

4.2 Agricultural Resources

This section analyzes potential impacts to agricultural resources that would be caused by implementation of the Rail Spur Project. This includes the direct or indirect conversion of agricultural soils to non-agricultural uses, conflicts with Agricultural zoning or Williamson Act contracts, dust and other incompatible land use impacts, and potential impacts to other agricultural resources, including water supplies, farm support services, and infrastructure. The section discusses existing agricultural conditions in the project vicinity, identifies the applicable regulatory setting, defines thresholds of significance, and identifies potential impacts and recommended mitigation measures for any identified significant impact. The section also provides a discussion of cumulative agricultural resource impacts.

4.2.1 Environmental Setting

4.2.1.1 Regional Agricultural Setting

According to the most recent United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) Census of Agriculture, California is the leading agriculture-producing state, with a total value of almost \$33.9 billion in agricultural products sold in 2007 (USDA NASS 2007). The California Department of Food and Agriculture (CDFA) report a record \$43.5 billion in sales in 2011, a 15 percent increase over 2010 sales of \$38 billion. California remained the number one state in cash farm receipts, comprising 11.6 percent of the U.S. total, with approximately 15 percent of the national receipts for crops and 7.4 percent of the national revenue for livestock and livestock products (CDFA 2013).

Within California, San Luis Obispo County ranked fifteenth in 2011 among state counties in overall agricultural production with total sales of over \$736 million, a 3.3 percent increase over 2010 sales (CDFA 2011). The total crop value in the county for 2013 totaled \$960.7 million, an 11 percent increase over 2012 (County of San Luis Obispo Department of Agriculture/Weights and Measures 2014). The top two commodities in the County in 2013 (for the second year in a row) were wine grapes (all) and strawberries, which accounted for 45 percent of the total combined value of the county's agricultural industry. Wine grape sales totaled \$220.4 million (23 percent) and strawberries were valued at \$210.6 million (22 percent). Other 2013 top ten commodities in San Luis Obispo County included: cattle and calves (\$96,390,000), broccoli (\$64,135,000), avocados (\$44,299,000), vegetable transplants (\$33,164,000), cut flowers (\$26,359,000), indoor decoratives (\$19,417,000), cauliflower (\$14,163,000), and Napa cabbage (\$13,431,000).

Table 4.2.1 shows the total production value of agricultural industry categories within the county in 2012 and 2013.

4.2 Agricultural Resources

Table 4.2.1 Total Production Value by Agricultural Category for 2013

Agricultural Category	2012	2013	Change
Animal Industry	\$73,857,000	\$100,865,000	\$27,008,000
Field Crops	\$24,612,000	\$16,365,000	-\$8,247,000
Fruit and Nut Crops	\$463,296,000	\$507,933,000	\$44,637,000
Nursery Stock	\$95,155,000	\$97,651,000	\$2,496,000
Vegetable Crops	\$204,900,000	\$237,896,000	\$32,996,000
TOTAL PRODUCTION VALUE	\$861,820,000	\$960,710,000	\$98,890,000

Source: County of San Luis Obispo Department of Agriculture, 2013 Annual Crop Report.

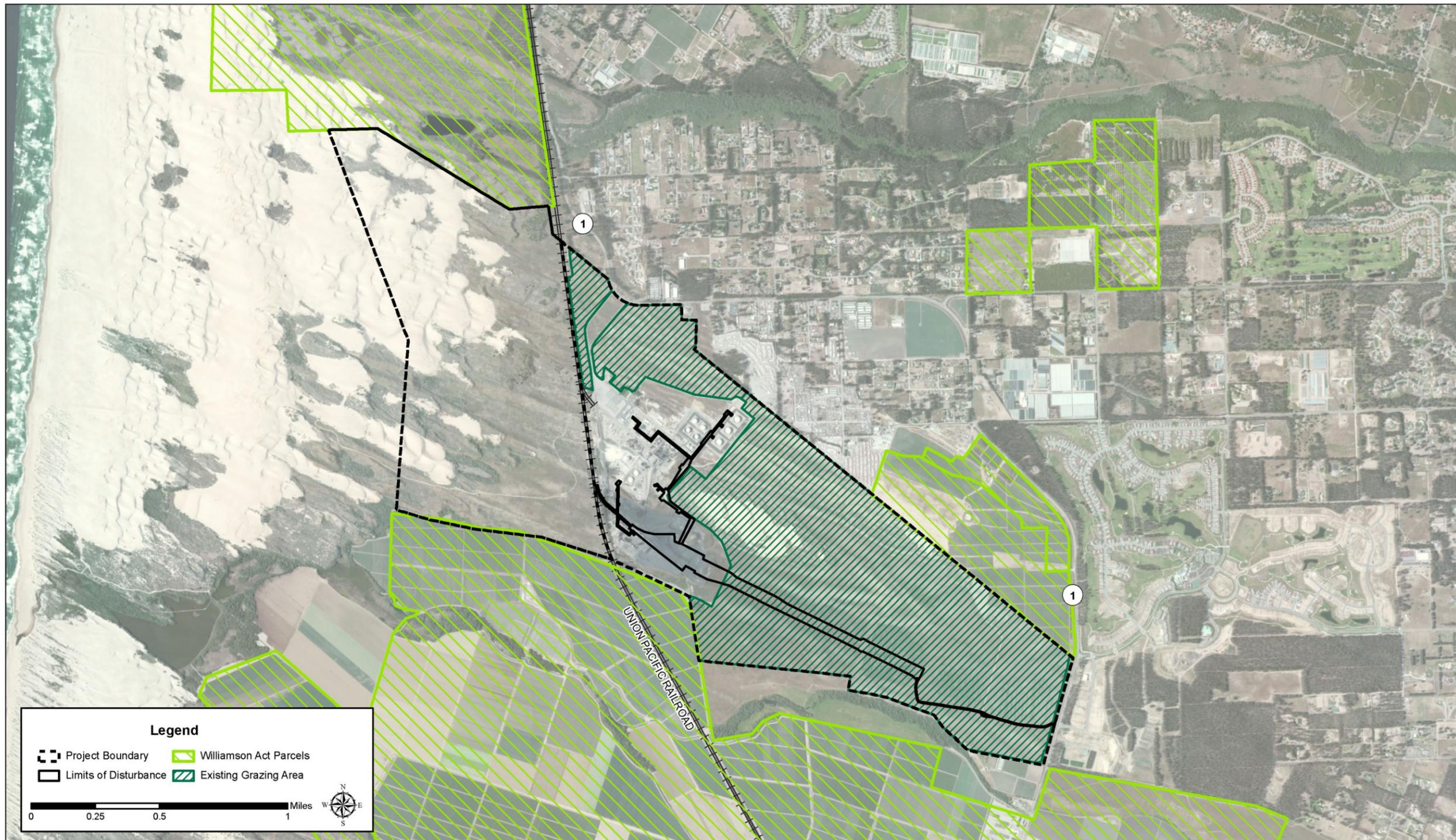
4.2.1.2 Local Agricultural Setting

The majority of the Project Site is within the Industrial land use category; however, a small portion of the southeast corner (approximately 10.3 acres) is within the Agriculture land use category (refer to Figure 4.8-2). The Project Site currently supports grazing activities (also conducted by Phillips 66 on property owned by Phillips 66) on open areas outside of the approximately 242-acre fenced area that encloses the active refinery and processing facilities. The number of head varies, but generally between 0 and 30 cattle and calves are grazed on an approximately 750-acre portion of the Project Site. The cattle do not have access to the entire area at once. They are rotated through different sections of the site to allow for longer periods between grazing events for the grass to regrow. The area currently used for grazing activities is depicted in Figure 4.2-1.

The applicant intends to fence the area encompassing the proposed rail spur extension and off-loading facility, while allowing access for cattle grazing to continue within the remainder of the project site. Pursuant to Section 23.08.046 of the Coastal Zone Land Use Ordinance (CZLUO), allowable cattle density is limited to three animals per acre in the Industrial land use category. Therefore, the portion of the project area currently used for grazing has the potential to support approximately 2,220 cattle and calves.

Cattle and calves were the third leading agricultural commodity in San Luis Obispo County in 2013 (County of San Luis Obispo Department of Agriculture/Weights and Measures 2013). Total cattle and calves inventory in the county was approximately 105,000 in 2013, up from 72,900 in 2012. Pursuant to the San Luis Obispo County 2013 Annual Crop Report, the number of cattle grazing the hillsides was dramatically reduced due to excessive drought conditions, lack of available grass for grazing, and the high cost of supplemental feed. This caused producers to sell off livestock, which will result in long term effects as it will take producers several years to rebuild herds. As a result, the price per unit decreased from \$123 to \$108 per hundredweight (cwt), or every 100 pounds, between 2012 and 2013. Despite this reduction in price per unit, the number of animals increased by approximately 44 percent, resulting in an overall increase of approximately 39 percent in total production value (from roughly \$69.5 million in 2012 to \$96.4 million in 2013) (County of San Luis Obispo Department of Agriculture/Weights and Measures 2014).

Figure 4.2-1 Existing Agricultural Uses



Source: Countywide_luc. SLO County Planning and Building Geographic Technology & Design. April 23, 2009; SLO_WA_2005. SLO County Planning & Building Geographic Technology & Design. 2005.

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4.2.1.3 On-site Soils

Soil types at the project site are described below. This information is summarized from the USDA Soil Conservation Service's *Soil Survey of San Luis Obispo County, California (Coastal Part)* (1984). Project site soils are shown in Figure 4.2-2 and their agricultural characteristics are summarized in Table 4.2.5, below.

134 – Dune Land. This soil unit consists of hilly areas along the coast that are composed of sand-sized particles that shift with the wind. Most areas are almost devoid of vegetation, though some areas are partially covered with California sagebrush or beach grass and are somewhat stabilized. Permeability of soil unit is very rapid, and the available water capacity is very low. Surface runoff is slow, and the hazard of soil blowing is very high. Most areas of dune land are used for recreational purposes associated with the beach.

184 – Oceano Sand (0 to 9 percent slopes). This soil unit is found in old stabilized sand dunes and is very deep, excessively drained, and nearly level to moderately sloping. It is formed in deposits of windblown sand at elevations of 10 to 500 feet, in areas ranging in size from 50 to 3,000 acres. Natural vegetation found on this soil unit is mainly brush, annual grasses, and scattered hardwoods. Typically, the surface layer is brown sand about 29 inches thick. The underlying material is stratified pale brown and pink sand to a depth of 60 inches or more. Some areas of this soil have a sandy loam surface layer.

Permeability of this soil is rapid, and the available water capacity is low. Surface runoff is slow or moderate, and the hazard of soil blowing is high. The effective rooting depth is 60 inches or more. Most areas of this soil are used for recreation, as rangeland, or for urban development. Other areas support lemons, Christmas trees, avocados, and strawberries.

All crops must be irrigated because the soil is droughty, with a low water holding capacity. The soil is also very susceptible to soil blowing. These problems can be minimized by providing cover crops in orchards and utilizing mulch. Cover crops of grasses or legumes can be grown if irrigated, and some dryland cover crops can be satisfactorily grown, depending on the location.

This soil unit is poorly suited to rangeland. The droughty texture supports a very short period of quality forage. Gully erosion is also a hazard during wet years because of the channeling of runoff water. Erosion can be controlled by maintaining a good vegetative cover at all times.

185 – Oceano Sand (9 to 30 percent slopes). This soil unit has characteristics consistent with unit 184 – Oceano Sand (0-9% slopes), above, except that it occurs in strongly sloping and moderately steep soils in old established sand dunes. Permeability of this soil is rapid, and the available water capacity is low. Surface runoff is medium or rapid. The hazard of water erosion is moderate or high, and the hazard of soil blowing is high. Most areas of this soil are used for recreation, as rangeland, or for urban development. Other areas support eucalyptus trees.

The effective rooting depth of this soil is also 60 inches or more. It is similarly poorly suited to rangeland because of the short period of quality forage and erosion hazards. Maintaining a good plant cover at all times will help protect the soil from erosion.

223 – Xerorthents, Escarpment. This map unit consists of moderately steep and steep, relatively smooth, descending slopes at the ends of terraces (a level shelf of land interrupting a declivity, with steep slopes above and below). Slopes average 40 percent, but range from 20 to 50 percent. Typically, characteristics of the soil material vary considerably within a short distance. The soils are fairly well stabilized; vegetative cover if annual grasses and shrubs.

Soil material is variable, but is generally light colored loam, sandy loam, or loamy sand of 24 to 48 inches deep. When the soil surface is bare, runoff is rapid and the risk of erosion is high. Some areas within this soil unit have deep gullies. Areas of this soil unit can be used for grazing. However, livestock grazing should be managed to protect the soil from excessive erosion.

111 – Camarillo Sandy Loam. This unit consists of very deep, somewhat poorly drained, and nearly level soils on alluvial plains near existing drainageways. It is formed in alluvium weathered from sedimentary rocks in areas typically ranging from 20 to 100 acres. Natural vegetation is typically annual grasses and forbs with scattered hardwoods. Most areas of this soil unit are presently cultivated, though the marginal area of the project site consisting of this soil unit (0.2 acres) is used for grazing (adjacent areas south of the project site within this soil unit area support row crops). Elevations typically range from 10 to 200 feet.

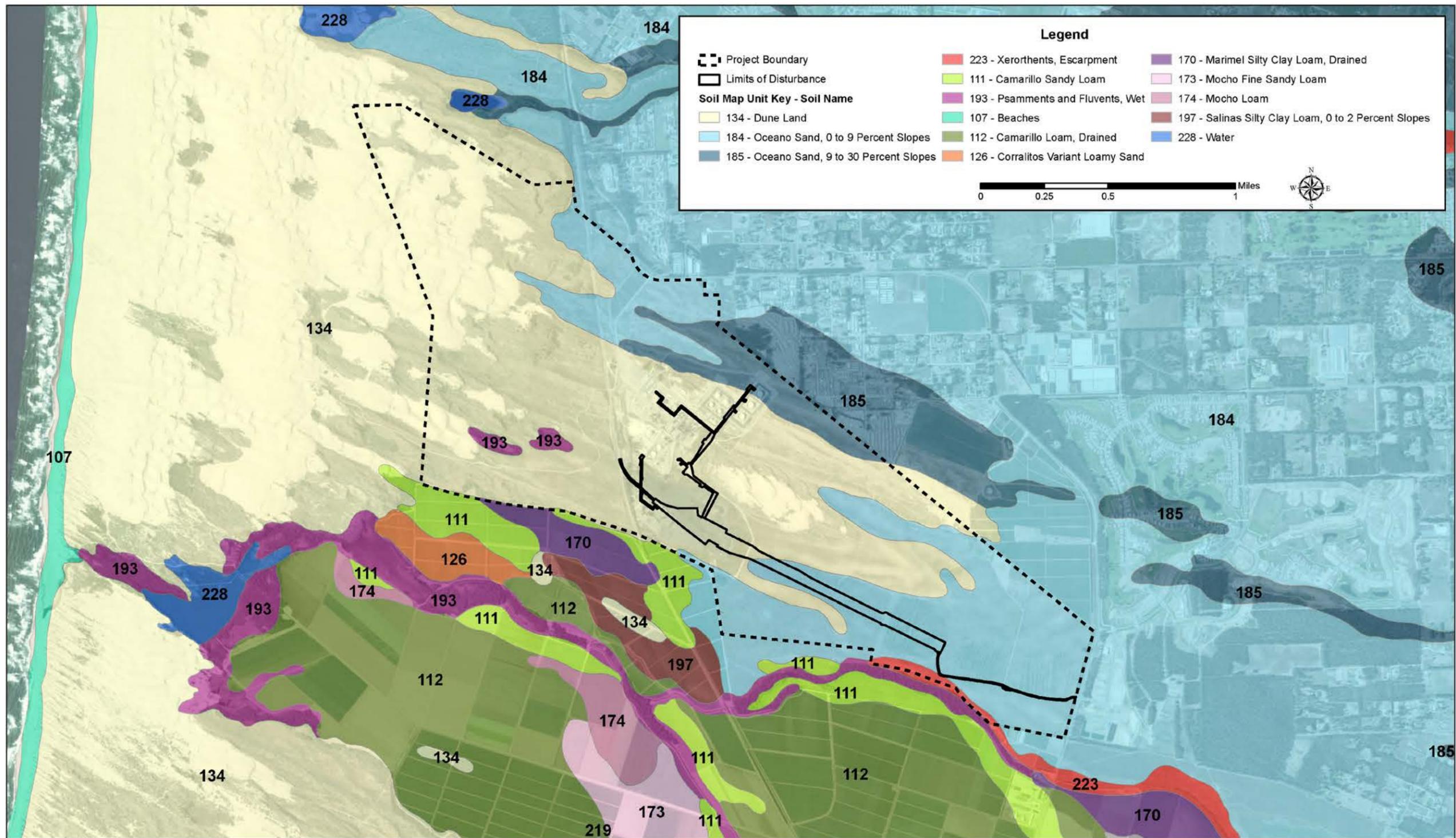
Typically, the surface layer is pale brown sandy loam 12 inches thick. The underlying material is stratified pale brown, yellowish brown, and light yellowish brown silty clay loam, light yellowish brown fine sandy loam, and pale brown loamy fine sand to a depth of 60 inches or more. An irregular arrangement of reddish brown patches are present around a depth of 24 inches, and the profile is moderately alkaline (containing a mixture of soluble salts found in arid soils) and calcareous (containing calcium carbonate or calcite or chalk) throughout.

Permeability of this soil is moderate, and the available water capacity is high. Surface runoff is slow. The hazard of water erosion is slight, and the hazard of soil blowing is moderate. The effective rooting depth is limited by a seasonal high water table at a depth of 2 to 3.5 feet from January to May. It increases to 60 inches or more during the drier times of the year. This soil is subject to brief periods of flooding. Most areas of this soil unit are used for cultivated crops; some are used as rangeland.

This soil is moderately suited to rangeland. Soil deposition is a problem, especially during years of high rainfall, because of the sediment load from upslope runoff. The soil produces quality forage for a short period; rapid depletion of surface moisture makes the germination of annuals difficult.

193 – Psammments and Fluvents, Wet. This soil map unit consists of small, very poorly drained basins in areas of Dune land or in coarse textured valley alluvium near streams and river bottoms. The soils are wind- and water-deposited sands and loamy sand that commonly contain layers of organic material. These areas are waterlogged all or most of the year, and vegetation consists of water- and salt-tolerant grasses and forbs. These soils are very poorly drained. Free water is within 10 to 20 inches of the surface for the majority of the year. Areas of these soils have little to no farming value and are used mainly as wildlife habitat.

Figure 4.2-2 Soils Map



Source: SLOCo_NRCS_Soils. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) Database for San Luis Obispo County. October 17, 2005.

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These and other soil units have been classified by national, state and local agencies by their ability to support agricultural uses, including in the USDA's land capability classification system and Important Farmland Inventory, the California Department of Conservation's Farmland Mapping and Monitoring Program, and San Luis Obispo County's Conservation and Open Space Element. Each of these classification systems is more fully described below.

4.2.1.4 USDA Natural Resource Conservation Service Classifications

The USDA Natural Resources Conservation Service (NRCS) assesses the potential agricultural productivity and limitations of different soils by utilizing both the land capability classification (LCC) system (described in the National Soil Survey Handbook Part 622.02) and the Important Farmland Inventory (pursuant to requirements of CFR Chapter 7 Part 657). The land capability classification system classifies soil units based on their capability to produce commonly cultivated crops and pasture plants without deteriorating over a long period of time (see Table 4.2.2, below). The system is subdivided into capability class and capability subclass. Capability classes range from I to VIII (1 to 8), with soils having the slightest limitations to agricultural use receiving the highest ratings (Class I). LCC sub-classes are utilized to further characterize soils within a specific class by designating the main hazard by which a particular soil is limited by reference to a letter, including: erosion (e); water (w); shallow, droughty, or stony (s); and very cold or very dry (c). Class I soils have no sub-classes because soils of this type have few limitations. Some soils are given different classifications for irrigated and non-irrigated conditions.

Table 4.2.2 Land Capability Classifications

Class	Definition
I (1)	Slight limitations that restrict use.
II (2)	Moderate limitations that reduce the choice of plants or require moderate conservation practices.
III (3)	Severe limitations that reduce the choice of plants or require special conservation practices, or both.
IV (4)	Very severe limitations that restrict the choice of plants or require very careful management, or both.
V (5)	Little or no hazard of erosion, but other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
VI (6)	Severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
VII (7)	Very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.
VIII (8)	Limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply for esthetic purposes.

Source: NRCS National Soil Survey Handbook, Title 430-VI;

LCC classifications of the soils at the project site are shown in Table 4.2.5, below.

The NRCS Important Farmland Inventory is an inventory of the prime and unique farmland of the nation, as well as an inventory of farmland of statewide and local importance developed in consultation with the appropriate state or local agency. Its purpose is to identify the extent and location of important rural lands needed to produce food, feed, fiber, forage and oilseed crops.

Prime Farmland is identified as land with the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and that is also available for these uses. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air, and are not excessively erodible or saturated with water for long periods of time. Soils must meet specific criteria related to moisture, available water capacity, temperatures, pH levels, root zones, slope, permeability, and rock composition in order to meet the NRCS classification of prime farmlands.

Unique Farmland is land, other than prime farmland, that is used for the production of specific high value food and fiber crops. Unique farmlands must have an adequate moisture supply and a combination of favorable factors related to soil quality and other site conditions that favor the growth of a specific food or fiber crop.

Farmlands of Statewide Importance are lands that are of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating this land are determined by the appropriate state agency. Lastly, some local areas have additional farmlands that are locally significant for the production of food, feed, fiber, forage, and oilseed crops. While not identified as having national or statewide importance, these lands may be identified by the appropriate local agency as having local significance.

Based on the NRCS Important Farmland Inventory criteria set out in the Code of Federal Regulations (Title 7 – Agriculture, Part 657 – Prime and Unique Farmlands) and the National Soil Survey Handbook Part 622.03, states prepare and maintain a current list of soil survey map units that meet the criteria for farmland. In California, this is done by the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program.

4.2.1.5 Farmland Mapping and Monitoring Program

The CDC Division of Land Resource Protection developed the Farmland Mapping and Monitoring Program (FMMP) in 1984 to analyze impacts to California's agricultural resources. Land is rated based on the land capability classification system, California's Revised Storie Index, and recent land use. Land designations include: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, Other Land, and Water. The FMMP defines these as follows:

- **Prime Farmland (P):** 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 sustained high yields. Land must have been

used for irrigated agricultural production at some time during the four years prior to the mapping date.

- Farmland of Statewide Importance (S): 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.
- Unique Farmland (U): Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the last four years prior to the mapping date.
- Farmland of Local Importance (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In San Luis Obispo County, Farmland of Local Importance is defined as areas that meet all the characteristics of Prime Farmland or Farmland of Statewide Importance with the exception of irrigation. Additional farmlands of Local Importance include dryland field crops of wheat, barley, oats, and safflower.
- Farmlands of Local Potential (LP): San Luis Obispo County also developed an additional category of Farmlands of Local Importance to classify lands having the potential for farmland, which have Prime or Statewide characteristics but are not cultivated. These lands are considered Farmlands of Local Potential.
- Grazing Land (G): Land on which the existing vegetation is suited to the grazing of livestock.
- Urban and Built-Up Land (D): Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six 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 (X): 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 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and great than 40 acres is mapped as Other Land.
- Water (W): Perennial water bodies with an extent of at least 40 acres.

Based on the FMMP for San Luis Obispo County (2008), the vast majority of the Project Site contains soils classified as Urban and Built-Up Land, Farmland of Local Potential and Other Land. Urban and Built-Up Land and Other Land encompass 58.75 percent of the Project Site, while Farmlands of Local Potential encompass 422.8 acres, or 41.14 percent of the Project Site. Very minimal areas of Farmland of Statewide Importance and Unique Farmland are located adjacent to the southern project boundary; however, these areas respectively comprise 0.01 percent or less of the Project Site. FMMP designations are shown in Figure 4.2-3, below.

4.2 Agricultural Resources

The Storie Index is a widely accepted method of rating soils for agricultural potential in California, which has been used for over 50 years. Originally, Storie Index ratings were hand-generated by soil survey staff and collaborators; therefore, ratings were somewhat subjective because of the inherent biases associated with the design of the classification system and the subjectivity of individual survey staff members. The Revised Storie Index is generated digitally from the NRCS National Soil Information System. Since 2005, the NRCS has published Storie Index ratings generated by the Revised Storie Index method, which reduces the subjectivity associated with this method of land classification.

Ratings are generated solely from soil characteristics, including a wide range of soil profile and landscape characteristics such as soil depth, surface texture, subsoil conditions, drainage, salinity, erosion, and topography. The index is defined by a grade system, ranging from 1 to 6 (refer to Table 4.2.3) and range from less than 10 to 100, with a rating of 100 representing the highest possible potential for agricultural production. Grade 1 soils (Storie Index ratings between 80 and 100) are considered excellent for agriculture and are considered prime soils. Grade 6 soils (Storie Index rating of less than 10) are considered unsuited for agriculture (O’Geen et al. 2008).

Table 4.2.3 Revised Storie Index Ratings

Grade	Storie Index Rating	Definition
1	80 – 100	Excellent – very minor or no limitations that restrict use of general agricultural use
2	60 – 80	Good – suitable for most crops, but have minor limitations that narrow the choice of crops and may require some special management practices
3	40 – 60	Fair – suited to fewer crops or to special crops and require careful management
4	20 – 40	Poor – limited to a narrow range of crops and require special management for intensive agriculture
5	10 – 20	Very Poor – generally not suited to cultivated crops but can be used for pasture and range
6	Less than 10	Non-agricultural – not suited to agricultural use

Source: USDA Soil Conservation Service, Soil Survey of San Luis Obispo County, Coastal Part (1984)

Revised Storie Index ratings of soils at the project site are shown in Table 4.2.4, below.

Table 4.2.4 On-Site Soils, Revised Storie Index Ratings

Soil Unit	Grade	Revised Storie Index Rating	Major Limitations
134 – Dune Land	6	< 10	n/a
184 – Oceano Sand (0-9% slopes)	3	49	drainage, fertility
185 – Oceano Sand (9-30% slopes)	3	41	drainage, fertility
223 – Xerorthents, Escarpment	5	19	erosion
111 – Camarillo Sandy Loam	2	60	drainage, flooding
193 – Psamments and Fluvents, Wet	6	8-10	drainage, salinity

Source: USDA Soil Conservation Service, Soil Survey of San Luis Obispo County, Coastal Part (1984)

The State of California has also defined prime farmland in the California Land Conservation Act, also known as the Williamson Act (Government Code Section 51201(c)) as any of the following:

1. All land that qualifies for rating as Class I or Class II in the NRCS land capability classification system;
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 States Department of Agriculture;
4. Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than \$200 per acre; and
5. Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than \$200 per acre for three of the previous five years.

4.2.1.6 San Luis Obispo County's Conservation and Open Space Element

The County of San Luis Obispo has combined information from these various state and federal sources into a single definition of Important Agricultural Soils of San Luis Obispo County in its Conservation and Open Space Element (COSE) of the General Plan (San Luis Obispo County 2010). Important Agricultural Soils are identified as Prime Farmland, Farmland of Statewide Importance, Other Productive Soils, and Highly Productive Rangelands. The County's definition of Prime Farmland utilized both the state and federal definitions of prime farmland.

Based on the COSE, approximately 53 percent of the Project Site consists of Important Agricultural Soils. Only Dune Land, which is the largest soil unit at the Project Site, comprising 479.8 acres and almost 47 percent, and Xerorthents, Escarpment (9.6 acres and 0.9%) are not considered Important Agricultural Soils. Of the Important Agricultural Soils present, 0.11 acres (less than 0.1 percent of the Project Site) are considered Prime Farmland, 455.5 acres (44.31 percent) are considered Farmland of Statewide Importance, and 89 acres (8.6 percent) are considered Other Productive Soils.

Important Agricultural Soils at the project site are mapped in Figure 4.2-3, below. Table 4.2.5 summarizes the size and classifications of the project site soils, based on the federal, state, and local classification systems described above.

4.2 Agricultural Resources

Table 4.2.5 Summary of On-Site Soils

Soil Unit	Area (acres)	Area (%)	LCC		Revised Storie Index Rating	COSE Important Agricultural Soils Classification
			irrigated	non-irrigated		
134 - Dune Land	479.8	46.9%	VIIIe	VIIIe	Non-agricultural	n/a
184 - Oceano Sand (0-9% slopes)	454.4	44.4%	IVe-1	VIe	Fair	Statewide Importance
185 - Oceano Sand (9-30% slopes)	79.4	7.8%	n/a	VIe	Fair	Other Productive Soils
223 - Xerorthents, Escarpment	9.6	0.9%	n/a	VIIe	Very poor	n/a
111 - Camarillo Sandy Loam	0.2	0.02%	IIw-2	IIIw-2	Good	Prime
193 - Psamments and Fluvents, Wet	0.08	0.01%	n/a	VIw	Non-agricultural	Other Productive Soils

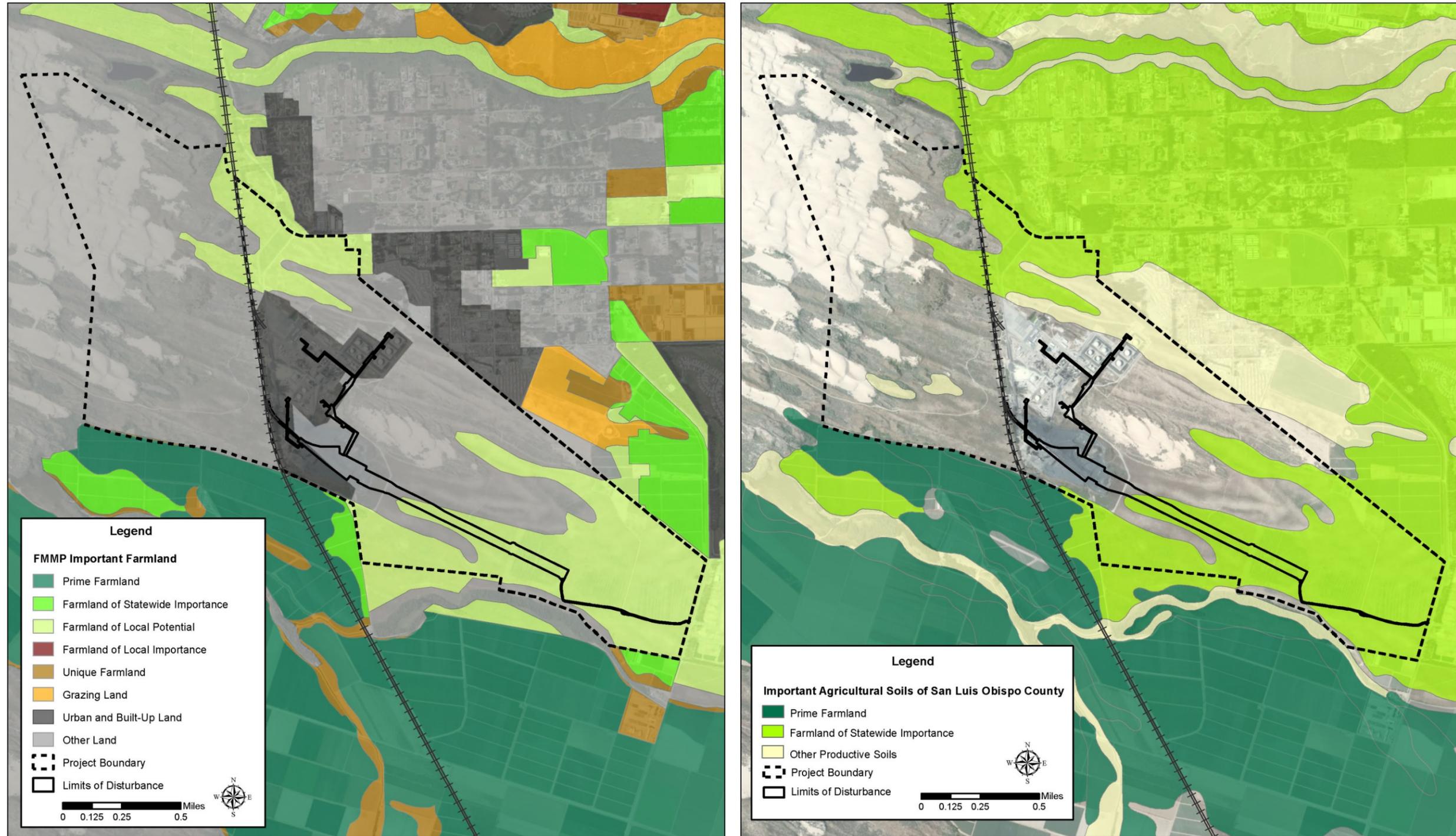
Source: USDA *Soil Survey of San Luis Obispo County, Coastal Part* (1984); San Luis Obispo County Conservation and Open Space Element (2010).

4.2.1.7 Farmland Conversion

The CDC utilizes the FMMP to track the conversion of farmland to other uses in the state. Irrigated farmland in California decreased by more than 317 square miles (203,011 acres) between 2006 and 2008. Urban land increased by 72,548 acres, a 29 percent decrease relative to the 2004 to 2006 reporting period. This was the lowest urbanization rate since the late 1990s, reflecting the effects of the recent economic recession. Long-term land idling and reversion to dry farming due to water availability issues was the primary contributing factor to irrigated land decreases, primarily in the San Joaquin Valley.

In San Luis Obispo County, 357 acres of agricultural land were converted to non-agricultural use between 2008 and 2010. The 357 acres converted consisted of Farmland of Local Importance (138 acres) and Grazing Land (219 acres), but no Prime Farmland, Farmland of Statewide Importance, or Unique Farmland was converted to non-agricultural uses. Approximately 1,590,741 acres of agricultural land were surveyed within the county in 2010, including 409,726 acres of important farmland and 1,181,015 acres of grazing land (DOC 2014). The total conversion of lands, to non-agricultural uses or otherwise, within the county between 2008 and 2010 is shown in Table 4.2.6, below.

Figure 4.2-3 Important Farmland and Important Agricultural Soils Maps



Source: Sanluisobispo2008.Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008; SLOCo_NRCS_Soils. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) Database for San Luis Obispo County. October 17, 2005; County of San Luis Obispo, COSE, 2010.

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Table 4.2.6 San Luis Obispo County Farmland Conversion 2008-2010

Agricultural Land Use Category	Total Acreage Inventoried		2008-2010 Acreage Changes			
	2008	2010	Acres Lost	Acres Gained	Total Changed	Net Changed
Prime Farmland	41,569	41,319	1,129	879	2,008	-250
Farmland of Statewide Importance	21,109	21,132	685	708	1,393	23
Unique Farmland	38,777	39,950	894	2,067	2,961	1,173
Farmland of Local Importance	309,081	307,325	7,281	5,525	12,806	-1,756
<i>IMPORTANT FARMLAND SUBTOTAL</i>	<i>410,536</i>	<i>409,726</i>	<i>9,989</i>	<i>9,179</i>	<i>19,168</i>	<i>-810</i>
Grazing Land	1,183,042	1,181,015	7,549	5,522	13,071	-2,027
<i>AGRICULTURAL LAND SUBTOTAL</i>	<i>1,593,578</i>	<i>1,590,741</i>	<i>17,538</i>	<i>14,701</i>	<i>32,239</i>	<i>-2,837</i>
Urban and Built-up Land	44,392	45,017	582	1,207	1,789	625
Other Land	239,045	242,998	1,801	5,754	7,555	3,953
Water Area	10,521	8,780	1,741	0	1,741	-1,741
TOTAL AREA INVENTORIED	1,887,536	1,887,536	21,662	21,662	43,324	0

Source: California Department of Conservation, Division of Land Resource Protection, California Farmland Conversion Report 2008-2010.

4.2.1.8 Williamson Act

The Williamson Act, also known as The California Land Conservation Act of 1965, is the State of California's primary conservation program for agricultural and open space lands. The voluntary program allows property owners to receive reduced property taxes in exchange for ten or 20 year commitments in the form of legally enforceable contracts to keep the property in agricultural production. The program is a two-step process involving the establishment of an agricultural preserve by the local legislative body and then approval of a land conservation contract. Based on the County Assessor's parcel database as of September 2006, there were approximately 4,140 Williamson Act contracts in the County encompassing 781,000 acres. There were also 1,630 agricultural preserves covering an area of 183,800 acres.

No portion of the project site is currently under an Agricultural Preserve or Williamson Act contract. However, several immediately adjacent parcels to the northwest, northeast and south of the project site include substantial lands under Williamson Act contracts (refer to Figure 4.2-1, above). Uses allowed on land under contract must meet the County CZLUO requirements, County Rules of Procedure to Implement the California Land Conservation Act of 1965, and the principles of compatibility outlined in the Land Conservation Act (California Government Code Section 51200 et seq.).

4.2.1.9 UPRR Mainline Routes

Trains could enter California at least five different locations (one at the north end of the state from Oregon, two at the northeast from Nevada, one at the southeast from Nevada, and one at the south from Arizona). Depending upon the route taken by the train they could arrive at the SMR from the north or the south. It is unknown what route UPRR would use to deliver the trains to the

4.2 Agricultural Resources

SMR. Coming from the north the routes merge at the UPRR Roseville Rail Yard. From the south the routes merge at the Colton Rail Yard. Given that the route the trains would travel to get to these two UPRR yards is speculative, the EIR has evaluated in more detail the impacts of trains traveling from these two UPRR yards to the SMR.

Beyond the two UPRR Yards, trains could travel any number of routes (refer to Figure 2-8). Also, crude oil delivered to California by UPRR would generally pass through either of these two rail yards in route to the SMR. Depending upon the source of the crude oil, crude oil trains could use any portion of the UPRR network between Roseville/Colton and the source location for the crude oil. The exact route that would be taken would depend upon a number of factors, that could include the source of the crude oil, weather conditions, train traffic conditions, etc. Since the routes past Roseville and Colton are somewhat speculative, the EIR has discussed in a more qualitative nature the potential agricultural resource impacts of train traffic beyond these two rail yards.

The UPRR mainline routes from Roseville in the north and Colton in the south that would be used to transport crude oil to the SMR refinery pass through or adjacent to extensive agricultural lands and uses, including row crops, vineyards, orchards, grazing land, and nurseries. An overview of agricultural areas along the mainline routes is shown in Figures 4.2-4 through 4.2-9.

4.2.2 Regulatory Setting

4.2.2.1 State Regulations and Policy

California Land Conservation Act (Williamson Act)

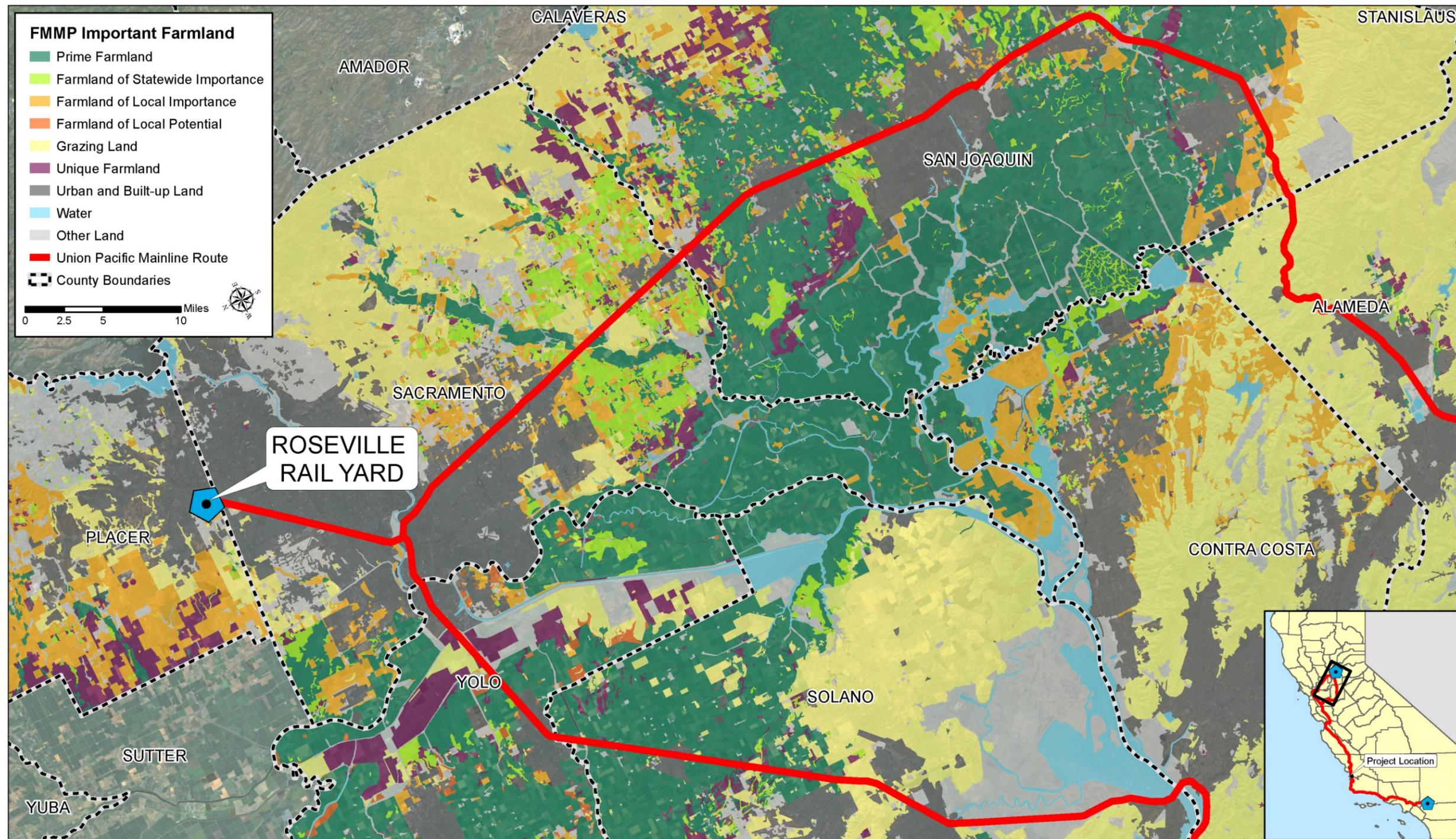
As defined by Government Code 51200 et seq., the California Land Conservation Act of 1965 (Williamson Act) enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. As an incentive, landowners receive lower property tax assessments based on agricultural or open space land uses, as opposed to the unrestricted value of the land. Until recently, local governments have received a subvention to replace a portion of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. However, due to recent state budget issues, subvention payments have declined or been eliminated in recent years.

4.2.2.2 Local Regulations and Policy

Agriculture Element

The Agriculture Element of the San Luis Obispo County General Plan (separated from the Open Space Element in May 2010) provides a background on agricultural resources within the County. Through the goals, policies, implementation programs, and measures provided within the document, the County's intent is to "Identify those areas of the county with productive farms, ranches and soils, and establish goals, policies and implementation measures that will enable their long-term stability and productivity." Of the policies in the Agriculture Element, several are directly applicable to this project. Please refer to Appendix G, Preliminary Policy Consistency Analysis, for a discussion of these policies as they relate to this project.

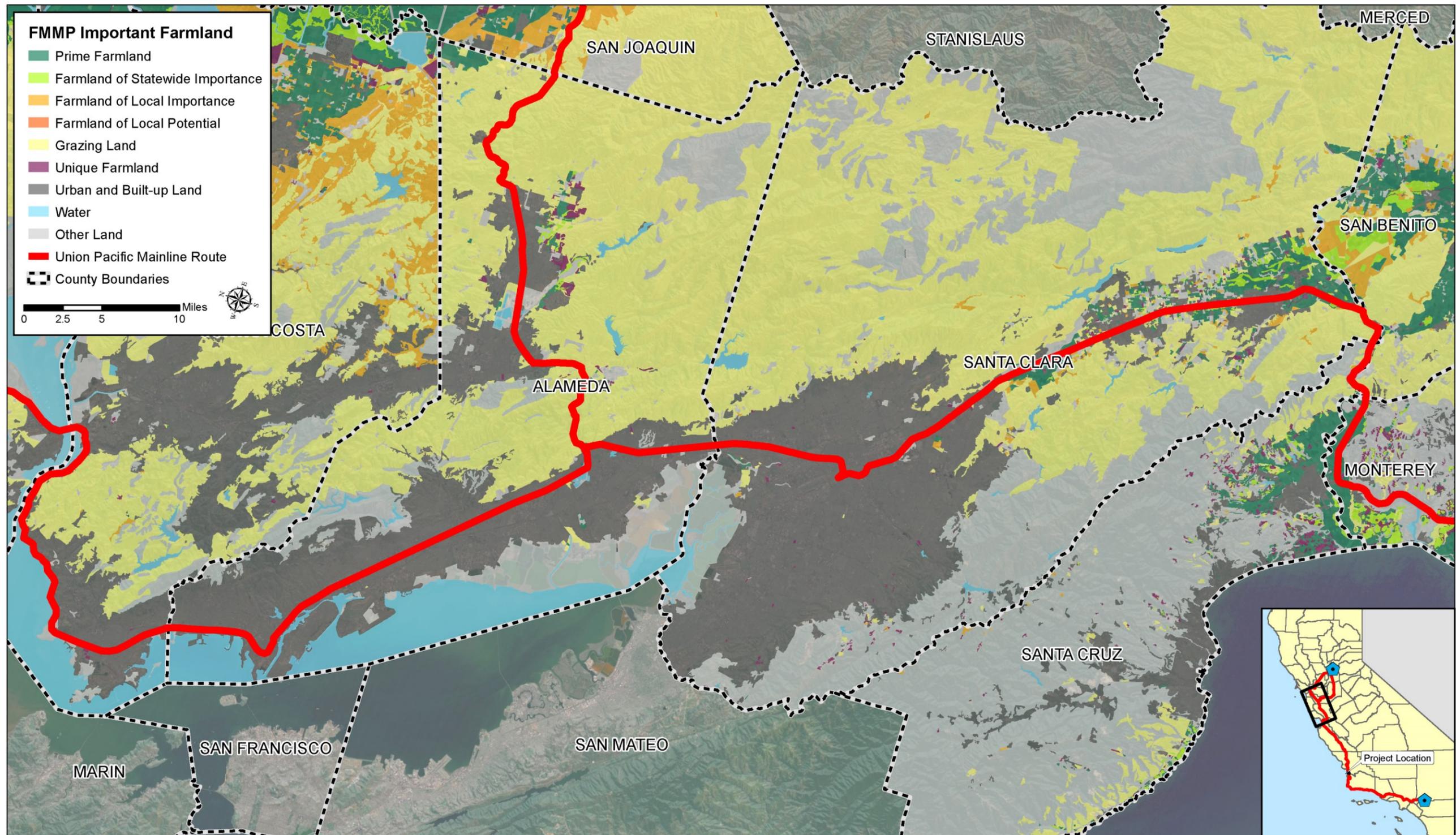
Figure 4.2-4 UPRR Mainline Routes Agricultural Maps (Sheet 1 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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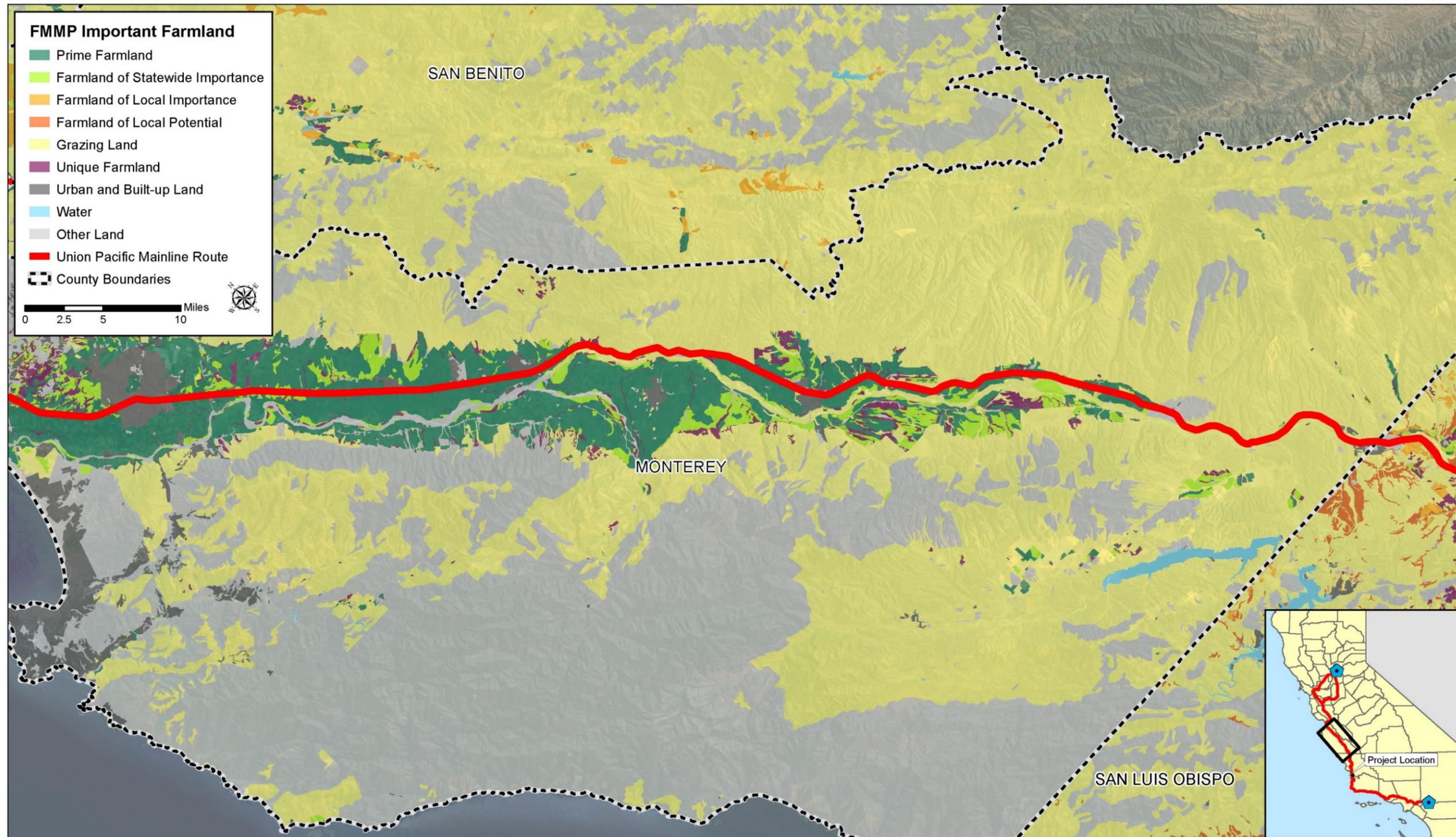
Figure 4.2-5 UPRR Mainline Routes Agricultural Maps (Sheet 2 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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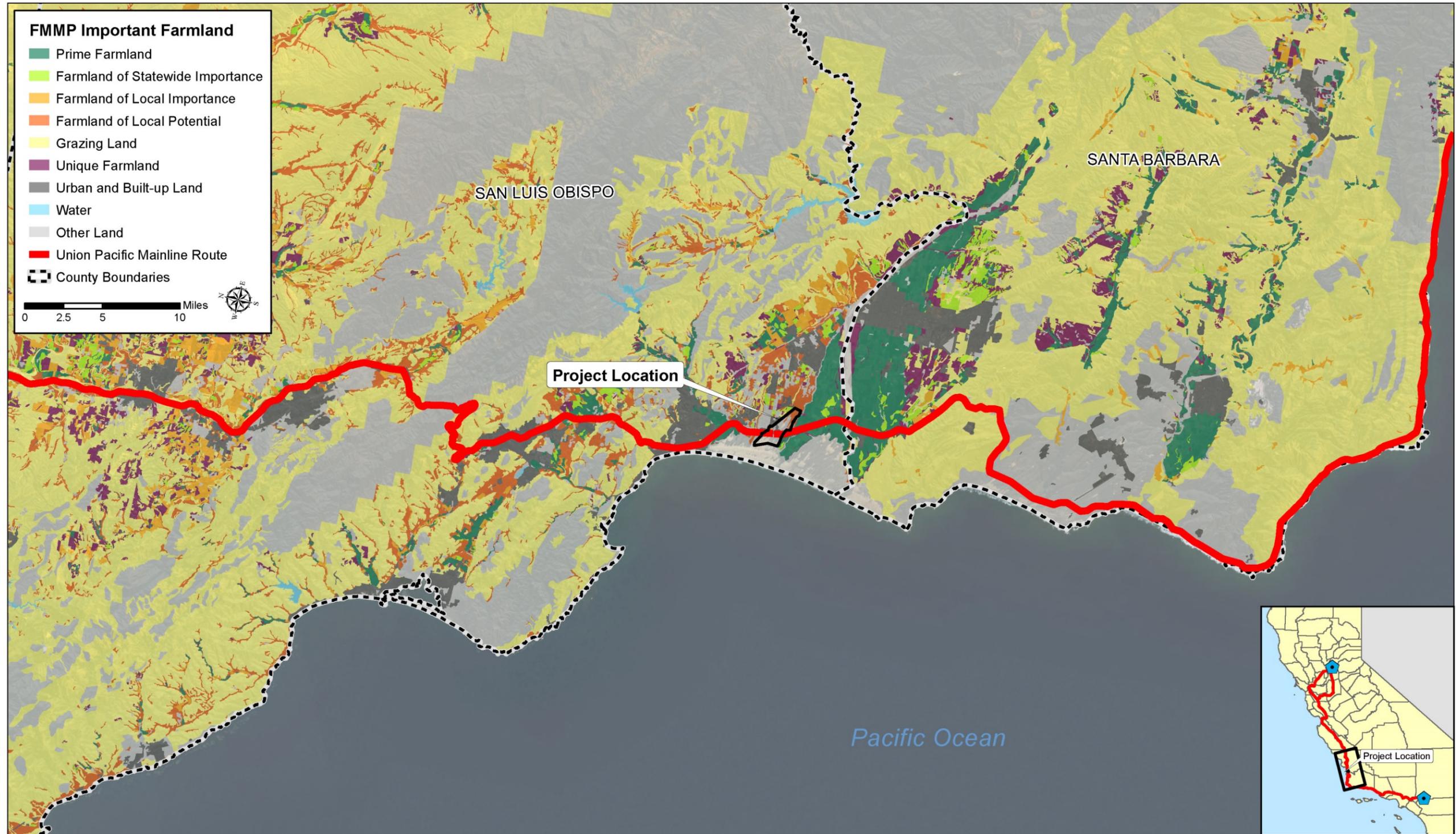
Figure 4.2-6 UPRR Mainline Routes Agricultural Maps (Sheet 3 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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Figure 4.2-7 UPRR Mainline Routes Agricultural Maps (Sheet 4 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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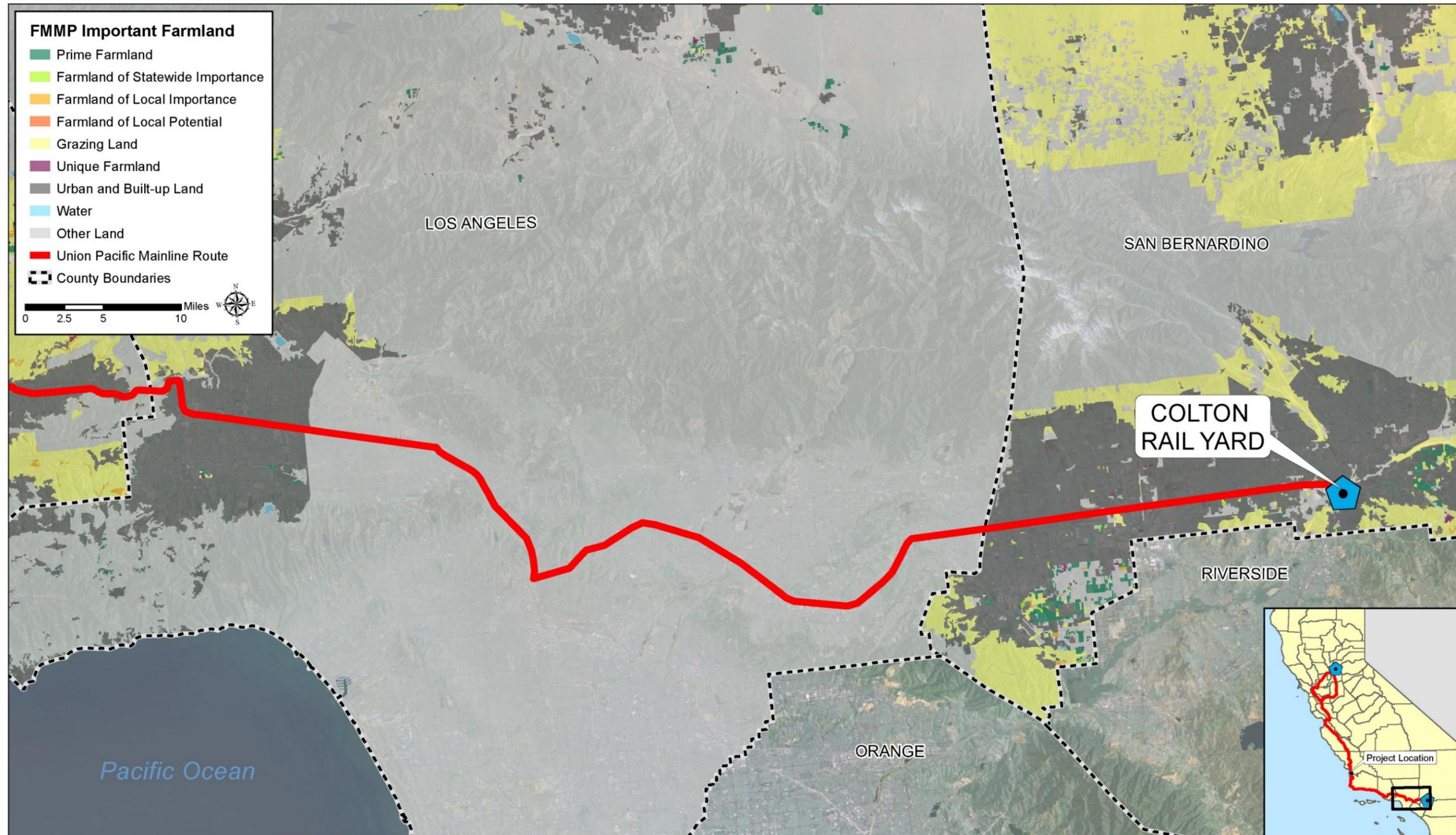
Figure 4.2-8 UPRR Mainline Routes Agricultural Maps (Sheet 5 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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Figure 4.2-9 UPRR Mainline Routes Agricultural Maps (Sheet 6 of 6)



Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2008.

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Conservation and Open Space Element

The COSE is based on the principles of strategic growth, with the intent to preserve unique or valuable natural resources, to manage development within the sustainable capacity of the county’s resources, and to reduce the county’s contribution to global climate change. The COSE consists of a policy and program document and a technical appendix. The policy and program document includes a chapter that specifically addresses soils, which identifies resource management goals, policies and strategies that preserve and protect soil resources from degradation or loss by wind and water erosion, preserve and protect watershed function and ecological health through soil conservation, and protect agricultural soils from conversion to urban and residential uses. Several policies of the COSE are directly applicable to the project. Please refer to Appendix G, Preliminary Policy Consistency Analysis, for a discussion of these policies as they relate to this project.

San Luis Obispo County Right-to-Farm Ordinance

The San Luis Obispo County Right-to-Farm Ordinance (County Code Chapter 5.16) states that “the use of real property for agricultural operations including agricultural processing is a high priority and favored use.”

The ordinance provides that: “it is the declared policy of this County to enhance and encourage agricultural operations, including agricultural processing within the County...[and] to provide to the residents of this County proper notification of the County’s recognition and support through this ordinance of those persons’ and/or entities’ right to farm”. The ordinance also states that: “where non-agricultural land uses occur near agricultural areas, agricultural operations frequently become the subjects of nuisance complaints due to lack of information about such operations. As a result, agricultural operators may be forced to cease or curtail their operations. Such actions discourage investments in farm improvements to the detriment of agricultural uses and the viability of the County's agricultural industry as a whole.”

The right-to-farm ordinance advises purchasers of residential and other property types adjacent to existing agricultural operations of the inherent potential nuisances associated with the purchase of such property. Concerns may include the noise, odors, dust, chemicals, smoke and hours of operation that may accompany agricultural operations.

4.2.3 Significance Criteria

The significance of potential agricultural impacts is based on thresholds identified within the County of San Luis Obispo Initial Study Checklist, which was developed in accordance with Appendix G of the CEQA Guidelines. The County Checklist provides the following thresholds for determining impact significance with respect to agricultural resources. Agricultural impacts would be considered significant if the proposed project would:

- Convert prime agricultural land, per NRCS soil classification, to non-agricultural use;
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use;

4.2 Agricultural Resources

- Impair agricultural use of other property or result in conversion to other uses; or
- Conflict with existing zoning for agricultural use, or Williamson Act program.

4.2.4 Project Impacts and Mitigation Measures

The following sections discuss the Rail Spur Project's potential to result in adverse environmental effects to agricultural resources based on the thresholds identified above.

Impact #	Impact Description	Phase	Impact Classification
AR.1	The Rail Spur Project would result in conversion of prime agricultural land per NRCS soil classification to non-agricultural use.	Construction and Operations	None

Based on the NRCS Web Soil Survey, on-site soils farmland classifications are provided in Table 4.2.7. None of the soils encompassing the Project Site are considered prime farmland except for potentially Camarillo sandy loam, which would only be considered prime when irrigated and drained. No portion of the Project Site is irrigated at this time but water resources are available that would allow for irrigation of the Camarillo Sandy Loam soils (see Water Resources Section for a water availability discussion). The Camarillo Sandy Loam soil unit lies almost entirely south of the Project Site and only extends beyond the project boundary onto the Project Site in very small areas (approximately 0.2 acre) south of the existing industrial coke plant area (refer to Figure 4.2-2, above). No disturbance is proposed within 400 feet of this soil unit; therefore, the Rail Spur Project is not likely to disturb or affect any Camarillo Sandy Loam soils. Use of the existing UPRR Mainline Route would place trains on existing tracks and haul routes, and would not result in any conversion of prime adjacent soils along the route.

Table 4.2.7 NRCS Soil Classifications

Soil Unit	Farmland Classification
134 – Dune Land	Not prime farmland
184 – Oceano Sand (0-9% slopes)	Farmland of statewide importance
185 – Oceano Sand (9-30% slopes)	Not prime farmland
223 – Xerorthents, Escarpment	Not prime farmland
111 – Camarillo Sandy Loam	Prime farmland, if irrigated and drained
193 – Psamments and Fluvents, Wet	Not prime farmland

Source: USDA NRCS Web Soil Survey; <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

No conversion of prime agricultural land, per NRCS soil classification, to non-agricultural use would result from the Rail Spur Project. No impacts would occur.

Impact #	Impact Description	Phase	Impact Classification
AR.2	The Rail Spur Project would result in the permanent conversion of approximately 22.3 acres of Farmland of Statewide Importance, based on soil classifications in the COSE, to non-agricultural use.	Construction and Operations	Class III

Areas of Prime Farmland, Unique Farmland and Farmland of Statewide Importance (mapped through the FMMP) are shown in Figure 4.2-3, above (left side of the graphic). The FMMP maps these areas based on the NRCS soil classifications discussed above as well as California’s Revised Storie Index and recent land uses. Based on the FMMP, the Project Site does not contain any Prime Farmland, Unique Farmland or Farmland of Statewide Importance; however, Farmland of Local Potential is delineated onsite. While adjacent parcels do have areas within these designations, none of the adjacent farmlands are located within 400 feet of the proposed area of disturbance and no effects on these farmlands would result. Potential effects on adjacent agricultural uses are further discussed below.

Based on the FMMP, no conversion of these farmlands to non-agricultural use would occur. However, to account for local conditions related to the agricultural industry and the particular crops grown within the County, and to protect the local resources best suited to support those crops, the County established its own soil classification system in the COSE. Based on the COSE classifications, the Project Site contains a very small area of soils that are considered Prime Farmland, and substantive areas of Farmland of Statewide Importance and Other Productive Soils (refer to Figure 4.2-3, right side of the graphic).

The Prime Farmland designation coincides with the Camarillo Sandy Loam soil unit discussed above. No project activities are proposed within 400 feet of these soils and no conversion of COSE-designated Prime Farmland would occur.

The Farmland of Statewide Importance designation identified in the COSE is associated with the Oceano Sand, 0 to 9 percent slopes, soil unit (refer to Figure 4.2-2). Development of the Rail Spur Project would result in the disturbance of approximately 22.3 acres of Farmland of Statewide Importance in areas currently used for grazing. The unloading facility and all related appurtenances are sited outside of the Important Farmland; however, the proposed tracks would extend approximately 0.8 mile into Farmlands of Statewide Importance. Approximately 12.3 acres of Oceano Sand within the Farmland of Statewide Importance designation would be permanently converted to non-agricultural use as a result of development of the rail spur extension and the emergency vehicle access road. Disturbance to the remaining 10 acres of this COSE-designated Important Agricultural Soil would only occur during short-term construction activities; these areas would be restored to the extent feasible after construction of the project. All 22.3 acres would be located within the security fencing that would surround the proposed rail spur extension or converted directly into the emergency access roadway area. Therefore, this entire area of Farmlands of Statewide Importance would be considered permanently converted due to the infeasibility of utilizing these areas as farmland after construction of the project. Use of the existing UPRR Mainline Route would place trains on existing tracks and haul routes, and would not result in any conversion of adjacent soils along the route.

4.2 Agricultural Resources

Conversion of this area would remove existing rangeland with the capacity for approximately 67 cattle (22.3 acres times 3 head per acre). However, the site has not historically been grazed anywhere near the allowable capacity for industrial parcels, and the intensity of existing grazing activities (0 to 30 head) could easily be continued on remaining undeveloped areas of the Project Site. Because the proposed operations are similar to existing industrial operations at the refinery, no additional land use incompatibility issues are expected to result from the Rail Spur Project that would significantly affect grazing activities. Therefore, no significant impacts to existing grazing activities would occur.

The Oceano Sand soil type is well suited for some agricultural uses (such as strawberries which prefer well drained soils) provided that adequate water is available. Farmlands of Statewide Importance are located both directly north and south of the eastern portion of the Project Site where the rail extension is proposed, and currently support intensive row crops in areas also comprised of Oceano Sands. Therefore, the potential for more intensive agricultural use of this area exists. However, the farmlands on the Project Site are not currently used for intensive agricultural production and such use is not likely as long as existing industrial refining continues due to private land use preferences, existing zoning and permitting constraints, and incompatibility issues.

Due to the Rail Spur Project's location on an Industrial-zoned parcel and the presence of multiple site conditions and regulatory constraints that would make future agricultural use of this area unlikely, conversion of these farmlands to industrial use consistent with existing land uses and zoning is considered a less than significant impact on agricultural resources.

The San Luis Obispo County General Plan includes policies for maintaining agricultural lands, and states:

“Other lands (non-prime) suitable for agriculture shall be maintained in or available for agricultural production unless: 1) continued or renewed agricultural use is not feasible; or 2) conversion would preserve prime agricultural land or concentrate urban development within or contiguous to existing urban areas which have adequate public services to serve additional development; and 3) the permitted conversion will not adversely affect surrounding agricultural uses.

All prime agricultural lands and other (non-prime) lands suitable for agriculture are designated in the land use element as Agriculture unless agricultural use is already limited by conflicts with urban uses.” (San Luis Obispo County LCP, Chapter 7: Agriculture, Policy 1)

All portions of the Rail Spur Project Area except the easternmost segment of the EVA, including all areas of Farmlands of Statewide Importance that would be converted, are within the Industrial land use designation (refer to Figure 4.8-2). Per the LCP, all prime and other (non-prime) lands suitable for agricultural use are designated as Agriculture unless agricultural uses are limited by conflicts with urban uses. Therefore, the area to be converted as a result of the Rail Spur Project is not considered suitable for agricultural purposes per guidance in the LCP and for other reasons discussed above. Because these areas are not suitable for agricultural purposes, the LCP does not

require their maintenance for agricultural production (refer to Policy 1, above, which only applies to other (non-prime) lands suitable for agriculture).

Mitigation Measures

No mitigation measures would be necessary because the potential impact would be less than significant. The potential for adverse impacts to on-site agricultural soils and farmlands would further be minimized by implementation of measures proposed to reduce risks of erosion, sedimentation, stormwater runoff, and hazardous material contamination. Refer to mitigation proposed in Sections 4.6, Geological Resources, 4.7, Hazards and Hazardous Materials, and 4.13, Water Resources.

Residual Impacts

The Rail Spur Project would convert Farmlands of Statewide Importance to non-agricultural use; however, these actions would occur on land zoned for Industrial Use and the project would not significantly disrupt existing grazing activities. More intensive agricultural activities on the site are unlikely due to the industrial land classification, regulatory constraints including requirement of a coastal development permit, the presence of Nipomo Mesa lupine, and the past and present crude refining activities. With implementation of the mitigation measures proposed elsewhere in this EIR, impacts associated with the conversion of agricultural soils and farmlands would be further minimized. Residual impacts would be *less than significant (Class III)*.

Impact #	Impact Description	Phase	Impact Classification
AR.3	The project could result in effects that impair adjacent agricultural uses, including the generation of dust and contaminated air emissions, soil and water contamination, use of water within the Santa Maria Groundwater Basin, the spread of noxious weeds, and increased risk of fire or oil spills, which have the potential to adversely affect adjacent agricultural areas.	Construction and Operations	Class II

Project development could generate dust and contaminated air emissions, create hazardous materials contamination, increase water demands, spread noxious weeds, increase risk of fire or oil spills, and result in other effects, all with the potential to adversely effect on-site grazing activities and adjacent off-site agricultural uses.

The SMR currently supports heavy industrial uses in operation 24 hours/day 365 days/year. Existing uses include crude oil and carbon processing, railroad tracks and train cars, large-scale equipment and trucks, large stacks, storage tanks, above-ground pipelines, and material storage. Existing industrial uses have occurred at the Project Site concurrent with adjacent grazing activities for decades. The Rail Spur Project would extend the railroad tracks into existing grazing areas, which would result in an extension of noise, dust, and air pollution similar to those along other areas of the railroad tracks extending through the SMR. However, the uses proposed by the Rail Spur Project would be consistent with existing uses at the SMR and would not result in a new or different use in the area that would be substantially less compatible with grazing activities. Because the proposed operations are similar to existing heavy industrial operations at

4.2 Agricultural Resources

the refinery that have historically occurred with no discernable effect on adjacent grazing activities, no additional land use incompatibility issues are expected to result from the Rail Spur Project that would significantly affect onsite grazing activities.

Although the potential for oil spills currently exists at the SMR, the Rail Spur Project increases the potential for leaks or spills due to operation of the unloading facility and associated pipeline.

Given the low speed the trains would be moving at the site (3 mph) it is unlikely that a tank car could be impacted enough to result in a spill. This is discussed further in the Hazards Section (Section 4.7). In addition, most of the rail spur would be below the surrounding grade (see grading plans in Appendix A). This would help to contain any oil spilled within the rail spur graded area.

The most likely spill related event would be a release during the unloading process due to a loading line failure. The unloading racks are equipped with oil spill drain boxes which would feed below-grade 16-inch-diameter drain lines routed to three parallel 20,000 gallon rectangular storage tanks located in a vault for containment. The total capacity of the containment system would be about 273,000 gallons (this includes the drain boxes, curbed area, pipelines and storage tanks). The containment system has been designed to move any spilled oil away from the rail cars and into the 60,000 gallon storage tanks. The loss of a loading hose could result in a maximum spill of about 27,300 gallons of crude oil (the capacity of one rail car). This system would effectively control spills that would from the loading operations.

A spill from the new crude oil pipeline has the potential to result in the worst-case spill of about 90,800 gallons of crude oil. This worst case spill would occur where the pipeline connects with unloading pumps since this is the lowest elevation of the pipeline. As one moves up the pipeline toward the storage tanks, the maximum spill volumes decrease, with the smallest spill volumes being near the storage tanks. In the event of a release from the pipeline the oil would drain into the area around the pipeline and unloading racks (see grading plans in Appendix A).

In the unlikely event that a spill got outside the perimeter of the unloading facility it would be generally be confined to the Project Site given the topography of the surrounding area.

As noted in the Water Resources section of the EIR, mitigation is identified that would further reduce the potential for contamination of soil and water (refer to WR-1 and WR-2). The applicant is required to comply with existing fire safety regulations to prevent and contain fires. In addition, the Rail Spur Project would be sited in the interior portions of the Project Site and all areas of disturbance would be separated from adjacent agricultural areas by 400 feet or more. Therefore, the potential for impacts related to soil and water contamination, and destruction by accidental fires and spills is considered low but would still be considered potentially significant.

The Water Resources section of the EIR includes an assessment of water demand; please refer to that section for more detailed information. In summary, the 2012 Water Supply Assessment prepared for the Throughput Increase Project concluded that the total water supplies available during normal, single-dry, and multiple-dry water years, within a 20-year projection, will meet the projected water demand for the increased throughput project, based on the Phillips 66 groundwater rights in the Nipomo Mesa Management Area (NMMA), as defined in the

Stipulation for the Santa Maria Groundwater Litigation (the Stipulation). In the next 20 years, if a Severe Water Shortage Condition occurs, per the Stipulation, Phillips 66 would have rights to 110 percent of the highest amount of prior groundwater use, or 1,550 AFY. The County of San Luis Obispo and other major water purveyors in the NMMA are bound by the Superior Court of the County of Santa Clara, under the Stipulation to uphold the Phillips 66 SMR rights to use water. Increased throughput (not associated with the Rail Spur Project) would result in a water demand up to 1,111 AFY. The proposed Rail Spur Project would increase water demand by 250 gallons per day, or 0.3 AFY. This additional 0.3 AFY of groundwater use would not be a substantial increase above existing conditions, and would not result in a significant decrease in water available for agricultural uses on adjacent parcels, and agricultural uses overlying the Santa Maria Groundwater Basin. Therefore, potential impacts related to water demand would be less than significant.

Regarding dust, the applicant is required to comply with San Luis Obispo County APCD standards for control of particulate matter, which would reduce the generation and transport of dust during construction (see mitigation measure AQ-1f). Regarding the spread of noxious weeds, mitigation is identified in the Biological Resources section that addresses the potential spread of invasive plants (refer to BIO-9). Potential impacts on agricultural uses of other properties would be potentially significant prior to implementation of these mitigation measures.

Mitigation Measures

AR-3 Implement WR-1, WR-2; AQ-1f, and BIO-9.

Residual Impacts

Based on implementation of mitigation measures referenced above and discussed in detail within this EIR (Air Quality, Biological Resources, and Water Resources), potential impacts to agricultural resources onsite and in the area would be *less than significant with mitigation (Class II)*.

Impact #	Impact Description	Phase	Impact Classification
AR.4	The project proposes disturbance and use of lands within the Agriculture designation to support industrial development.	Operations	None

The vast majority of the Project Site is within the Industrial land use designation. However, a small portion in the southeastern corner of the site, approximately 10 acres, is within the Agriculture land use designation (refer to Figure 4.8-2). Proposed activities within this area would be limited to improvements to the existing dirt road to provide secondary emergency vehicle access to the Rail Spur Project. Approximately 0.25 acre of this area would be converted to the improved road; however, no new or different use is proposed that would conflict with the agricultural designation or future agricultural use of the property. This area is outside of the Coastal Zone; therefore, LCP policies related to the maintenance of lands suitable for agricultural use are not applicable.

4.2 Agricultural Resources

Potential impacts would be less than significant. Impacts related to the conversion of agricultural lands and soils are discussed further above.

The Project Site is not subject to a Williamson Act contract, although several adjacent agricultural parcels are under such contracts. The Rail Spur Project would not directly conflict with any Williamson Act contracted lands. The potential for indirect effects on adjacent agricultural lands that may be subject to Williamson Act contracts are discussed above.

No impacts related to the Williamson Act program would occur.

Impact #	Impact Description	Phase	Impact Classification
AR.5	The project could result in effects that impair adjacent agricultural uses along the UPRR mainline in the event of a derailment and/or spill, including the generation of contaminated air emissions, soil and water contamination, and increased risk of fire, which have the potential to adversely affect adjacent agricultural areas.	Operations	Class I

The addition of up to five train round trips per week on the UPRR mainline routes would increase the potential for spills or fire-related impacts on adjacent agricultural soils in the event of an accident, derailment or other upset conditions during transport along the mainline routes. The probability of a crude oil train release incident is discussed in the Hazardous and Hazardous Materials Section (Section 4.7). This probability represents the probability of a release incident for the length of the rail routes between the SMR and Roseville or Colton. In order for there to be an impact to agricultural resources, the incident would need to occur in the vicinity of these resources. This would lower the probability of an oil train release impacting agricultural resources.

As discussed in the Hazards and Hazardous Materials Section (Section 4.7), the worst case spill from a unit train on the mainline tracks was assumed to be 180,000 gallons (about six tanker cars).

In the event of an accident, a spill of transported crude could occur, potentially damaging any agricultural areas, soils, crops, water sources, and uses within the area of the spill. An accident along the mainline routes could also create a fire hazard in agricultural areas, which could spread substantially beyond the areas directly adjacent to the tracks. As shown in Figures 4.2-4 through 4.2-9, the mainline rail routes pass through numerous prime, statewide or local important farm lands. All of these agricultural areas could be impacted in the unlikely event of an oil spill in close proximity to these areas. In the event of an oil spill adjacent to these areas, there could be a complete loss of the agricultural resources due to fire or oil spill in the vicinity of the impact area.

Some short-term impacts could be minimized through site remediation, clean-up, and restoration of the agricultural resources (i.e., replanting, removal of contaminated soils). However, impacts related to water source contamination and loss of some specialty crops (i.e., old growth vines that

have value in their age) would be more difficult to mitigate. The loss of some crops, prime soils, and other agricultural resources may not be mitigable through restoration and replacement in kind. Therefore, impacts to agricultural resources associated with an oil spill along the mainline routes would be considered potentially significant.

Spill Impacts beyond Roseville and Colton Yards

Beyond the two UPRR Yards, trains could travel any number of routes (refer to Figure 2-8). Also, crude oil delivered to California by UPRR would generally pass through either of these two rail yards in route to the SMR. Depending upon the source of the crude oil, crude oil trains could use any portion of the UPRR network between Roseville/Colton and the source location for the crude oil. The exact route that would be taken would depend upon a number of factors, that could include the source of the crude oil, weather conditions, train traffic conditions, etc.

While the exact route the trains would take to get to these two rail yards is speculative, all of the routes within and outside of California would traverse various amounts of agricultural areas, which would increase the probability of a spill impacting agricultural resources. In the event of a spill impacting agricultural resources along this portion of the route the impacts could be significant for the same reasons discussed above for the routes between Roseville/Colton and the SMR.

Mitigation Measures

Implement mitigation measures PS-4a through PS-4e and BIO-11.

Residual Impacts

Implementation of mitigation measures PS-4a through PS-4e would reduce the likelihood of an oil spill and the ability of first response agencies to respond to a crude oil spill. In particular, PS-4b would require the use of safer tank cars that would reduce the likelihood of a spill in the event of an accident. Use of the upgraded tanker cars would reduce the probability of a 100 gallons or greater oil spill to between once in 172 years and once in 291 years depending upon the route taken to get to the SMR. Even with implementation of these mitigation measures oil spill impacts to agricultural resources along the mainline rail routes would remain significant and unavoidable depending upon the location of the spill.

Under Federal and State law, UPRR and the owner of the crude oil would be responsible for cleanup and remediation of any oil spill. SB 861 requires that operators demonstrate they have the financial resources to pay for spill response, cleanup, and damages based upon a reasonable worst case spill volume.

Even with these mitigation measures, in the unlikely event of oil spill along the UPRR mainline tracks, impacts to agricultural resources could be significant. Depending upon the location of the spill, impacts may occur to a particular crop or soil or other agricultural resource that cannot be mitigated through remediation and replanting (i.e., old growth vines and orchards, a unique soil type/condition that can't be replenished from off-site areas). A spill could also contaminate an agricultural water source, resulting in long-term and wide-spread impacts to agricultural uses.

Federal law may preempt local agency regulation of rail lines; therefore, implementation of appropriate mitigation measures to protect agricultural resources along the UPRR mainline may

4.2 Agricultural Resources

not be feasible or enforceable. Residual impacts to agricultural resources along the UPRR mainline rail routes from an oil spill could be *significant and unavoidable (Class I)* depending upon the location of the spill.

4.2.5 Cumulative Analysis

The Rail Spur Project would result in less than significant impacts to agricultural resources associated with the conversion of approximately 22.3 acres of Farmland of Statewide Importance based on designations contained in the County COSE. No impacts to prime soils, adjacent agricultural lands, agricultural zoning, or Williamson Act designated lands would occur.

Additional projects in the cumulative development scenario would also contribute to the conversion of Prime, Unique and Important Farmlands, including the Price Canyon Oil Field Expansion and Laetitia Agricultural Cluster Subdivision. While the Price Canyon Oil Field Expansion would include development activities in an area suitable for agricultural production, and surrounded by productive agriculture (similar to the Rail Spur Project), the proposed expansion activities would occur within established oil extraction areas designated for industrial use. Therefore, they would be an appropriate use for that location. Potential impacts on adjacent and nearby agriculture would be the primary risk of that project, and such impacts can generally be mitigated through dust, erosion, sedimentation, and hazardous materials control measures. Therefore, no significant cumulative impact would result from increased industrial activities within properly designated Industrial areas that may otherwise be properly suited for agricultural use.

The Laetitia Agricultural Cluster Subdivision Project would result in significant loss of active agricultural uses and bring residential uses into existing buffer and greenbelt areas. However, both project-specific and cumulative impacts to agricultural resources have already been identified as significant and unavoidable in the Draft EIR for that project (September 2008). In addition, the Rail Spur Project does not involve impacts similar to those identified during review of the Laetitia Project (i.e., urban development into the greenbelt area, elimination of agricultural buffers, inconsistency with the Land Use Ordinance and Agriculture and Open Space Element). Therefore, the Rail Spur Project's contribution to this cumulative impact would be less than significant.

As noted in the Water Resources section of the EIR, the Rail Spur Project would not result in significant cumulative impacts to water supply, pursuant to compliance with the existing Stipulation. This indicates that the project's use of water would not result in a significant cumulative impact to agricultural resources related to impairment of agricultural production due to water supply. Therefore, potential cumulative impacts to agricultural resources would be less than significant.

There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3. In conducting the cumulative analysis for crude by rail it has been assumed that the cumulative projects listed in Table 3.1 would use the same rail car tank design as the SMR Rail Spur Project, and that the cumulative crude by rail projects, with the exception of the Phillips

Rail Spur Project, would transport a Bakken type crude, which is a worst case assumption.¹ It has also been assumed that all of the Rail Spur Project crude oil trains would use routes discussed below.

If all of the crude by rail projects travel via the UPRR Roseville Rail Yard, then up to eight crude oil trains per day could travel on the stretch of track between Sacramento and the California boarder (two for Valero, one for Kinder Morgan, two for Alon, one for Targa, one for Plains All American, and one for the SMR). From Roseville, rail traffic would likely follow two different routes; one following the I-80 corridor to Reno, Nevada, with the other heading north along the I-5 corridor to Oregon. A third route through the Feather River Canyon was not considered for further analysis.

From Sacramento the crude oil trains servicing the Valero Benicia and Kinder Morgan projects could use the same UPRR tracks as the Rail Spur Project from Sacramento to the Bay Area. This portion of track could have up to four crude oil trains per day (two for Valero, one for Kinder Morgan, and one for the SMR).

From Sacramento the crude oil trains servicing the Alon and Plains All American projects could use the same tracks as the Rail Spur Project from Sacramento to Stockton a distance of about 46 miles. This portion of track could have up to four crude oil trains per day (two for Alon, one for Plains All American, and one for the SMR).

This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. Assuming all of the cumulative crude oil trains use the same route from Sacramento to the California border, the cumulative probability of a 100 gallon or greater oil spill would be about once every seven years for the route from the SMR to the Oregon border, and once every six years for the route from the SMR to the Nevada border.

None of the other cumulative crude by rail projects would use the mainline tracks along the southern route thorough the Los Angeles Basin since the crude oil trains going to Bakersfield would use Tehachapi Pass via Barstow and would not travel has far west as Colton. However, up to four unit trains per day could share the route between Nevada and Barstow (two for Alon, one for Plains All American, and one for the SMR). Assuming these cumulative crude oil trains use the same route from Barstow to the California border, the cumulative probability of a 100 gallon or greater oil spill would be about once every 25 years for the southern route from the SMR to the Nevada border.

In the event of an accident along stretches of track in proximity to prime, statewide or local important farm land, a spill of transported crude could occur, potentially damaging any agricultural areas, soils, crops, water sources, and uses within the area of the spill. An accident also create a fire hazard in agricultural areas, which could spread substantially beyond the areas directly adjacent to the tracks.

¹ Canadian Crude, as specified in the Project Description, was assumed for the Phillips Rail Spur Project as part of the project and cumulative analysis.

4.2 Agricultural Resources

Some short-term impacts could be minimized through site remediation, clean-up, and restoration of the agricultural resources (i.e., replanting, removal of contaminated soils). However, impacts related to water source contamination and loss of some specialty crops (i.e., old growth vines that have value in their age) would be more difficult to mitigate. The loss of some crops, prime soils, and other agricultural resources may not be mitigable through restoration and replacement in kind. Therefore, potential cumulative impacts to agricultural resources associated with an oil spill would be considered significant and unavoidable.

4.2.6 Mitigation Monitoring Plan

No mitigation monitoring plan is required for Agricultural Resources since no agricultural mitigation measures were identified. Mitigation measures WR-1, WR-2; AQ-1f, BIO-9a, BIO-11, and PS-4a through PS-4e were identified as measures that would mitigate agricultural impacts. The mitigation monitoring plan measures are addressed in the applicable issue areas.

4.2.7 References

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