

5.15 Agricultural Resources

Large portions of Santa Barbara and San Luis Obispo County lands are devoted to various agricultural crops and other farm-use categories. In 2002, Santa Barbara County (SBC) agricultural crops were valued at \$775 million (CDFA, 2006). The agricultural industry dominated SBC's economy with a gross production of \$997,600,578 in 2005 (Santa Barbara County, 2006). In SBC as a whole, approximately 48 percent of the land is devoted to agricultural use, essentially all of which is privately owned lands with the exception of some lands on Vandenberg Air Force Base (VAFB) (CDFA, 2006). The top five crops for SBC include strawberries, wine grapes, broccoli, head lettuce, and cauliflower (CDFA, 2006). Recent data for San Luis Obispo County indicate that the County has approximately 1,010,291 acres of agricultural land (FMMP, 2006) and a crop value of \$479 million (CDFA, 2006).

5.15.1 Environmental Setting

SBC, San Luis Obispo County, the California Department of Conservation, and U.S. Department of Agriculture utilize nine different land mapping categories to describe farmland and non-farmlands, as follows.

- *Prime Farmland.* Land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- *Farmland of Statewide Importance.* Land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland.
- *Unique Farmland.* 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.
- *Farmland of Local Importance.* Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. SBC considers all dry land (grains, cereals, beans) and permanent pasture (other than those not eligible for Prime or Statewide designation) to be farming areas. San Luis Obispo County considers dairies, dry land farming, aquaculture, and uncultivated areas with soils as qualifying for *Prime Farmland* and *Farmland of Statewide Importance*.
- *Local Potential.* These are areas with soils that qualify for Prime or Statewide Importance designations, but which are not cultivated or irrigated. Only certain counties, such as San Luis Obispo, have chosen to use the Local Potential designation.
- *Grazing Land.* Land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing.
- *Urban and Built-Up Land.* Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel.
- *Other Land.* Land that does not meet the criteria of any other category.
- *Water.* Water areas with an extent of at least 40 acres.

The SBC Comprehensive Plan, Agricultural Element (1991) has two additional land use categories related to agriculture:

- *Agriculture I.* Land of five or more acres, minimum parcel size, located inside urban, inner rural, and rural neighborhood areas. Both prime and non-prime farmland are included.
- *Agriculture II.* Land of 40 or more acres, minimum parcel size located outside urban, inner rural, and rural neighborhood areas. General agriculture is permitted, including livestock operations, grazing, and beef production, as well as more intensive agriculture uses.

The SBC Comprehensive Plan, Land Use Element (1991) has an additional land use category related to agriculture:

- **Agricultural Commercial.** Land of 40 to 320 acres, minimum parcel size located within rural, inner-rural or existing developed rural neighborhoods, or urban areas, which is subject to or eligible for Williamson Act Contract.

The San Luis Obispo County General Plan Agricultural and Open Space Element (1998) contains a general description of the main types and uses of agricultural land within the County.

5.15.1.1 Irrigated Lands

- **Row Crops Terrain and Soils.** Property sizes generally range from 10 acres to hundreds of acres. Characterized by various types of vegetables, seed crops, orchards, and other irrigated specialty crops.
- **Specialty Crops and Forage Lands.** Property sizes generally range from 20 to a few hundred acres. Characterized by irrigated orchards, including alfalfa and pasture, and vineyards such as wine grapes, avocados, citrus, and apples.

5.15.1.2 Dry Farm Lands

- **Mixed Croplands.** Property sizes generally range from 40 acres to several hundred acres. Characterized by dry farm orchards and vineyards and specialty or high value field crops.
- **Dry Croplands.** Property sizes generally range from 80 to several thousand acres. These areas are characterized by grain and hay production that is widespread in the northeastern part of the county. Barley, wheat, and oat hay are the principal crops. Other crops include dry beans and safflower.
- **Ranchlands for Grazing.** Property sizes generally range from 100 acres to thousands of acres, depending on the carrying capacity of the rangelands. Grazing land accounts for a large percentage of the privately owned land in the County. Cattle ranching is the predominant use on these lands.

5.15.1.3 Overall Project Area

The existing pipelines, pump stations, and oil plant are primarily in areas designated as “Other Land” per the farmland mapping categories. However, the PXP and ConocoPhillips pipeline that would transport the Tranquillon Ridge produced crude and gas to the Lompoc Oil and Gas Plant (LOGP) and Summit Pump Station (oil only), respectively, would cross approximately:

- 1.77 miles of Prime Farmland;
- 0.46 miles of Farmland of Statewide Importance;
- 0.85 miles of Unique Farmland;
- 4.52 miles of Farmland of Local Importance;

- 11.1 miles of Grazing Land; and
- 1.08 miles of Farmland of Local Potential.

The portion of the pipeline in SBC falls primarily in lands designated as Agriculture II per the County Land Use Element. The portion of the pipeline in San Luis Obispo County is a mix of Irrigated Lands and Dry Farm Lands. Based upon review of aerial photos, these lands appear to be in current agricultural production.

5.15.1.4 PXP Pipelines

The proposed project would extend the life of the existing PXP onshore oil pipelines. From landfall to the LOGP, the pipeline alignment crosses approximately:

- 1.3 miles of Farmland of Local Importance (two separate land areas); and
- 2.56 miles (two separate land areas) of land designated as Grazing Land.

The pipeline comes within a half mile of three other land areas designated Farmland of Local Importance as well as a land area designated Prime Farmland. This segment of pipeline contains Valve Site #2. Valve Site #2 and the LOGP reside within land designated as Grazing Land.

5.15.1.5 ConocoPhillips Pipelines

The ConocoPhillips pipeline from LOGP to the Summit Pump Station in which the dehydrated Tranquillon Ridge crude would be transported would cross approximately:

- 1.77 miles of Prime Farmland;
- 0.46 miles of Farmland of Statewide Importance;
- 0.85 miles (two separate land areas) of Unique Farmland;
- 3.22 miles of Farmland of Local Importance;
- 8.5 miles of designated Grazing Land; and
- 1.08 miles of Farmland of Local Potential.

Orcutt and Summit pump stations are situated within Grazing Land.

5.15.2 Regulatory Setting

5.15.2.1 California Laws and Policies

Williamson Act

The Williamson Act, or the California Land Conservation Act of 1965, encourages and enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming uses rather than full market value. Local governments receive a subsidy for forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

California Coastal Act of 1976

The California Coastal Act also contains provisions to protect agricultural productivity in the coastal zone. The act has specific guidance measures to avoid the conversion of prime agricultural land.

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the area's agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

“...(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality (§30241 California Public Resources Code).”

Further, the Coastal Act calls for the protection of the long-term productivity of soils and timberlands (§30243 California Public Resources Code).

5.15.2.2 Local Laws and Policies***Santa Barbara County Policies and Regulations***

The following paragraphs describe relevant Santa Barbara Agricultural Element Goals and Policies.

Goal I. Santa Barbara County shall assure and enhance the continuation of agriculture as a major viable production industry in Santa Barbara County. Agriculture shall be encouraged. Where conditions allow, (taking into account environmental impacts) expansion and intensification shall be supported.

Policy I.A. The integrity of agricultural operations shall not be violated by recreational or other non-compatible uses.

Policy I.D. The use of the Williamson Act (Agricultural Preserve Program) shall be strongly encouraged and supported. The County shall also explore and support other agricultural land protection programs.

Goal II. Agricultural lands shall be protected from adverse urban influence.

Policy II.D. Conversion of highly productive agricultural lands whether urban or rural, shall be discouraged. The County shall support programs that encourage the retention of highly productive agricultural lands.

Goal III. Where it is necessary for agricultural lands to be converted to other uses, this use shall not interfere with remaining agricultural operations.

Goal VI. The County should make effective provision for access to agricultural areas and for the necessary movement of agricultural crops and equipment.

San Luis Obispo County Goals and Policies

The following paragraphs describe relevant San Luis Obispo County Agricultural Element Goals and Policies.

Goal AG2. Conserve Agricultural Resources.

- a. Maintain the agricultural land base of the county by clearly defining and identifying productive agricultural lands for long-term protection.
- b. Conserve the soil and water that are the vital components necessary for a successful agricultural industry in this County.
- c. Establish land-use policies in this element that support the needs of agriculture without impeding its long-term viability.

Goal AG3. Protect Agricultural Lands.

- a. Establish criteria in this element for agricultural land divisions that will promote the long-term viability of agriculture.
- b. Maintain and protect agricultural lands from inappropriate conversion to non-agricultural uses. Establish criteria in this element and corresponding changes in the Land Use Element and Land Use Ordinance for when it is appropriate to convert land from agricultural to non-agricultural designations.
- c. Maintain and strengthen the County's agricultural preserve program (Williamson Act) as an effective means for long-term agricultural land preservation.
- d. Provide incentives for landowners to maintain land in productive agricultural uses.

Policy AGP18. Location of Improvements.

- a. Locate new buildings, access roads, and structures so as to protect agricultural land.

Policy AGP24. Conversion of Agricultural Land.

- a. Discourage the conversion of agricultural lands to non-agricultural uses through the following actions:
 1. Work in cooperation with the incorporated cities, service districts, school districts, the County Department of Agriculture, the Agricultural Liaison Board, Farm Bureau, and affected community advisory groups to establish urban service and urban reserve lines and village reserve lines that will protect agricultural land and will stabilize agriculture at the urban fringe.
 2. Establish clear criteria in this plan and the Land Use Element for changing the designation of land from Agriculture to non-agricultural designations.
 3. Avoid land redesignation (rezoning) that would create new rural residential development outside the urban and village reserve lines.
 4. Avoid locating new public facilities outside urban and village reserve lines unless they serve a rural function or there is no feasible alternative location within the urban and village reserve lines.

5.15.3 Significance Criteria

With respect to land use and agricultural resources, SBC's Environmental Thresholds and Guidelines Manual (as updated through October 2006), states that a project would normally have a significant effect on the environment if it would:

- Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land;
- Conflict with agricultural preserve programs; or
- Affect any unique or other farmland of State or Local Importance.

5.15.4 Impact Analysis for the Proposed Project

The primary project activities that could affect agricultural activities and productivity include the following:

- Modification of Valve Site #2;
- Pipeline repair and maintenance;
- Increased truck trips to the LOGP;
- Increase in life expectancy of the Point Pedernales facilities;
- Increase in the potential magnitude of a pipeline leak/spill; and
- Increase in oil throughput from Platform Irene to LOGP over current operations.

Impact #	Impact Description	Phase	Residual Impact
AG.1	Addition of power poles and substation to Valve Site #2 could disturb farm operations.	<i>Construction</i>	<i>Class III</i>

Modifications to Valve Site #2 would include installing new electrical pumps, a substation and a power line to provide electricity for the pumps. These modifications would take approximately 14 weeks. The proposed power line route would involve ground disturbance from constructing a new substation, installing new power poles, and a minor amount of backhoe trenching. The proposed substation would be located in a farm field on the northwest corner of Renwick and Ocean Avenues. Under this option power poles would be placed in lands designated as prime farmland, farmland of local importance, and grazing land. The proposed substation would occupy approximately 1,600 square feet of prime farmland (approximately 0.04 acre). The impact to agriculture of installing power poles and the substation is anticipated to be minor. Trenching along 13th Street is assumed to occur within the road shoulder and is not anticipated to disturb adjacent farmland. Because of the very small areas of agricultural land that would be converted to non-agricultural use relative to the existing operation, the impacts on agriculture resources would be adverse but not significant.

Mitigation Measures

No mitigation measures have been identified.

Residual Impact

Because of small area that will be impacted by construction of the substation, the impacts to agricultural resources are considered to be *adverse but not significant (Class III)*.

Impact #	Impact Description	Phase	Residual Impact
AG.2	Increased truck trips during construction and operation. Increased traffic unlikely to interfere with farm operations.	<i>Construction Increased Throughput Extension of Life</i>	<i>Class III</i>

Increased truck trips to the LOGP are anticipated due to minor modifications needed to accommodate increased production at the plant. Up to five additional truck trips (round trips) per week are anticipated to result from increased production. Valve #2, power line, and LOGP construction would last approximately nine ~~months~~ weeks and require approximately 40 daily truck trips. This small increase in traffic is not expected to hinder the movement of farm equipment or generate dust that could impair the existing agricultural productivity of agricultural land under production. Additionally, no agricultural land conversion is anticipated. Increased truck trips to the LOGP would result in an adverse but not significant impact to agricultural resources.

Mitigation Measures

No mitigation measures have been identified.

Residual Impact

Given the small increase in project-related traffic, impacts to agricultural activities/lands are considered *adverse but not significant (Class III)*.

Impact #	Impact Description	Phase	Residual Impact
AG.3	Potential degradation and reduced productivity of agricultural land from a pipeline leak or rupture resulting in an oil or produced water spill.	<i>Increased Throughput Extension of Life</i>	<i>Class II</i>

The 1985 Point Pedernales EIR/EIS identified the long-term risk of upset as a significant but mitigable impact on agricultural resources. With the proposed project, the life of the facilities would be extended beyond the lifetime of the existing Point Pedernales Project. However, based on the risk analysis (evaluated in Section 5.1, Risk of Upset), the rate of pipeline failure would change very little from that calculated for the pipeline when built. Because the amount of oil relative to water would be higher in the emulsion pipeline from Platform Irene to LOGP, and the volumes transported would be higher, the amount of oil in such a spill would be proportionately larger. Oil spills can directly affect agricultural operations by reducing the availability or quality of soil, water, nutrients, and oxygen to plant root systems, hindering growth and possibly causing mortality in crops exposed to oil. Further, recovery of affected soils would be slow due to lingering toxicity and altered soil characteristics. Indirect effects from oil spill cleanup could include clearing and grading for access and removal of oiled crops and soil. These potential impacts would result in impaired agricultural productivity of prime agricultural land and potential removal of prime soils. The extended timeframe of spills potentially resulting in this circumstance would be a potentially significant but mitigable impact.

Mitigation Measures

AG-1 PXP shall revise the Point Pedernales Oil Spill Response Plan (OSRP) and submit to SBC for review and approval. The Plan shall include specific cleanup techniques for agricultural lands, focusing on minimizing removal of top soil. ~~The OSRP shall include a compensation plan for the purchase of agricultural crops lost/damaged and for replacement of removed top soil with equivalent imported soils.~~

Residual Impact

Adoption of measures to minimize damage from spill cleanup (as described in AG-1) would potentially offset the increased probabilities of spill and increase spill volumes associated with the proposed action to increase throughput. With implementation of Mitigation Measure AG-1, Impact AG.3 would be *adverse but not significant with mitigation (Class II)*.

Impact #	Impact Description	Phase	Residual Impact
AG.4	Potential loss of agricultural productivity during pipeline repair and maintenance.	<i>Extension of Life</i>	<i>Class II</i>

Some of the pipeline located within agricultural lands could be affected by pipeline repair and maintenance activities; therefore, agricultural lands could be taken out of production for an unknown time period. This possible loss of agricultural productivity of prime agricultural land represents a potentially significant but mitigable impact.

Mitigation Measures

~~**AG-2** Monetary Payment for Lost Agricultural Productivity. Landowners shall receive compensation for the loss of any crops directly resulting from pipeline replacement activities. Compensation will take into account the duration of lost agricultural productivity.~~

~~**AG-23** Soil Replacement and Replanting. All soils within agricultural lands disturbed by pipeline replacement activities shall be replaced and if necessary enriched to support their former crops (or cattle grazing areas). All disturbed areas shall be restored in accordance with land owner agreements, replanted at a 1:1 ratio. Applicant shall prepare and submit for SBC review and approval, a soil preservation plan that describes activities, including soil replacement, soil enrichment, and replanting (at a 1:1 ratio) to take place after pipeline replacement activities.~~

Residual Impact

With the implementation of Mitigation Measure AG-2 ~~through AG-3~~, Impact AG.4 is *adverse but not significant with mitigation (Class II)*.

5.15.5 Impact Analysis for the Alternatives

Detailed descriptions of the various alternatives are provided in Chapter 3.0, Alternatives. This section provides a discussion of the agricultural impacts of the various alternatives.

5.15.5.1 No Project Alternative

Scenarios 2 and 3. As discussed in Section 3.2, under the No Project Alternative Scenarios 2 and 3, production of the federal portion of the Tranquillon Ridge field would and would not occur, respectively. However, no extension of life of Point Pedernales facilities (Platform Irene, pipelines, and LOGP) is assumed under either scenario. Under Scenarios 2 and 3, the No Project Alternative—all of the impacts identified for the proposed project (Impacts AG.1 to AG.4) would be eliminated. Operational impacts previously identified for the original Point Pedernales Project would continue, including pipeline repairs and maintenance until production and processing ends.

Options for Meeting California Fuel Demand. The relative agricultural impacts associated with the various options for meeting California fuel demand are summarized in Table 5.15.1.

Table 5.15.1 No Project Alternative Comparison to Options for Meeting California Fuel Demand, Agricultural Resources

Source of Energy	Impacts
Other Conventional Oil & Gas	
Domestic onshore crude oil and gas	Likely to eliminate or displace agricultural impacts.
Increased marine tanker imports of crude oil	Likely to eliminate or displace agricultural impacts.
Increased gasoline imports ¹	Likely to eliminate or displace agricultural impacts.
Increased natural gas imports (LNG)	Likely to eliminate or displace agricultural impacts.
Alternatives to Oil and Gas	
Fuel Demand Reduction: increased fuel efficiencies, conservation, electrification ²	
Alternative transportation modes	Proposed project impacts would be eliminated.
Implementation of regulatory measures	Proposed project impacts would be eliminated.
Coal, Nuclear, Hydroelectric	Proposed project impacts would be eliminated; however, coal, nuclear, and hydroelectric infrastructure development could introduce new agricultural impacts.
Alternative Transportation Fuels	
Ethanol/Biodiesel ³	Loss of agricultural lands could occur due to ethanol/biodiesel infrastructure development. Ethanol/biodiesel could have potential economic benefits for certain segments of agricultural industry; however, could displace agricultural lands from food production.
Hydrogen ²	Potential construction related impacts due to hydrogen delivery infrastructure development.
Other Energy Resources²	
Solar ^{2,4}	Proposed project impacts would be eliminated. Loss of agricultural lands could occur due to facility siting.

Table 5.15.1 No Project Alternative Comparison to Options for Meeting California Fuel Demand, Agricultural Resources

Source of Energy		Impacts
	Wind ^{2,4}	Proposed project impacts would be eliminated. Loss of agricultural lands could occur due to facility siting; however 90+% of the wind facility site could still be available for agricultural production.
	Wave ^{2,4}	Not likely to result in agricultural impacts.

Footnotes:

1. Pipeline and tanker truck import from out-of-State assumed.
2. Assumes that Tranquillon Ridge production would not be replaced with other petroleum-based energy supply.
3. Assumes ethanol and biodiesel used as blends only and therefore would reduce, but not eliminate Tranquillon Ridge or equivalent production.
4. Assumes, large centralized facilities.

5.15.5.2 VAFB Onshore Alternative

The VAFB Onshore Alternative would be located primarily within VAFB and along the public Highway 246 corridor. The VAFB Onshore Alternative crosses approximately:

- 0.5 miles of land designated as Prime Farmland,
- 2 miles of Farmland of Local Importance, and
- 1 mile of Grazing Land.

However, only two small land areas of prime farmland and farmland of local importance on the south and north sides, respectively, of the Santa Ynez River appear to be under active cultivation. The impacts of the alternative on agricultural lands are discussed below.

Impact AG.1 – Impacts to Agriculture from Installation of Power Poles and Substation: The new six-mile 69 kV transmission line would be constructed along Coast Road, Bear Creek Road, and Surf Road. No grazing or agricultural activities occur in this area. The alternative power line to the tie-in station would involve ground disturbance from constructing a new substation, installing new power poles, and a minor amount of backhoe trenching. One of two possible substation sites could be used, one located in a farm field on the northwest corner of Renwick and Ocean Avenues, and the other located in a farm field north of Ocean Avenue and west of an abandoned road. Under either substation scenario, power poles would be placed in lands designated as prime farmland, farmland of local importance, and grazing land. The alternative substation would occupy approximately 1,600 square feet of prime farmland (approximately 0.04 acre). The impact to agriculture of installing power poles and the substation is anticipated to be minor. Trenching along 13th Street is assumed to occur within the road shoulder and is not anticipated to disturb adjacent farmland. Because of the small areas of agricultural land that would be converted to non-agricultural use relative to the existing operation, the impacts on agriculture resources would be adverse but not significant.

Impact AG.2 – Impacts to Agriculture due to Interference with Agricultural Operations Resulting from Increased Truck Traffic: Impacts associated with increased truck trips due to construction of the alternative pipelines would be substantially greater than the proposed project, since construction of 10 miles of new pipeline and 6 miles of new transmission line would

generate extensive construction traffic which would continue for a much longer duration in different agricultural areas that include prime farmland and unique farmland, which are currently under cultivation. However, all access routes and staging areas would be located in previously disturbed areas, which are devoid of agricultural resources. The impacts would be temporary and therefore are considered to be *adverse but not significant (Class III)*.

Impact AG.3 - Impacts to Agriculture from Crude Oil and Produced Water Spills would be the same as the proposed project. Mitigation Measure AG-1 would apply.

Impact AG.4 – Impacts to Agricultural Productivity during Pipeline Repair and Maintenance: Impacts associated alternative pipeline repair and maintenance would be slightly greater than the proposed project, given the additional length of pipeline.

Mitigation Measures

Mitigation Measures AG-1 through AG-3 are applicable as well as the following mitigation measure.

AG-4 PXP shall prepare and submit for review and approval, a grazing land preservation plan that describes activities, including soil replacement, soil enrichment, and replanting to take place after pipeline replacement activities. The plan shall be submitted to SBC for review and approval prior to land use clearance.

Residual Impact

Implementation of AG-1 through AG-4 would lessen the impacts of this alternative. Impact AG.4 would therefore be considered *adverse but not significant with mitigation (Class II)*.

Impact #	Impact Description	Phase	Residual Impact
AG.5	Directional drilling locations could reduce farmland areas.	<i>Construction</i>	<i>Class II</i>

Under the VAFB Onshore Alternative, drilling sites would be placed on either side of the river. These sites would disturb prime farmland, farmland of local importance, and grazing land. However, because of the small areas of prime agricultural land that would be involved and subsequent restoration of the sites, these drilling locations represent potentially significant but mitigable impacts to agriculture.

Mitigation Measures

Mitigation Measures AG-2 through AG-4 are appropriate for this impact.

Residual Impact

With the implementation of Mitigation Measures AG-2 through AG-4, Impact AG.5 is considered *adverse but not significant with mitigation (Class II)*.

Impact #	Impact Description	Phase	Residual Impact
AG.6	Potential loss of agricultural productivity during pipeline and facility construction.	<i>Construction</i>	<i>Class II</i>

The pipeline to be constructed is approximately 10 miles long. It is assumed that a 50-foot wide construction corridor would be required to accommodate clearing, ditching, and vehicles associated with construction. Agricultural land disturbance is estimated at 21 acres, including approximately 6 acres of grazing land, 12 acres of farmland of local importance, and 3 acres of prime farmland would be disturbed. However, as stated above, only two small areas of the land designated as prime farmland and farmland of local importance appear to be in active cultivation.

Mitigation Measures

Mitigation Measures AG-2 through AG-4 would apply.

Residual Impact

Impact AG.6 is considered *significant but mitigable (Class II)*.

5.15.5.3 Casmalia East Oil Field Processing Location

Under this alternative, Impacts AG.1, AG.3 and AG.4 would be the same as for the proposed project. Mitigation Measures AG-1 through AG-3 would apply. Impact AG.2 would change as described below. Impact AG.5, related to directional drilling, would not apply to the Casmalia effect. Impact AG.6 addresses the agricultural lands associated with the Casmalia Alternative.

Impact AG.2 – Impacts to Agriculture due to Interference with Agricultural Operations Resulting from Increased Truck Traffic: Impacts associated with truck trips would be greater under this alternative than under the proposed project due to additional pipeline installation, dismantling activities at the LOGP, and construction activity at the Casmalia East site. With this alternative, dismantling work would take place at the LOGP and require approximately 104 to 165 daily one-way trips to the LOGP site for approximately 6 months. At the Casmalia East site, new truck trips would result from the construction and operation of the new oil processing facility. Because this is a new facility many more construction related truck trips would be necessary than under the proposed project. It is estimated that as many as 243 one-way trips would be generated during the first month of construction, dropping to 164 daily one-way trips for the remaining 5 months of construction. Construction traffic would be *adverse but not significant (Class III)*.

Since the precise configuration of the alternative Casmalia East facility site is uncertain, the exact route to be used during operation is unknown. Heavy project-related truck traffic along Highway 1, Black Road, and Lompoc-Casmalia Road could interfere with local agricultural operations (i.e., by the creation of dust, hindering movement of farm equipment) resulting in impaired agricultural productivity of prime agricultural land. Based on the traffic analysis in Section 5.9, operational traffic would adversely affect local roadways and intersections, but *would not be significant (Class III)*.

Impact AG.6 – Agricultural Productivity during Pipeline Construction: Under this alternative, new oil and gas pipelines would be built from the LOGP to a new site at Casmalia. A new oil and gas facility identical to the LOGP would be built at Casmalia. The new pipes would follow

existing pipelines from LOGP to 5,000 to 7,000 feet south of Orcutt and then turn west to Casmalia. The new pipeline route would fall mostly within farmland designated as Grazing Land and not Prime, Unique, or Farmland of Local Importance. However, the pipeline route does pass through or near prime farmland along Highway 135. Therefore, impacts of converting prime agricultural land to non-agricultural land use or impairing the productivity of this farmland could be considered potentially significant but mitigable. Implementation of Mitigation Measures AG-1 through AG-4 would lessen the impacts of this alternative. The impact would therefore be considered *adverse but not significant with mitigation (Class II)*.

5.15.5.4 Alternative Power Line Routes to Valve Site #2

Under this alternative, including all power line options, Impacts AG.2, AG.3 and AG.4 would be the same as for the proposed project. Mitigation Measures AG-1 through AG-3 would apply. Impact AG.1 and Impact AG.5 (Alternative Power Line Route – Option 2b only) would change as described below.

Alternative Power Line Route – Option 2a

Impact AG.1 – Impacts to Agriculture from Installation of Power Poles and Substation: Power Line Option 2a would involve ground disturbance from constructing a new substation and installing new power poles. The proposed substation would be located in a farm field north of Ocean Avenue and west of an abandoned road. Under this option, power poles would be placed in lands designated as prime farmland, farmland of local importance, and grazing land. The impact to agriculture of installing power poles and the substation is anticipated to be minor. The proposed substation would disturb approximately 1,600 square feet of prime farmland (approximately 0.04 acre). Because of the very small areas of prime agricultural land that would be involved, the impacts on agriculture would be *adverse but not significant (Class III)*. However, the impacts would be slightly greater than for the proposed project.

Alternative Power Line Route – Option 2b

Alternative power line route Option 2b is identical to Option 2a, except the power line would be placed under the Santa Ynez River using a directional bore. The directional bore would involve excavating two bore pits, one on each side of the river, and an additional work area in the hay field north of the river. Impact AG.2 would be the same as for Option 2a.

Impact AG.5 – Impacts to Farmland due to Drilling: Under this option, power poles would be placed in lands designated as prime farmland, farmland of local importance, and grazing land. The impact of installing power poles to agriculture is anticipated to be minor. However, the proposed substation and one of the bore pits would disturb approximately half an acre of prime farmland. The remaining bore pit and work area would disturb approximately 1.72 acres of farmland of local importance. Because of the small areas of prime agricultural land that would be involved and subsequent restoration of the drilling sites, Impact AG.5 is considered *significant but mitigable impacts (Class II)*. Mitigation Measures AG-2 through AG-4 would apply.

Underground Power Line along Terra Road

Impact AG.1 – Impacts to Agriculture from Installation of Power Poles and Substation: Impacts associated with the installation of the power poles and substation would be the same as the proposed project. Since the section of the power line route along Terra Road does not contain

any agricultural land undergrounding the power line at this location has no effect on Impact AG.1. Therefore, the impact would be considered *adverse but not significant (Class III)*.

5.15.5.5 Replacement of Oil Emulsion Pipeline from Platform Irene to LOGP

Impact AG.5, related to directional drilling, would not apply to the Emulsion Pipeline Replacement Alternative.

Impact AG.1 – Impacts to Agriculture from Installation of Power Poles and Substation:

Impacts associated with the installation of the power poles and substation would not occur under this alternative since the new pipeline would be capable of delivering the oil to the LOGP without the need for the new pumps at Valve Site #2.

Impact AG.2 – Impacts to Agriculture due to Interference with Agricultural Operations

Resulting from Increased Truck Traffic: Impacts associated with increased truck trips due to increased production and construction of valve site facilities would be substantially the same as the proposed project, though construction traffic would continue for a much longer duration. Impacts would be *adverse but not significant (Class III)*.

Impact AG.3 - Impacts to Agriculture from Crude Oil and Produced Water Spills would be the same as the proposed project. Mitigation Measure AG-1 would apply.

Impact AG.4 – Impacts to Agricultural Productivity During Pipeline Repair and Maintenance:

Impacts associated pipeline repair and maintenance would be similar but less than the proposed project, as the newer pipeline would require less repair and maintenance. The impact would be considered *adverse but not significant (Class II)* with the implementation of Mitigation Measures AG-2 and AG-3.

Impact AG.6 – Agricultural Productivity during Pipeline Construction: From landfall to the LOGP, the pipeline alignment crosses approximately:

- 1.3 miles of Farmland of Local Importance (two separate land areas), and
- 2.56 miles (two separate land areas) of land designated as Grazing Land.

The onshore portion of the pipeline that would be replaced under this alternative is 12.1 miles long. Typically, a 100-foot wide right-of-way would be needed to accommodate clearing, ditching, and vehicles associated with construction. Land disturbance is estimated at 147 acres, of which approximately 31 acres of grazing land and 16 acres of Farmland of Local Importance would be disturbed. Construction is estimated to take 9 to 10 weeks, assuming 22 persons per shift and 10-hour shifts. The construction right-of-way will be either graded or “matted” to accommodate the pipeline trench and equipment. “Matting” involves flattening existing vegetation to allow passage of vehicles. Both grading and matting would take agricultural land out of production. Productivity would be lost until the right-of-way was stabilized, replanted, and the new plants mature and begin producing crops. Nearby agricultural lands may be affected by erosion resulting from grading and the movement of construction vehicles. In addition, some agricultural operations (pesticide spraying, fertilizing) could be hindered by the presence of construction equipment and construction crews. This would be a potentially significant but mitigable impact.

Mitigation Measures

Mitigation Measures AG-2 through AG-4 and GR-1 would be applicable, along with the following measure.

AG-5 Pipeline sedimentation basins and traps shall be inspected, cleaned, and if necessary replaced. Silt fences shall be inspected monthly during dry periods and immediately after each rainfall. Sediment must be removed when more than 1/3 filled, until vegetation is reestablished in the area of the disturbed soil. Straw bales shall be inspected weekly and after each rain. Sediment shall be removed when it reaches a depth of 6 inches, until vegetation is reestablished.

Residual Impact

With the implementation of Mitigation Measures AG-2 through AG-4 and GR-1 (identified under the proposed project) and AG-5, the residual impacts would be *adverse but not significant with mitigation (Class II)*.

5.15.5.6 Alternative Drill Muds and Cuttings Disposal

Inject Drill Muds and Cuttings into Reservoir

This alternative is essentially the same as the proposed project with the exception of offshore activities. Onshore activities under this alternative are the same as for the proposed project. Therefore, impacts on agricultural resources would be the same as for the proposed project.

Transport Drill Muds and Cuttings to Shore for Disposal

This alternative is essentially the same as the proposed project with the exception of offshore activities. Onshore disposal activities would not affect agricultural resources and agricultural impacts would be the same as for the proposed project.

5.15.6 Cumulative Impacts

Cumulative projects that could impact the current analysis include the potential offshore oil and gas projects discussed in Sections 4.2 and 4.3, and the onshore development projects outlined in Section 4.4. The cumulative impacts of these potential off- and onshore development projects are discussed separately below.

5.15.6.1 Offshore Oil and Gas Projects

As outlined in Sections 4.2 and 4.3, several offshore energy-related projects could potentially be developed in the proposed project area. These projects would use both existing and new platforms, pipelines and onshore facilities. Introducing new onshore facilities and extending the lifespan of existing onshore facilities would increase the potential for disturbing agricultural production during both construction and operation. Therefore, these potential projects could have significant cumulative impacts on agricultural resources. However, the proposed project's contribution to these impacts, while adverse, would not be considered significant with implementation of the mitigation measures identified in Section 5.15.4.

The potential offshore oil and gas development projects outlined in Sections 4.2 and 4.3 would also increase the potential for accidental oil spills, although the probability of an oil spill would

be low. Similar to the proposed project, containment and cleanup of potential oil spills has the potential to impact agricultural productivity. However, because an onshore oil spill moves slowly across the land due to the viscous nature of the Santa Maria Basin crude, agricultural areas that would be impacted would be minimized. Further, if a spill resulting from the offshore development projects reached the shoreline, it is unlikely that it would affect agricultural resources, given the low density of agricultural lands on the immediate shoreline. Therefore, cumulative oil spill impacts to agricultural lands, and the proposed project’s incremental contribution to them, would not be expected to be significant.

5.15.6.2 Onshore Projects

The majority of the potential onshore development projects located in the Lompoc area that are discussed in Section 4.4 fall within lands designated as Urban and Built-Up Land or Other Land. Therefore, agricultural impacts from these projects would be minimal. The cumulative projects identified in the Orcutt-Santa Maria area could have a significant cumulative permanent loss of agricultural lands impact. However, the proposed project would have no contribution to this permanent loss because it does not propose any new development within this area. The proposed project would only contribute to temporary disruptions to agricultural productivity due to pipeline maintenance and repair activities, or an oil spill. Due to the temporary nature of these impacts, the proposed project’s incremental contribution would not be considered significant with implementation of the mitigation measures identified in Section 5.14.4.

5.15.7 Mitigation Monitoring Plan

Mitigation Measure	Mitigation Requirements and Timing	Method of Verification	Timing of Verification	Party Responsible For Verification
AG-1	PXP shall revise the Oil Spill Response Plan (OSRP) and submit for review and approval. Plan shall include specific cleanup techniques for agricultural lands focusing on minimizing removal of top soil. OSRP shall include compensation plan for the purchase of agricultural crops lost/damaged and replacement of removed top soil with equivalent imported soils.	Revised OSRP shall be reviewed and approved.	PCDP/LUP	SBC P&D Fire
AG-2	Monetary Payment for Lost Agricultural Productivity. Landowners shall receive compensation for the loss of any crops directly resulting from pipeline replacement activities. Compensation will take into account the duration of lost agricultural productivity.	Crop compensation plan shall be reviewed and approved.	Prior to issuance of coastal development permits or grading permits.	SBC P&D
AG-23	Soil Replacement and Replanting. All soils within agricultural lands disturbed by pipeline replacement activities shall be replaced and if necessary enriched to support their former crops (or cattle grazing areas). All disturbed areas shall be restored in accordance with land owner agreements, replanted at a 1:1 ratio. Applicant shall prepare and submit for review and approval, a soil preservation plan that describes activities, including soil replacement, soil enrichment, and replanting (at a 1:1 ratio) to	Plan shall be reviewed and approved	Plan prior to land use clearance during restoration.	SBC P&D

Mitigation Measure	Mitigation Requirements and Timing	Method of Verification	Timing of Verification	Party Responsible For Verification
	take place after pipeline replacement activities.			
AG-4 (VAFB Onshore, Casmalia, Power Line Route, and Emulsion Pipeline Replacement Alternatives only)	PXP shall prepare and submit for review and approval, a grazing land preservation plan that describes activities, including soil replacement, soil enrichment, and replanting to take place after pipeline replacement activities. The plan shall be submitted to SBC for review and approval prior to land use clearance.	Plan shall be reviewed and approved	Plan prior to land use clearance during restoration.	SBC P&D
AG-5 (Emulsion Pipeline Replacement Alternative only)	Pipeline sedimentation basins and traps shall be inspected, cleaned, and if necessary replaced. Silt fences shall be inspected monthly during dry periods and immediately after each rainfall. Sediment must be removed when more than 1/3 filled, until vegetation is reestablished in the area of the disturbed soil. Straw bales shall be inspected weekly and after each rain. Sediment shall be removed when it reaches a depth of 6 inches, until vegetation is reestablished.	EQAP Inspection	During and post-construction	SBC P&D

5.15.8 References

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