4.1 AGRICULTURAL RESOURCES

This section identifies potential impacts to agricultural resources resulting from the proposed project. Resources used in developing this section include Natural Resources Conservation Service (NRCS) soils data, San Luis Obispo County Department of Agriculture (SLOCDA) 2008 Annual Report, field survey data, and aerial photos, among others. Potential impacts identified include temporary and permanent conversion of prime farmland~~agricultural soils~~, temporary loss of productivity, and incompatibilities between construction activity and agricultural activities. Mitigation measures have been recommended to reduce impacts identified in this section.

4.1.1 Existing Conditions

4.1.1.1 Regional Setting

According to the California Department of Food and Agriculture (CDFA), in 2007 agricultural production in California resulted in sales of approximately $36.6 billion, including $10.9 billion worth of international exports. The state produces approximately 22% of the milk produced in the nation, and about half of the fruit, nuts, and vegetables. As of 2007, San Luis Obispo County ranked 15th in the state for overall agricultural production value at approximately $654 million (CDFA 2009).

In 2008, the total value of agricultural production in San Luis Obispo County was approximately $606 million. Crop values for selected crops are shown in Table 4.1-1 (SLOCDA 2009).

Table 4.1-1. Approximate Crop Value
San Luis Obispo County, 2008

Crop	Value ($ millions)
Wine Grapes	124
Broccoli	71
Strawberries	65
Head Lettuce	25
Carrots	20
Oriental Vegetables	13
Celery	12
Leaf Lettuce	12
Cabbage	7
Bell peppers	7

Source: SLOCDA 2009

In San Luis Obispo County, vegetable production occurs primarily in the coastal valleys, including the Arroyo Grande Valley, while irrigated field crops (mostly alfalfa and irrigated pasture) are predominate in the interior valleys. Expansion of vineyards over land previously used for dry farm grain production has been significant over the last 20 years. Vineyards occur mostly on gently rolling land east of Paso Robles, west of Templeton and Paso Robles, and in the Edna Valley. Avocados, lemons and some other subtropical fruits are grown in the coastal foothills. Production of high value nursery stock and crop seed has also steadily increased, and includes propagation of fruit and nut trees and vegetable seedlings, as well as the production of cut flowers, indoor decoratives, and ornamental trees and shrubs.

4.1.1.2 Project Site and Immediate Vicinity

All portions of the project within the unincorporated areas of the Arroyo Grande Valley (the southern reaches of which are also known as La Cienaga Valley) and south of the channel are designated within the Agricultural land use category, with most of the parcels used for intensive crop production. Some ~~P~~parcels north of the channel and north of Highway 1 are also in the Agricultural land use category and being cultivated.

The San Luis Bay Inland Area Plan specifically describes the suitability of the valley for agriculture and identifies the importance of protecting the valley exclusively for agricultural use. According to the Area Plan, “other uses are not appropriate, with the exception of roadside stands for sale of products grown on site. The parcel sizes are generally large and lands are intensively used for raising truck crops. There are very few residences within La Cienaga Valley and breakdown of these properties for residential uses should not be allowed. These farmlands depend on the locally available groundwater for irrigation and should be assured a continued adequate water supply.”

On site Soils

United States Department of Agriculture Criteria

The United States Department of Agriculture (USDA) NRCS Land Capability Classification (LCC) system classifies soil units based on limitations for field crop production, the risk of damage due to crop production, and how the soil responds to management (Table 4.1-2). Generally, Class 1 or 2 soils are considered “prime agricultural land~~soil~~,” although other criteria can be used in cases where site specific conditions require it.

Table 4.1-2. Land Capability Classifications

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

Based on the *Soil Survey of San Luis Obispo County, California Coastal Part* soil survey maps, two soil units (Marimel and Mocho variant) dominate the project area and underlie the agriculture operations, although four soils are located within the project area. These soils and their LCC rating are shown in Figure 4.1-1 and Table 4.1-3).

Table 4.1-3. Soil Map Units in Project Area

Soil Number	Soil Name	Class	
		Irrigated	Non-irr.
134	Dune land	8	8
170	Marimel silty clay loam	1	3
173	Mocho fine sandy loam	2	3
176	Mocho variant fine sandy loam	2	3

California Department of Conservation Classification

The California Department of Conservation (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 designations include the following categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, and Other Land. The CDC considers Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance to be Important Farmland. These categories are defined by the FMMP 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 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. The SLOCDA defines these as areas of soils that meet all the characteristics of Prime or Statewide, with the exception of irrigation. Additional farmland includes dryland field crops of wheat, barley, oats, and safflower.

- **Farmland of Local Potential (LP):** This rarely used classification includes soils which qualify for Prime Farmland or Farmland of Statewide Importance, but generally are not cultivated or irrigated. The SLOCDA defines these as "lands having the potential for farmland, which have Prime or Statewide characteristics, and are not cultivated."

- **Grazing Land (G):** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

- **Urban and Build-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, institutional, public administrative purposes, 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 greater than 40 acres is mapped as Other Land.

According to the CDC FMMP, three soil types within the project area meet the criteria for Prime Farmland Soils. These are the Marimel soils, (soil numbers 170 and 173) and the Mocho Variant fine sandy loam (soil number 176). These soils make up the majority of the soils in the agricultural areas on the valley floor, and surround the project site (refer to Figure 4.1-1).

Agricultural Infrastructure and Production

The project area is located within and adjacent to an agricultural area used for rotational vegetable production. North of Highway 1, row crops exist on either side of the channel. South of Highway 1 the northern side of the channel includes significant residential development, although row crops are grown near the southwest corner of Highway 1 and Halcyon Road, and west of the Union Pacific Railroad (UPRR) bridge. The southern side of the Arroyo Grande and Los Berros Creek channels is dominated by row crop production with the exception of the far western end, where equestrian facilities and pastures exist. Crop production is intensive and the dominant activity in the project area. In some places crops are grown adjacent to the toe of the existing levee slopes. A number of larger-scale agricultural operations are located in the project area, producing a variety of crops including head and mixed leaf lettuce, broccoli, bell peppers, squash, Napa cabbage, bok choy, celery, kale, leeks, and green onion, among others.

Infrastructure improvements include extensive irrigation systems, earthen drainage systems, and a series of agricultural access roads, both adjacent to and through the creek channel. Significant agricultural accessory structures are also located adjacent to the channel. The Bejo Seed facility which includes crop lands, a large warehouse/distribution facility, a large photovoltaic installation, and additional structures, are located immediately south of the channel and east of the UPRR bridge. The other large facility adjacent to the channel is the Seminis Seed facility, which includes crop land, greenhouses, and an administrative building. It is located immediately east of the Arroyo Grande Creek channel and north of the Los Berros Creek channel. The Pismo Oceano Vegetable Exchange (POVE) shipping facility is located north of the project area on Highway 1.

There are four locations, three on the Arroyo Grande Creek channel, on one Los Berros Creek channel, where agricultural access roads cross the levees and the channels. These crossings allow agricultural equipment to cross the channel and access fields on ether side of the channel without having to use public roads. They are not paved, and most likely require some maintenance after large storm events, but are clearly visible in the field and on aerial photographs. These crossings are shown on the conceptual plans for the project.

Agricultural Water Supply

The water supply for the surrounding agricultural uses is obtained entirely from groundwater underlying the valley. The valley is technically part of the Santa Maria River Valley Aquifer. No surface water is used to irrigate the farmland within the Arroyo Grande Valley. There are wells located adjacent to the levees, and at least one within the existing levee footprint. Given the intense range of crop production in the project area, irrigation is common.

4.1.1.3 Williamson Act

San Luis Obispo County's agricultural preserve program was created to implement the California Land Conservation Act (LCA) of 1965. It identifies areas where the County is willing to enter into an LCA contract (also referred to as a Williamson Act contract) with property owners based on an approved set of criteria (San Luis Obispo County 1998). Lands that enter into the County's agricultural preserve program may be a ~~are subject to zoning restrictions including parcel size restrictions ranging from~~ minimum of ~~-~~ 20 acres (with individual parcel size within a preserve no less than 10 acres). ~~40 acres for prime land and 100 acres for nonprime land.~~ A Williamson Act contract is a legal contract between a landowner and a land-regulating agency under the Act (i.e., the County). Under a Williamson Act contract, the property owner agrees to keep the property in commercial agricultural use and preclude uses that are not compatible ~~not to develop the property for a period of ten to twenty years~~ in exchange for property tax reductions based on the property's value as open space or agricultural, rather than developable, land. In the summer of 2009 the State of California stopped reimbursing local governments for the reduced property tax revenue resulting from the Williamson Act.~~removed funding for the Williamson Act from the State budget.~~ It is unclear at this time what affect that may have on agricultural resources in the state and county, although local counties may continue the subsidy program.

Based on correspondence from the Agriculture Department, state policy to avoid, whenever practicable, the location of any public improvements or the acquisition of land therefore, including easements, within agricultural preserves and more specifically on lands under contract. State code provides specific procedures and findings in order to acquire such land for public use.

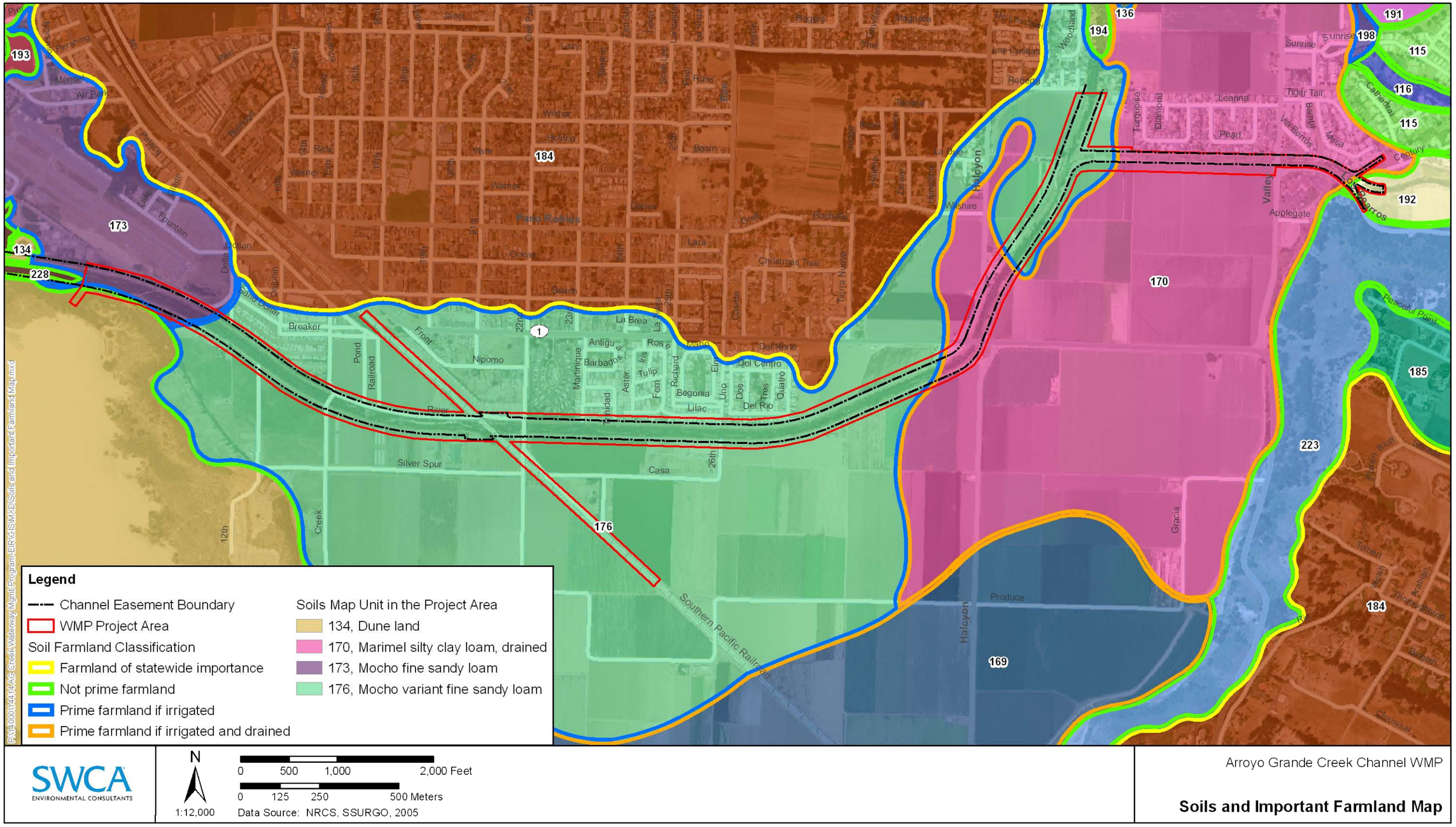
Three parcels within the project area are under Williamson Act contracts (www.sloplanning.org 2009). Two are located on the east and west side of the Arroyo Grande Creek channel, between Los Berros Creek channel and Highway 1. The third is located south of the Arroyo Grande Creek Channel and immediately east of the UPRR right of way. The contracted parcels exceed 40 acres.

4.1.2 Regulatory Setting

4.1.2.1 California Land Conservation Act (Williamson Act)

As defined by the CDC, 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 real estate value of the land. Local governments receive a subsidy for forgone property tax revenues from the state via the Open Space Subvention Act of 1971. However, as at the time this EIR was prepared, the State of California has at least temporarily suspended the subsidies to local government.

Figure 4.1-1. Soils and Important Farmland Map



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4.1.2.2 Local Regulation and Policy

Agriculture and Open Space Element

The Agriculture and Open Space Element of the San Luis Obispo County General Plan provides a background on agricultural and open space resources within the County. Through the goals, policies, implementation programs, and measures provided within the document, the County's intent is, "To promote and protect the agricultural industry of the County, to provide for a continuing sound and healthy agriculture in the County, and to encourage a productive and profitable agricultural industry." Of the policies in the element, seven are directly applicable to this project. Please refer to Chapter 3, Environmental Setting 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 states that the use of real property for agricultural operations is a high priority and favored use. Ordinance No. 2561 (August, 1992), added Chapter 5.16 to Title 5 of the San Luis Obispo County Code relating to Agricultural Lands, Operations, and The Right To Farm. Paragraph "b" of Section 5.16.020 (Findings and Policy) states:

> "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."

4.1.3 Thresholds of Significance

The significance of potential agricultural impacts are based on thresholds identified within Appendix G of the CEQA *Guidelines*, which provides the following thresholds for determining impact significance with respect to agricultural resources. Agricultural impacts would be considered potentially significant if the proposed project would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance 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 individually or cumulatively result in loss of farmland, to non-agricultural use.
- Impair agricultural use of other property or result in conversion to other uses.
- Conflict with any local, state, or federal policies or ordinances protecting agricultural resources.

4.1.4 Impact Assessment and Methodology

Impacts to agricultural resources were assessed utilizing data and maps published by the United States Department of Agriculture, CDC, and County Department of Agriculture, including soil information, farmland mapping, and economic data. The project was analyzed for the potential conversion of Prime ~~Important~~ Farmland, loss of productive agricultural soils, incompatible land uses, and inconsistencies with regulations and policies intended to preserve agricultural resources.

The analysis of agricultural constraints included a review of Geographic Information Systems (GIS) maps, local and state literature and records, consultation with the County Department of Agriculture and field visits to the project study area and the surrounding region. A number of GIS layers provided by the County of San Luis Obispo were utilized to determine soil types and identify parcels within and adjacent to the project study area that were part of agricultural preserves. These layers were joined with the project study area layer to determine precisely how much farmland might be impacted either permanently or temporarily by the components of the proposed project.

4.1.5 Project-Specific Impacts and Mitigation Measures

4.1.5.1 Soil Conversion

Vegetation and Sediment Management

The vegetation and sediment management components of the proposed project would occur within the existing channel and therefore would not result in the temporary or permanent conversion of prime farmland or otherwise productive soils to another use. Sediment removal would proceed relatively slowly due to biological resources in the channel. As noted in the project description, sediment removed from the channel would be loaded directly into trucks and hauled along the levees to an approved location. Sediment would not be stockpiled on adjacent lands. Impacts would be *less than significant*. No mitigation would be required.

Alternative 3a and 3c Levee Raise

The levee raise components of the proposed project would require the County of San Luis Obispo to acquire permanent and temporary easements. The areas of these easements are shown by soil type in Table 4.1-4. Dune land (soil number 134) has not been included as it is not suited for agriculture. Mocho fine sandy loam (soil number 173) is present between the Oceano County Airport and the Oceano dunes. It is disconnected from the remainder of the valley and other agricultural operations, and is unlikely to support agriculture; therefore, conversion of these soils is not considered in the analysis that follows.

Acreage calculations in Table 4.1-4 are based on the conceptual plans (Waterways 2009) and preliminary estimates of the size of the UPRR shoofly (a temporary parallel track to allow train travel during the bridge raising) (UPRR 2006). ~~For the levee raise component, permanent impacts include the area between the existing and proposed new permanent levee easement.~~ Temporary (construction) impacts include the area between the proposed new permanent easement and the construction easement.

Two methods were considered for determining permanent impacts to prime farmland. The first method included determining the acreage of prime farmland which would be in the new permanent easement. This method allowed for a very accurate assessment of acreage

potentially impacted. However, it doesn't necessarily account for the fact that some farming does and would still be able to occur within the easement (although structural improvements are technically precluded).

The second method compared the existing levee footprint to the proposed levee footprint. Unfortunately though, the existing levee footprint has not been formally surveyed. Instead an estimate of the footprint was available that had been developed using aerial photos and topographic changes. It was suggested that the data could be up to five feet off in either direction. Therefore, given that the distance between the existing and proposed footprints is likely to be well under ten feet in most cases, using the footprints to calculate impacts was not considered accurate. Still, an assessment was performed, and it was concluded that the new permanent easement would result in approximately 1.2 acres of permanent disturbance.

Ultimately it was decided that the change in the permanent easement should be used due to the inaccuracies associated with the data which exists for the existing footprint. The easement calculations are shown in Table 4.1-4. It should be noted that both methods indicated a similar amount of potential disturbance would result from Alternative 3c.

Table 4.1-4. Temporary and Permanent Impacts to Prime Farmland ~~Prime Soils~~ (Acres)

Project Component	Soil Map Unit	Construction Easement	Permanent Easement
Alternative 3a Levee Raise	170	0	n/a
	176	2.42	n/a
	Total	**2.42**	**n/a**
Alternative 3c Levee Raise[1]	170	1.04	0.43
	176	4.47	0.73
	Total	**5.51**	**1.16**
UPRR Bridge Raise[2]	170	0	n/a
	176	1.5	n/a
	Total	**1.5**	**n/a**

[1] Includes Alternative 3a impact areas as well.
[2] Does not include Alternative 3a or 3c impact areas.

The temporary area of disturbance shown in Table 4.1-4 for Alternative 3a may be somewhat overstated because some areas where the construction easement would be required are already used as agricultural roads. In this case the soils wouldn't be impacted as heavy farm equipment and trucks already use those areas. This is true of those areas west of the UPRR bridge where access roads parallel the levees and separate the levees from the fields. The areas south of the Los Berros Creek channel are also used as access roads. As a result, total temporary disturbance due to construction easements for Alternative 3a may be closer to one and a half acres. There would be no permanent disturbance of prime farmland~~prime soils~~ as a

result of Alternative 3a because the levee footprint would remain within the existing levee easement.

In the case of Alternative 3c, the construction easement is less likely to overlap with existing roads as the levee footprint would need to expand as well, although there would be some overlap in the area south of the Los Berros Creek channel. In other areas, the construction easement would be located in areas where crop production is unlikely to exist, such as the industrial area north of the levees and west of Creek Road, and the equestrian facilities south of the levee and west of Elm Street. Because of these factors, temporary disturbance associated with Alternative 3c would most likely be closer to three and a half acres (this includes the area disturbed by Alternative 3a).

To allow for the expanded levee footprint, the County would need to acquire additional permanent easement rights. The new permanent easement would include more than one acre of potentially prime farmland~~prime soils~~; however, in some cases the new permanent easement may be located in areas not likely to be cultivated, and in other areas, such as south of Los Berros Creek channel, it may overlap with existing access roads, which could remain within the easement. Therefore, loss of existing ~~productive~~ prime farmland~~soil~~ may be somewhat less than one acre. In addition, the new permanent easements are not continuous, but would rather be necessary only in small sections approximately 10 feet wide, adjacent to the levee, and for relatively short distances. The total prime farmland impacted by the Alternative 3c permanent easement would be distributed among multiple parcels and operations.~~.~~

The levee improvements will require imported soil. Levee improvements will proceed relatively slowly due to the biological and agricultural resource constraints at the project site. However, it may be necessary to stockpile soil for brief periods of time. As noted in the project description, stockpiled material will be located on lands adjacent to the project site least likely to be used for crop production. Potential stockpile locations are located north of the levees in the uncultivated area immediately east of the railroad and the area between the railroad and 22nd Street.

AGR Impact 1 **Implementation of Alternative 3a and 3c would result in the temporary disturbance of up to approximately 3.5 acres of prime farmland~~soils~~ and the permanent loss of up to one acre of prime farmland~~soils~~.**

Mitigation Measures

AGR/mm-1 *Prior to completion of the construction plan for Alternative 3a, 3c and the UPRR bridge raise, the Flood Control and Water Conservation District (District) shall coordinate with local agriculturalists to refine the construction easement areas to existing agricultural roads and other areas not likely to be in production, to the maximum extent feasible. Construction fencing shall be installed along the easement to reduce the potential for disturbance outside of the construction easement area, as appropriate.*

AGR/mm-2 *Prior to completion of the final construction plans, the permanent easement area of the Los Berros Creek channel shall be limited to the existing access road areas, to the extent feasible. Further, Construction access and stockpiling locations shall be located within public right of ways to the maximum extent feasible.*

Permanent conversion of land available for crop production shall be minimized by allowing the use of identified portions of the easement for agricultural roads to the degree possible and appropriate while still ensuring the functionality of the levee. The allowance for and any limitations to locating agricultural roads on the top or outside portion of the levee should be noted in the easement agreement. The allowance to cross through the easement and levee channel should also be noted in those areas where such a crossing is to be retained.

AGR/mm-3 *Any imported soils or levee fill/aggregate should be stockpiled in a manner to avoid impacts to adjoining crops. This includes maintaining adequate moisture to avoid dust impacts to nearby crops, the placement of a geotextile membrane in order to prevent rock, construction materials, or imported soil from becoming mixed with the native soils, and the removal of all fill material and the geotextile membrane upon completion of the project, coupled with the restoration of the native soils' previous soil texture, available water holding capacity, and soil permeability in all areas of private agricultural land that are not part of the permanent floodway easement.*

Upon conclusion of the construction of Alternative 3a and 3c the District shall coordinate with local agriculturalists to determine if restoration (disking, fine grading) of the temporarily disturbed area is necessary. Costs of this restoration shall be considered during easement negotiations with landowners.

Residual Impact

The temporary impacts to prime farmland~~soils~~ would be reduced by mitigation measures AGR/mm-1 and AGR/mm-3. As the project design is refined and the District works with local landowners, the temporary disturbance area may be less than three acres. AGR/mm-3 requires that the District work with landowners to perform some restoration work, if necessary. Temporary impacts would be *less than significant.*

The permanent loss of prime farmland~~soil losses~~ would be as much as one acre. The loss would result from a number of small encroachments of Alternative 3c throughout the project corridor. The loss would not occur on any individual field or operation. Considering the length of the corridor, the relatively small fraction of the prime farmland ~~soils~~ to be disturbed and implementation of AGR/mm-2, permanent impacts would be *less than significant*.

UPRR Bridge Raise

For the UPRR bridge component, temporary impacts, up to three acres, are related to the area needed for construction of the shoofly. The width of the right-of-way west of the tracks is forty feet. This analysis assumes that at least half of the disturbance would be in the existing railroad right-of-way.

AGR Impact 2 **Raising the UPRR bridge would result in the temporary disturbance of approximately 1.5 acres of prime soils.**

Mitigation Measures

Implement AGR/mm-1 and AGR/mm-3.

AGR/mm-4 *Construction of the UPRR bridge improvement shall be focused within the UPRR right of way to the maximum extent feasible.*

Residual Impact

Designs of the UPRR bridge improvements are preliminary and conceptual at this time. It appears that the right of way is large enough to accommodate the construction, but ultimately total areas of disturbance will not be known until the project is farther along. It is also not clear at this time which party would be responsible for the construction and potential mitigation. It is likely that subsequent environmental review will be required for the UPRR bridge raise, and that the project applicant would be UPRR. However, it does appear that temporary impacts would be limited and that AGR/mm-3 and AGR/mm-4 would be effective mitigation measures for reducing temporary impacts. Temporary impacts would likely be *less than significant*.

4.1.5.2 Infrastructure and Productivity

The Arroyo Grande Creek channel bisects an intensively farmed agriculture area. The operations regularly produce multiple harvests of high-value crops annually. Substantial infrastructure improvements have been made. These include wells, irrigation systems, fencing, drainage systems, interior roads, barns, other accessory structures, and processing facilities. In some cases, single operations are located on both sides of the channel and access across the channel has been created and maintained by agriculturalists.

Vegetation and Sediment Management

Vegetation removal and maintenance would be performed by hand without the use of chemicals and within the channel. Sediment removal would be performed from the top of the levee and adjacent temporary easement areas. Sediment excavated from the channel would be relatively moist, although dust could be generated during the activity as soil is loaded into trucks to be hauled offsite. Dust from construction activities can reduce productivity and increase pest populations, such as dust mites. Dust control for all components of the project has been considered in the Air Quality section of this EIR. Refer to AQ Impact 3 and AQ/mm-3 for more information on impacts and recommended mitigation measures for dust control. Excavations for the initial sediment removal would be relatively shallow, and therefore farm equipment could still cross the channel, as necessary.

Alternative 3a and 3c Levee Raise and UPRR Bridge Raise

In addition to generating dust during construction, the implementation of Alternatives 3a, 3c, and the UPRR bridge raise would have direct, but temporary impacts on agricultural operations. Construction activities would occur outside of the levees, where crops may be in production or where agricultural access roads or accessory structures exist. Construction vehicles would be using agricultural roads parallel and adjacent to the levees. Heavy equipment would be operating on the levee faces and adjacent properties while additional material is being added and compacted onto the levee faces. In some cases the material at the toe of the levees would have to be over excavated to ensure the integrity of the levee improvements. All of these activities potentially conflict with the existing agricultural use of properties adjacent to the levee.

Agricultural wells within and adjacent to the levees have been identified during surveys and the proposed project would avoid removing or modifying wells and related electrical equipment. In some cases, it will be necessary to construct retaining walls around the wells to ensure continued function and access. This has been indentified on the conceptual plans.

There are four locations throughout the project area where agriculturalists have created and maintained access across the channel. The District has recognized the value of these crossings, and proposes to maintain them permanently. However, to minimize damage to the levees caused by the use of agricultural equipment, these access points would be protected through the use of concrete reinforcement or geotextiles.

AGR Impact 3 Construction of Alternative 3a, 3c and the UPRR bridge raise would potentially occur on and adjacent to agricultural infrastructure improvements, temporarily reducing productivity.

Mitigation Measures

Implement AGR/mm-1.

AGR/mm-5 *Prior to completion of the final plans for the Alternative 3a, 3c and the UPRR bridge raise, the District shall coordinate with local agriculturalists, to address potential conflicts between the construction activities and agricultural operations. Issues such as the location of stockpiles and haul routes, hours of operation, and farm and construction crew safety and the location of critical agricultural improvements to be avoided shall be considered. The final plans shall identify haul routes, and include a diagram of critical agricultural improvements that shall be avoided during construction, including wells, and accessory structures. Where the project results in the need to relocate existing water or associated electrical infrastructure, such measures should be completed prior to construction commencing in order to ensure the continuity of access to adequate irrigation supplies.*

Residual Impact

Coordination between agriculturalists and construction crews will be necessary and is a recommended mitigation in this section as well as the Hazards and Hazardous Materials section. In some cases it may be infeasible to completely avoid accessory structures, especially those located within the existing levee easement. Whether or not these structures shall be relocated will not be known until the construction designs are finalized. The design for the UPRR shoofly is only preliminary. The area of disturbance may change based on site specific issues or UPRR design criteria. Additional environmental review may be necessary for the bridge raise component. Implementation of these mitigation measures would reduce potentially significant impacts to productivity and infrastructure to *less than significant*.

4.1.5.3 Agricultural Water Supply

Groundwater is the agricultural water supply in the lower Arroyo Grande Valley. Wells are located throughout the valley, and extensive irrigation systems are used. The proposed project would not require the use of groundwater, with the possible exception of short term use for dust control during construction of the project components. As noted above, the project would not require the relocation of existing wells. As a result of the propose project, flooding in the valley would be reduced, potentially reducing groundwater recharge; although as described in the Flooding, Hydrology, and Water Quality section of this EIR, the flood waters would most likely not percolate as the soils are already saturated during flood events and the local water tables are relatively close to the surface, even during dry periods. Impacts to the agricultural water supply would be *less than significant*. No mitigation is required.

4.1.5.4 Williamson Act

The vegetation and sediment management components of the project would not result in the conversion of any lands under Williamson Act contracts. The Alternative 3a levee raise would not result in any permanent conversion of agricultural lands under Williamson Act contract. Alternative 3c would potentially result in the permanent conversion of a total of one acre (10 foot wide strip adjacent to the existing levee) of existing agricultural land under Williamson Act contract. This loss would not reduce parcel sizes below that necessary to qualify for the County's Williamson Act program. Impacts to Williamson Act properties would be *less than significant.* No mitigation is required.

4.1.6 Cumulative Impacts

The proposed project would result in temporary and permanent conversion of ~~prime soils~~prime farmland, result in temporary impacts to productivity, and create short-term incompatibilities between the construction activities and agricultural operations. The temporary impacts would not contribute cumulatively to agricultural resource impacts in the Arroyo Grande Valley. The impacts would result in a permanent loss of prime soils in the valley. This loss, while small, would also contribute cumulatively, along with other projects, such as the Halcyon Road improvements, to a significant loss of ~~prime soils~~prime farmland in the valley.

AGR Impact 4 **The loss of up to one acre of prime farmland resulting from the implementation of Alternative 3c would contribute to a cumulatively significant impact to agricultural resources.**

AGR/mm-6 *Prior to the issuance of grading permits for Alternative 3c, the District shall provide evidence that funds sufficient to, (1) purchase a farmland conservation easement, deed restriction, or other farmland conservation mechanism, and (2) to compensate for administrative costs incurred in the implementation of this measure have been provided to the California Farmland Conservancy Program or similar program, which will provide for the conservation of farmland impacted by Alternative 3c at a 1:1 ratio in San Luis Obispo County.*

Residual Impact

~~However, implementation of the WMP would reduce the potential for the farmlands adjacent to the channel to be flooded, which in turn would increase their productivity in the long term.~~ Implementation of measures AGR/mm-1 through AGR/mm-6 would reduce ~~This~~ potentially significant cumulative impacts ~~beneficial impact would reduce the potentially significant cumulative loss of prime soils~~ to a *less than significant level*.