.S. 101 at SR 58 Ramp Junction Levels of Service**

Travel Direction	Merge/Diverge	Peak Hour	Existing Cumulative No Project		Cumulative + Agricultural Residential Cluster Subdivision		Cumulative + ARCS + Future Development Program		
			Density ¹	LOS	Density ¹	LOS	Density ¹	LOS	
Northbound	Diverge (Off-ramp)	AM	42.8 16.5	B	16.6 36.8	B E	17.3 37.4	17.8 38.8	B E
		PM	27.4 36.5	C E					
	Merge (On-ramp)	AM	41.5 14.8	B	14.9 30.9	B D	15.4 30.6	15.6 31.7	B D
		PM	23.2 30.8	C D					
Southbound	Diverge (Off-ramp)	AM	22.8 30.6	C D	30.6 20.3	D C	30.4 20.7	31.5 21.4	D C
		PM	15.3 20.2	B C					
	Merge (On-ramp)	AM	23.5 31.3	C D	31.6 19.6	D B	31.8 20.3	32.9 20.9	D C
		PM	14.8 19.4	B					

¹ Measured in vehicles per mile per lane.

As shown in Table 4.12-15, the addition of Future Development Program traffic will cause the U.S. 101 northbound off-ramp to SR 58 to degrade to an unacceptable level of service (LOS E) and will cause the and U.S. 101 northbound on-ramp to from SR 58 to degrade to an unacceptable level of service (LOS D) operate at an unacceptable level, LOS D and E, respectively, under Cumulative No Project Conditions. The addition of traffic from the



Agricultural Residential Cluster Subdivision and the Future Development Program will exacerbate unacceptable operations. This is a potentially significant impact.

In addition, the addition of **Agricultural Residential Cluster Subdivision and Future Development Program** traffic will ~~cause~~ **exacerbate unacceptable operations** at the U.S. 101 southbound off-ramps to SR 58 ~~to degrade to unacceptable levels of service~~. As discussed in Section 4.12.1(e), the U.S. 101 southbound off-ramp is configured with a short diverge taper and vehicles must negotiate a sharp curve that is posted for 15 mph within approximately 250 feet of exiting the mainline. This design causes southbound U.S. 101 vehicles to brake suddenly within a short distance to negotiate the off-ramp. **The deceleration length for the southbound off-ramp must be lengthened to 550 feet (with Agricultural Residential Cluster Subdivision traffic) and 650 feet (with Agricultural Residential Cluster Subdivision and Future Development Program traffic) to provide acceptable operations under Cumulative + Agricultural Residential Cluster Subdivision and Cumulative + Future Development Program conditions.** The U.S. 101 northbound off-ramp intersection has no traffic control devices. As a result, vehicles exiting the U.S. 101 northbound off-ramp meet eastbound SR 58 traffic at an incline that limits sight distance, and there is only 150 feet of merge area. Under **Cumulative + Agricultural Residential Cluster Subdivision and Cumulative + Future Development Program** conditions, the Future Development Program is expected to significantly impact both off-ramps by adding traffic to locations with existing hazards and deficiencies. Therefore, impacts are potentially significant and mitigation is required.

Cumulative + ~~Future Development Program~~ Intersection Operations. *Cumulative No Project, Cumulative + Agricultural Residential Cluster Subdivision, and Cumulative + Future Development Program* AM and PM peak hour intersection traffic operations are presented in Table 4.12-16 and Figure 4.12-10. The *Cumulative + Future Development Program* traffic volumes were generated by superimposing the Future Development Program generated traffic volumes on the projected *Cumulative + Agricultural Residential Cluster Subdivision* traffic volumes.



**Table 4.12-16 Cumulative + Future Development Program
 Intersection Levels Of Service**

Intersection	Peak Hour	Intersection Control	Existing Cumulative No Project		Cumulative + Agricultural Residential Cluster Subdivision		Cumulative + ARCS + Future Development Program	
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²
U.S. 101 Northbound Ramps and State Route 58	AM	Uncontrolled	8.9	A	9.1	A	11.0	B
	PM		10.1	B	11.7	B	22.8	C
El Camino Real (SR 58) and Wilhelmina Avenue	AM	Side Street Stop	12.2	B	15.6	C	>100	F
	PM		11.7	B	14.5	B	>100	F
El Camino Real (SR 58) and Encina Avenue	AM	Side Street Stop	12.8	B C	17.5	C	25.3	D
	PM		13.0	B C	17.7	C	25.3	D
El Camino Real (SR 58) and Estrada Avenue	AM	Side Street Stop	13.8	B C	31.5	D	>100	F
	PM		11.0	B	14.4	B	24.0	C
El Camino Real and Santa Margarita Road	AM	Side Street Stop	10.4	B	11.5	B	12.4	B
	PM		11.0	B	12.5	B	14.2	B
Estrada Avenue (SR 58) and H Street	AM	Side Street Stop	15.6	C	22.9	C	27.9	D
	PM		10.7	B	12.9	B	14.8	B
Calf Canyon Highway (SR 58) and West Pozo Road	AM	Side Street Stop	9.2	A	9.6	A	9.9	A
	PM		8.8	A	8.9	A	9.1	A
West Pozo Road (SR 58) and West Driveway	AM	Side Street Stop	Future Intersection		11.4	B	12.0	B
	PM		Future Intersection		11.9	B	12.7	B
West Pozo Road (SR 58) and East Driveway	AM	Side Street Stop	Future Intersection		11.2	B	11.9	B
	PM		Future Intersection		11.5	B	12.3	B

1. Whole intersection weighted average control delay expressed in seconds per vehicle using methodology described in the 2000 HCM. For side street stop controlled intersections, total control delay for the worst movement is presented.
 2. For side street stop controlled intersections, LOS for the worst movement is shown. LOS calculations conducted using the SYNCHRO analysis software package.

As shown, the addition of Future Development Program traffic will cause four intersections to operate at unacceptable levels of service under the *Cumulative + Future Development Program* traffic volumes. The following text outlines the deficiencies:

El Camino Real/Estrada Avenue. As indicated in Section 4.12.1(e), sight distance is limited at this location due to the steep grade of the Estrada Avenue approach. In addition, the minor street approach (Estrada Avenue) is projected to deteriorate to an unacceptable level under *Cumulative + Agricultural Residential Cluster Subdivision and Cumulative + Future Development Program* conditions. The intersection meets the rural MUTCD peak-hour signal warrant **under Cumulative + Future Development Program conditions**. Therefore, the addition of Future Development Program traffic to this intersection causes a significant impact.

El Camino Real/Wilhelmina Avenue. The side-street approach (Wilhelmina Avenue) is projected to deteriorate to unacceptable levels under *Cumulative + Future Development Program* conditions and the rural peak-hour signal warrant is satisfied. The peak-hour warrant is a guideline from the *Manual on Uniform Traffic Control Devices* that determines whether traffic signal installation should be considered. This is a significant impact.

El Camino Real/Encina Avenue. The level of service at the El Camino Real/Encina Avenue intersection deteriorates to an unacceptable level (LOS D) under *Cumulative*



+ *Future Development Program* conditions, but the rural peak-hour signal warrants are not satisfied. The peak-hour warrant is a guideline from the *Manual on Uniform Traffic Control Devices* that determines whether traffic signal installation should be considered. Thus, the Future Development Program would have a less than significant impact at this location and no mitigation is required.

Estrada Avenue/H Street. This intersection is projected to operate at LOS D during the AM peak hour under *Cumulative + Future Development Program* conditions and the peak-hour signal warrant is satisfied. The peak-hour warrant is a guideline from the *Manual on Uniform Traffic Control Devices* that determines whether traffic signal installation should be considered. The installation of a traffic signal is required to provide acceptable intersection operations according to Caltrans standards. However, it should be noted that a signal at this location would be located approximately 500 feet from the required signal at the El Camino Real/Estrada Avenue intersection and signal coordination between the two signals would be required. A traffic signal is not recommended at the Estrada Avenue/H Street intersection because of the close proximity to the adjacent signal and County staff does not support signalization at this location. Caltrans will make the final determination on the need for a signal at this location. Impacts on the intersection of Estrada Avenue/H Street would be significant.

The *Mitigation Measures* discussion under Future Development Program Impact T-1 has not changed. However, new mitigation measures T-1(a), T-1(b), and T-1(c) have been added and subsequent mitigation measure numbering revised. These changes are outlined below:

**Future
Development
Program T-1(a)**

SR 58 South of J Street. To mitigate the Future Development Program's impacts to the two 90-degree curves on SR 58 near J Street, realignment of SR 58 along a tangent south of J Street to the Agricultural Residential Cluster Subdivision development is required. The realignment would make the SR 58/J Street junction into more of a typical intersection layout.

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to construct and implement the alternate improvements under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model



and associated reimbursement agreement. **Monitoring.** Caltrans and the Public Works Department shall site inspect to ensure installation of improvements prior to occupancy clearance.

**Future
Development
Program T-1(b)**

U.S. 101 Southbound Off-Ramp to SR 58. Redesign of the southbound off-ramp to accommodate a larger loop radius and higher design speed would be required to meet current Caltrans design standards with Future Development Program. The project applicant shall extend the deceleration length from 250 to 650 feet for the southbound off-ramp to provide acceptable freeway ramp diverge operations under Cumulative Plus Agricultural Residential Cluster Subdivision Plus Future Development Program conditions. A PSR would be required to select an appropriate design.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to construct and implement the improvements under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model and associated reimbursement agreement. **Monitoring.** Caltrans and the Public Works Department shall site inspect to ensure installation of improvements prior to occupancy clearance.

**Future
Development
Program T-1(c)**

U.S. 101 Southbound On-Ramp from SR 58. Redesign of the US 101 southbound on-ramp to accommodate an acceleration lane for westbound SR 58 traffic. The applicant is required to contribute toward preparation of a Project Study Report (PSR) to identify appropriate interchange improvements to correct operational deficiencies and evaluate alternative configurations. The PSR will identify an interchange design to provide improved operations for all ramps.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to construct and implement the improvements under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model and associated reimbursement agreement. **Monitoring.** Caltrans and the Public Works Department shall site inspect to ensure installation of improvements prior to occupancy clearance.



**Future
Development
Program T-1(a-d)**

El Camino Real/Estrada Avenue Signalization. ~~Future applicants shall pay fair share fees to install a~~ A traffic signal at the intersection of El Camino Real and Estrada Avenue **shall be installed.** ~~This shall be completed~~ in concurrence with Agricultural Residential Cluster Subdivision measure T-1(d) (El Camino Real/Estrada Avenue Redesign). Extension of the existing culvert will be required as stated previously in Agricultural Residential Cluster Subdivision measure T-1(d). Caltrans shall make the final determination on the need for a signal at this location since SR 58 is a state-maintained roadway. Future signalization of this intersection shall include rail pre-emption to allow northbound vehicles to clear the tracks **when a train approaches the crossing.**

Signalization of this intersection would result in LOS B operations under *Cumulative + Future Development Program* conditions. This improvement would also eliminate the sight-distance impediment for left-turn vehicles by requiring El Camino Real traffic to stop.

It should be noted that a westbound left-turn lane from El Camino Real to Estrada Avenue is warranted under both Cumulative project scenarios (refer to Appendix J for technical calculations). According to County of San Luis Obispo staff, sufficient right-of-way is provided to accommodate turn lanes. The design of the left-turn lanes needs to consider the following adjacent physical constraints: railroad tracks south of the intersection, a creek west of the intersection, a house northwest of the intersection, and a utility box southeast of the intersection.

Plan Requirements and Timing. Detailed site plans displaying proposed traffic signals shall be included in the Specific Plan (or within individual plans, as applicable) for review by Caltrans and the County of San Luis Obispo prior to approval. ~~Future applicants shall contribute fair share fees toward the installation of~~ **Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to install the traffic signal under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model and associated reimbursement agreement.** Because SR 58 is a state-maintained roadway, Caltrans shall make the final determination on the need for a signal at this location. **Monitoring.** Prior to ~~issuance of occupancy permits~~ **clearance**, Caltrans and County Public Works shall verify implementation of approved plans.



**Future
Development
Program T-1(b-e)**

El Camino Real/Wilhelmina Avenue Signalization. ~~Future applicants shall pay fair share fees to install a~~ **A traffic signal shall be installed** at the intersection of El Camino Real and Wilhelmina Avenue. Caltrans shall make the final determination on the need for a signal at this location.

Signalization at this intersection would result in acceptable LOS B operations (or better) under *Cumulative + Future Development Program* conditions.

Plan Requirements and Timing. Detailed site plans displaying proposed traffic signals shall be included in the Specific Plan (or within individual plans, as applicable) for review by Caltrans and the County of San Luis Obispo prior to approval. ~~Future applicants shall contribute fair share fees toward installation of~~ **Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to install the El Camino Real/Wilhelmina Avenue traffic signal under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model and associated reimbursement agreement.** Because El Camino Real (SR 58) is a state-maintained roadway, Caltrans shall make the final determination on the need for a signal at this location. **Monitoring.** Prior to ~~issuance of~~ **occupancy permits clearance**, Caltrans and County Public Works shall verify implementation of approved plans.

**Future
Development
Program T-1(e-f)**

SR 58 Improvements Between Wilhelmina Avenue and Pinal Avenue. ~~Future applicants shall pay fair share fees toward~~ **Improvements on SR 58 between Wilhelmina Avenue to Pinal Avenue shall be constructed**, consistent with the *Santa Margarita Design Plan*, which calls for a three lane section (one lane in each direction with a center two-way left-turn lane or median island) between Wilhelmina Avenue and Encina Avenue. Implementation of these improvements would mitigate roadway segment impacts to Encina Avenue.

Plan Requirements and Timing. Detailed site plans displaying proposed improvements shall be included in the Specific Plan (or within individual plans, as applicable) for review by Caltrans and the County of San Luis Obispo prior to approval. **Improvements shall be installed prior to occupancy clearance for the first Future Development Program component on the Ranch property. If this development requires preparation of a Specific Plan, the Specific Plan shall establish a finance district to install the improvements**



under a Caltrans encroachment permit and/or PSR, depending on the cost of improvements. If this development does not require a Specific Plan, the applicant shall fund the improvements as well as the creation of an area wide traffic model and associated reimbursement agreement. Because SR 58 is a state-maintained roadway, Caltrans shall review improvement plans for this location. **Monitoring.** Prior to ~~issuance of occupancy permits~~ **clearance**, Caltrans and the County of San Luis Obispo shall verify implementation of approved plans.

**Future
Development
Program T-1(d-g)**

Future Development Impact Fee. As part of the future Specific Plan, A funding plan finance district shall be created to implement the improvements identified under the Future Development Program measures T-1(a) through T-1(f). The funding plan finance district may consist of an area wide fee where projects that are located within the Future Development Program Specific Plan Area ~~would~~ will be required to pay impact fees or require the applicant to “front” the cost of the improvements and be reimbursed as land uses are developed. Supplemental studies would be required to determine the cost of the required improvements and the appropriate impact fee.

Because a Specific Plan is only required before an application is approved for a subdivision other than a Cluster development, future development could occur in accordance with the Future Development Program prior to preparation of a Specific Plan. Should this occur, the applicant shall fund the creation of a traffic model for the area. The traffic model shall be prepared by a qualified consultant and shall provide a nexus for determining the proportional share of mitigation for projects in the area. In concert with the traffic model, a funding mechanism shall be created to facilitate reimbursement of the cost of the required improvements and for model creation .

Plan Requirements and Timing. As part of the Specific Plan, the project applicant shall prepare a detailed funding plan to address implementation and payment of the required Future Development Program mitigation measures. **Should development occur prior to completion of the Specific Plan, the applicant shall fund the creation of an area wide traffic model and associated reimbursement agreement prior to the issuance of grading permits for the first project proposed on the property. Monitoring.** Prior to issuance of ~~occupancy~~ **grading permits**, ~~the County of San Luis Obispo shall approve~~ **Planning and Building will review the funding plan as part of the Specific Plan and/or ensure completion of the traffic model and reimbursement agreement.**



The remainder of the discussion under Future Development Program Impact T-1 has not changed.

2.8 WATER AND WASTEWATER

Summary of Draft EIR Analysis. The Draft EIR identified significant and unavoidable impacts related to water demand for both the Agricultural Residential Cluster Subdivision and Future Development Program. The Agricultural Residential Cluster Subdivision would use approximately 96 acre-feet per year (afy) of water, while the Future Development Program would use approximately 926 afy. Although mitigation, including the establishment of a groundwater monitoring program and water conservation measures, would reduce overall system demand, uncertainty of additional imported water supply would result in Class I, *significant and unavoidable*, impacts.

The DEIR also identified significant but mitigable impacts related to wastewater disposal and groundwater quality, and less than significant impacts related to septage load management for both the Agricultural Residential Cluster Subdivision and Future Development Program. In addition, water quality impacts resulting from Future Development Program winery wastewater are identified as Class II, *significant but mitigable*.

Updated Analysis. Current plans for vineyard expansion include approximately 2,000 acres of vineyards throughout the Ranch in addition to the 973.9 acres currently planted. The Water Demand and Consumptive Use discussions in Section 4.14.1(a) (Water Supply and Current Demand) have therefore been revised as follows:

Water Demand. Existing water uses in the area include domestic and agricultural Ranch uses. Table 4.14-1 indicates the estimated amount of annual water demand that is attributed to the existing **and planned** land uses on the Ranch property. The itemized water demands presented in Table 4.14-1 were calculated using the standard San Luis Obispo County water demand estimation factors for domestic and municipal land uses. In addition to the County data, an irrigation demand of 2.0 acre feet per year per acre (afy/ac) was used for landscaping and turf watering. This demand factor accounts for average annual rainfall and evaporation rates measured in the area.



Table 4.14-1 Existing Ranch Water Demands

Land Use	Land Use Characteristics	Water Use Factor (acre-feet/unit)	Annual Water Demand (acre-feet)
Margarita Farms	36 residential units on 1.0 to 2.5 acre lots (128 acres total)	1.44 / lot	51.84
1 residential lot	1.0 acre in size	1.44 / lot	1.44
Farm support housing units	7 units on 1.0 acre or less	0.9 / lot	6.30
Private cabins	4 units on 1.0 acre or less	0.9 / lot	3.60
Margarita Vineyard	973.9 acres	1.6 / acre	1,558.24*
Existing Ranch Water Use Total			1,621.42
Planned Orchards	500 acres	2.0 / acre	1,000**
Planned Vineyards	1,026.1 acres	1.6 / acre	1,641.76*
Planned Ranch Water Use Total			2,641.76
Existing and Planned Ranch Water Use Total			4,263.18

Source: Hopkins, 2006 and RHA, 2006.

* This estimate is based on a factor of 1.6 afy per acre and does not account for the immaturity of on-site vineyards. Actual consumptive demand is estimated at approximately 400 afy.

** This estimate is based on a factor of 2.0 afy per acre as a reasonable worst case scenario.

As shown in Table 4.14-1, ~~estimated existing~~ **existing** Ranch water demands are approximately 1,621 acre feet per year (afy). **Planned vineyards and orchards would add approximately 2,642 afy of demand to this figure for a total of 4,263 afy.** Approximately 4 percent (63 afy) of ~~this existing~~ **existing** demand is derived from rural residential uses and approximately 96 percent (1,558 afy) is derived from agricultural uses (i.e., vineyards). **With planned vineyards in place, this ratio would change to 1.5 percent and 98.5 percent, respectively.** It should be noted that although 63 afy is derived from rural residential uses, Margarita Farms (with a demand of 52 afy) is the only non-agricultural development on the Ranch property that draws from the same aquifer units as the proposed Agricultural Residential Cluster Subdivision and Future Development Program.

Consumptive Use. Approximately 40 percent of rural residential water use and 32 percent of agricultural water use results in groundwater recharge, thereby returning to the local aquifer system. Consumptive water use refers to the amount of groundwater that does not result in groundwater recharge, and is permanently removed from the local aquifer system. Although approximately 52 afy is **currently** used for rural residential use (i.e. Margarita Farms), approximately 21 afy would return to the system as groundwater recharge. Therefore, net consumptive use for existing residential uses on the Ranch is approximately 31 afy. Similarly, although an estimated 1,558 afy is **currently** used for agricultural purposes (vineyard irrigation), approximately 499 afy would return to the system as groundwater recharge. Therefore, based on a factor of 1.6 afy per acre (afy/acre), net consumptive use for existing agricultural uses on the Ranch is estimated at approximately 1,059 afy (1.6 afy/acre is the water duty factor applied by Hopkins Groundwater Consultants vineyard irrigation in San Luis Obispo County; refer to Appendix K). The actual reported annual consumption for existing Ranch agricultural uses is 285 afy.



This discrepancy may be attributed to a number of factors, including the immaturity of vineyard plantings (as younger crops require less irrigation) and reported discharge meter inaccuracies. Based on available data for immature vineyard water use and reported consumptive demand (past average annual uses), existing agricultural water use on the Ranch is estimated at approximately 400 afy. Therefore, in addition to an estimated 31 afy residential consumption, the total existing consumptive demand on the Ranch property is estimated to be 431 afy.

The *Residual Impact* discussion under Agricultural Residential Cluster Subdivision Impact W-1 in Section 4.14, *Water and Wastewater*, has been revised as follows:

**Agricultural
Residential Cluster
Subdivision
W-1(c)**

Imported Water Supply. The applicant shall acquire imported water supply to serve the Agricultural Residential Cluster Subdivision. Potential sources include State Water and/or the Nacimiento Water Project.

Plan Requirements and Timing. The applicant shall provide proof of adequate water supply to serve the proposed Agricultural Residential Cluster Subdivision prior to issuance of grading permits. **Monitoring.** Planning and Building and the Department of Public Works shall confirm adequate water supply prior to issuance of a development permit.

Residual Impacts. Implementation of Agricultural Residential Cluster Subdivision measures W-1(a) (Groundwater and Surface Water Monitoring Program) and W-1(b) (Water Conservation Measures) would reduce the overall water system demand for the Agricultural Residential Cluster Subdivision from an estimated 161.28 afy to approximately 139.94 afy (about 13 percent). This represents a reduction in net consumptive use from an estimated 96 afy to approximately 84 afy [refer to Section 4.14.1(a) *Consumptive Use*]. However, additional water supply would still be required. Additional water may be available for the Agricultural Residential Cluster Subdivision through the State Water Project and/or the Nacimiento Water Project, as outlined in Agricultural Residential Cluster Subdivision measure W-1(c) (Imported Water Supply) above. **It should be noted that Santa Margarita Ranch, LLC does not currently have an allocation for the State Water Project (SWP), although SWP pipelines are located in the vicinity of the Ranch. Santa Margarita Ranch, LLC does have an allocation for the Nacimiento Water Project (NWP), which has not yet been constructed.** However, due to ~~resulting~~ **resulting** uncertainties regarding timing and availability of these sources, additional water supply cannot be assured at this time. Impacts would remain significant and unavoidable.

Despite the uncertainties discussed above, it may one day be feasible for the applicants to obtain imported water (i.e. through obtainment of SWP allocations or construction of the NWP pipeline). Resultant implementation of Agricultural Residential Cluster Subdivision measure W-1(c) (Imported Water Supply) would require extension of water lines, which could result in residual environmental impacts. Physical impacts associated with infrastructure necessary to import water to the property have been addressed in several adopted Environmental Impact Reports (EIRs) and one Mitigated Negative Declaration (MND). These EIRs and MND are herein incorporated by reference into this



Revised Draft EIR: State Water Project (SWP) Coastal Branch Phase II and Mission Hills Extension Final EIR (State of California Division of Planning, May 1991), State Water Project Coastal Branch (Phase II) Local Distribution Lines and Facilities Final EIR (ERCE, March 1992), Nacimiento Water Project (NWP) Final EIR (Marine Research Specialists, December 2003), Addendum No. 1 to the NWP Final EIR (ESA Associates, June 2007), and Santa Margarita Water System Project MND (County of San Luis Obispo Public Works, June 2007) . A Supplement to the SWP Coastal Branch Phase II and Mission Hills Extension Final EIR (State of California Division of Planning, October 1994) addressed technical design changes and realignment of Reach 5 of the project, which does not cover the Santa Margarita area. Addenda to the SWP Coastal Branch (Phase II) Local Distribution Lines and Facilities Final EIR are similarly not applicable to the area.

The previous environmental documents incorporated by reference are summarized below:

- Final Environmental Impact Report for the State Water Project Coastal Branch, Phase II and Mission Hills Extension, SCH# 1990010613. This document addressed the proposed construction of new State Water Project (SWP) facilities that would transport SWP water to San Luis Obispo and Santa Barbara Counties. The facilities analyzed in the program-level analysis included the Coastal Branch, Phase II and the Mission Hills Extension. The Coastal Branch, Phase II runs along the southern edge of the community of Santa Margarita.
- Final Environmental Impact Report for the State Water Project Coastal Branch (Phase II) Local Distribution Lines and Facilities, SCH# 1992100959. This document evaluates the site-specific impacts of the construction and operation of local distribution water pipelines, a water treatment plant, and supporting facilities that are associated with the State Water Project Coastal Branch, Phase II. This document tiers from the Final Environmental Impact Report for the State Water Project Coastal Branch, Phase II and Mission Hills Extension (discussed above). Nine local water distribution pipelines are analyzed in this document, including the North County Pipeline, which extends for approximately 17 miles from the Coastal Branch pipeline at SR 58 just east of the town of Santa Margarita to Paso Robles.
- Final Environmental Impact Report for the Nacimiento Water Project, December 2003, Marine Research Specialists, SCH# 2001061022. This document addressed a proposal to develop the Nacimiento Water Project. The report analyzed impacts of two co-equal water delivery options: a Treated Water Option and a Raw Water Option. Both options included construction of an intake at Lake Nacimiento, water storage tanks, pump stations, and a 64-mile water transmission pipeline. This transmission pipeline would run along El Camino Real through the community of Santa Margarita. However, the Raw Water Option included construction of three water discharge facilities while the Treated Water Option included construction and operation of a central Water Treatment Plant near Lake Nacimiento on Camp Roberts' property.
- Addendum to the Final Environmental Impact Report for the Nacimiento Water Project, June 2007, ESA Associates, SCH# 2001061022. This document addressed



minor alterations to the proposed Nacimiento Water Project, including pipeline alignment refinements, turnout location refinements, and pump station and storage tank modifications. All analyzed modifications are applied to the Raw Water Option scenario, which was approved by the Board of Supervisors of the SLOFCWCD in January 2004. Within the Santa Margarita Ranch vicinity, the pipeline would run along the northern boundary of the community of Santa Margarita rather than along El Camino Real. This would avoid one railroad crossing, two crossings of Highway 58, and avoid traffic impacts through the community of Santa Margarita.

- **Mitigated Negative Declaration for the Santa Margarita Water System Project (591R360301) ED06-351, June 2007, County of San Luis Obispo Public Works, SCH# 2007071005.** This document addresses impacts related water system improvements in the Santa Margarita vicinity. This includes: removal of one existing water tank and construction of a new 500,000-gallon water storage tank; construction of a paved access road extending from Wilhelmina Avenue/I Street to the tank site; installation of pipeline to the water tank site; replacement of existing pipelines within Encina Avenue and K Street; replacement of existing pipeline within F Street, east of Pinal Avenue; installation of a water system loop on F Street and Maria Avenue; replacement of 23 wharf heads with new standard fire hydrants; and installation of parallel distribution pipelines within Wilhelmina Avenue and el Camino Real.

The above documents are available for review at the County of San Luis Obispo Department of Planning and Building Environmental Coordinators Office, 976 Osos Street, San Luis Obispo, CA 93408. Both NWP documents are also available on-line at http://www.slocounty.ca.gov/PW/NacWP/General_Project_Information/reports.htm.

The above documents addressed impacts associated with State and Nacimiento Water Projects, including cumulative and growth inducing impacts. However, implementation of Agricultural Residential Cluster Subdivision measure W-1(c) (Imported Water Supply) would require connection to SWP or NWP water lines as well as installation of additional connector pipelines and associated infrastructure. Possible locations for such connections and pipelines are described below, including a discussion of potential impacts that would result.

- **SWP Connection via Encina Avenue.** This delivery option would connect to the existing State water pipeline located along the southern boundary of the community of Santa Margarita (as analyzed in the Final Environmental Impact Report for the State Water Project Coastal Branch, Phase II and Mission Hills Extension) in the vicinity of Encina Avenue. The pipeline would extend east for approximately 950 feet and south along existing ranch roadways for approximately 4,250 feet and then east along existing ranch roadways for another 900 feet. Pipelines would be approximately 4 inches in diameter and would require an approximate 8 foot wide trench during construction. Disturbance would be contained within existing County and ranch roadway right-of-ways and would therefore be negligible. Installation of water lines would not occur through undisturbed Ranch property.



Maintenance would consist of turnout flow meter calibration, occurring approximately once every one to two years, and electromechanical work at pump stations and/or leak repair as needed. Ranch owners would be responsible for the construction, operation and maintenance of any service connection to the SWP facilities serving the Ranch.

- SWP Connection West of Santa Margarita. The existing State water pipeline traverses the southern boundary of the community of Santa Margarita and extends southwest from the community toward U.S. Highway 101 (as analyzed in the Final Environmental Impact Report for the State Water Project Coastal Branch, Phase II and Mission Hills Extension). This delivery option would connect to the existing waterline approximately 875 feet west of the community of Santa Margarita. It would then extend an additional 1,300 feet west before extending 4,750 linear feet south-southwest. Pipelines would be approximately 4 inches in diameter and would require an approximate 8 foot wide trench during construction. This delivery option would include the installation of water mains across undeveloped Ranch property and the construction of a new water tank on the west side of the Ranch.

Maintenance would consist of turnout flow meter calibration, occurring approximately once every one to two years, and electromechanical work at pump stations and/or leak repair as needed. Ranch owners would be responsible for the construction, operation and maintenance of any service connection to the SWP facilities serving the Ranch.

Installation of water lines through undeveloped Ranch property could result in impacts related to grading and associated erosion, tree removal, and impacts to California annual grassland and emergent wetlands. Compliance with county grading and storm water ordinances would minimize impacts related to drainage and erosion. In addition, as noted under Agricultural Residential Cluster Subdivision Impact B-1, no mitigation is required to address the loss of common habitat types, including California annual grassland.

Agricultural Residential Cluster Subdivision measures B-3(a) (Tree Identification), B-3(b) (Heritage Oak Tree Avoidance), B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan) and B-4(a) (Wetland and Riparian Protection) would apply to disturbance associated with this SWP delivery option. Since the precise location of water pipelines has not been determined, precise environmental impacts associated with such improvements would be too speculative to address at this time. Environmental impacts associated with implementation of this connection would be evaluated in a separate environmental documentation prepared pursuant to the California Environmental Quality Act (CEQA).

- NWP Connection via Encina Avenue. This delivery option would connect to the Nacimiento waterline at the northern extent of Encina Avenue (as analyzed in the 2007 Addendum to the Final Environmental Impact Report for the Nacimiento Water Project) within the community of Santa Margarita. A pipeline would be constructed within the existing Encina Avenue right-of-way to the southern extent



of the roadway at the Ranch boundary (as analyzed in the 2007 MND for the Santa Margarita Water System Project). Delivery of Nacimiento water would be achieved using one of two approaches: (1) the untreated Nacimiento water delivered to the Ranch would be used for agriculture, and the offset of groundwater otherwise extracted for agriculture would be used for the Agricultural Residential Cluster Subdivision development; or (2) the untreated Nacimiento water delivered to the Ranch would be treated on-site and used for the Agricultural Residential Cluster Subdivision.

It should be noted that both of the above options could result in policy inconsistencies. For example, Policy 11 in the County's Agriculture and Open Space Element (AGP11, Agricultural Water Supplies) states that groundwater should be maintained for agricultural use. Importing water for agricultural purposes and using the offset groundwater for residential purposes (as in approach 1) would be potentially inconsistent with this policy. In contrast, the County's Framework for Planning (Inland) includes the goal of maintaining "a distinction between urban and rural development by providing for rural uses outside of urban and village areas..." The objective of this goal is to restrict urban services from being provided outside urban or village reserve areas. Importing water and constructing a treatment facility outside of an urban reserve line (as in approach 2) would be potentially inconsistent with this policy, because the proposed Agricultural Residential Cluster Subdivision site is located approximately five miles from the City of Atascadero's Urban Reserve Line.

The pipeline connecting to the Nacimiento waterline would be contained within the Encina Avenue right-of-way through the community of Santa Margarita Ranch, while the pipeline between the community and the existing Ranch irrigation system would be located within existing Ranch roadways for a maximum of 1,600 feet. Pipelines on the Ranch property would be approximately 4 inches in diameter and would require an approximate 8 foot wide trench during construction. Disturbance would be contained within existing right-of-ways and would therefore be minimal. Installation of water lines would not occur through undisturbed Ranch property.

Maintenance would consist of turnout flow meter calibration, occurring approximately once every one to two years, and electromechanical work at pump stations and/or leak repair, if needed, between mid-December and mid-January each year. Ranch owners would be responsible for the construction, operation and maintenance of any service connection to the NWP facilities serving the Ranch.

- NWP Connection via Yerba Buena Avenue. This delivery option would connect to the Nacimiento waterline at the intersection of Yerba Buena Avenue and El Camino Real (as analyzed in the 2007 Addendum to the Final Environmental Impact Report for the Nacimiento Water Project) within the community of Santa Margarita. A pipeline would be constructed within existing right-of-ways to the southern extent of the community at the Ranch boundary. Delivery of Nacimiento water would be achieved using one of two approaches: (1) the untreated Nacimiento water delivered to the Ranch would be used for agriculture, and the offset of groundwater otherwise extracted for agriculture would be used for the



Agricultural Residential Cluster Subdivision development; or (2) the untreated Nacimiento water delivered to the Ranch would be treated on-site and used for the Agricultural Residential Cluster Subdivision. Refer to *NWP Connection via Encina Avenue* above for a discussion of potential policy inconsistencies related to these approaches.

Within the community of Santa Margarita, disturbance would be contained within existing right-of-ways. Pipeline between the community and the existing Ranch irrigation system would be located within existing Ranch roadways. Pipelines on the Ranch property would be approximately 4 inches in diameter and would require an approximate 8 foot wide trench during construction. Disturbance would be contained within existing right-of-ways and would therefore be minimal.

Maintenance would consist of turnout flow meter calibration, occurring approximately once every one to two years, and electromechanical work at pump stations and/or leak repair, if needed, between mid-December and mid-January each year. Ranch owners would be responsible for the construction, operation and maintenance of any service connection to the NWP facilities serving the Ranch.

Installation of water lines through portions of the remainder parcel and potential development of a water treatment facility could result in impacts related to grading and associated erosion, tree removal, and impacts to California annual grassland and emergent wetlands. Compliance with county grading and storm water ordinances would minimize impacts related to drainage and erosion. In addition, as noted under Agricultural Residential Cluster Subdivision Impact B-1, no mitigation is required to address the loss of common habitat types, including California annual grassland.

Agricultural Residential Cluster Subdivision measures B-3(a) (Tree Identification), B-3(b) (Heritage Oak Tree Avoidance), B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan) and B-4(a) (Wetland and Riparian Protection) would apply to this NWP delivery option. Since the precise location of water pipelines has not been determined, precise environmental impacts associated with such improvements would be too speculative to address at this time. Environmental impacts associated with implementation of this connection would be evaluated in a separate environmental documentation prepared pursuant to the California Environmental Quality Act (CEQA).

- **NWP Connection via El Camino Real.** This delivery option would connect to the Nacimiento waterline along El Camino Real (as analyzed in the 2007 Addendum to the Final Environmental Impact Report for the Nacimiento Water Project) just west of the community of Santa Margarita. A pipeline would be constructed to extend south through ranch property for approximately 500 feet. It would then extend south-southwest for approximately 4,750 linear feet. Pipelines on the Ranch property would be approximately 4 inches in diameter and would require an approximate 8 foot wide trench during construction. This delivery option would include the installation of water mains across undeveloped Ranch property and the construction of a new water tank on the west side of the Ranch (as



analyzed in the 2007 MND for the Santa Margarita Water System Project). Delivery of Nacimiento water would be achieved using one of two approaches: (1) the untreated Nacimiento water delivered to the Ranch would be used for agriculture, and the offset of groundwater otherwise extracted for agriculture would be used for the Agricultural Residential Cluster Subdivision development; or (2) the untreated Nacimiento water delivered to the Ranch would be treated on-site and used for the Agricultural Residential Cluster Subdivision. Refer to *NWP Connection via Encina Avenue* above for a discussion of potential policy inconsistencies related to these approaches.

Maintenance would consist of turnout flow meter calibration, occurring approximately once every one to two years, and electromechanical work at pump stations and/or leak repair, if needed, between mid-December and mid-January each year. Ranch owners would be responsible for the construction, operation and maintenance of any service connection to the NWP facilities serving the Ranch.

Installation of water lines through undeveloped Ranch property and potential development of a water treatment facility could result in impacts related to grading and associated erosion, tree removal, and impacts to California annual grassland and emergent wetlands. Compliance with county grading and storm water ordinances would minimize impacts related to drainage and erosion. In addition, as noted under Agricultural Residential Cluster Subdivision Impact B-1, no mitigation is required to address the loss of common habitat types, including California annual grassland.

Agricultural Residential Cluster Subdivision measures B-3(a) (Tree Identification), B-3(b) (Heritage Oak Tree Avoidance), B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan) and B-4(a) (Wetland and Riparian Protection) would apply to this NWP delivery option. Since the precise location of water pipelines has not been determined, precise environmental impacts associated with such improvements would be too speculative to address at this time. Environmental impacts associated with implementation of this connection would be evaluated in a separate environmental documentation prepared pursuant to the California Environmental Quality Act (CEQA).

2.9 ALTERNATIVES

Summary of Draft EIR Analysis. The Draft EIR examined a range of reasonable alternatives to the proposed Agricultural Residential Cluster Subdivision and conceptual Future Development Program that could feasibly achieve similar objectives, as required by Section 15126(d) of the State CEQA Guidelines. Included in this analysis was the CEQA-required “no project” alternative, an existing zoning alternative, an alternative that involves a revised cluster design, three alternatives that provide alternate locations for the proposed Agricultural Residential Cluster Subdivision and a tighter cluster alternative. This analysis also included four alternatives for the envisioned Future Development Program: three that avoid identified constraints and one that moves the livestock auctions to the northern portion of the Ranch.



It should also be noted that three new (not previously analyzed) alternatives are evaluated separately in Section 3.0 of this document.

Updated Analysis. In order to provide a greater level of detail, the analysis of Alternative 7 (which was identified as the Environmentally Superior Alternative to the proposed Agricultural Residential Cluster Subdivision in the Draft EIR) has been revised as follows:

6.7 ALTERNATIVE 7: Tighter Cluster Alternative

6.7.1 Description

This alternative analyzes an alternate site plan for the proposed Agricultural Residential Cluster Subdivision. The overall development potential of this alternative would be the same as for the proposed Agricultural Residential Cluster Subdivision. However, this alternative would reconfigure the 111 clustered lots so as to reduce to the overall project footprint. Under this alternative, all Lots (excluding one ranch headquarters unit located on Parcel 42) would be clustered in the remainder parcel, north of the proposed Agricultural Residential Cluster Subdivision and south of the community of Santa Margarita, and in the northernmost portion of the Agricultural Residential Cluster Subdivision site (refer to Figure 6-5). All lots would be one acre in size, and would be located adjacent to one another so as to minimize the overall project footprint. Access would be provided via one existing driveway and one new driveway from West Pozo Road, as proposed. However, internal circulation would be redesigned to accommodate tighter clustering (refer to Figure 6-5). The permanent agricultural conservation easements (ACE) would remain southwest of the community of Santa Margarita, as proposed. Water service would be provided by the Santa Margarita Mutual Water Company and sewer would be provided by individual septic systems, similar to the proposed Agricultural Residential Cluster Subdivision.

Although the amount of site disturbance would be similar to the proposed Agricultural Residential Cluster Subdivision, the overall project footprint would be reduced by approximately 78%. Since the general configuration and clustering of the individual lots would be altered, this alternative would require County approval for redesign elements.

6.7.2 Impact Analysis

Agricultural Resources. Although this alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision, the overall project footprint would be reduced by approximately 78%. As a result, impacts related to ~~the conversion of prime soil areas and~~ fragmentation of agricultural areas would be less than the proposed Agricultural Residential Cluster Subdivision. **As noted under Agricultural Residential Cluster Subdivision Impact AG-1 in Section 2.1, Agricultural Resources, Section 22.22.152(D) of the County Land Use Ordinance requires that the open space area of an agricultural residential cluster subdivision be at least 95% of the gross site area, with clustered development allowed on the remaining 5%. While the proposed Agricultural Residential Cluster Subdivision would convert approximately 17.9% of the gross site area, placing only 82.1% of the site in open space, the Tighter Cluster Alternative would be developed on approximately 3.9% of this 3,778 acre site, thereby**



exceeding the required 95% open space area. In addition, because lots would be configured in a more compact manner, with the majority of lots located on the interior of the cluster, fewer lots would be located adjacent to existing agricultural operations. As a result, conflicts between urban and agricultural uses would be incrementally reduced when compared to the proposed Agricultural Residential Cluster Subdivision.

However, this alternative would result in the direct conversion of approximately 46.8 acres of prime soils (refer to Figure 6-5 in the Draft EIR and Figure 2-2 in this Revised EIR document). The Agricultural Residential Cluster Subdivision would convert approximately 21.2 acres of prime soils. Therefore, Alternative 7 would result in greater impacts related to direct conversion of prime soils than the Agricultural Residential Cluster Subdivision.

Overall, this alternative would result in both better and worse impacts related to agricultural resources when compared to the Agricultural Residential Cluster Subdivision.

Air Quality. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). As a result, air contaminant emissions associated with vehicle use would be the same as the proposed Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate the same number residential units, long term emissions associated with electricity and natural gas usage would be identical. Grading- and construction-related emissions and odor nuisance impacts would **also be slightly reduced similar due to the reduced area of disturbance compared to the proposed Agricultural Residential Cluster Subdivision because the same number of units would be constructed and the same number of septic tanks required.**

The Agricultural Residential Cluster Subdivision is potentially inconsistent with San Luis Obispo APCD's 2001 Clean Air Plan (CAP) because it does not include sufficient Transportation Control Measures (TCMs) and because the rate of increase in vehicle trips and miles traveled may exceed population growth rates for the area. The Tighter Cluster Alternative would similarly exclude sufficient TCMs and would similarly increase trip lengths in the vicinity. In addition, because this alternative would generate the same amount of average daily vehicle trips, the rate of increase in vehicle trips and miles traveled would be similar to the proposed Agricultural Residential Cluster Subdivision. **However, the Tighter Cluster Alternative is located adjacent to the community of Santa Margarita, thereby promoting pedestrian transportation. In this way, it would be more consistent with the CAP than the Agricultural Residential Cluster Subdivision.** ~~Therefore, impacts~~ **Impacts** related to CAP consistency would be ~~therefore be similar under~~ **reduced under** the Tighter Cluster Alternative.

Biological Resources. Under the Tighter Cluster Alternative, Lots would be clustered in the remainder parcel and in the northernmost portion of the Agricultural Residential Cluster Subdivision site. As shown in Figures 4.3-2 and 4.3-3 in Section 4.3, *Biological Resources*, this area contains ~~six~~ **eight** natural plant communities and/or wildlife habitat types. The habitat types include California annual grassland, valley needlegrass grassland, ~~and~~ **native perennial grassland**, central (Lucian) sage scrub, blue oak woodland, coast live oak woodland, ~~mixed~~



~~oak woodland, riparian/riverine, and emergent wetland, and/seasonal pool.~~ The San Luis Obispo Mariposa Lily, a CNPS List 1B plant species, also occurs within the Tighter Cluster Alternative site, similar to the proposed Agricultural Residential Cluster Subdivision site as a whole. The Tighter Cluster Alternative would avoid several habitat types located on the proposed Agricultural Residential Cluster Subdivision site, including chamise chaparral, **central (Lucian) coastal scrub, coast live oak woodland, ruderal, riparian/riverine, agriculture** and valley oak woodland. Impacts to these habitat types would be somewhat reduced. **However, the Tighter Cluster Alternative would place a dense residential development ovetop an area containing seasonal pool riparian and emergent wetland habitat types. Because more of this habitat type would be directly converted, this alternative would have greater impacts to these sensitive habitats than the Agricultural Residential Cluster Subdivision. In addition, it is not known whether vernal pool fairy shrimp (VPFS) occupy the seasonal pool. Since protocol surveys for the VPFS have not been completed, they should be presumed present in suitable habitat within Seasonal Pool 1. Since this seasonal pool would be eliminated by the Tighter Cluster Alternative, impacts to VPFS would be greater or equivalent to those of the Agricultural Residential Cluster Subdivision.**

Under this alternative, the overall project footprint would be reduced by approximately 78%. However, because the same number of units would be constructed, site disturbance would be only slightly reduced when compared to the proposed Agricultural Residential Cluster Subdivision. **This alternative would result in slightly fewer impacts to Californian annual grassland and native perennial grassland.** This alternative would ~~therefore result in slightly fewer impacts related to habitat conversion, oak tree removal and San Luis Obispo Mariposa Lily removal when compared to the proposed Agricultural Residential Cluster Subdivision.~~ **Similarly, The impacts to special-status animal species, including the California red-legged frog (CRLF), southern steelhead (SS), white-tailed kite, golden eagle, Cooper's hawk, sharp-shinned hawk, pallid bat, American badger, silvery legless lizard, and southwestern pond turtle, would be slightly substantially reduced due to avoidance of occupied habitats and decreased fragmentation of habitats.** Because development in the southern portion of the proposed Agricultural Residential Cluster Subdivision site would be eliminated, ~~impacts to Vernal Pool Fairy Shrimp (VPFS) and~~ impacts related to the reduction of migration corridors for special-status and common wildlife species would also be reduced.

Overall, this alternative would result in ~~slightly~~ reduced impacts related to **many** biological resources when compared to the proposed Agricultural Residential Cluster Subdivision, **but greater impacts to wetland and seasonal pool habitats and potentially VPFS.**

Cultural Resources. Thirty-two prehistoric and historical archaeological sites and six isolates are located within or immediately adjacent to the Agricultural Residential Cluster Subdivision site (refer to Section 4.4, *Cultural Resources*). Although this alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision, the overall project footprint would be reduced by approximately 78%. All development south of the proposed East Driveway would be eliminated. As a result, impacts related to damage or destruction of the important associations of these sites, and disruption of their setting and feeling, would be somewhat reduced compared to the Agricultural Residential Cluster Subdivision.



However, because the same number of units would be constructed, site disturbance would be ~~only slightly reduced when compared~~ **similar** to the proposed Agricultural Residential Cluster Subdivision. This alternative would therefore result in ~~slightly reduced~~ **similar** impacts related to disturbing previously unidentified buried archeological deposits or human remains. In addition, because this alternative would generate the same number of new residents, there would be a similar likelihood for relic collecting and/or vandalism that could potentially impact archaeological and historical sites.

Overall, this alternative would result in **both similar and** reduced impacts related to cultural resources when compared to the proposed Agricultural Residential Cluster Subdivision.

Drainage, Erosion and Sedimentation. Although the overall project footprint would be reduced under this alternative, site disturbance would be ~~only slightly reduced when compared~~ **similar** to the proposed Agricultural Residential Cluster Subdivision. Therefore, impacts related to erosion, sedimentation, and pollutant discharges during construction would be ~~slightly reduced~~ **similar**. The amount of paved areas under this alternative would be ~~slightly reduced when compared~~ **similar** to the proposed Agricultural Residential Cluster Subdivision. Therefore, permanent increases in surface runoff and accelerated erosion, as well as storm water transport of pollutants, bacteria, and sediment into downstream facilities, would be ~~slightly reduced~~ **similar** under the Tighter Cluster Alternative.

As discussed in Section 4.5, *Drainage, Erosion and Sedimentation*, the eastern reaches of the proposed Agricultural Residential Cluster Subdivision site, just south of the east driveway, would be located within the flood zone associated with Trout Creek (refer to Figure 4.5-1). The Tighter Cluster Alternative would not be located in this area. Therefore, impacts related to flood hazard exposure would be reduced.

Geologic Stability. The Tighter Cluster Alternative would accommodate the same number residential units as the proposed Agricultural Residential Cluster Subdivision. Therefore, development under this alternative would expose the same number of units and residents to strong ground shaking resulting from the presence of active and potentially active faults in the vicinity of the Santa Margarita Ranch.

Under the Tighter Cluster Alternative, Lots would be clustered in the remainder parcel and in the northernmost portion of the Agricultural Residential Cluster Subdivision site. As discussed in Section 4.6, *Geologic Stability*, the northernmost portion of the Agricultural Residential Cluster Subdivision site is subject to soil-related hazards (expansive soils, erosive soils and settlement); moderate to high landslide potential; and moderate to high liquefaction potential (refer to Figures 4.6-3, 4.6-5 and 4.6-6, respectively) similar to the proposed Agricultural Residential Cluster Subdivision site as a whole. However, the remainder parcel contains fewer soil-related hazards and a lower landslide potential, thereby placing fewer lots in areas exposed to geologic hazards. As a result, this alternative would result in incrementally reduced geologic stability impacts as the proposed Agricultural Residential Cluster Subdivision.



Overall, impacts would be similar to and less than the proposed Agricultural Residential Cluster Subdivision.

Land Use. This alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision, although the overall project footprint would be reduced by approximately 78%. As a result, construction activity would result in similar temporary noise, air quality and visual impacts compared to the Agricultural Residential Cluster Subdivision. However, this alternative would not convert as much open land as the proposed Agricultural Residential Cluster Subdivision. Therefore, land use impacts would be ~~reduced compared to~~ **both similar to and less than** the proposed Agricultural Residential Cluster Subdivision.

Noise. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). Therefore, noise levels on nearby major roadways would be similar to the Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate the same number of residential units, residents would similarly be exposed to nuisance noise generated by aircraft flying overhead or by passing trains on the Union Pacific Railroad (UPRR). This alternative would generate similar construction-related noise impacts, since the area of disturbance and number of units would be the same.

Overall, noise impacts would be similar to the proposed Agricultural Residential Cluster Subdivision.

Public Safety. Although the overall project footprint would be reduced under this alternative, site disturbance would be ~~on slightly reduced when compared~~ **similar** to the proposed Agricultural Residential Cluster Subdivision. As with the Agricultural Residential Cluster Subdivision, site disturbance would not occur in an area of historical croplands. Therefore, impacts related to residual agricultural chemicals would be similarly less than significant.

Since this alternative would accommodate the same number residential units as the proposed Agricultural Residential Cluster Subdivision, the same number of residents would be exposed to other public safety hazards overall. In addition to residual agricultural chemicals, this includes: exposure to contaminants from highway and railway accidents that involve hazardous materials; the use, transport, or storage of hazardous chemicals; traffic safety hazards due to conflicts between proposed uses and existing off-site mining operations and on-site agricultural operations; and hazards related to potential aircraft accidents.

Under this alternative, Lots would be clustered in the remainder parcel and in the northernmost portion of the Agricultural Residential Cluster Subdivision site, while the water tanks would remain as proposed. Since no residences would be located near the water tanks under this alternative, potential public safety impacts associated with their failure would be eliminated.

Overall, the Tighter Cluster Alternative would result in impacts which are both similar and reduced when compared to the proposed Agricultural Residential Cluster Subdivision.



Public Services. This alternative would result in the same number residential units as the Agricultural Residential Cluster Subdivision. Consequently, the increase in demand for law enforcement, fire protection, school, and solid waste services would be identical. Therefore, this alternative is considered to have similar public service impacts compared to the proposed Agricultural Residential Cluster Subdivision.

Recreation. This alternative would result in the same number residential units as the Agricultural Residential Cluster Subdivision. Consequently, the need for recreational facilities would be identical. Therefore, this alternative is considered to have similar impacts related to parkland demand when compared to the proposed Agricultural Residential Cluster Subdivision.

Transportation and Circulation. This alternative would result in the same number residential units as the Agricultural Residential Cluster Subdivision. Therefore, this alternative would generate the same number of average daily trips. As a result, traffic impacts on local roadway and highway segments and intersections would be similar to the proposed Agricultural Residential Cluster Subdivision. Impacts related to access, railroad crossings, and pedestrian, bicycle and transit demand would also be similar.

Visual Resources. This alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision, although the overall project footprint would be reduced by approximately 78%. The overall visual effect of this alternative would be a more compact cluster. The tighter clustering of lots and the associated preservation of additional open space would maintain more of the rural character of the site than the proposed Agricultural Residential Cluster Subdivision. However, the tighter cluster would also result in a more concentrated urbanized appearance within the rural context. Although more homes may be visible from roadways within the community of Santa Margarita due to the relocation of lots in the remainder parcel and in the northernmost portion of the Agricultural Residential Cluster Subdivision site, no development would be visible from locations south of the proposed East Driveway. As a result, impacts related to the alteration of visual character under this alternative would be both better and worse when compared to the proposed Agricultural Residential Cluster Subdivision.

Water and Wastewater. This alternative would result in the same number residential units as the Agricultural Residential Cluster Subdivision. Therefore, this alternative would result in the same net consumptive water use. As a result, impacts related to groundwater use and overdraft of the aquifer system would be the same as for the proposed Agricultural Residential Cluster Subdivision. This alternative assumes that sewer would be provided by individual septic systems, similar to the proposed Agricultural Residential Cluster Subdivision. Impacts related to improper disposal field design, on-site recharge of water softeners and household wastes, and septage load would therefore be similar to the proposed Agricultural Residential Cluster Subdivision.

As a result of the above changes, Table 6-7 has been revised as follows (Alternatives 1 through 6 have not been included because they have not changed).



**Table 6-7 Agricultural Residential Cluster Subdivision
 Alternative Impact Comparison**

Issue	Proposed Agricultural Residential Cluster Subdivision	Alternative 7 Tighter Cluster Alternative
Agricultural Resources	=	+ / -
Air Quality	=	+ / =
Biological Resources	=	+ / -
Cultural Resources	=	+ / =
Drainage, Erosion and Sedimentation	=	+ / =
Geologic Stability	=	+ / =
Land Use	=	+ / =
Noise	=	=
Public Safety	=	+ / =
Public Services	=	=
Recreation	=	=
Transportation and Circulation	=	=
Visual Resources	=	+ / -
Water and Wastewater	=	=
Overall	=	+ / =

- *Inferior to the proposed Agricultural Residential Cluster Subdivision*
- + *Superior to the proposed Agricultural Residential Cluster Subdivision*
- +/- *Characteristics both better and worse than the proposed Agricultural Residential Cluster Subdivision*
- = *Similar impact to the proposed Agricultural Residential Cluster Subdivision*
- * *As compared to the Agricultural Residential Cluster Subdivision and Future Development Program combined*

Applicable revisions to Section 6.12 (Environmentally Superior Discussion) are included in Section 3.3 of this Revised EIR.

2.10 APPENDIX H

Summary of Draft EIR Analysis. The Draft EIR referenced a drainage and wastewater analysis prepared by Boyle Engineering Corporation in Sections 4.5, *Drainage, Erosion and Sedimentation*, and 4.14, *Water and Wastewater*. This analysis was included in the Draft EIR as Appendix H.

Updated Analysis. Two attachments to Appendix H were inadvertently excluded from the Draft EIR. These attachments are provided on the following pages.



References

1. "Draft Technical Memorandum for Santa Margarita, SLO County, CA," Questa Engineering Corp., May 19, 2003.
2. "Flood Control and Drainage Investigation of the Santa Margarita Ranch and Surrounding Area," Schaaf & Wheeler, July 1, 1987.
3. "Preliminary Drainage Report for Santa Margarita Ranch," EDA, Revised March 29, 2004.
4. "Santa Margarita Drainage & Flood Control Study," a collaborative effort between the San Luis Obispo County Public Works Department, the Community of Santa Margarita, Raines, Melton & Carella, Inc, Questa Engineering Corporation and Essex Environmental, 2003.
5. "Santa Margarita Ranch Environmental Constraints Analysis," Envicom Corporation, date unknown.
6. "Winery Utilities Planning, Design and Operation," David R. Storm, 1997.
7. Ayers, Robert S., Quality of Water for Irrigation, Journal of the Irrigation and Drainage Division, ASCE, June 1977. (Table 1, page 136)
8. Irrigation with Reclaimed Municipal Wastewater – A Guidance Manual, California State Water Resources Control Board, Report Number 84-1 wr, July 1984. (Table 3-4, page 3-1)

Boyle Engineering Corporation

BY: EL DATE: 4-12-06 SUBJECT Santa Margarita Ranch JOB NO: R17-100-01
CHKD. BY: _____ DATE: _____ ARC Development Site

Soil Loss Calculations

To calculate the soil loss/sedimentation caused by the Santa Margarita Ranch ARC development, the Universal Soil Loss Equation is used. Water Quality Prevention, Identification, and Management of Diffuse Pollution

Authors: Vladimir Novotny / Harvey Olem

Publisher: Van Nostrand Reinhold, NY 1994

$$A = R \times K \times LS \times C \times P \quad (\text{pg. 254, eq. 5.2})$$

where,

A = calculated average annual soil loss in tonnes/ha

R = rainfall intensity factor R = 112 figure 5.11 (50 multiplied by 2.24 for metric)

K = soil erodibility factor K = 0.24 SCS map info. at back of Paso Robles Area book

LS = slope length factor LS = 7 equation 5.6

C = cropping management (vegetative cover) factor

0.01 undeveloped 0.008 developed

P = erosion control practice factor

0.25 undeveloped pg. 263 alternate meadows on 2-7% slope

0.5 developed pg. 264 normal rate of usage of erosion control measures

The watershed was gridded to have 53 intersecting points, each point was given a corresponding C-value, as referenced from Table 5.4

Undeveloped: annual average soil loss

$$A = 112 \times 0.26 \times 56 \times 0.01 \times 0.25$$

$$= 0.47 \text{ tonnes/ha}$$

$$= 1.04 \text{ ton/ac-yr}$$

Developed: annual average soil loss

$$A = 112 \times 0.26 \times 56 \times 0.01 \times 0.5$$

$$= 0.46 \text{ tonnes/ha}$$

$$= 1.02 \text{ ton/ac-yr}$$

Assumes areas for pavement, building pad, landscaping,
average construction pollution prevention

Assumes 70% natural state & 30% developed

A 2% decrease in soil loss from ARC area following development

3.0 ANALYSIS OF NEW ALTERNATIVES

The alternatives analyzed herein (Alternatives 12, 13 and 14) include a revised version of the proposed Agricultural Residential Cluster Subdivision project, an alternative which implements Smart Growth Principles, and a reduced (i.e., fewer number of units) project alternative. The proposed Agricultural Residential Cluster Subdivision was described in detail in Section 2.0 of the Draft EIR and re-evaluated in Section 2.0 of this Revised Draft EIR document based on updated information. These alternatives respond to environmental constraints identified in the Draft EIR as well as to substantial public comments received on the original Draft EIR. The alternatives are described below, emphasizing the differences from the proposed Agricultural Residential Cluster Subdivision. Background information not critical to their description, including existing site characteristics, is not included in this document. The reader is referred to Section 2.0 of the Draft EIR for this information.

3.1 ALTERNATIVE 12: Amended Project

3.1.1 Description

This alternative would have essentially the same development characteristics as the proposed project (112 dwelling units), but would incorporate the following project features that address identified environmental constraints:

- **Reorganized lot layout.** This alternative would reorganize the 112 lots within the same general vicinity of the site as the proposed Agricultural Residential Cluster Subdivision. As illustrated in Figure 3-1, 23 lots would be relocated and the boundaries of 65 lots would be adjusted. The remaining 24 lots would not change. This amended layout is intended to avoid placing lots in areas containing prime soils, reduce visual prominence, reduce impacts on oak trees, and avoid archaeologically-sensitive areas.
- **Reorganization of project roadways.** Along with reorganization of the Agricultural Residential Cluster Subdivision lots, this alternative would modify project roadways. Four roadways would be eliminated, one roadway would be shortened, and several others would be realigned to more closely follow existing Ranch roads (refer to Figure 3-1). In addition, under this alternative, driveways would be reduced from 22 to 18 feet in width.
- **Incorporation of building envelopes and height restrictions.** This alternative incorporates building envelopes which restrict development to ½ acre of each proposed lot. These building envelopes are intended to prevent development on biologically-sensitive areas of the site, and in some cases to comply with agricultural buffer setback requirements. Height restrictions were also placed on 13 lots (51 through 54, 92 through 94, 100, 101, 104 through 106, and 112) in order to reduce impacts to visual resources.

Access to the Amended Project Alternative would be provided via one existing driveway and one new driveway from West Pozo Road. Sewer service would be provided by individual septic systems and water service would be provided by a connection to the Nacimiento Water Project. This alternative would connect to the Nacimiento waterline at the northern extent of



Encina Avenue within the community of Santa Margarita. A pipeline would be constructed within the existing Encina Avenue right-of-way to the southern extent of the roadway at the Ranch boundary. The untreated Nacimiento water delivered to the Ranch would be treated on-site and used for the Alternative 12 residences.

Refer to Figure 3-1 for a site plan of Alternative 12 in comparison to the proposed Agricultural Residential Cluster Subdivision.

3.1.2 Impact Analysis

Agricultural Resources. Although this alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision, it would relocate Lots 43, 66 and 71 to avoid prime soil locations identified in the Draft EIR. This would result in fewer impacts related to the direct conversion of prime soil areas. However, since circulation of the Draft EIR, the San Luis Obispo County Agricultural Commissioner's Office has provided guidance regarding the definition of prime soils. The analysis was therefore revised to utilize a more accurate definition of prime soils as well as the most up-to-date soils information and methodology available. Refer to Section 2.1, *Agricultural Resources*, for the full revised analysis. As noted therein, the Agricultural Residential Cluster Subdivision would convert 21.2 acres of prime agricultural soils.

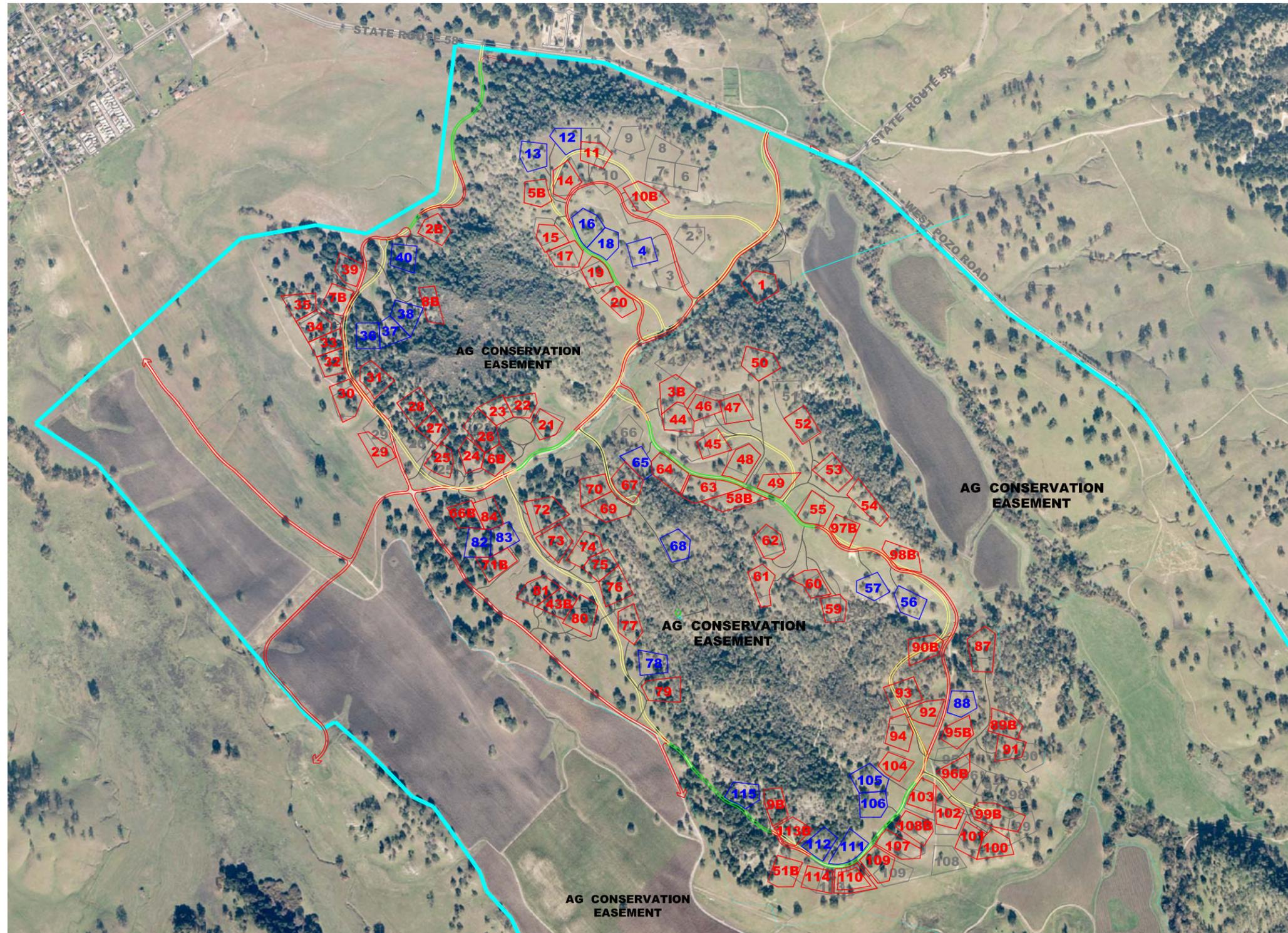
Although the Amended Project Alternative would include building envelopes which restrict development to ½ acre of each proposed lot, parcelization would nevertheless fragment potential agricultural use on each lot, thereby precluding major farming on each lot as a whole. Therefore, as a reasonable worst case scenario, all prime soils that occur within Amended Project Alternative lot lines could be converted to non-agricultural use. Alternative 12 would therefore convert an estimated 19.96 acres of prime agricultural soils (refer to Figure 3-2). Although the impact would be slightly reduced (1.24 fewer acres of prime soil converted), impacts would remain Class I, *significant and unavoidable*.

The Amended Project Alternative would be located in the same general area as the proposed Agricultural Residential Cluster Subdivision and would consist of approximately the same acreage of overall disturbance. As a result, fragmentation of agricultural areas/ grazing lands would be similar to the proposed Agricultural Residential Cluster Subdivision.

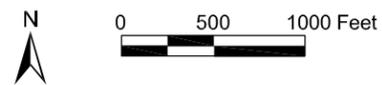
As discussed in Section 2.1, *Agricultural Resources*, all but five Agricultural Residential Cluster Subdivision lots would be located a sufficient distance from existing or future agricultural operations or have adequate topographic features as separation; only Lots 1, 39, 40, 99 and 100 would require relocation or buffered lot locations as approved by the Agricultural Commissioner [refer to revised Agricultural Residential Cluster Subdivision measure AG-2(b) (Agricultural Buffers) under Section 2.1, *Agricultural Resources*]. The Amended Project Alternative would adjust Lot 1 and relocate Lot 99 to increase distance from on-site vineyards. Lot 100 would remain in its currently proposed location. Lot 2 would be relocated northeast of Lot 40.

According to the San Luis Obispo County Agricultural Commissioners' Office, the new location of Lot 1 would not require buffered lot locations while Lots 99 and 100 would still require mitigation (Lynda Auchinachie, San Luis Obispo County Agricultural Commissioners' Office, Personal Communication, October 2, 2007). It should be noted, however, that compared to the

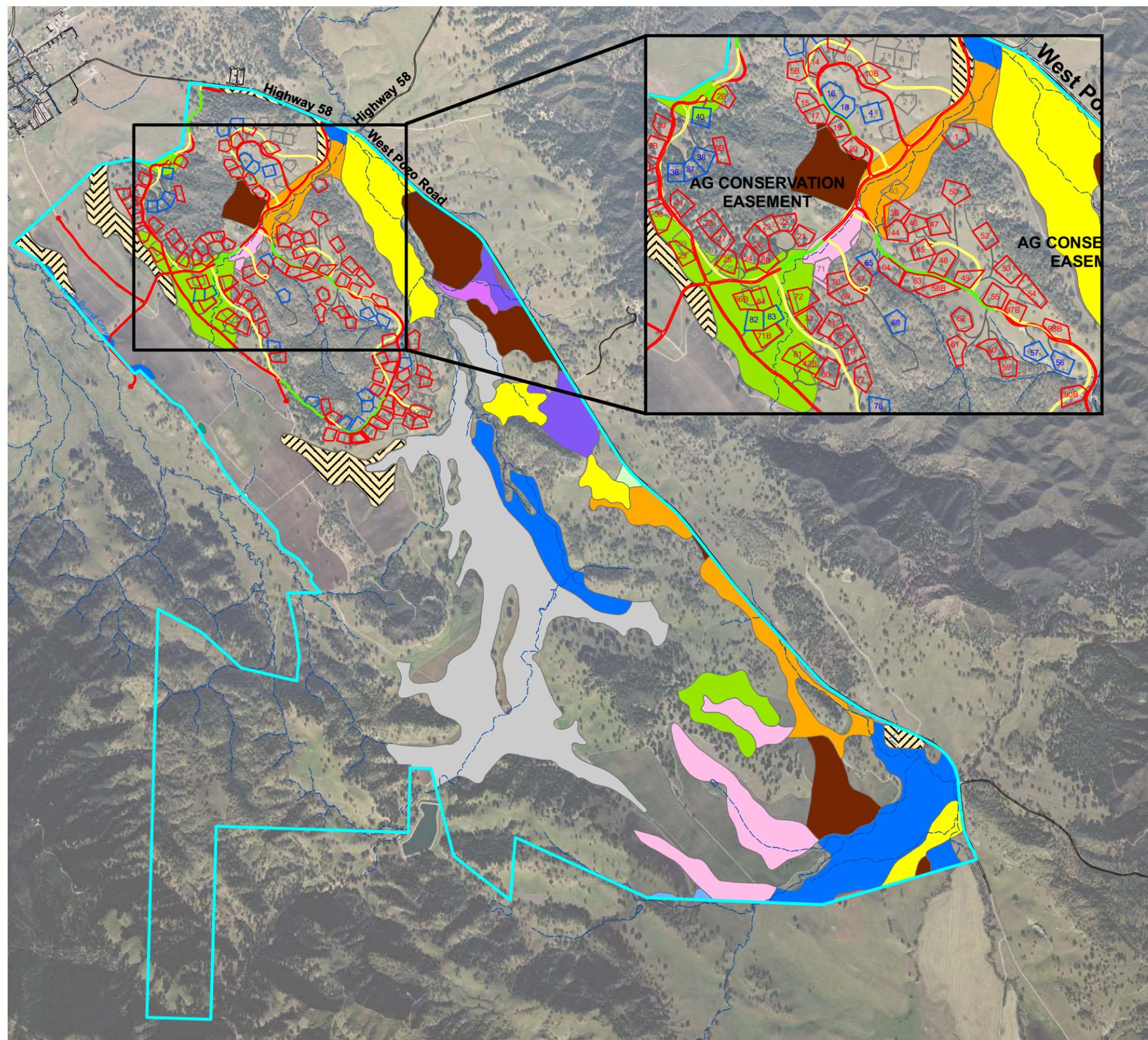




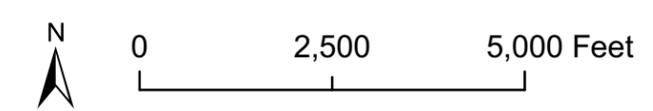
- TENTATIVE TRACT 2586 BOUNDARY
- 40 TENTATIVE TRACT 2586 LOTS TO REMAIN
- 9 TENTATIVE TRACT 2586 RELOCATED LOTS
- TENTATIVE TRACT 2586 ROADWAYS TO REMAIN
- TENTATIVE TRACT 2586 RELOCATED OR DELETED ROADWAYS
- ALTERNATIVE 12 ROADWAYS (RELOCATED OR ADJUSTED FROM TRACT 2586)
- 10B ALTERNATIVE 12 LOTS (RELOCATED OR ADJUSTED FROM TRACT 2586)



Alternative 12: Amended Project Lot and Roadway Location Comparison to Agricultural Residential Cluster Subdivision



- TENTATIVE TRACT 2586 BOUNDARY
 - 40 TENTATIVE TRACT 2586 LOTS TO REMAIN
 - 9 TENTATIVE TRACT 2586 RELOCATED LOTS
 - TENTATIVE TRACT 2586 ROADWAYS TO REMAIN
 - TENTATIVE TRACT 2586 RELOCATED OR DELETED ROADWAYS
 - ALTERNATIVE 12 ROADWAYS (RELOCATED OR ADJUSTED FROM TRACT 2586)
 - 10B ALTERNATIVE 12 LOTS (RELOCATED OR ADJUSTED FROM TRACT 2586)
- PRIME AGRICULTURAL SOILS REGARDLESS OF IRRIGATION:**
- 101, ARBUCKLE FINE SANDY LOAM, 2-9
 - 102, ARBUCKLE-POSITAS COMPLEX, 9-15
 - 116, BOTELLA SANDY LOAM, 2-9
 - 139, ELDER LOAM, 2-9
 - 148, HANFORD AND GREENFIELD FINE SANDY LOAMS, 2-9
 - 191, RYER CLAY LOAM, 2-9
 - 208, STILL CLAY LOAM, 0-2
 - 209, STILL CLAY LOAM, 2-9
- PRIME AGRICULTURAL SOILS IF IRRIGATED:**
- 130, CLEAR LAKE CLAY, DRAINED
 - 133, CROPLEY CLAY, 2-9
 - 149, HANFORD AND GREENFIELD GRAVELLY SANDY LOAMS, 0-2
 - 150, HANFORD AND GREENFIELD GRAVELLY SANDY LOAMS, 2-9
 - 182, OCEANO LOAMY SAND, 2-9
 - 207, STILL GRAVELLY LOAM, 0-2



Alternative 12: Amended Project
 Prime Agricultural Soils

Source: SSURGO, 2004, RRM Design Group, September 2007.

Agricultural Residential Cluster Subdivision, Lot 99 is located further from agricultural operations and would therefore result in fewer compatibility impacts, while Lot 100 is located closer to agricultural operations and would therefore result in greater compatibility impacts. The new location of Lot 2 (2B under the Amended Project Alternative) would require relocation similar to that required for Lots 39 and 40 under the Agricultural Residential Cluster Subdivision (Lynda Auchinachie, San Luis Obispo County Agricultural Commissioners' Office, Personal Communication, January 30, 2008). All other revised lot locations would be considered compatible with the adjacent agricultural production areas (Auchinachie, Personal Communication, November 5, 2007).

Impacts related to conflicts between urban and agricultural uses would therefore be slightly reduced, when compared to the Agricultural Residential Cluster Subdivision. In addition, conflicts between residential and grazing uses would be similar to the proposed Agricultural Residential Cluster Subdivision because the same number of units would be located in the same general area as the proposed Agricultural Residential Cluster Subdivision.

Overall, impacts to agricultural fragmentation would be similar to the Agricultural Residential Cluster Subdivision, while impacts to prime soils and conflicts between urban and agricultural uses would be slightly reduced but remain Class I, *significant and unavoidable*.

Air Quality. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below), since it features the same number of residential units. As a result, air contaminant emissions associated with vehicle use would be the same as the proposed Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate the same number of residential units, long term emissions associated with electricity and natural gas usage would be identical. Grading- and construction-related emissions and odor nuisance impacts would also be similar when compared to the proposed Agricultural Residential Cluster Subdivision.

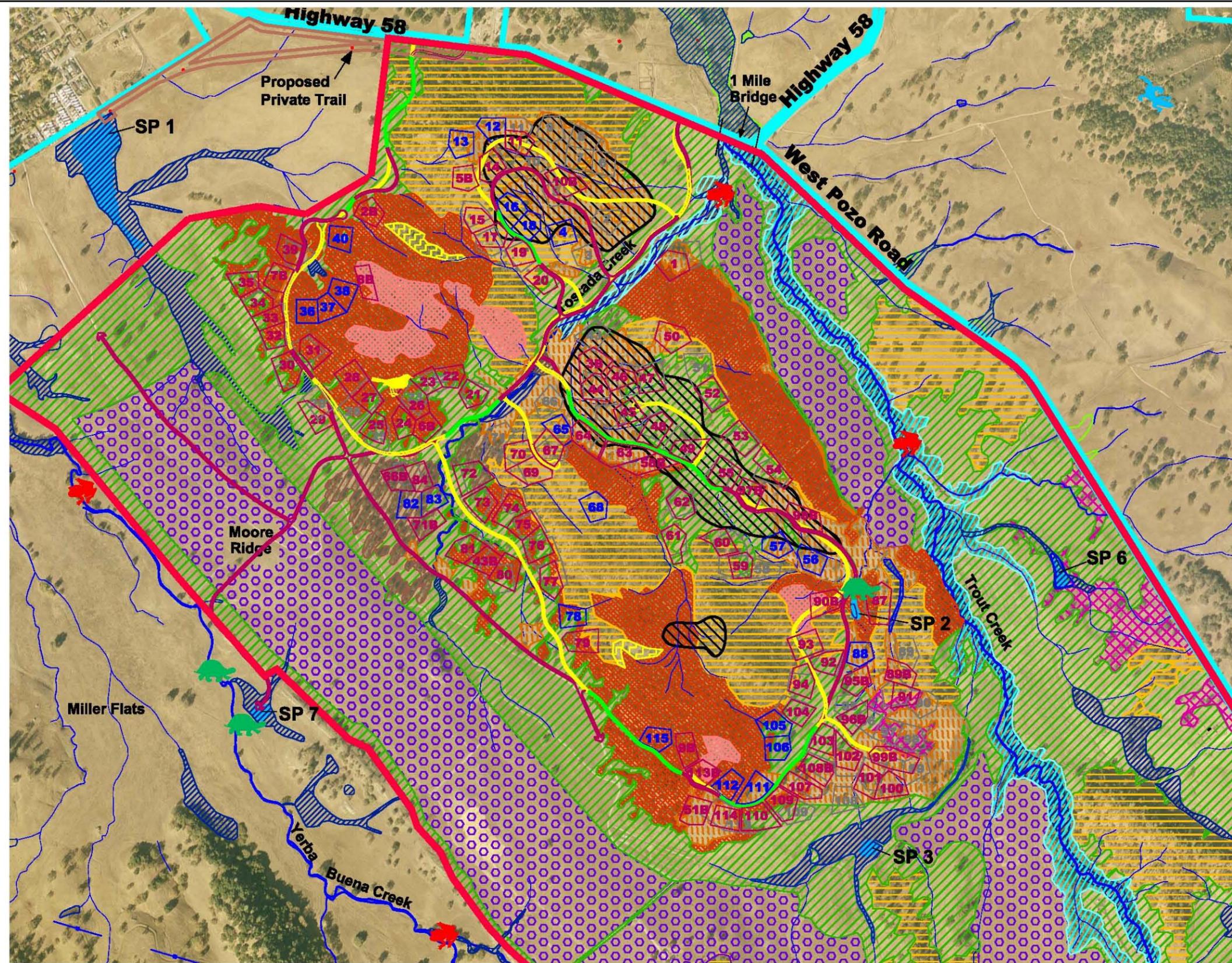
The Agricultural Residential Cluster Subdivision is potentially inconsistent with San Luis Obispo APCD's *Clean Air Plan* (CAP) because it does not include sufficient Transportation Control Measures (TCMs) and because the rate of increase in vehicle trips and miles traveled may exceed population growth rates for the area. The Amended Project Alternative would similarly not include sufficient TCMs and would similarly increase trip lengths in the vicinity. In addition, because this alternative would generate the same amount of average daily vehicle trips, the rate of increase in vehicle trips and miles traveled would be similar to the proposed Agricultural Residential Cluster Subdivision. Therefore, impacts related to CAP consistency would be similar under the Amended Project Alternative.

Biological Resources. Under the Amended Project Alternative, residential lots would be clustered in the same general area of the site as the proposed Agricultural Residential Cluster Subdivision. As shown in Figure 3-3, this area contains eleven natural plant communities and/or wildlife habitat types. The habitat types include California annual grassland, native perennial grassland (including deergrass (*Muhlenbergia rigens*) and valley needlegrass grassland), central (Lucian) scrub, chamise chaparral, blue oak woodland, coast live oak woodland, valley oak woodland, mixed oak woodland (including blue, coast live and valley oaks, as well as grey pines [*Pinus sabiniana*]), emergent wetland, seasonal pools, and riparian. Ruderal areas, agriculture, seasonal pools and known occurrences of special status species are also shown on Figure 3-3.



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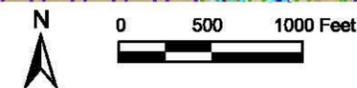




- Habitats**
- Native Perennial Grassland
 - CA Annual Grassland
 - Central (Lucian) Coastal Scrub
 - Chamise Chaparral
 - Blue Oak Woodland
 - Coast Live Oak Woodland
 - Valley Oak Woodland
 - Mixed Oak Woodland
 - Ruderal
 - Emergent Wetland
 - Waters of the U.S.
 - Seasonal Pools
 - Riparian
 - Agriculture (Vineyard/Dry Farm)
- ALTERNATIVE 12 : AMENDED PROJECT**
- Agricultural Residential Cluster Subdivision Boundary
 - Ranch Property Boundary
 - Tentative Tract 2586 Lots to Remain
 - Tentative Tract 2586 Relocated Lots
 - Tentative Tract 2586 Roadways to Remain
 - Tentative Tract 2586 Relocated or Deleted Roadways
 - Alternative 12 Roadways (Relocated or Adjusted From Tract 2586)
 - Alternative 12 Lots (Relocated or Adjusted From Tract 2586)
- SPECIAL-STATUS SPECIES**
- = California Red-legged Frog
 - = Coast Horned Lizard
 - = Southwestern Pond Turtle
 - = White Tailed Kite
 - = San Luis Obispo Mariposa Lily

Alternative 12: Amended Project
 Biological Impact Map

Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006, and October 2007.



The Amended Project Alternative contains the same number of units and associated landscaping as the Agricultural Residential Cluster Subdivision. Therefore, the overall amount of site disturbance and impacts to natural plant communities would be similar to the proposed Agricultural Residential Cluster Subdivision. However, this alternative incorporates building envelopes which restrict development to approximately ½ acre of each lot.

To estimate oak tree impacts from the Amended Project Alternative, ½-acre building envelopes were placed to avoid oak trees and topographical constraints where feasible while still accommodating anticipated development. Their placement was therefore based on a reasonable worst case methodology using aerial photography and topographical mapping. Based on these estimated building envelope locations, oak trees expected to be removed and/or impacted were counted. “Impacted trees” are those which would not require removal but for which the development footprint, site grading and/or driveway would be within the edge of the canopy; also defined as 1.0 times the distance from the edge of the canopy to the trunk. Although counting oak trees from aerial photography is imprecise due to difficulty in determining individual trees with converging canopies, since the same method was used for the Agricultural Residential Cluster Subdivision, it is a valid method of comparison.

To evaluate the difference in oak tree impacts between the proposed Agricultural Residential Cluster Subdivision and the Amended Project Alternative, oak tree impacts were assessed on those lots and roadways that were different between the two proposals. Under the proposed Agricultural Residential Cluster Subdivision, 192 oak trees would be removed and 130 impacted in those areas within these areas where the proposals differed (refer to the Section 3.1.1 discussion above and Figure 3-1). In contrast, the Amended Project Alternative would remove an estimated 142 oak trees and impact an estimated 90 oak trees within these areas. Therefore, impacts to oak trees would be reduced under the Amended Project Alternative. It should be noted, however, that the Amended Project Alternative would result in more oak removal in the northern portion of the project site than the Agricultural Residential Cluster Subdivision (i.e., in the vicinity of Lots 1 through 39).

The overall effect of the Amended Project Alternative on oak trees was also estimated by counting the total number of oak trees expected to be removed and/or impacted by the entire project footprint (as opposed to a portion of it, as discussed above). Impacts to oak trees within the portions of the lots outside of the building envelopes are expected due to grading or compaction within the root zone; limbing or thinning per CalFire requirements; changes to water regime due to landscape irrigation, leach fields, or creation of impervious surfaces; decreased reproduction due to browsing by livestock, mowing, and other ground disturbance; and other types of residential activities that would affect the soil fungi with which oak trees are associated. In total, the Amended Project Alternative is estimated to remove or impact between 250 and 350 oak trees, depending on the ultimate location of building envelopes. Although impacts would be reduced compared to the Agricultural Residential Cluster Subdivision, due to the long time period required for replacement trees to possess equivalent habitat values, impacts would be similarly Class I, *significant and unavoidable*.

Impacts to native perennial grassland, which includes the CDFG plant community of special concern valley needlegrass grassland, would be reduced under the Amended Project Alternative. Of the 23 relocated lots, 19 are proposed in native perennial grassland areas under the Agricultural Residential Cluster Subdivision, versus 11 under the Amended Project Alternative. However, Lots 51, 58, and 95 would be located within native perennial grassland areas under the Amended Project



Alternative although they were previously outside of this habitat under the proposed Agricultural Residential Cluster Subdivision. Therefore, while the Amended Project Alternative would reduce impacts on native perennial grassland compared to the proposed Agricultural Residential Cluster Subdivision, impacts would remain Class II, *significant but mitigable*.

The impacts of the Amended Project Alternative on the San Luis Obispo mariposa lily, a California Native Plant Society (CNPS) List 1B species that is protected as a rare biological resource by the California Department of Fish and Game (CDFG) and County, would be slightly reduced compared to the proposed Agricultural Residential Cluster Subdivision. Of the 23 relocated lots, nine are proposed for areas known to support the San Luis Obispo mariposa lily under the Agricultural Residential Cluster Subdivision, versus five under the Amended Project Alternative. However, Lots 58, 97 and 98 would be located in areas containing San Luis Obispo mariposa lily under the Amended Project Alternative although they were previously outside of occupied habitat under the Agricultural Residential Cluster Subdivision. Therefore, while the Amended Project Alternative would reduce impacts to San Luis Obispo mariposa lily compared to the proposed Agricultural Residential Cluster Subdivision, impacts would remain Class II, *significant but mitigable*.

Impacts to wetland habitat regulated by the U.S. Army Corps of Engineers (ACOE) would be reduced but not eliminated under the Amended Project Alternative. The adjusted Lot 1 would encompass a larger amount of riparian habitat but would not increase the distance to adjacent emergent wetland habitat. As a result, there is potential for indirect impacts to this habitat through sedimentation and non-native species introductions. The alignment of Road A (the primary project access road, refer to Figure 2-5 in the Draft EIR) has been moved outside of emergent wetland habitat, but since it remains along the edge of the habitat, there is a slight potential for indirect impacts (i.e., sedimentation) to the wetland. Impacts to Waters of the U.S. are similar under the Amended Project Alternative. Of the 23 relocated lots, 5 would impact Waters of the U.S. under the proposed Agricultural Residential Cluster Subdivision, versus 3 under the Amended Project Alternative. The Road A realignment would have greater impacts to Waters of the U.S. as it would traverse a drainage for approximately 300 feet near Lot 39 instead of crossing this drainage under the proposed Agricultural Residential Cluster Subdivision. The realignment of Road C (the northerly looping roadway; refer to Figure 2-5 in the Draft EIR) under the Amended Project Alternative eliminates one crossing of a Waters of the U.S. The realignment of Road D increases impacts to Waters of the U.S. because of the need for enhancement of a crossing over Tostada Creek near Lot 71B, whereas this route would not have been used under the proposed Agricultural Residential Cluster Subdivision. The alignment of Road D (the southerly looping roadway; refer to Figure 2-5 in the Draft EIR) under the proposed Agricultural Residential Cluster Subdivision would remain as a driveway under the Amended Project Alternative, which would require a new crossing of Tostada Creek. Additional impacts from Road D under the Amended Project Alternative include creating a crossing of a Waters of the U.S. east of Lot 90B. Under the proposed Agricultural Residential Cluster Subdivision, Road D would avoid drainages in this area.

The Amended Project Alternative would have greater impacts to the southwestern pond turtle, which is a State Species of Special Concern. This species is known to occupy Seasonal Pond 2, which may be impacted under the Amended Project Alternative. With the Amended Project Alternative, an existing road would be used to access Lots 87 through 111. The road currently is narrow and is located on a steep slope above Seasonal Pond 2. Under the Agricultural Residential Cluster Subdivision, an alternate route is proposed that would by-pass Seasonal



Pond 2. Road construction impacts would be greater under the Amended Project Alternative than the proposed Agricultural Residential Cluster Subdivision due to increased proximity to habitat known to be occupied by the southwestern pond turtle. The Amended Project Alternative road construction would take place approximately 30 feet from the pond edge, whereas the Agricultural Residential Cluster Subdivision road construction would take place 220 to 525 feet from the pond edge. Impacts to southwestern pond turtle during road construction could include mortality due to vehicular traffic and construction activities; decreased water quality from sedimentation and other construction runoff; and disruption of basking, feeding and breeding activities. Long-term impacts from the use of the road, including increased mortality from vehicle strikes, effects on water quality, potential for impacts from human use (i.e., collecting, non-native species introductions, pets, etc.), effects of road maintenance activities (i.e., grading a dirt road or resurfacing a paved road) and fragmentation of dispersal habitat, would be greater under the Amended Project Alternative. The Amended Project Alternative also proposes an additional lot (Lot 90B) directly to the west of Seasonal Pond 2, and relocates one lot (Lot 95) closer to the pond. These lots would be located in areas that are likely to be used by the southwestern pond turtle for nesting and overland dispersal. If a habitat mitigation and monitoring plan for the southwestern pond turtle is not implemented, the impacts of the Amended Project Alternative on southwestern pond turtle would be greater than for the proposed Agricultural Residential Cluster Subdivision.

Impacts to special-status animal species, including the California red-legged frog, southern steelhead, white-tailed kite, golden eagle, Cooper's hawk, sharp-shinned hawk, pallid bat, American badger, and legless lizard would be similar. Because development under this alternative would occur in relatively the same portion of the site, impacts to vernal pool fairy shrimp and impacts related to the reduction of migration corridors for special-status and common wildlife species would also be similar.

Overall, this alternative would result in slightly reduced impacts related to biological resources when compared to the proposed Agricultural Residential Cluster Subdivision. Impacts to one special status species, the southwestern pond turtle, would be increased under the Amended Project Alternative.

Cultural Resources. Thirty-two prehistoric and historical archaeological sites and six isolates are located within or immediately adjacent to the Agricultural Residential Cluster Subdivision site (refer to Draft EIR Section 4.4, *Cultural Resources*). The Amended Project Alternative would relocate or adjust seven lots to avoid these sites. It should be noted that the boundaries of cultural resource sites were identified based on surface visibility, which is limited by vegetative coverage in many areas, and precise boundaries are unknown. Therefore, while the Mitigated Project Alternative is likely to avoid identified cultural resources sites to a greater degree than the proposed Agricultural Residential Cluster Subdivision, relocated lots may nevertheless affect the identified sites because precise boundaries are unknown. Draft EIR Agricultural Residential Cluster Subdivision measure CR-2(a), which requires formal identification of the boundaries of all cultural resources sites within or adjacent to the housing cluster through a program of systematic subsurface boundary testing using shovel probes, surface test units, and other appropriate sampling units, would continue to apply to the Mitigated Project Alternative. In addition, because the same number of units would be constructed, overall site disturbance would be similar when compared to the proposed Agricultural Residential Cluster Subdivision. Since this alternative would generate the same number of new residents, there would be a similar likelihood for relic collecting and/or vandalism that could potentially impact



archaeological and historical sites. Because several lots would still be located in areas containing known archaeological resources, impacts would remain Class I, *significant and unavoidable*.

Nevertheless, overall, this alternative would result in reduced impacts to identified cultural resources and similar impacts to previously unidentified resources and relic collecting/vandalism when compared to the proposed Agricultural Residential Cluster Subdivision.

Drainage, Erosion and Sedimentation. This alternative would result in the same number of residential units as the proposed Agricultural Residential Cluster Subdivision. Therefore, impacts related to erosion, sedimentation, and pollutant discharges during construction would be similar to the proposed Agricultural Residential Cluster Subdivision. However, the Amended Project Alternative would eliminate several roadways and realign several others to follow existing Ranch roads. Overall, the amount of paved areas under this alternative would be slightly reduced when compared to the proposed Agricultural Residential Cluster Subdivision. Therefore, permanent increases in surface runoff and accelerated erosion, as well as storm water transport of pollutants, bacteria, and sediment into downstream facilities, would be slightly reduced under the Amended Project Alternative.

As discussed in Draft EIR Section 4.5, *Drainage, Erosion and Sedimentation*, the eastern reaches of the proposed Agricultural Residential Cluster Subdivision site, just south of the east driveway, would be located within the flood zone associated with Trout Creek. The Amended Project Alternative would also include disturbance in this area. However, similar to the Agricultural Residential Cluster Subdivision, it would not place habitable structures in this flood zone. Therefore, impacts related to flood hazard exposure would be similarly less than significant.

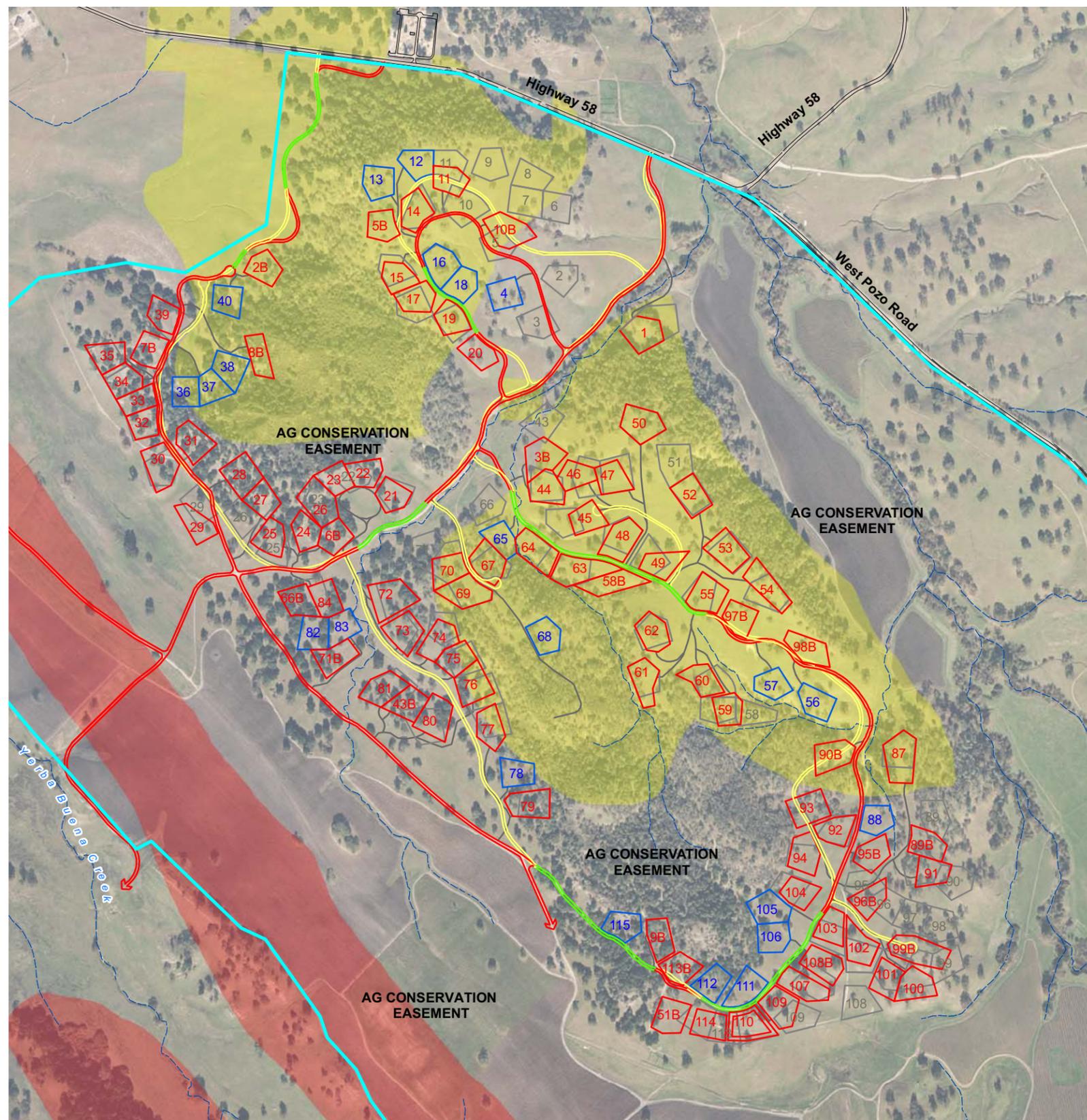
Geologic Stability. The Amended Project Alternative would accommodate the same number of residential units as the proposed Agricultural Residential Cluster Subdivision. Therefore, development under this alternative would expose the same number of units and residents to strong ground shaking resulting from the presence of active and potentially active faults in the vicinity of the Santa Margarita Ranch.

Under the Amended Project Alternative, lots would be clustered in the same general portions of the site as the proposed Agricultural Residential Cluster Subdivision. As discussed in Draft EIR Section 4.6, *Geologic Stability*, the Agricultural Residential Cluster Subdivision site is subject to soil-related hazards (expansive soils, erosive soils and settlement); moderate to high landslide potential; and moderate to high liquefaction potential (refer to Figures 4.6-3, 4.6-5 and 4.6-6, respectively). As a result, this alternative would result in similar geologic stability impacts as the proposed Agricultural Residential Cluster Subdivision.

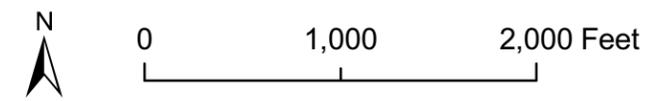
Overall, impacts would be similar to the proposed Agricultural Residential Cluster Subdivision.

Land Use. This alternative would result in the same number of dwelling units, and would convert a similar amount of open land, as the proposed Agricultural Residential Cluster Subdivision. Therefore, the Amended Project Alternative would result in similar land use impacts and construction activity would result in similar temporary noise, air quality and visual impacts compared to the Agricultural Residential Cluster Subdivision.

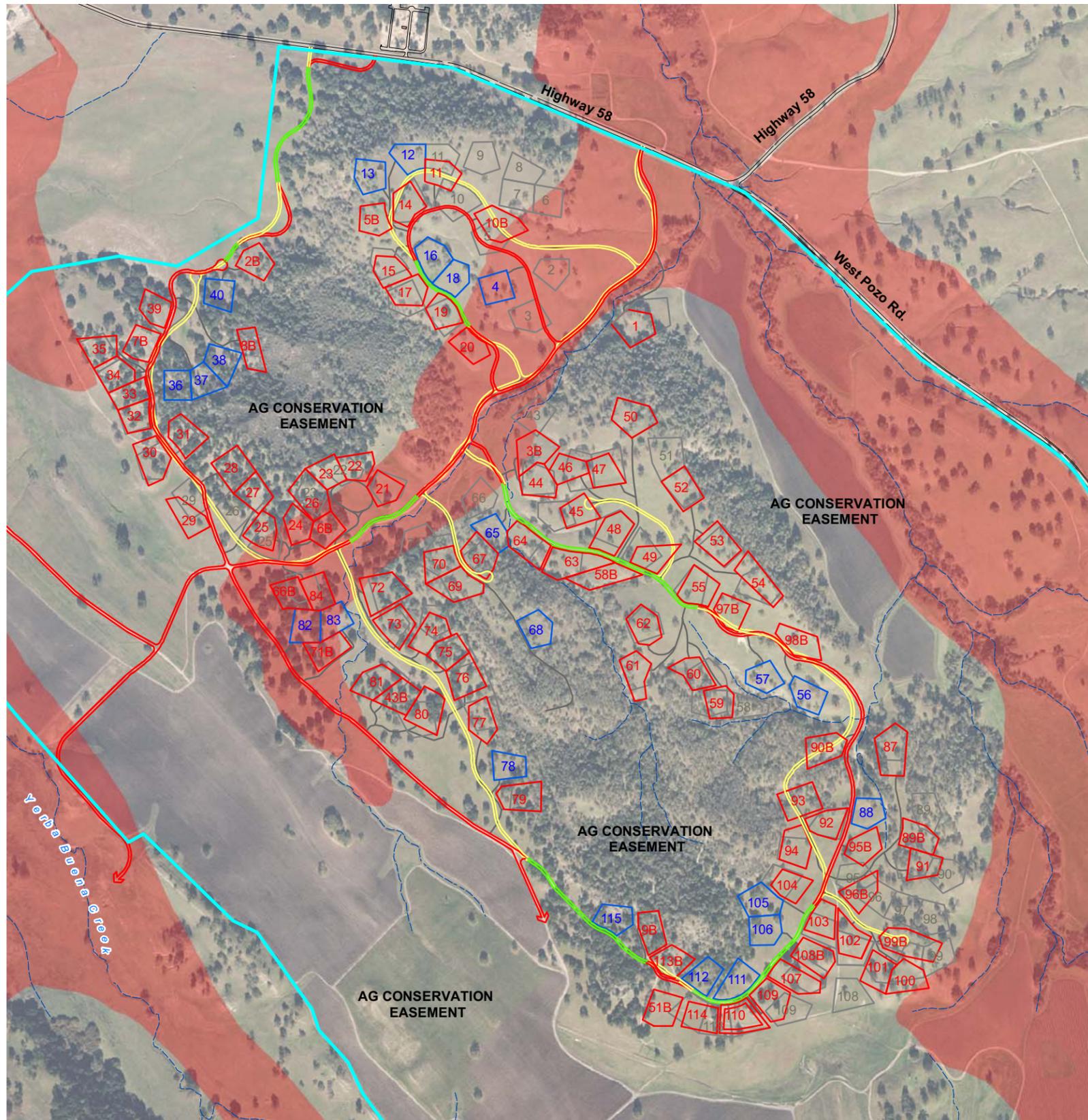




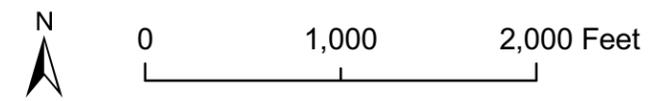
-  TENTATIVE TRACT 2586 BOUNDARY
-  40 TENTATIVE TRACT 2586 LOTS TO REMAIN
-  9 TENTATIVE TRACT 2586 RELOCATED LOTS
-  TENTATIVE TRACT 2586 ROADWAYS TO REMAIN
-  TENTATIVE TRACT 2586 RELOCATED OR DELETED ROADWAYS
-  ALTERNATIVE 12 ROADWAYS (RELOCATED OR ADJUSTED FROM TRACT 2586)
-  10B ALTERNATIVE 12 LOTS (RELOCATED OR ADJUSTED FROM TRACT 2586)
-  HIGH LANDSLIDE POTENTIAL
-  MODERATE LANDSLIDE POTENTIAL



Alternative 12: Amended Project
 Landslide Hazards



-  TENTATIVE TRACT 2586 BOUNDARY
-  TENTATIVE TRACT 2586 LOTS TO REMAIN
-  TENTATIVE TRACT 2586 RELOCATED LOTS
-  TENTATIVE TRACT 2586 ROADWAYS TO REMAIN
-  TENTATIVE TRACT 2586 RELOCATED OR DELETED ROADWAYS
-  ALTERNATIVE 12 ROADWAYS (RELOCATED OR ADJUSTED FROM TRACT 2586)
-  ALTERNATIVE 12 LOTS (RELOCATED OR ADJUSTED FROM TRACT 2586)
-  HIGH LIQUEFACTION POTENTIAL



Alternative 12: Amended Project
 Liquefaction Hazards

Source: SSURGO, 2004, and RRM Design Group, September 2007.

Noise. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). Therefore, noise levels on nearby major roadways would be similar to the Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate the same number of residential units, residents would similarly be exposed to nuisance noise generated by aircraft flying overhead or by passing trains on the Union Pacific Railroad (UPRR). This alternative would generate similar construction-related noise impacts, since the area of disturbance and number of units would be the same.

Overall, noise impacts would be similar to the proposed Agricultural Residential Cluster Subdivision.

Public Safety. Under this alternative, site disturbance would be similar to the proposed Agricultural Residential Cluster Subdivision. As with the Agricultural Residential Cluster Subdivision, site disturbance would not occur in an area of historical croplands. Therefore, impacts related to residual agricultural chemicals would be similarly less than significant.

Since this alternative would accommodate the same number of residential units as the proposed Agricultural Residential Cluster Subdivision, the same number of residents would be exposed to other public safety hazards overall. In addition to residual agricultural chemicals, this includes: exposure to contaminants from highway and railway accidents that involve hazardous materials; the use, transport, or storage of hazardous chemicals; traffic safety hazards due to conflicts between proposed uses and existing off-site mining operations and on-site agricultural operations; and hazards related to potential aircraft accidents.

This alternative would not relocate the water tanks proposed as part of the Agricultural Residential Cluster Subdivision. In addition, although the Mitigated Project Alternative would alter several of the lot boundaries surrounding the proposed tank site, it would not relocate lots to or from the area. Potential public safety impacts associated with water tank failure would therefore be similar to the proposed Agricultural Residential Cluster Subdivision.

Overall, the Amended Project Alternative would result in impacts which are similar to the proposed Agricultural Residential Cluster Subdivision.

Public Services. This alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision. Consequently, the increase in demand for law enforcement, fire protection, school, and solid waste services would be identical. However, according to the Uniform Fire Code, access roads must have an unobstructed by parking minimum width of 20 feet. The Amended Project Alternative would reduce roadway widths to 18 feet, which would not meet these requirements and could therefore provide for inadequate emergency response. It should be noted, however, that the California Department of Forestry and Fire Protection (CalFire) has the authority to reduce roadway widths in certain situations, and could potentially reduce widths to 18 feet in this instance. However, such a reduction cannot be assured. Although the applicant would be required to comply with the most recent Uniform Fire Code and implement County fire protection standards, which would ensure less than significant impacts, impacts would nonetheless be greater than the Agricultural Residential Cluster Subdivision since no such impacts were identified for the proposed project.



Overall, this alternative would result in both similar and more adverse public service impacts compared to the proposed Agricultural Residential Cluster Subdivision.

Recreation. This alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision. Consequently, the need for recreational facilities would be identical. Therefore, this alternative would have similar impacts related to parkland demand when compared to the proposed Agricultural Residential Cluster Subdivision.

Transportation and Circulation. This alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision. Therefore, this alternative would generate the same number of average daily trips. As a result, traffic impacts on local roadway and highway segments and intersections would be similar to the proposed Agricultural Residential Cluster Subdivision. Impacts related to railroad crossings and pedestrian, bicycle and transit demand would also be similar.

As noted in Draft EIR Section 4.12, *Transportation and Circulation*, stopping site distance from the proposed west driveway was determined to be inadequate, resulting in a potentially significant impact. Agricultural Residential Cluster Subdivision measure T-2(a) (West Driveway Relocation) requires that the proposed west driveway be relocated at least 590 feet east of its currently proposed location. The Amended Project Alternative would relocate the west driveway approximately 480 feet east. Although this would partially reduce impacts related to stopping site distance, it would not fully implement measure T-2(a). Impacts would remain Class II, *significant but mitigable*.

Visual Resources. This alternative would result in the same number of dwelling units as the proposed Agricultural Residential Cluster Subdivision. However, the Amended Project Alternative would relocate 11 lots and adjust the boundaries of two additional lots which were identified as being visible from existing roadways in the Draft EIR. This alternative also places height restrictions on 10 lots and establishes ½ acre building envelopes for all lots. As a result, fewer residential lots would be visible from public viewpoints under this alternative. Relocating Lots 2, 3, and 5 through 11 (proposed for the northernmost portion of the site near State Route 58) would eliminate visibility of a relatively dense cluster of residences, thereby reducing a “neighborhood” effect. Because the Amended Project Alternative would preserve the rural nature of the site to a greater extent than the Agricultural Residential Cluster Subdivision, impacts would be reduced. Although Lots 2B, 4, 10B, 11, 14, 52, 54, and 91 would still be partially visible from off-site viewpoints, the reduction of visual prominence of future residences as viewed from off-site public viewpoints would reduce impacts related to adverse changes in visual character to a Class II, *significant but mitigable*, level.

Water and Wastewater. Water service under the Amended Project Alternative would be provided by a connection to the Nacimiento Water Project. The untreated Nacimiento water delivered to the Ranch would be treated on-site and used for the Alternative 12 residences. As a result, impacts related to groundwater use and overdraft of the aquifer system would be eliminated. It should be noted, however, that importing and treating water for residences outside of an urban reserve line would be potentially inconsistent with the County’s Framework for Planning (Inland) goal of maintaining “a distinction between urban and rural development by providing for rural uses outside of urban and village areas...” The objective of this goal, as noted in the Framework, is to restrict urban services outside of urban or village reserve lines.



This alternative assumes that sewer services would be provided by individual septic systems, similar to the proposed Agricultural Residential Cluster Subdivision. Impacts related to improper disposal field design, on-site recharge of water softeners and household wastes, and septage load would therefore be similar to the proposed Agricultural Residential Cluster Subdivision.

3.2 ALTERNATIVE 13: Smart Growth/Affordable Housing

3.2.1 Description

Similar to Alternative 6 in the Draft EIR (Revised Cluster Location 3), this alternative assumes that the proposed Agricultural Residential Cluster Subdivision is relocated south of El Camino Real and west of the community of Santa Margarita. However, this alternative would arrange lots in a reversed L-shape extending from the southwest corner of the community of Santa Margarita (refer to Figure 3-6). Alternative 13 would serve as an extension of the existing community. The location and configuration of this alternative uses Smart Growth Principles of compact urban development and preservation of rural land and agricultural resources. In addition, although the same number of lots would be included as the proposed Agricultural Residential Cluster Subdivision (i.e., 112 lots), 22 of the lots would be designated for affordable housing.

This alternative would place approximately 2,500 acres in an agricultural conservation or open space easement. This alternative would additionally include a 5-acre community park, located in the northern portion of the alternative site adjacent to the community of Santa Margarita, as well as a trail connecting the community of Santa Margarita to the Los Padres National Forest.

Access to the alternative site would be provided via an extension of Wilhelmina Avenue. Water service would be provided by a connection to the Nacimiento Water Project and sewer service would be provided through connections to a new wastewater treatment plant. Connection to the Nacimiento waterline would occur at the northern extent of Encina Avenue within the community of Santa Margarita. A pipeline would be constructed within the existing Encina Avenue right-of-way to the southern extent of the roadway at the Ranch boundary. The untreated Nacimiento water delivered to the Ranch would be treated on-site and used for Smart Growth/Affordable Housing Alternative residences. The wastewater treatment plant would be constructed with sufficient capacity to serve the project and be designed to expand to serve the community of Santa Margarita in the future. The exact capacity, features and location of the treatment plant would be determined in consultation with the County and Regional Water Quality Control Board. Water tanks would be relocated from the southern portion of the Agricultural Residential Cluster Subdivision to a hilltop within the alternative location.

3.2.2 Impact Analysis

Agricultural Resources. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita (refer to Figure 3-6). As discussed in Section 2.1, *Agricultural Resources*, the proposed Agricultural Residential Cluster Subdivision would permanently convert 21.2 acres containing prime soils to non-agricultural uses and would permanently compromise the viability of a 676.7-acre grazing unit. Approximately 24.4 acres of prime soils occur in this Alternative 13 area, although the small



portion of prime soils that occur in emergent wetland habitat would not be used for agriculture (refer to Figure 3-6). Impacts related to the direct conversion of prime soil areas would nonetheless be greater than the Agricultural Residential Cluster Subdivision. However, this alternative would not compromise the sustainability of the 676.7 acre grazing unit. Additionally, because this alternative uses Smart Growth Principles of compact urban development and preservation of rural land and agricultural resources, it would reduce impacts related to grazing unit fragmentation. As noted under Agricultural Residential Cluster Subdivision Impact AG-1 in Section 2.1, *Agricultural Resources*, Section 22.22.152(D) of the County Land Use Ordinance requires that the open space area of an agricultural residential cluster subdivision be at least 95% of the gross site area, with clustered development allowed on the remaining 5%. While the proposed Agricultural Residential Cluster Subdivision would convert approximately 17.9% of the gross site area, placing only 82.1% of the site in open space, the Smart Growth/ Affordable Housing Alternative would convert approximately 4.1% of the gross site area (2,606 acres, or 106 acres of development and 2,500 acres of open space), thereby exceeding the 95% open space area requirement.

Because lots would be relocated away from existing vineyards in the southern portion of the Ranch property, fewer lots would be located adjacent to existing cultivated agricultural operations. As a result, conflicts between urban and agricultural uses would be incrementally reduced when compared to the proposed Agricultural Residential Cluster Subdivision.

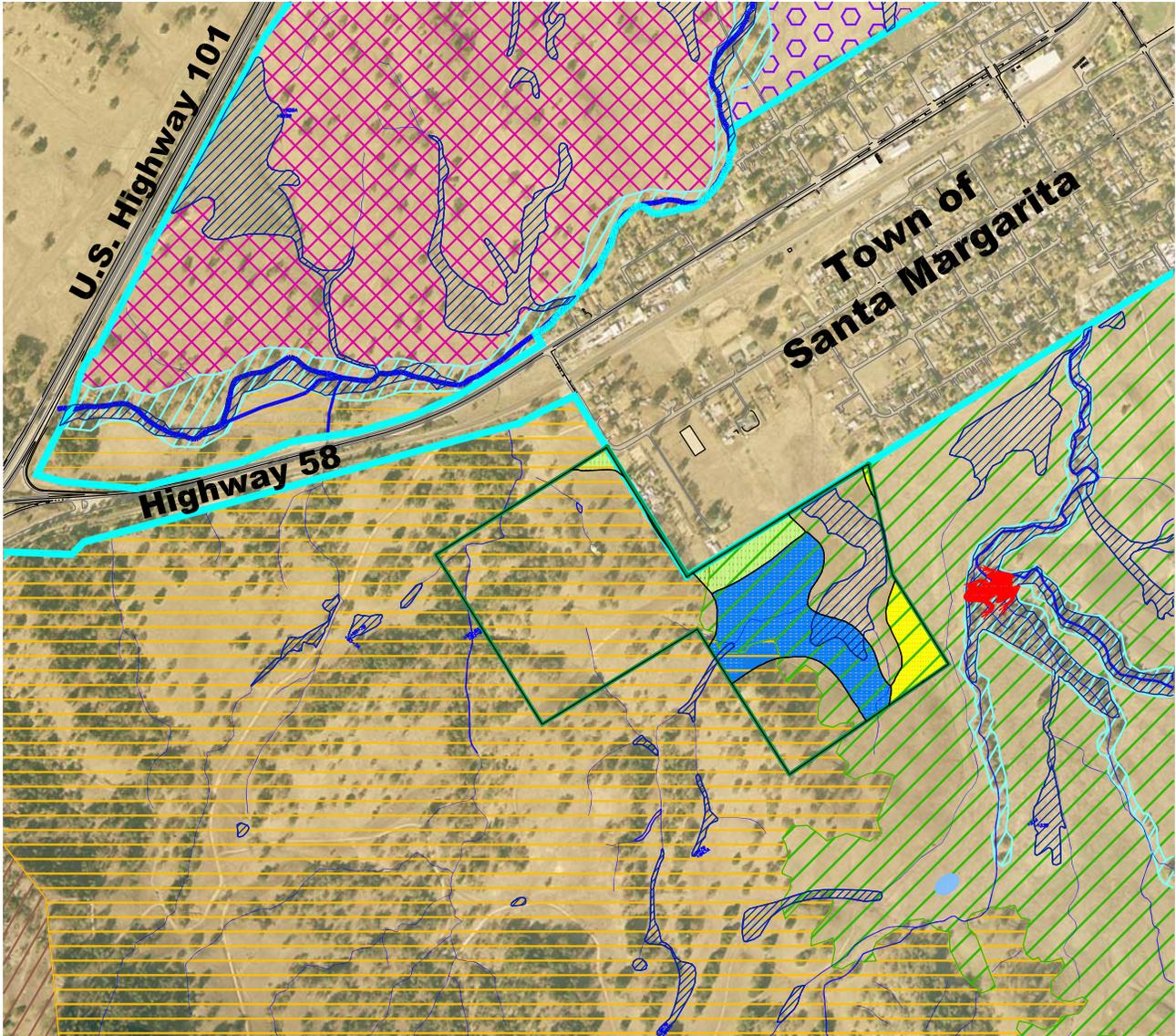
Overall, the Smart Growth/ Affordable Housing Alternative would result in increased prime soil conversion but reduced impacts to grazing unit fragmentation and conflicts.

Air Quality. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). As a result, air contaminant emissions associated with vehicle use would be the same as the proposed Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate the same number of residential units, long term emissions associated with electricity and natural gas usage would be identical. Grading- and construction-related emissions would also be similar under this alternative.

The Smart Growth/ Affordable Housing Alternative would be served by a new wastewater treatment plant. Although the exact capacity, features and location of the treatment plant have not yet been determined, as a reasonable worst case scenario, the plant could be located adjacent to and upwind from existing and future residences. Depending on the size, design, and operational characteristics of the wastewater treatment plant, adjacency to residential uses could result in odor nuisance impacts which would be greater than those expected for the Agricultural Residential Cluster Subdivision.

The Agricultural Residential Cluster Subdivision is potentially inconsistent with San Luis Obispo APCD's 2001 *Clean Air Plan* (CAP) because it exceeds population growth assumptions, does not include sufficient Transportation Control Measures (TCMs), and because the rate of increase in vehicle trips and miles traveled may exceed population growth rates for the area. Although the Smart Growth/ Affordable Housing Alternative would result in the same number of residential units and therefore similarly exceed population growth assumptions, the location and configuration of the alternative uses Smart Growth Principles of compact urban development, which would reduce vehicle trips and miles traveled compared to the





Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006.

-  ALTERNATIVE 13: SMART GROWTH/AFFORDABLE HOUSING
-  RANCH PROPERTY BOUNDARY

HABITATS

-  CA ANNUAL GRASSLAND
-  BLUE OAK WOODLAND
-  COAST LIVE OAK WOODLAND
-  VALLEY OAK WOODLAND
-  EMERGENT WETLAND
-  WATERS OF THE U.S.
-  SEASONAL POOLS
-  RIPARIAN
-  URBAN / RESIDENTIAL
-  AGRICULTURE (VINYARD/DRY FARM)

PRIME AGRICULTURAL SOILS REGARDLESS OF IRRIGATION:

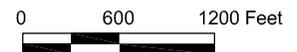
-  101 ARBUCKLE FINE SANDY LOAM, 2-9
-  209, STILL CLAY LOAM, 2-9

PRIME AGRICULTURAL SOILS IF IRRIGATED:

-  130, CLEAR LAKE CLAY, NA

SPECIAL-STATUS SPECIES

-  CALIFORNIA RED-LEGGED FROG



Alternative 13: Smart Growth/ Affordable Housing

Figure 3-6

Agricultural Residential Cluster Subdivision. Impacts related to CAP consistency would therefore be reduced under the Smart Growth/Affordable Housing Alternative.

Overall, air quality impacts would be similar, greater, and reduced when compared to the Agricultural Residential Cluster Subdivision.

Biological Resources. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. As shown in Figure 3-6, this area is composed of blue oak woodland, California annual grassland, and emergent wetland habitat types. Since the same number of units would be constructed, site disturbance would be similar to the proposed Agricultural Residential Cluster Subdivision. However, the Smart Growth/Affordable Housing alternative site is more compact than the Agricultural Residential Cluster Subdivision site. As a result, overall impacts to blue oak woodland and California annual grassland would be slightly reduced. The compact design of this alternative would similarly result in less fragmentation of habitat overall. However, despite the more compact design, the alternative location contains a larger area of emergent wetland habitat than the Agricultural Residential Cluster Subdivision. Therefore, impacts to this habitat type would be increased. Impacts to native perennial grassland, central (Lucian) sage scrub, chamise chaparral, coast live oak woodland, valley oak woodland, mixed woodland and riparian habitat types would be eliminated, since these habitat types do not occur on this alternative site. In addition, the San Luis Obispo Mariposa Lily, a CNPS List 1B plant species, does not occur in this alternative location. As a result, impacts to this special-status plant species would be reduced.

The proposed Agricultural Residential Cluster Subdivision would result in potentially significant impacts to Vernal Pool Fairy Shrimp (VPFS), a Federally Threatened species, because of direct and indirect impacts to seasonal pools. As shown in Figure 3-6, no seasonal pools are located within this alternate location. Therefore, impacts to seasonal pools and VPFS would be reduced when compared to the proposed Agricultural Residential Cluster Subdivision. Similarly, because this alternative would not be located near any on-site creeks, direct take of the federally-threatened southern steelhead (SS) and California red-legged frogs (CRLF) would be reduced compared to the Agricultural Residential Cluster Subdivision.

Because this alternative would be located closer to the community of Santa Margarita and developed in a more compact area, impacts related to the reduction of migration corridors for special-status and common wildlife species would also be reduced when compared to the proposed Agricultural Residential Cluster Subdivision.

Overall, biological resource impacts would be both better and worse than the proposed Agricultural Residential Cluster Subdivision.

Cultural Resources. Thirty-two prehistoric and historical archaeological sites and six isolates are located within or immediately adjacent to the Agricultural Residential Cluster Subdivision site (refer to Draft EIR Section 4.4, *Cultural Resources*). This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. However, several other prehistoric and historical archaeological sites are located within the alternative location. Although development in this area would avoid some of the resources on the proposed Agricultural Residential Cluster Subdivision site, it would nonetheless impact cultural resources on the revised location. As a



result, impacts related to damage or destruction of prehistoric and historical archaeological sites, and disruption of their setting and feeling, would be similar to the proposed Agricultural Residential Cluster Subdivision.

Since the same number of units would be constructed, site disturbance would be similar to the proposed Agricultural Residential Cluster Subdivision. This alternative would therefore result in similar impacts related to disturbing previously unidentified buried archeological deposits or human remains. Because this alternative would generate the same number of new residents, there would be a similar likelihood for relic collecting and/or vandalism that could potentially impact archaeological and historical sites. Overall, impacts related to identified resources, previously unidentified buried archeological deposits or human remains, and relic collecting and/or vandalism under this alternative would be similar to the proposed Agricultural Residential Cluster Subdivision.

Drainage, Erosion and Sedimentation. This alternative would result in the same number of residential units as the proposed Agricultural Residential Cluster Subdivision. Therefore, impacts related to erosion, sedimentation, and pollutant discharges during construction would be similar to the proposed Agricultural Residential Cluster Subdivision. The amount of paved areas under this alternative would also be similar to the proposed Agricultural Residential Cluster Subdivision. Therefore, permanent increases in surface runoff and accelerated erosion, as well as storm water transport of pollutants, bacteria, and sediment into downstream facilities, would be similar under the Smart Growth/ Affordable Housing Alternative.

Portions of the Agricultural Residential Cluster Subdivision are located in a 100-year flood zone. However, no habitable structures would be located in these areas under the proposed Agricultural Residential Cluster Subdivision. The Smart Growth/ Affordable Housing alternative avoids flood zones altogether (refer to Figure 4.5-1 in Draft EIR Section 4.5, *Drainage, Erosion and Sedimentation*). Both the Agricultural Residential Cluster Subdivision and the Smart Growth/ Affordable Housing Alternative would result in less than significant impacts.

Overall, impacts related to drainage, erosion and sedimentation would be similar to the proposed Agricultural Residential Cluster Subdivision.

Geologic Stability. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. The Smart Growth/ Affordable Housing Alternative would accommodate the same number of residential units as the proposed Agricultural Residential Cluster Subdivision. Therefore, it would expose the same number of units and residents to strong ground shaking resulting from the presence of active and potentially active faults in the vicinity of the Santa Margarita Ranch.

The previous location for the Agricultural Residential Cluster Subdivision was subject to soil-related hazards (expansive soils, erosive soils and settlement), moderate landslide potential, and high liquefaction potential (refer to Figures 4.6-3, 4.6-5 and 4.6-6 in Draft EIR Section 4.6, *Geologic Stability*). The area immediately south and west of the community of Santa Margarita is subject to similar soil-related hazards (expansive soils, erosive soils and settlement), high landslide potential, and high liquefaction potential. Because the same number of units would be exposed to similar hazards, this alternative would result in similar soil-related hazards and liquefaction impacts as the proposed Agricultural Residential Cluster Subdivision.



Overall, this alternative would result in similar geologic stability impacts when compared to the proposed Agricultural Residential Cluster Subdivision.

Land Use. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. Because this alternative would be located closer to the community of Santa Margarita, temporary noise, air quality and visual impacts from construction would be greater than the Agricultural Residential Cluster Subdivision. However, because this alternative uses Smart Growth Principles of compact urban development and preservation of rural land and agricultural resources, it would convert a lesser amount open land compared to the proposed Agricultural Residential Cluster Subdivision. Land use impacts would therefore be both greater and lesser than the proposed Agricultural Residential Cluster Subdivision.

Noise. This alternative would generate the same amount of average daily vehicle trips as the proposed Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). Therefore, noise levels on nearby major roadways would be similar to the Agricultural Residential Cluster Subdivision. Due to the alteration in trip distribution patterns, traffic noise impacts on Wilhelmina Avenue would be increased, while traffic noise impacts on Estrada Avenue would be reduced, when compared to the proposed Agricultural Residential Cluster Subdivision. Because this alternative would locate residential units closer to the private airstrip, private railroad, and Union Pacific Railroad (UPRR), exposure to periodic high noise levels would be greater under this alternative. Similarly, although this alternative would generate similar construction-related noise impacts due to the similar level of development, construction would occur in closer proximity to existing residences. Construction-related noise impacts would therefore be greater than the Agricultural Residential Cluster Subdivision. The wastewater treatment plant, a new use not currently proposed as part of the Agricultural Residential Cluster Subdivision, would not be considered a substantial noise generator. However, as a reasonable worst case scenario, the plant could be located directly adjacent to existing and future residences, which could result in some operational noise at these sensitive receptors, depending on the size and operational characteristics of the facility. Impacts would therefore be slightly greater than the Agricultural Residential Cluster Subdivision.

Overall, noise impacts would be both similar to and worse than the proposed Agricultural Residential Cluster Subdivision.

Public Safety. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. As discussed in Draft EIR Section 4.9, *Public Safety*, site disturbance associated with the proposed Agricultural Residential Cluster Subdivision would not occur in an area of historical croplands. Site disturbance associated with the Smart Growth/Affordable Housing Alternative would similarly not occur in an area of historical croplands. Both the Agricultural Residential Cluster Subdivision and the Smart Growth/Affordable Housing Alternative would result in less than significant impacts.

Because this alternative would locate residential units closer to the private airstrip, State Route 58, and the UPRR, exposure of people to exposure to contaminants from highway and railway accidents that involve hazardous materials, and hazards related to potential aircraft accidents would be increased when compared to the proposed Agricultural Residential Cluster Subdivision. However, implementation of existing federal, state, and local regulations



pertaining to the use, containment, and transport of hazardous materials would minimize the possibility of an accident, thereby ensuring less than significant impacts.

Overall, the Smart Growth/ Affordable Housing Alternative would result in public safety impacts both similar to and greater than the proposed Agricultural Residential Cluster Subdivision.

Public Services. This alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision. Consequently, the need for law enforcement, fire protection, school, and solid waste services would be similar. Therefore, this alternative is considered to have similar public service impacts compared to the proposed Agricultural Residential Cluster Subdivision.

Recreation. Because this alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision, it would similarly generate the need for 0.9 acres of parkland. However, this alternative would include a 5-acre community park which would more than offset this incremental demand. Alternative 13 would additionally include a trail connecting the community of Santa Margarita to the Los Padres National Forest. Impacts related to recreation would therefore be reduced when compared to the Agricultural Residential Cluster Subdivision, and would be considered Class IV, *beneficial*.

Transportation and Circulation. This alternative would result in the same number of residential units as the Agricultural Residential Cluster Subdivision. However, because this alternative uses Smart Growth Principles of compact urban development, it would encourage pedestrian and bicycle transportation. Average daily vehicle trips would therefore be slightly reduced when compared to the Agricultural Residential Cluster Subdivision.

Since access to this alternative would be provided via Wilhelmina Avenue, the majority of project trips, which would be distributed toward U.S. Highway 101, bypassing most of the community of Santa Margarita and existing traffic operational deficiencies in the eastern portion of the community [refer to Section 4.12.1(f) in Section 4.12, *Transportation and Circulation*, of the Draft EIR]. Impacts to El Camino Real and Estrada Avenue, El Camino Real west of Pinal Avenue, El Camino Real from Estrada Avenue to Pozo Road, Estrada Avenue and H Street, and Estrada Avenue south of J Street would therefore be reduced. However, impacts to U.S. 101 off-ramps to SR 58 (which also have existing deficiencies) would remain, while impacts to Wilhelmina Avenue and the intersection of Wilhelmina Avenue and El Camino Real would increase due to the alteration of trip distribution patterns.

Overall, impacts would be both better and worse when compared to the Agricultural Residential Cluster Subdivision.

Visual Resources. This alternative would relocate the Agricultural Residential Cluster Subdivision to extend from the southwest corner of the community of Santa Margarita. The visual context of this alternative therefore differs from the Agricultural Residential Cluster Subdivision, since development would be located immediately adjacent to existing urban development rather than undisturbed, rural hillsides. Although more homes may be visible from roadways within the community of Santa Margarita and State Route (SR) 58 west of the community of Santa Margarita, no development would be visible from public viewsheds south of the community, including Estrada Avenue, State Route 58 and West Pozo Road (refer to Draft EIR Section 4.13,



Visual Resources). Therefore, overall visual impacts would be both better and worse under the Smart Growth/Affordable Housing Alternative.

Water and Wastewater. Water service under the Smart Growth/Affordable Housing Alternative would be provided by a connection to the Nacimiento Water Project. The untreated Nacimiento water delivered to the Ranch would be treated on-site and used for Smart Growth/Affordable Housing Alternative residences. As a result, impacts related to groundwater use and overdraft of the aquifer system would be eliminated. It should be noted, however, that importing and treating water for residences outside of an urban reserve line would be potentially inconsistent with the County's Framework for Planning (Inland) goal of maintaining "a distinction between urban and rural development by providing for rural uses outside of urban and village areas..." The objective of this goal, as noted in the Framework, is to restrict urban services outside of urban or village reserve lines.

Sewer service under the Smart Growth/Affordable Housing Alternative would be provided through connections to existing sewer lines connecting to a new wastewater treatment plant. As a result, impacts related to improper septic disposal field design, on-site recharge of water softeners and household wastes, and septage load would be eliminated. The wastewater treatment plant would be under the regulatory jurisdiction of the California Regional Water Quality Control Board (RWQCB), Central Coast Region. The RWQCB sets treated effluent quality limits to protect the groundwater basin quality for present and future beneficial uses. Because this alternative's wastewater treatment plant would be subject to approval by the RWQCB, this alternative would not be expected to impact water quality.

3.3 ALTERNATIVE 14: Reduced Project

3.3.1 Description

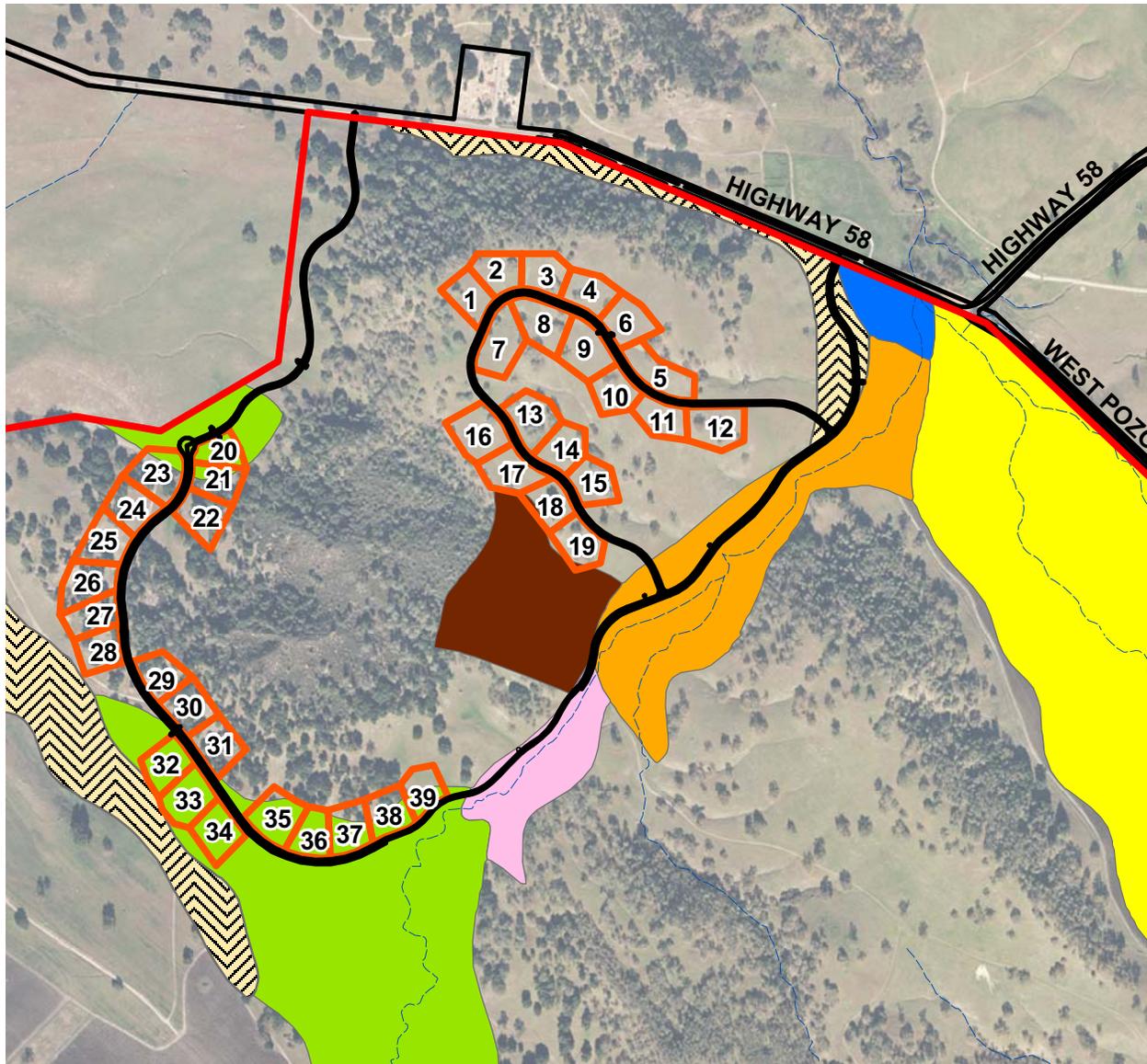
This alternative would cluster 40 lots in the northernmost portion of the Agricultural Residential Cluster Subdivision site, in the currently proposed Phase One location. This alternative would slightly reorganize the currently proposed Phase One configuration to achieve a higher-density, more compact cluster and further minimize the overall project footprint (refer to Figure 3-7).

Access would be provided via one existing driveway and one new driveway from West Pozo Road, as proposed. Internal circulation would be similar to the proposed Agricultural Residential Cluster Subdivision Phase One. Roads south of this area would be eliminated. The permanent agricultural conservation easements (ACE) would remain southwest of the community of Santa Margarita, as proposed. However, the amount of land preserved in ACE's would be reduced to approximately 800 acres. Sewer service would be provided by individual septic systems and water service would be provided by a connection to the Nacimiento Water Project. This alternative would connect to the Nacimiento waterline at El Camino Real just west of the community of Santa Margarita. The untreated Nacimiento water would be used for agriculture, while groundwater otherwise extracted for agriculture would be used for the Reduced Project Alternative.



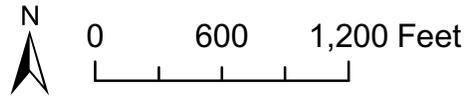
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Source: SSURGO, 2004; EDA Design Professionals, 2005 and Rincon Consultants, 2007.

- TENTATIVE TRACT 2586 BOUNDARY
- ALTERNATIVE 14 LOTS
- PRIME AGRICULTURAL SOILS REGARDLESS OF IRRIGATION:**
- 102, ARBUCKLE-POSITAS COMPLEX, 9-15
- 116, BOTELLA SANDY LOAM, 2-9
- 139, ELDER LOAM, 2-9
- 208, STILL CLAY LOAM, 0-2
- PRIME AGRICULTURAL SOILS IF IRRIGATED:**
- 130, CLEAR LAKE CLAY, DRAINED
- 133, CROPLEY CLAY, 2-9
- 182, OCEANO LOAMY SAND, 2-9



Alternative 14:
 Reduced Project

Figure 3-7

The amount of site disturbance would be reduced by approximately 64%, and the overall project area would be reduced by 75%, compared to the proposed Agricultural Residential Cluster Subdivision. Further development of the Ranch property, including other portions of the proposed Agricultural Residential Cluster Subdivision site, would require preparation of a Specific Plan and additional environmental review.

3.3.2 Impact Analysis

Agricultural Resources. This alternative would decrease the number of lots by 64%, thereby decreasing the amount of site disturbance. In addition, the overall project footprint would be reduced by approximately 75% compared to the proposed Agricultural Residential Cluster Subdivision. As discussed in Section 2.1, *Agricultural Resources*, the proposed Agricultural Residential Cluster Subdivision would permanently convert 21.2 acres containing prime soils to non-agricultural uses and would permanently compromise the viability of a 676.7-acre grazing unit. In contrast, Alternative 14 would convert approximately 12.5 acres of prime soils (refer to Figure 3-7). Impacts related to the conversion of prime soil areas would therefore be less than the proposed Agricultural Residential Cluster Subdivision. In addition, because lots would be configured in a more compact manner, this alternative would reduce impacts related to grazing unit fragmentation. Similarly, because lots would be relocated away from existing vineyards in the southern portion of the Ranch property, fewer lots would be located adjacent to existing cultivated agricultural operations. Although some vineyards are located west and southeast of this alternative area, overall distance to vineyard operations would be increased. Conflicts between residential and vineyard uses would be proportionately reduced. In addition, because there would be fewer overall lots, conflicts between residential and grazing uses would also be reduced when compared to the proposed Agricultural Residential Cluster Subdivision.

Air Quality. This alternative would generate 412 average daily trips; a 64% reduction compared to the Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). Air contaminant emissions associated with vehicle use would therefore be less than the proposed Agricultural Residential Cluster Subdivision. In addition, because this alternative would accommodate 72 fewer residential units, long term emissions associated with electricity and natural gas usage would also be reduced. Grading- and construction-related emissions and odor nuisance impacts would be slightly reduced due to the reduced area of disturbance compared to the proposed Agricultural Residential Cluster Subdivision. The Agricultural Residential Cluster Subdivision is potentially inconsistent with San Luis Obispo APCD's 2001 *Clean Air Plan* (CAP) because it does not include sufficient Transportation Control Measures (TCMs) and because the rate of increase in vehicle trips and miles traveled may exceed population growth rates for the area. The Reduced Project Alternative would similarly exclude sufficient TCMs and would similarly increase trip lengths in the vicinity. However, because this alternative would generate 64% fewer daily vehicle trips, the rate of increase in vehicle trips and miles traveled would be less than the proposed Agricultural Residential Cluster Subdivision.

Overall, air quality impacts would be reduced under the Reduced Project Alternative.

Biological Resources. Under the Reduced Project Alternative, lots would be clustered in the northernmost portion of the Agricultural Residential Cluster Subdivision site, in the currently proposed Phase One location. As shown in Figure 2-3, this area contains ten natural plant communities and/or wildlife habitat types. The habitat types include California annual grassland, native perennial grassland (including deergrass (*Muhlenbergia rigens*) and valley needlegrass



grassland), central (Lucian) scrub, chamise chaparral, blue oak woodland, coast live oak woodland, valley oak woodland, mixed oak woodland (including blue, coast live and valley oaks, as well as grey pines [*Pinus sabiniana*]), emergent wetland, and riparian. Ruderal areas, agriculture, seasonal pools and known occurrences of special status species are also shown on Figure 3-3. The San Luis Obispo Mariposa Lily, a CNPS List 1B plant species, also occurs within the Reduced Project Alternative site, similar to the proposed Agricultural Residential Cluster Subdivision site as a whole. The Reduced Project Alternative would avoid several habitat types located on the proposed Agricultural Residential Cluster Subdivision site, including chamise chaparral and valley oak woodland.

Because this alternative would accommodate 72 fewer residential units, site disturbance would be reduced when compared to the proposed Agricultural Residential Cluster Subdivision. As a result, this alternative would result in fewer impacts related to habitat conversion, oak tree removal and San Luis Obispo Mariposa Lily removal when compared to the proposed Agricultural Residential Cluster Subdivision. Similarly, impacts to special-status animal species, including the California red-legged frog (CRLF), southern steelhead (SS), white-tailed kite, golden eagle, Cooper's hawk, sharp-shinned hawk, pallid bat, American badger, legless lizard, and southwestern pond turtle, would be reduced. Because development in the southern portion of the proposed Agricultural Residential Cluster Subdivision site would be eliminated, impacts to Vernal Pool Fairy Shrimp (VPFS) and impacts related to the reduction of migration corridors for special-status and common wildlife species would also be reduced.

Overall, this alternative would result in reduced impacts related to biological resources when compared to the proposed Agricultural Residential Cluster Subdivision.

Cultural Resources. Thirty-two prehistoric and historical archaeological sites and six isolates are located within or immediately adjacent to the Agricultural Residential Cluster Subdivision site (refer to Draft EIR Section 4.4, *Cultural Resources*). This alternative would cluster 40 lots in the northernmost portion of the Agricultural Residential Cluster Subdivision site, in the currently proposed Phase One location. All development south of this area would be eliminated. As a result, impacts related to damage or destruction of the important associations of these sites, and disruption of their setting and feeling, would be reduced compared to the Agricultural Residential Cluster Subdivision.

In addition, because this alternative would accommodate 72 fewer residential units, site disturbance would be reduced when compared to the proposed Agricultural Residential Cluster Subdivision. Impacts related to disturbing previously unidentified buried archeological deposits or human remains would therefore be reduced. Similarly, because this alternative would generate fewer new residents, there would be less likelihood for relic collecting and/or vandalism that could potentially impact archaeological and historical sites.

Overall, this alternative would result in reduced impacts related to cultural resources when compared to the proposed Agricultural Residential Cluster Subdivision.

Drainage, Erosion and Sedimentation. This alternative would decrease the amount of site disturbance by 64%. Impacts related to erosion, sedimentation, and pollutant discharges during construction would therefore be reduced. The amount of paved areas under this alternative would also be reduced when compared to the proposed Agricultural Residential Cluster Subdivision. Therefore, permanent increases in surface runoff and accelerated erosion, as well



as storm water transport of pollutants, bacteria, and sediment into downstream facilities, would be reduced under the Reduced Project Alternative.

As discussed in Draft EIR Section 4.5, *Drainage, Erosion and Sedimentation*, the eastern reaches of the proposed Agricultural Residential Cluster Subdivision site, just south of the east driveway, would be located within the flood zone associated with Trout Creek (refer to Draft EIR Figure 4.5-1). The Reduced Project Alternative would not be located in this area. Both the Agricultural Residential Cluster Subdivision and the Reduced Project Alternative would result in less than significant impacts.

Geologic Stability. The Reduced Project Alternative would accommodate 72 fewer residential units than the proposed Agricultural Residential Cluster Subdivision. Therefore, development under this alternative would expose fewer units and residents to strong ground shaking resulting from the presence of active and potentially active faults in the vicinity of the Santa Margarita Ranch.

Under the Reduced Project Alternative, lots would be clustered in the currently proposed Phase One location. As discussed in Draft EIR Section 4.6, *Geologic Stability*, this portion of the site is subject to soil-related hazards (expansive soils, erosive soils and settlement); moderate to high landslide potential; and moderate to high liquefaction potential (refer to Draft EIR Figures 4.6-3, 4.6-5 and 4.6-6, respectively) similar to the Agricultural Residential Cluster Subdivision site as a whole. However, because fewer lots and therefore fewer residents would be subject to these hazards, impacts would be reduced under the Reduced Project Alternative.

Overall, geologic stability impacts would be less than the proposed Agricultural Residential Cluster Subdivision.

Land Use. The Reduced Project Alternative would accommodate 72 fewer residential units than the proposed Agricultural Residential Cluster Subdivision and would reduce site disturbance by approximately 64%. The reduced construction activity would reduce temporary noise, air quality and visual impacts compared to the Agricultural Residential Cluster Subdivision. In addition, this alternative would not convert as much open land as the proposed Agricultural Residential Cluster Subdivision. Land use impacts would be reduced compared to the proposed Agricultural Residential Cluster Subdivision.

Noise. This alternative would generate 412 average daily trips; a 64% reduction compared to the Agricultural Residential Cluster Subdivision (see *Transportation and Circulation* discussion below). Therefore, noise levels on nearby major roadways would be incrementally reduced. In addition, because this alternative would accommodate fewer residential units, fewer residents and site occupants would be exposed to nuisance noise generated by passing trains on the Union Pacific Railroad (UPRR). This alternative would generate less severe construction-related noise impacts, since the area of disturbance and number of units would be reduced.

Public Safety. As with the Agricultural Residential Cluster Subdivision, site disturbance associated with the Reduced Project Alternative would not occur in an area of historical croplands. Therefore, impacts related to residual agricultural chemicals would be similarly less than significant.



Since this alternative would accommodate 72 fewer residential units as the proposed Agricultural Residential Cluster Subdivision, fewer residents would be exposed to other public safety hazards overall. This includes: exposure to contaminants from highway and railway accidents that involve hazardous materials; the use, transport, or storage of hazardous chemicals; traffic safety hazards due to conflicts between proposed uses and existing off-site mining operations and on-site agricultural operations; and hazards related to potential aircraft accidents.

Under this alternative, lots would be clustered in the currently proposed Phase One location, while the water tanks would remain as proposed. Since no residences would be located near the water tanks under this alternative, potential public safety impacts associated with the unlikely event of water tank failure would be eliminated.

Overall, the Reduced Project Alternative would result in impacts which are both similar and reduced when compared to the proposed Agricultural Residential Cluster Subdivision.

Public Services. This alternative would accommodate 72 fewer residential units as the proposed Agricultural Residential Cluster Subdivision. Consequently, lesser demand for law enforcement, fire protection, school, and solid waste services would occur. Therefore, this alternative is considered to have fewer public service impacts compared to the proposed Agricultural Residential Cluster Subdivision.

Recreation. This alternative would accommodate 72 fewer residential units as the proposed Agricultural Residential Cluster Subdivision. Consequently, the need for recreational facilities would be reduced. Therefore, this alternative is considered to have fewer impacts related to parkland demand when compared to the proposed Agricultural Residential Cluster Subdivision.

Transportation and Circulation. This alternative would include 40 lots in the northernmost portion of the Agricultural Residential Cluster Subdivision site. Based on the trip rates used in the Draft EIR (refer to Table 4.12-9 in Draft EIR Section 4.12, *Transportation and Circulation*), Alternative 14 would generate 412 average daily trips, 32 AM peak hour trips, and 42 PM peak hour trips. This represents a 64% decrease compared to the Agricultural Residential Cluster Subdivision. Traffic impacts on local roadway and highway segments and intersections would therefore be reduced. Impacts related to pedestrian, bicycle and transit demand would also be reduced. Because access to the Reduced Project Alternative would be the same as the Agricultural Residential Cluster Subdivision, impacts related to access would be similar.

Visual Resources. This alternative would reduce site disturbance by approximately 64% compared to the proposed Agricultural Residential Cluster Subdivision, and the overall project footprint would be approximately $\frac{1}{4}$ that of the proposed Agricultural Residential Cluster Subdivision. The associated preservation of open space would maintain more of the rural character of the site than the proposed Agricultural Residential Cluster Subdivision. In addition, although the Phase One portion of the Agricultural Residential Cluster Subdivision would be visible from area roadways and the community of Santa Margarita, the Reduced Project Alternative would exclude development south of this area. As a result, overall impacts related to the alteration of visual character under this alternative would be reduced when compared to the proposed Agricultural Residential Cluster Subdivision.



Water and Wastewater. Water service under the Reduced Project Alternative would be provided by a connection to the Nacimiento Water Project. As a result, impacts related to groundwater use and overdraft of the aquifer system would be eliminated. In addition, this alternative would accommodate 72 fewer residential units than the proposed Agricultural Residential Cluster Subdivision. Therefore, this alternative would result in less net consumptive water use overall. This alternative assumes that sewer would be provided by individual septic systems, similar to the proposed Agricultural Residential Cluster Subdivision. Impacts related to improper disposal field design, on-site recharge of water softeners and household wastes, and septage load would also therefore be less than the proposed Agricultural Residential Cluster Subdivision.

3.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section evaluates the findings for the proposed Agricultural Residential Cluster Subdivision and the 10 alternatives under consideration for the Agricultural Residential Cluster Subdivision, including the three (3) new alternatives analyzed herein. Alternatives 1 through 7 were evaluated in the Draft EIR (refer also to Section 2.9 of this Revised Draft EIR document for a revised analysis of Alternative 7). The four (4) alternatives under consideration for the Future Development Program (Alternatives 8 through 11) have not been modified, and are discussed in Section 6.0, *Alternatives*, of the DEIR.

This section also identifies the environmentally superior alternative for each issue area, as shown on Table 3-1. In accordance with the State CEQA Guidelines, if the No Project/No Development Alternative or the No Project/Existing Zoning Alternative is identified as the Environmentally Superior Alternative, the alternative among the remaining scenarios that is environmentally superior must also be identified. In addition, the table shows whether each new alternative's environmental impact is greater, lesser, or similar to the proposed project. For each issue area, if the impact is greater, then the alternative is considered inferior (-) to the Agricultural Residential Cluster Subdivision, if the impact is lesser, then it is considered superior (+) to the Agricultural Residential Cluster Subdivision. Similar impacts are considered equal (=) to the Agricultural Residential Cluster Subdivision.

As discussed in the Draft EIR, the No Project/No Development Alternative (Alternative 1) is considered environmentally superior overall, since no development that could result in significant environmental impacts would occur. The No Project/Existing Zoning Alternative (Alternative 2) is also environmentally superior to the proposed Agricultural Residential Cluster Subdivision and Future Development Program. However, the No Project/Existing Zoning Alternative would not preclude future development on the Santa Margarita Ranch. The current land use designation that governs the Ranch would keep the possibility of development open, pursuant to the County's agricultural cluster subdivision ordinance and other development regulations.

Among the other development alternatives, Alternative 14 (Reduced Project Alternative) is environmentally superior overall, while Alternatives 12 (Amended Project), 7 (Tighter Cluster Alternative), 3 (Revised Cluster Design), and 13 (Smart Growth/Affordable Housing) are all superior to the proposed Agricultural Residential Cluster Subdivision in certain respects.



Table 3-1 New Alternatives Impact Comparison

Issue	Proposed Agricultural Residential Cluster Subdivision	Alt. 1* No Project/No Development	Alt. 2* No Project/Existing Zoning	Alt. 3 Revised Cluster Design	Alt. 4 Revised Cluster Location 1	Alt. 5 Revised Cluster Location 2	Alt. 6 Revised Cluster Location 3	Alt. 7 Tighter Cluster Alternative	Alt. 12 Amended Project Alternative	Alt. 13 S. Growth/Affordable Housing	Alt. 14 Reduced Project Alternative
Agricultural Resources	=	+	+	+	+/-	+/-	+/=	+/-	+/=	+/-	+
Air Quality	=	+	+	+/=	=	=	=	+/=	=	+/=	+
Biological Resources	=	+	+	+	+/-	+/=	+/-	+/-	+/=	+	+
Cultural Resources	=	+	+	+	+/=	+/=	=	+/=	+/=	=	+
Drainage, Erosion and Sedimentation	=	+	+	+	=/-	=/-	+/=	+/=	+/=	=	+
Geologic Stability	=	+	+	=	+/=	=/-	=	+/=	=	=	+
Land Use	=	+	+	+	=/-	=/-	=	+/=	=	+/-	+
Noise	=	+	+	=	=/-	=/-	=/-	=	=	=/-	+
Public Safety	=	+	+	+/=	-	=/-	=/-	+/=	=	=/-	+/=
Public Services	=	+	+	=	=	=	=	=	=/-	=	+
Recreation	=	+	+	=	=	=	=	=	=	+	+
Transportation and Circulation	=	+	+	=	+/-	-	=	=	+/=	+/=	+/=
Visual Resources	=	+	+	+/-	+/-	+/-	+/-	+/-	+	+/-	+
Water and Wastewater	=	+	+	=	=	=	=	=	+/=	+	+
Overall	=	+	+	+/=	=	=	=	+/=	+/=	+/=	+

- Inferior to the proposed Agricultural Residential Cluster Subdivision
 + Superior to the proposed Agricultural Residential Cluster Subdivision
 +/- Characteristics both better and worse than the proposed Agricultural Residential Cluster Subdivision
 = Similar impact to the proposed Agricultural Residential Cluster Subdivision
 * As compared to the Agricultural Residential Cluster Subdivision and Future Development Program combined



3.4.1 Environmentally Superior Alternative to the Agricultural Residential Cluster Subdivision

As noted above, Alternative 14 (Reduced Project Alternative) is environmentally superior overall, followed by Alternatives 12 (Amended Project), 7 (Tighter Cluster Alternative), 3 (Revised Cluster Design), and 13 (Smart Growth/Affordable Housing). These environmentally superior alternatives are discussed below.

Alternative 14 (Reduced Project Alternative) is environmentally superior to the Agricultural Residential Cluster Subdivision because it would reduce the size of the project from 112 to 40 lots and would reduce associated site disturbance by approximately 64%. The reduced site disturbance would result in fewer impacts related to agricultural resources, biological resources, drainage, erosion and sedimentation, and visual resources. Fewer lots and an associated decrease in project residents would further reduce impacts to air quality, noise, public safety, public services, recreation, transportation and circulation, and water and wastewater. Remaining impact areas (cultural resources, geologic stability and land use) would be reduced through a combination of the lesser site disturbance and fewer project residents. Overall, this alternative would be environmentally superior to the proposed Agricultural Residential Cluster Subdivision for 12 of the 14 issue areas, and environmentally superior/equal to the Agricultural Residential Cluster Subdivision for the remaining two issue areas.

Alternative 12 (Amended Project) is environmentally superior to the proposed Agricultural Residential Cluster Subdivision primarily because it avoids or reduces disturbance associated with environmental constraints identified in the Draft EIR. Compared to the proposed Agricultural Residential Cluster Subdivision, this alternative would relocate 23 lots, adjust the boundaries of 65 lots, add ½ acre building envelopes to all lots, and place height restrictions on 10 lots. These adjustments would slightly reduce impacts related to agricultural resources, and would reduce impacts related to biological resources, cultural resources, drainage, erosion and sedimentation, and transportation and circulation (access), and visual resources. However, because this alternative would generate the same number of lots and therefore the same number of new residents, impacts based on a per capita generation would be equal to the proposed Agricultural Residential Cluster Subdivision. Overall, this alternative would be environmentally superior to the proposed Agricultural Residential Cluster Subdivision.

Alternative 7 (Tighter Cluster Alternative) is environmentally superior to the proposed Agricultural Residential Cluster Subdivision primarily because it would reduce the overall project footprint by 78%. Under this alternative, all lots (excluding one ranch headquarters unit located on Parcel 42) would be clustered in the remainder parcel, north of the proposed Agricultural Residential Cluster Subdivision and south of the community of Santa Margarita, and in the northernmost portion of the Agricultural Residential Cluster Subdivision site (refer to Figure 6-5 in the Draft EIR). Although the amount of site disturbance would be similar to the proposed Agricultural Residential Cluster Subdivision, the overall project footprint would be reduced by approximately 78%. The reduced project footprint would partially reduce impacts to nine (9) of the 14 issue areas, including: agricultural resources, air quality, biological resources, cultural resources, drainage, erosion and sedimentation, geologic stability, land use, public safety and visual resources. However, all nine of these issue areas would also result in impacts either similar to or greater than the Agricultural Residential Cluster Subdivision due to the similar amount of site disturbance and placement of lots in a more sensitive area (i.e. with regards to



prime soils and riparian/wetland habitat). For the remaining five (5) issue areas, Alternative 7 would result in similar impacts to the Agricultural Residential Cluster Subdivision because it would generate the same number of new residents. These issue areas include: noise, public services, recreation, transportation and circulation, and water and wastewater. Overall, this alternative would be environmentally superior to the proposed Agricultural Residential Cluster Subdivision.

Alternative 3 (Revised Cluster Design) may also be considered environmentally superior in certain respects. This alternative analyzes an alternate site plan for the proposed Agricultural Residential Cluster Subdivision. The overall development potential of this alternative would be the same as for the proposed Agricultural Residential Cluster Subdivision. However, this alternative would reconfigure the 112 lots so as to reduce to the overall project footprint. Under this alternative, Lots 1 and 43 through 115 would be relocated north of the proposed East Driveway, within the currently proposed Phase 1 development area (refer to Figure 6-1 in the DEIR). Due to the reduced project footprint, this alternative is superior to the proposed Agricultural Residential Cluster Subdivision for four issue areas related to site disturbance, including: agricultural resources; biological resources; cultural resources; drainage, erosion and sedimentation. The reduced project footprint would partially reduce impacts to air quality (grading- and construction-related impacts and odor nuisance impacts). However, because this alternative would generate the same number of lots and therefore the same number of new residents, impacts based on a per capita generation would be equal to the proposed Agricultural Residential Cluster Subdivision. Geologic stability impacts would be similar to the proposed Agricultural Residential Cluster Subdivision because the same number of units would be exposed to similar hazards. Impacts related to the alteration of visual character under this alternative would be both better and worse when compared to the proposed Agricultural Residential Cluster Subdivision. Although the reduced footprint would preserve additional open space and maintain the rural character of the site, more homes may be visible from roadways within the community of Santa Margarita. Overall, this alternative would be environmentally superior to the proposed Agricultural Residential Cluster Subdivision.

Alternative 13 (Smart Growth/Affordable Housing) would utilize Smart Growth Principles of compact urban development and preservation of rural land and agricultural resources, and would therefore reduce impacts related to agricultural resources, air quality, biological resources, cultural resources, and transportation and circulation. In addition, because this alternative includes a park, recreation impacts would also be reduced. However, because this alternative would generate the same number of lots and therefore the same number of new residents, impacts based on a per capita generation would be equal to the proposed Agricultural Residential Cluster Subdivision. In addition, although the reduced footprint would preserve additional open space and maintain the rural character of the site, more homes may be visible from roadways within the community of Santa Margarita. Overall, this alternative would be environmentally superior and equal to the proposed Agricultural Residential Cluster Subdivision.

Refer to Section 6.0, *Alternatives*, of the Draft EIR for a discussion of Alternatives 4 through 6.



Conclusion

Alternative 14 (Reduced Project Alternative) is environmentally superior overall, while Alternatives 12 (Amended Project), 7 (Tighter Cluster Alternative), 3 (Revised Cluster Design), and 13 (Smart Growth/Affordable Housing) are all superior to the proposed Agricultural Residential Cluster Subdivision in certain respects.





Appendix A

Revised Air Emission Calculations

Urbemis 2007 Version 9.2.0

Summary Report for Annual Emissions (Tons/Year)

File Name: L:\ESP\SLO Co\05-58171 Santa Margarita Ranch\Report\Revised DEIR\Revised URBEMIS\ARCS apcd-revised.urb9

Project Name: Revised Santa Margarita Ranch

Project Location: San Luis Obispo County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>
2007 TOTALS (tons/year unmitigated)	0.07	0.52	0.27	0.00	2.05	0.03	2.07	0.43
2008 TOTALS (tons/year unmitigated)	2.33	3.18	4.10	0.00	0.85	0.20	1.05	0.18

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1.62	0.32	3.54	0.01	0.42	0.40	399.77

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	4.13	5.93	48.94	0.02	4.96	0.96	2,531.78

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	5.75	6.25	52.48	0.03	5.38	1.36	2,931.55

<u>PM2.5</u> <u>Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
0.03	0.45	41.92
0.18	0.36	433.91

Urbemis 2007 Version 9.2.0

Summary Report for Summer Emissions (Pounds/Day)

File Name: L:\ESP\SLO Co\05-58171 Santa Margarita Ranch\Report\Revised DEIR\Revised URBEMIS\ARCS apcd-revised.urb9

Project Name: Revised Santa Margarita Ranch

Project Location: San Luis Obispo County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>
2007 TOTALS (lbs/day unmitigated)	19.01	116.65	51.53	0.06	186.22	6.03	192.25	38.92
2008 TOTALS (lbs/day unmitigated)	172.93	143.19	96.56	0.08	186.34	7.79	194.13	38.96

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	7.49	1.45	5.80	0.00	0.01	0.01	1,799.54

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	21.29	29.54	256.58	0.13	27.17	5.25	14,110.20

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	28.78	30.99	262.38	0.13	27.18	5.26	15,909.74

<u>PM2.5</u> <u>Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
5.55	44.46	10,460.78
7.16	46.12	15,219.14

Urbemis 2007 Version 9.2.0

Summary Report for Winter Emissions (Pounds/Day)

File Name: L:\ESP\SLO Co\05-58171 Santa Margarita Ranch\Report\Revised DEIR\Revised URBEMIS\ARCS apcd-revised.urb9

Project Name: Revised Santa Margarita Ranch

Project Location: San Luis Obispo County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>
2007 TOTALS (lbs/day unmitigated)	19.01	116.65	51.53	0.06	186.22	6.03	192.25	38.92
2008 TOTALS (lbs/day unmitigated)	172.93	143.19	96.56	0.08	186.34	7.79	194.13	38.96

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	13.47	3.18	63.40	0.21	10.25	9.87	4,238.12

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	25.38	38.34	291.40	0.13	27.17	5.25	13,397.81

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	38.85	41.52	354.80	0.34	37.42	15.12	17,635.93

<u>PM2.5</u> <u>Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
5.55	44.46	10,460.78
7.16	46.12	15,219.14