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## 4.2 AGRICULTURAL RESOURCES

The purpose of the Agricultural Resources section is to determine whether implementation of the proposed project would result in significant environmental impacts to agricultural resources. The section identifies the status of agricultural lands on the development site and in the project vicinity, evaluates the direct impacts due to conversion of agricultural lands as well as indirect impacts leading to possible future conversions, and recommends mitigation measures to avoid or minimize project impacts.

Significant impacts that would occur as a result of the proposed project include the loss of ±294 acres of seasonal grazing land and ±14 acres of irrigated farmland. This impact would affect agricultural resources in the project area. Site development may also increase the potential for conflicts with agricultural uses on adjoining properties. The potential for such conflicts can be minimized by placing advisory notices on the deeds for the residential lots. The loss of on-site grazing lands may be partially offset through protection of oak woodlands, as provided for in Section 4.4: Biological Resources. However, loss of agricultural lands is an essentially irreversible impact; no feasible mitigation is available to create new agricultural lands. Therefore, even with mitigation, loss of agricultural lands is considered as a significant and unavoidable impact of the proposed project.

### 4.2.1 ENVIRONMENTAL SETTING

The California Department of Conservation, Division of Land Resource Protection, manages the Farmland Mapping and Monitoring Program. This program includes a list of “Important Farmland Categories” based on soil characteristics that have significant agricultural production values. Specific map categories in this program that pertain directly to the project include: Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land. (See Figure 4.2.1: Farmland Categories Map). The “Important Farmland Categories” are defined below:

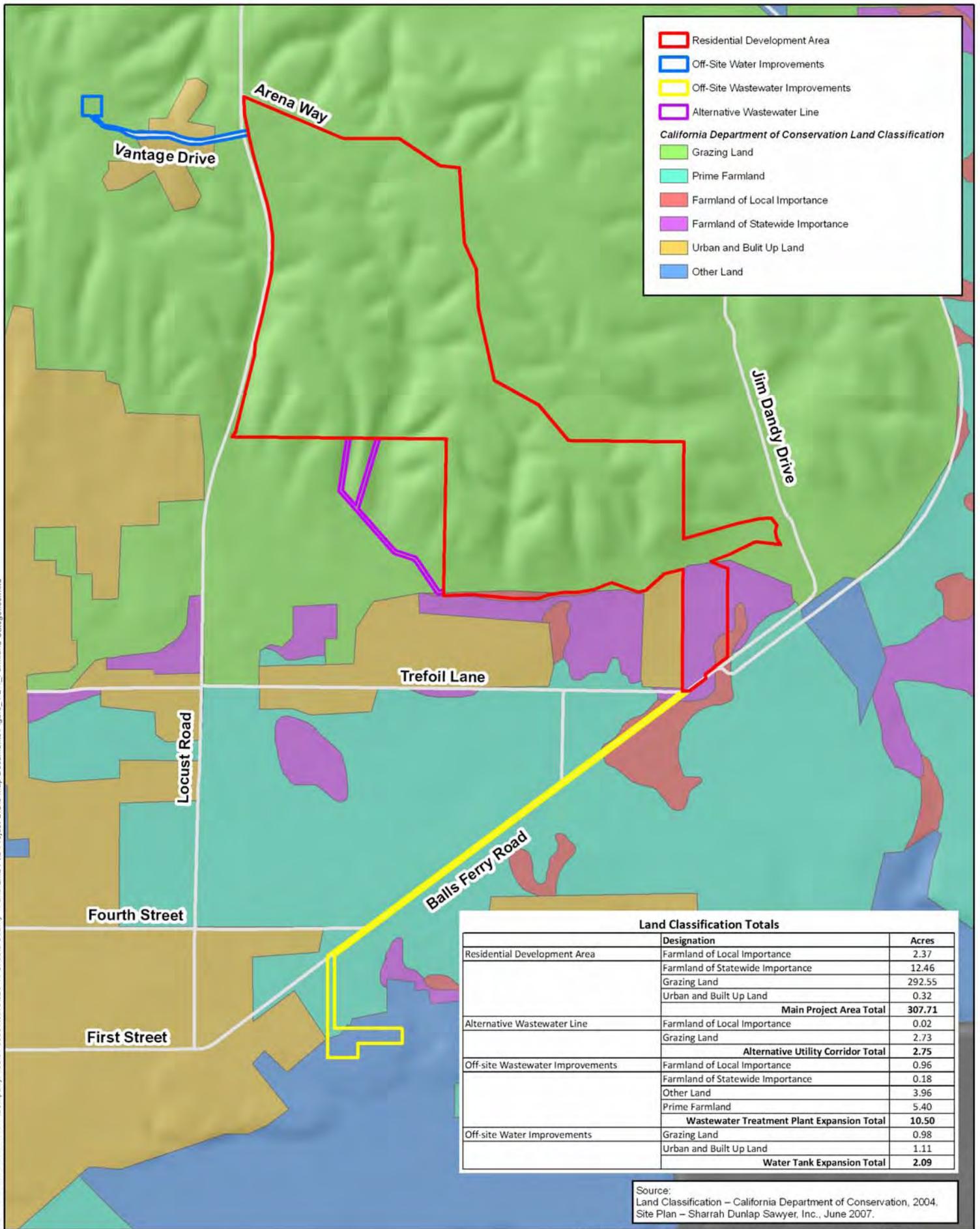
- *Prime Farmland*: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustainable yields.
- *Farmland of Statewide Importance*: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- *Farmland of Local Importance*: Land of importance to the local agricultural economy as determined by each county’s Board of Supervisors and a local advisory committee. Farmland of Local Importance in Shasta County includes “Dryland grain producing lands. Also included are farmlands that are presently

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Land Classification Totals		
	Designation	Acres
Residential Development Area	Farmland of Local Importance	2.37
	Farmland of Statewide Importance	12.46
	Grazing Land	292.55
	Urban and Built Up Land	0.32
	<b>Main Project Area Total</b>	<b>307.71</b>
Alternative Wastewater Line	Farmland of Local Importance	0.02
	Grazing Land	2.73
	<b>Alternative Utility Corridor Total</b>	<b>2.75</b>
Off-site Wastewater Improvements	Farmland of Local Importance	0.96
	Farmland of Statewide Importance	0.18
	Other Land	3.96
	Prime Farmland	5.40
	<b>Wastewater Treatment Plant Expansion Total</b>	<b>10.50</b>
Off-site Water Improvements	Grazing Land	0.98
	Urban and Built Up Land	1.11
	<b>Water Tank Expansion Total</b>	<b>2.09</b>

Source:  
Land Classification – California Department of Conservation, 2004,  
Site Plan – Sharrah Dunlap Sawyer, Inc., June 2007.

Feature and boundary locations depicted are approximate only. 07.16.09



Figure 4.2.1  
Farmland Categories Map



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irrigated but do not meet the soil characteristics of Prime or Statewide Farmland...These soils include Newtown gravelly loam (8 to 15 percent slopes); Moda loam, seeped (0 to 3 percent slopes); Moda loam, shallow (0 to 5 percent slopes); and Hillgate loam.” (California Department of Conservation, 2006)

- *Grazing Land:* Land on which the existing vegetation is suited to the grazing of livestock.
- *Urban and Built-up Land:* Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- *Other Land:* Land not included in any other mapping category. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres.

According to the California Department of Conservation, Division of Land Resource Protection (2004), Shasta County contains ±9,168 acres of Farmland of Local Importance, ±4,059 acres of Farmland of Statewide Importance, and ±408,857 acres of Grazing Land. California Department of Conservation Land Classifications existing on the project site are detailed in Table 4.2.1.

**Table 4.2.1  
Land Classification Totals**

<b>Project Element</b>	<b>Designation</b>	<b>Acres</b>
Residential Development Area	Farmland of Local Importance	2.37
	Farmland of Statewide Importance	12.46
	Grazing Land	292.55
	Urban and Built Up Land	0.32
	<b>Residential Development Area Total</b>	<b>307.71</b>
Alternative Wastewater Line	Farmland of Local Importance	0.02
	Grazing Land	2.73
	<b>Alternative Wastewater Line Total</b>	<b>2.75</b>
Off-site Wastewater Improvements	Farmland of Local Importance	0.96
	Farmland of Statewide Importance	0.18
	Other Land	3.96
	Prime Farmland	5.40
	<b>Off-site Wastewater Improvements Total</b>	<b>10.50</b>
Off-site Water Improvements	Grazing Land	0.98
	Urban and Built Up Land	1.11
	<b>Off-site Water Improvements Total</b>	<b>2.09</b>

Source: California Department of Conservation, 2004.

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Approximately 95 percent of the development site is designated as Grazing Land, with some Farmland of Statewide Importance and Local Importance located in the southeast. The only Prime Farmland designated by the California Department of Conservation in the study area is located along Balls Ferry Road, in the proposed sewer line corridor. While this land has been designated as Prime Farmland, it is completely within the Balls Ferry Road right-of-way and is not utilized for agricultural purposes.

The project site is currently used primarily for dryland grazing, with approximately 13.4 acres of irrigated pasture in the southeast. Most of the project site, with the exception of approximately 50 acres in the southern portion of the project site, is designated as open range. Open range lands are those on which it is the responsibility of the landowner to keep unwanted livestock off of their land, and the livestock owner is not liable for any damage caused by the livestock.

Livestock production accounts for approximately one-third of the County's total agricultural production value. As discussed in the *General Plan*, although agriculture is not a dominant industry in the County, it is a major element in defining the quality of life available to its residents. In addition to economic benefits, agricultural use "fosters habitat conservation and watershed protection, maintains the aesthetic character of the region, and promotes positive social interactions and a rural life style" (Shasta County, 2004).

### REGULATORY SETTING

An overview of existing and proposed *Shasta County General Plan* land use classifications and *Shasta County Zoning Plan* designations for the project site is provided in Section 3.4: Panorama Planned Development Regulatory Setting. Following is a discussion of objectives and policies in the *Shasta County General Plan* that are pertinent to the agricultural resources evaluation for the project site.

### Shasta County General Plan

#### Objectives

- AG-3 Recognition by Shasta County residents that the preservation of agricultural lands for agricultural uses, both large and small scale, is in the public interest because it preserves local and regional food supplies and is an important contributing industry to the Shasta County economy.
- AG-4 Recognition by Shasta County residents that preservation of agricultural lands, both large and small-scale, provides privately maintained open-space, facilitates a rural lifestyle, and requires Countywide understanding of the problems facing ranchers and farmers.
- AG-5 Protection of agricultural lands from development pressures and or uses which will adversely impact or hinder existing or future agricultural operations.
- AG-6 Protection of water resources and supply systems vital for the continuation of agriculture.

Policies

AG-h The site planning, design, and construction of on-site and off-site improvements for nonagricultural development in agricultural areas shall avoid unmitigatable short- and long-term adverse impacts on facilities, such as irrigation ditches, used to supply water to agricultural operations.

**4.2.2 THRESHOLDS OF SIGNIFICANCE**

Criteria for determining the significance of impacts related to agricultural resources were based on the Environmental Checklist Form in Appendix G of the State CEQA Guidelines (Cal. Code Regs., Title 14, Section 15000 et seq.). An impact related to agricultural resources is considered significant if it would:

- Convert Prime Farmland, Unique Farmland, or 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 non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use.

**4.2.3 ENVIRONMENTAL IMPACTS AND MITIGATION**

**Impact AGR-4.2-1 Conversion of Farmland** (*Significant and Unavoidable Impact*)

Nearly all of the proposed residential development site is currently used for seasonal dryland cattle grazing. A small area (±13.4 acres) in the southeastern portion of the site is irrigated and used as pasture. This area is designated by the California Department of Conservation as Farmland of Statewide Importance and Local Importance. Project implementation would result in the conversion of these lands to non-agricultural uses. In addition, as discussed above, approximately 5.4 acres of Prime Farmland have been designated by the California Department of Conservation along Balls Ferry Road. This land is completely within the Balls Ferry Road right-of-way, Union Pacific Railroad right-of-way, and existing wastewater treatment plant site, and is not currently being utilized for agricultural purposes. Installation of the wastewater main along Balls Ferry Road and expansion of the wastewater treatment plant would not result in conversion of this Prime Farmland to non-agricultural use.

The Environmental Checklist Form notes that lead agencies may choose to use the California Agricultural Land Evaluation and Site Assessment (LESA) Model in determining whether impacts to agricultural resources are significant. The LESA model has been used for the following assessment, as requested by Shasta County staff. The LESA model incorporates six assessment factors. Two are based on soil resource quality; other factors include the project’s size, water resource availability, the extent of surrounding agricultural lands, and the extent of protected agricultural lands in the site

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vicinity (e.g., lands under Williamson Act contracts). These factors are weighted relative to one another, and combined to produce a single numeric score used to determine significance. Existing *General Plan* classifications and zoning designations are not incorporated into this analysis.

For the purposes of the LESA analysis, it was assumed that the lands within the subdivision site proposed for open space use would not be available for grazing or other agricultural activity. The LESA analysis for the subject site resulted in a “Land Evaluation” (LE) rating of 20.6 and a “Site Assessment” (SA) rating of 23.2, for a total score of 43.8. Loss of agricultural lands with a score of less than 40 is not considered significant. Loss of agricultural lands in the 40- to 59-point range is considered significant only if both the LE and SA subscores are greater than or equal to 20 points. Given the above subscores, conversion of the project site from dryland grazing to residential use is considered a significant environmental impact.

Mitigation for the loss of agricultural lands is difficult. Some jurisdictions in California have adopted ordinances requiring preservation of agricultural lands elsewhere in the area. Such preservation can be accomplished through purchase of a conservation easement protecting existing agricultural lands or through payment of in-lieu fees that would ultimately fund purchase of a conservation (agricultural) easement. Shasta County does not currently have an in-lieu fee mechanism in place to provide for the acquisition of agricultural easements. However, the County can require the applicant to purchase a conservation easement to protect existing agricultural lands. The easement would be held by a conservation-oriented third party entity acceptable to Shasta County. Establishment of such an easement would provide partial mitigation for the loss of agricultural lands. It should be noted that Mitigation Measure BIO-4.4-2 requires establishment of an off-site conservation easement to offset the loss of oak woodlands. Because the project site supports both grazing and woodland, it may be appropriate for Shasta County to allow establishment of a single conservation easement providing for grazing within an oak woodland setting; this would eliminate the need for two single-purpose conservation easements.

The lands to be protected under the conservation easement should provide an equivalent or greater grazing capacity than the development site. Grazing capacity is defined in terms of “Animal-Unit Months (AUM),” which is the amount of forage production needed to support one cow and calf for a month (26 pounds of dry matter per day). Natural Resource Conservation Service data show that the 307-acre project site provides approximately 600 AUMs, as shown in Table 4.2.2.

**Table 4.2.2  
Animal Units per Month**

Symbol	Soil Description	Acres	AUM/Soil Type	AUM
<b>Irrigated Soils</b>				
MhA	Moda loam, seeped, 0 to 3 percent slopes	3.35	16	54
PIA	Perkins loam, 0 to 3 percent slopes	1.33	18	24
PoB	Perkins gravelly loam, moderately deep, 3 to 8 percent slopes	8.03	13	104
W	Wet alluvial land	0.45	0	0
<b>Total Irrigated Soils</b>				<b>182</b>
<b>Non-Irrigated Soils</b>				
Ad	Anderson gravelly sandy loam	5.62	2	11
NeC	Newtown gravelly loam, 8 to 15 percent slopes	7.89	2	16
NeD	Newtown gravelly loam, 15 to 30 percent slopes	39.21	2	78
NeE2	Newtown gravelly loam, 30 to 50 percent slopes, eroded	85.88	0	0
PmD	Perkins gravelly loam, 15 to 30 percent slopes	1.09	3	3
PoB	Perkins gravelly loam, moderately deep, 3 to 8 percent slopes	18.31	2.5	46
RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	109.33	2	219
RdA	Redding gravelly loam, 0 to 3 percent slopes	27.87	1.5	42
W	Wet alluvial land	2.09	0	0
<b>Total Non-Irrigated Soils</b>				<b>415</b>
<b>Total Animal Units per Month</b>				<b>597</b>

Mitigation is necessary to at least partially offset the significant and unavoidable loss of agricultural lands.

**MM AGR-4.2-1.** The loss of agricultural (grazing) lands on the subject site shall be offset through establishment of a conservation easement providing for agricultural use of off-site lands in perpetuity. The off-site agricultural lands shall provide a grazing capacity of at least 600 Animal Unit Months (AUM). The conservation easement shall be held by a conservation-oriented third party acceptable to Shasta County. An Operation and Management Plan identifying the land to be protected, acceptable land uses, management practices, and a reporting program shall be provided for Shasta County review and acceptance prior to establishment of the easement.

However, following mitigation, this impact would remain significant and unavoidable.

**Impact AGR-4.2-2 Conflict with Existing Agricultural Zoning (No Impact)**

According to Shasta County (Shasta County Assessor’s Office, 2007), none of the parcels within the project site are under a Williamson Act contract. While agricultural uses occur on adjacent properties, lands adjacent to the project site are not zoned for agricultural use, and are not under Williamson Act contracts. Therefore, project implementation would not result in conflicts with existing agricultural zoning.

There would be no impact with regard to conflicts with existing agricultural zoning.

**Impact AGR-4.2-3 Other Changes in the Existing Environment Potentially Leading to Conversion of Farmland** *(Less-than-Significant Impact with Mitigation Incorporated)*

As discussed above, project implementation would result in the conversion of the project site from dryland grazing and pasture lands to residential uses. In addition to the direct loss of agricultural use of these lands, residential development could result in conflicts with surrounding agricultural (grazing) lands, e.g., complaints regarding odors, dust, noise, etc. While adjacent lands are zoned for residential use, rather than commercial agricultural use, they are also designated as open range; persistent complaints could increase pressure for conversion of surrounding grazing lands to non-agricultural uses. To minimize the potential for conflicts, purchasers of proposed residential parcels abutting off-site grazing lands should be clearly notified of the potential nuisances due to ongoing agricultural uses and of the County's intent to support such agricultural uses.

Mitigation is necessary for this potentially significant impact.

**MM AGR-4.2-3.** A notice shall be placed on the deeds of all residential parcels. The notice shall state:

*Shasta County supports and permits properly conducted industrial and agricultural operations. **You are hereby notified that the property you are purchasing is located in the vicinity of lands that may be used for industrial or agricultural uses, including open range lands.** You may be subject to inconvenience or discomfort from lawful industrial and agricultural operations. Discomfort and inconvenience may include, but are not limited to, noise, odors, fumes, dust, smoke, burning, vibrations, insects, rodents, and/or the operation of machinery during any 24 hour period. If you live near an industrial or agricultural area, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in an area near the rural/urban fringe.*

While this mitigation measure does not eliminate conflicts resulting from nearby industrial and agricultural uses, it does notify future residents of potential discomforts and inconveniences related to the proximity to industrial and agricultural uses and zoning and would reduce the potential for land-use conflicts in the future. Therefore, this impact would be reduced to a less-than-significant level.

#### **4.2.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Establishment of a conservation easement to protect off-site agricultural lands would partially offset the loss of grazing lands. However, loss of agricultural lands is an essentially irreversible impact; no feasible mitigation is available to create new agricultural lands. Therefore, even with mitigation, loss of agricultural lands is considered as a significant and unavoidable impact of the proposed project.

**End of Section.**